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Section I

Introduction

Public entity employees may be exposed to a variety of safety hazards while performing their jobs. By wearing appropriate personal protective equipment (PPE), employees can help reduce some of the hazards that are inherent to their jobs and prevent occupational injuries and illnesses. The purpose of this manual is identify the basic types of PPE that should be worn for the more common tasks that public entity employees perform so injuries and illnesses may be prevented.

PPE includes clothing and accessories designed to create a barrier between the employee and contact with harmful agents in the work environment. Examples of PPE include safety glasses, hard hats, gloves, respirators, earplugs, safety shoes, and other specialized clothing and equipment. Examples of harmful agents include flying particles, hot objects, hazardous chemicals, falling objects, bloodborne pathogens, high noise, and anything else that could cause injury or illness if it comes into contact with the employee.

PPE should be considered as a secondary measure to control workplace hazards and protect employees. Where possible, safety hazards should be engineered out of the work environment. For example, if a noisy piece of equipment can be replaced with a quieter model, or sound-proofed, that would be the preferred method of hazard control instead of making employees wear earplugs. Examples of other engineering controls include machine guards, mechanical ventilation and enclosing hazardous operations. Where engineering controls are not feasible, administrative controls should be considered. Examples of administrative controls include limiting an employee's exposure time in noisy areas or substituting less hazardous chemicals. If hazards still exist after implementing engineering and administrative controls, then PPE should be provided. Entities should include the cost of PPE in their annual budgets.

Many different types of PPE are available. Entities should assess their operations and determine the hazards associated with each job and provide employees with the appropriate PPE. Section II of this manual contains sample PPE Hazard Assessment Forms that may be used to conduct an assessment. After the assessment is conducted, PPE should be selected and purchased. It is advisable to involve employees in the selection process so comfort and style are considered. This will help ensure that PPE is used when needed. Employees also need to be trained in proper PPE use and limitations, and a PPE inspection and maintenance program should be established.

Section III of this handbook includes PPE guidelines for over 120 different tasks. For each job task, the hazards and recommended PPE are provided. Additional comments about the hazards may be provided along with a section where you can note special precautions to take while performing the particular activity. It is not possible to identify every possible task and associated hazards that public entity employees may perform in this guide. Therefore, it is vital that supervisors, managers, and employees continually evaluate the workplace for potential safety hazards and determine the appropriate hazard controls, including PPE.

Section IV of this manual lists many of the national standards and regulations regarding the design, construction and testing of PPE. These standards should be consulted when questions arise regarding the type of PPE needed for a certain job or for protection from a specific hazard. Local vendors may be able to help you in the PPE selection process. Check the yellow pages for companies that specialize in PPE. The internet can also be used to search for PPE suppliers. Some vendors may also provide employee training in the proper use of the equipment you purchase from them.

The OSHA regulation for hazard assessment and PPE selection is outlined in Section V. While public entities in Colorado are presently not covered under OSHA, it is a good idea to follow to these industry standards.

Finally, Section VI includes an index to help you quickly identify specific jobs contained in this manual for which PPE is needed.

If you have any questions regarding this handbook or would like assistance with your PPE program, feel free to call your CIRSA Loss Control Representative at 303-757-5475 or 800-228-7136.

This publication is provided for informational purposes only. As with all CIRSA loss control activities, this publication is intended only to assist CIRSA members in their loss control programs. It is not intended to replace those programs and activities, or to provide specific legal, technical or other advice. Readers should seek professional advice on specific concerns from their legal, technical and/or other advisors.

Section II Sample Personal Protective Equipment Hazard Assessment Forms

PPE Hazard Assessment Certification Form

Name of work place:	Assessment conducted by	7:
Work place address:	Date of assessment:	
Work area(s):	PPE selected by:	
Job/Task(s):	Effective Date:	
Eyes/Face Negligible 1	Hazard Can hazard be eliminated without the use of	f PPE? Yes No No
Work related exposure to:	PPE required to manage hazard:	Comments:
☐ Airborne dust	☐ Safety glasses	
☐ Flying particles	☐ Safety goggles	
☐ Hazardous liquids/chemicals	☐ Face shield	
☐ Intense light	☐ Shading/filter (#)	
Blood splashes	☐ Welding shade	
Other:	Other:	
Head Negligible	Hazard Can hazard be eliminated without the use of	PPE? Yes No
Work related exposure to:	PPE required to manage hazard:	Comments:
Beams	☐ Protective helmet	
Pipes	Type A (low voltage)	
Falling objects	Type B (high voltage)	
Exposed to electrical wiring	Type C	
or components	Hair net or soft cap	
Machine parts	Other:	
Other:	Cinci:	
Hands/Arms Negligible	Hazard Can hazard be eliminated without the use o	f PPE? Yes No No
Work related exposure to:	PPE required to manage hazard:	Comments:
Hazardous liquids/chemicals	Gloves	comments.
Scrapes, bruises, or cuts	☐ Chemical resistance ☐ Liquid/leak resistance	
Injuries from tools	Temperature resistance Cut resistance	
Extreme heat/cold	Gauntlet or long neck Work gloves	
Blood	Chemical protective sleeves	
Other:		
Other:		
T 4/T		CDDEO II DI
Feet/Legs Negligible		
Work related exposure to:	PPE required to manage hazard:	f PPE? Yes No Comments:
Work related exposure to: Hazardous liquids/chemicals	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals)	
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects	PPE required to manage hazard: ☐ Closed shoes (e.g. no open toes or sandals) ☐ Long pants	
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment	PPE required to manage hazard: ☐ Closed shoes (e.g. no open toes or sandals) ☐ Long pants ☐ Safety shoes or boots	
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or	PPE required to manage hazard: ☐ Closed shoes (e.g. no open toes or sandals) ☐ Long pants ☐ Safety shoes or boots ☐ Toe protection ☐ Metatarsal protection	
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components	PPE required to manage hazard: ☐ Closed shoes (e.g. no open toes or sandals) ☐ Long pants ☐ Safety shoes or boots ☐ Toe protection ☐ Metatarsal protection ☐ Electrical protection ☐ Heat/cold protection	
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces	PPE required to manage hazard: ☐ Closed shoes (e.g. no open toes or sandals) ☐ Long pants ☐ Safety shoes or boots ☐ Toe protection ☐ Metatarsal protection ☐ Electrical protection ☐ Heat/cold protection ☐ Anti-slip soles ☐ Chemical resistance	
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection Electrical protection Anti-slip soles Leggings or chaps	
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection Electrical protection Anti-slip soles Leggings or chaps Foot-leg guards	
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other:	PPE required to manage hazard: ☐ Closed shoes (e.g. no open toes or sandals) ☐ Long pants ☐ Safety shoes or boots ☐ Toe protection ☐ Metatarsal protection ☐ Electrical protection ☐ Heat/cold protection ☐ Anti-slip soles ☐ Chemical resistance ☐ Leggings or chaps ☐ Foot-leg guards ☐ Other:	Comments:
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible	PPE required to manage hazard: ☐ Closed shoes (e.g. no open toes or sandals) ☐ Long pants ☐ Safety shoes or boots ☐ Toe protection ☐ Metatarsal protection ☐ Electrical protection ☐ Heat/cold protection ☐ Anti-slip soles ☐ Chemical resistance ☐ Leggings or chaps ☐ Foot-leg guards ☐ Other: ☐ Hazard Can hazard be eliminated without the use o	Comments:
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to:	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection Electrical protection Anti-slip soles Chemical resistance Leggings or chaps Foot-leg guards Other: Hazard Can hazard be eliminated without the use o	Comments:
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection	f PPE? Yes No
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals Sharp or rough edges	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection Electrical protection Anti-slip soles Chemical resistance Leggings or chaps Foot-leg guards Other: Hazard Can hazard be eliminated without the use o PPE required to manage hazard: Lab coat Raingear Coveralls, body suit Apron	f PPE? Yes No
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection Electrical protection Anti-slip soles Chemical resistance Leggings or chaps Foot-leg guards Other: Hazard Can hazard be eliminated without the use o PPE required to manage hazard: Lab coat Coveralls, body suit Apron Welding leathers Abrasion/cut	f PPE? Yes No
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals Sharp or rough edges	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection Electrical protection Anti-slip soles Chemical resistance Leggings or chaps Foot-leg guards Other: Hazard Can hazard be eliminated without the use o PPE required to manage hazard: Lab coat Raingear Coveralls, body suit Apron	f PPE? Yes No
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals Sharp or rough edges Extreme heat/cold	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection Metatarsal protection Heat/cold protection Anti-slip soles Chemical resistance Leggings or chaps Foot-leg guards Other: Hazard Can hazard be eliminated without the use o PPE required to manage hazard: Raingear Coveralls, body suit Apron Welding leathers Abrasion/cut Other: resistance	f PPE? Yes No Comments:
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals Sharp or rough edges Extreme heat/cold Other: Body/Whole Negligible Work related exposure to:	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection Metatarsal protection Heat/cold protection Anti-slip soles Chemical resistance Leggings or chaps Foot-leg guards Other: Hazard Can hazard be eliminated without the use o PPE required to manage hazard: Raingear Coveralls, body suit Apron Welding leathers Abrasion/cut Other: resistance	f PPE? Yes No Comments:
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals Sharp or rough edges Extreme heat/cold Other: Body/Whole Negligible Work related exposure to: Working from height >10 ft.	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection Electrical protection Anti-slip soles Chemical resistance Leggings or chaps Foot-leg guards Other: Hazard Can hazard be eliminated without the use of PPE required to manage hazard: Other: Other: Apron Welding leathers Abrasion/cut Can hazard be eliminated without the use of PPE required to manage hazard: Abrasion/cut Cother: Fall arrest/restraint: type:	f PPE? Yes No Comments:
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals Sharp or rough edges Extreme heat/cold Other: Body/Whole Negligible Work related exposure to:	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection Metatarsal protection Heat/cold protection Anti-slip soles Chemical resistance Leggings or chaps Foot-leg guards Other: Hazard Can hazard be eliminated without the use of PPE required to manage hazard: Apron Welding leathers Abrasion/cut Other: resistance Hazard Can hazard be eliminated without the use of PPE required to manage hazard: Abrasion/cut Other: resistance PPE required to manage hazard: PPE required to	f PPE? Yes No Comments:
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals Sharp or rough edges Extreme heat/cold Other: Body/Whole Negligible Work related exposure to: Working from height >10 ft.	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection Electrical protection Anti-slip soles Chemical resistance Leggings or chaps Foot-leg guards Other: Hazard Can hazard be eliminated without the use of PPE required to manage hazard: Other: Other: Apron Welding leathers Abrasion/cut Can hazard be eliminated without the use of PPE required to manage hazard: Abrasion/cut Cother: Fall arrest/restraint: type:	f PPE? Yes No Comments:
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals Sharp or rough edges Extreme heat/cold Other: Body/Whole Negligible Work related exposure to: Working from height >10 ft. Working near water	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection	f PPE? Yes No Comments: f PPE? Yes No Comments:
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals Sharp or rough edges Extreme heat/cold Other: Body/Whole Negligible Work related exposure to: Working from height >10 ft. Working near water Other	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection	f PPE? Yes No Comments: f PPE? Yes No Comments:
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals Sharp or rough edges Extreme heat/cold Other: Body/Whole Negligible Work related exposure to: Working from height >10 ft. Working near water Other Lung/Ears Negligible	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection	f PPE? Yes No Comments: f PPE? Yes No Comments:
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals Sharp or rough edges Extreme heat/cold Other: Body/Whole Negligible Work related exposure to: Work related exposure to: Working from height >10 ft. Working near water Other Lung/Ears Negligible Work related exposure to:	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection	f PPE? Yes No Comments: f PPE? Yes No Comments:
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals Sharp or rough edges Extreme heat/cold Other: Body/Whole Negligible Work related exposure to: Working from height >10 ft. Working near water Other Lung/Ears Negligible Work related exposure to: Irritating dust or particle	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection	f PPE? Yes No Comments: f PPE? Yes No Comments:
Work related exposure to: Hazardous liquids/chemicals Heavy falling/rolling objects Heavy equipment Exposed electrical wiring or components Slippery surfaces Explosive atmospheres Tools Other: Body/Skin Negligible Work related exposure to: Hazardous liquids/chemicals Sharp or rough edges Extreme heat/cold Other: Body/Whole Negligible Work related exposure to: Working from height >10 ft. Working near water Other Lung/Ears Negligible Work related exposure to: Irritating dust or particle Irritating or toxic gas/vapor	PPE required to manage hazard: Closed shoes (e.g. no open toes or sandals) Long pants Safety shoes or boots Toe protection Electrical protection Anti-slip soles Chemical resistance Leggings or chaps Foot-leg guards Other: Hazard Can hazard be eliminated without the use of PPE required to manage hazard: Other: Can hazard be eliminated without the use of PPE required to manage hazard: Fall arrest/restraint: type: Personal fall device: type Other Hazard Can hazard be eliminated without the use of PPE required to manage hazard: Raingear Abrasion/cut resistance Hazard Can hazard be eliminated without the use of PPE required to manage hazard: Respirator (cartridge type: Respirator (cartridge type: Respirator (cartridge type: Respirator (cartridge type: Respirator	f PPE? Yes No Comments: f PPE? Yes No Comments:

Personal Protective Equipment (PPE) Assessment

Name/Job title	Work/Location	
Department	Task	
Section 1: Selection of PPE Select type of PPE needed by the above reference	ced employee or job title.	
Eye and Face Protection □ Safety Goggles □ Safety Glasses □ Face S	hield ☐ Filtered (light radiation)	□ N /A
Comments:		
Head Protection ☐ General Service Hard Hat ☐ Utility Ser	vice Hard Hat	□ N /A
Comments:		
Hand Protection (Gloves) ☐ Chemical Resistant ☐ Abrasion Resistant	☐ Gloves for Hot/Cold Extremes	□ N/A
Foot Protection ☐ Steel-toed shoes/Boots ☐ Metatarsal	☐ Chemical Resistant	□ N.A
Comments:		
Respiratory Protection ☐ Dust Mask ☐ Half Mask ☐ Full Face	☐ Powered Air ☐ Other Purifying Respirator	□ N/A
Comments:		
Hearing Protection □ Ear Plugs □ Ear Muffs		□ N/A
Comments:		
Torso Protection ☐ Vest ☐ Jacket ☐ Apron ☐ Cov	veralls □ Full Body Suit	□ N/A
Comments:		
Sunscreen/Insect Repellent		
Comments:		
A job hazard assessment has been performed an or job title.	d PPE selected for the above referen	nced employee
SUPERVISOR	DATE	

Section III

Personal Protective Equipment Guidelines

Job Task: Abrasive Cutoff Saw Operation

Hazards: Inhalation of dust and particles, head and eye injuries from projectiles, foot and hand injuries from contact with moving parts, electrical shock due to improper grounding, and fire from sparks

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield (Optional)		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator (Dust Mask is Optional)		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with the manufacturer's instructions. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Wearing a disposable respirator is optional. Ensure all guarding is in place and properly adjusted. If saw is designed for a fixed location, ensure it is securely anchored to prevent movement. Wear gloves during material handling if the object being cut could cause cuts, punctures or abrasions. Keep hands, hair and loose clothing clear of all moving parts. Remove or protect flammable and combustibles in the immediate area from sparks. Follow lockout/tagout procedures during repair.

Entity notes for special precautions with this activity:							

Job Task: Aeration

Hazards: Hand, foot and limb entrapment, eye and face injury from flying objects, back and shoulder strain from improper machine handling and operation, inhalation of fumes when refueling, and vehicle exposures when working near traffic

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. To reduce the chance of fire, do not refuel a hot machine. Avoid inhaling fumes when refueling. Reflective vests should be worn when working near roadways.

Entity notes for special precautions with this activity:							

Job Task: Air Compressor (Operation and Maintenance)

Hazards: Hand injury while working near sharp edges and in confined areas during repair, eye injury from residual air or blowing debris, electrical shock due to improper grounding, and noise exposure during operation

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	Safety Shoes/Boots
X	Safety Glasses	Chemical Resistant Clothing
	Goggles	Apron
	Face Shield	Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)	Reflective Garment/Vest
	Respirator	Fall Protection
X	Hearing Protection	Other

Additional Comments: Operate equipment in strict accordance with the manufacturer's instructions. Never use compressed air to clean your body or clothes. Use only approved 30 psi maximum cutoff nozzles. Ensure all guarding is in place and properly adjusted. Wear gloves if the object being cut could cause cuts, punctures or abrasions. Keep hands, hair and loose clothing clear of all moving parts. Follow lockout/tagout procedures during maintenance and repair. Wear gloves as needed.

Entity notes for special precautions with this activity:							
			·				

Job Task: Air Hammer Operation

Hazards: Eye and head injury from release of high air pressure or flying debris, injury to multiple body parts due to flying material, hearing loss due to excessive noise, and foot injury from dropped hammer

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with the manufacturer's instructions. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Reflective vests should be worn when working in or near roadways. Follow proper work area protection.

Entity notes for special precautions with this activity:							

Job Task: Asphalt Overlay

Hazards: Eye injury due to materials falling from trucks, burns to body parts from hot materials and machine parts, hand and foot injuries when working on and around machinery, vehicle exposures when working near traffic, and head injury due to objects/material falling from machinery

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Reflective vests should be worn when working in or near roadways. Follow proper work area protection.								
Entity notes for special precautions with this activity:								

Job Task: Asphalt Patching

Hazards: Eye injury due to materials falling from trucks, back and shoulder injuries from shoveling and lifting patching material, burns to body parts from hot materials, vehicle exposures when working near traffic, and head injury due to asphalt falling from truck bed

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Reflective vests should be worn when working in or near roadways. Follow proper work area protection.							
Entity notes for special precautions with this activity:							

Job Task: **ATV 4-Wheeler Operation**

Hazards: Hand injuries due to contact with objects during use or contact with moving parts during repair, foot injury from vehicle rolling over foot, strains and sprains due to awkward working position during maintenance, eye injury from flying particles, high noise during operation, and head injury due to fall from vehicle

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles or		Apron
X	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow only trained authorized users to operate or perform routine maintenance and repair on equipment. DOT/Snell rated helmets should be worn during use. Always operate in an open well ventilated area or vent exhaust directly outdoors. Never refuel while engine is running or in presence of open flame. Never remove radiator cap from liquid cooled engines while they are hot. Stop engine before performing any maintenance or trouble shooting and disable the ignition system. Follow lockout/tagout procedures during maintenance and repair. Ensure all guards are in place prior to operation and after repairs. Keep hands, hair and clothing away from moving parts.

Entity notes i	or special pre	cautions wi	itii tiiis activ	ity.	

Job Task: Auger (Post Hole Digger) Operation

Hazards: Inhalation of dust/particles and exhaust fumes, eye injury from projectiles, high noise from the engine, hand and trauma injury from projectiles and contact with rotating parts, and burn injury from possible sparks or fire

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
X	Respirator (Dust Mask is Optional)		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with the manufacturer's instructions. Allow only authorized users to operate auger. Disposable respirator is optional. Ensure all machine guarding is in place before operation. Always operate in an open well ventilated area or vent exhaust directly outdoors. Never refuel while engine is running or in presence of open flame. Never remove radiator cap from liquid cooled engines while they are hot. Stop engine before performing any maintenance or trouble shooting and disable the ignition system. Keep hands, hair and clothing away from moving parts.

Entity not	ntity notes for special precautions with this activity:						

Job Task: Backhoe Operation

Hazards: Injuries to employees working near the bucket, employees falling into trenches/holes, vehicle exposures when working near traffic, and high noise levels

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection	X	Other (Seat Belt)

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow only trained authorized users to operate or perform routine maintenance and repair on equipment. Always operate in an open well ventilated area or vent exhaust directly outdoors. Never refuel while engine is running or in presence of open flame. Never remove radiator cap from liquid cooled engines while they are hot. Stop engine before performing any maintenance or trouble shooting and disable the ignition system. Ensure all guards are in place prior to operation and after repairs. Keep hands, hair and clothing away from moving parts. Use the three points of contact techniques when mounting and dismounting from the cab. Do not jump from the cab to ground. Ensure utility locates are conducted before operations begin. Follow lockout/tagout procedures during maintenance and repair. Wear seat belt if equipment has rollover protection.

Entity notes for	intity notes for special precautions with this activity:							

Job Task: Band Saw Operation

Hazards: Inhalation of dust and particles, eye injury from projectiles, hand, arm, or leg injury from contact with blade or moving parts, foot injury from dropped objects, electrical shock due to improper grounding, and skin burns or fire due to sparks

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather)		Reflective Garment/Vest
X	Respirator (Dust Mask is Optional)		Fall Protection
	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with the manufacturer's instructions. Allow only authorized trained users to operate saw. Ensure all guarding is in place before operation. All portions of the blade should be enclosed or guarded, except the working portion between the bottom of the guide rolls and the table. Machines designed for a fixed location should be securely anchored to prevent movement. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Disposable respirator is optional. Wear gloves if the object being cut could cause cuts, punctures or abrasions. Keep hands, hair and loose clothing clear of all moving parts. Remove or protect flammable and combustibles in the immediate area from sparks. Follow lockout/tagout procedures during repair. Ensure the saw and electrical plug are properly grounded.

Entity notes for special precautions with this activity:								
	 							

Job Task: **Battery Charging**

Hazards: Eye injury and acid burns due to acid contact with skin, fire and explosion injuries due to sparks or improper storage of flammable and combustibles and poor ventilation, foot/leg injuries from falling or dropped batteries, strains and sprains from material handling

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or	X	Chemical Resistant Clothing or
X	Goggles	X	Apron
X	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Avoid ignition sources and always charge in a well ventilated area. Ensure the charger and electrical plug are properly grounded. Follow proper lifting techniques.

Entity notes	Entity notes for special precautions with this activity:						

Job Task: Belt Sander Operation

Hazards: Inhalation of dust and particles, eye injuries from projectiles, foot injury from dropped items, hand and trauma injuries due to contact with moving parts, and possible electrical shock

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator (Dust Mask is Optional)		Fall Protection
	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. A disposable respirator is optional. Keep hands, hair and loose clothing clear of all moving parts. Ensure the sander and electrical plug are properly grounded.

Entity notes for special precautions with this activity:						
	s for special	s for special precaution	s for special precautions with this	s for special precautions with this activity:	s for special precautions with this activity:	s for special precautions with this activity:

Job Task: Blower (Leaf/Grass)

Hazards: Eye injury from flying objects, inhalation of dust and airborne particles, hearing loss due to high noise, inhalation of fumes when refueling, and vehicle exposures when working near traffic

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
X	Respirator (Dust Mask is Optional)		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. To reduce the chance of fire, do not refuel a hot machine. Avoid inhaling fumes when refueling. Fuel in a well ventilated area. Use particulate filter respirators if necessary. Reflective vests should be worn when working in or near roadways.

Entity notes for special precautions with this activity:						

Job	Task:	Brake	Repair
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Hazards: Inhalation of asbestos dust, dust particles causing injuries to eyes, hands and fingers, and items falling on feet

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator (Approved for Asbestos)		Fall Protection
	Hearing Protection		Other

Additional Comments: If asbestos brake linings are being repaired or replaced, wet methods/enclosures should be used. A respirator rated for asbestos fibers is needed. Disposable suits may be needed.

Entity notes for special precautions with this activity:					

Job Task: Brush Hog Mower Operation

Hazards: Eye injury from flying debris, trauma from contact with rotating parts, foot injury from equipment rolling over foot, high noise exposure, and falls from mower

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection	X	Other (Seat Belt)

Additional Comments: Operate equipment in strict accordance with the manufacturer's instructions. Only trained and authorized individuals should operate the tractor. Always operate in an open well ventilated area or vent exhaust directly outdoors. Never refuel while engine is running or in presence of open flame. Never remove radiator cap from liquid cooled engines while they are hot. Stop engine before performing any maintenance or trouble shooting and disable the ignition system. Ensure all guards are in place prior to operation and after repairs. Keep hands, hair and clothing away from moving parts. Ensure other workers maintain a safe distance from the mowing operation. Always use a seat belt where roll over protection is provided. Use the three points of contact techniques when mounting and dismounting from the tractor. Do not jump from the tractor to ground. Reflective vests should be worn when working in or near roadways. Wear seat belt if equipment has rollover protection.

Entity notes for special precautions with this activity:						

Job Task: Bucket Truck Operation

Hazards: Equipment failure, electrocution, fall from the bucket, vehicle exposures when working near traffic, high noise levels, and head and foot injuries due to falling objects

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection (As Needed)	X	Other (Seat Belt)

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow only trained authorized users to operate or perform routine maintenance and repair on equipment. Maintain proper distances from overhead lines if not involved with electrical line repair/maintenance. Reflective vest should be worn when working in or near roadways. Use the three points of contact techniques when mounting and dismounting from the vehicle. Do not jump from the vehicle to ground. Ensure vehicle is provided with an annual certified inspection. Wear seat belt if equipment has rollover protection.

Entity notes for	Entity notes for special precautions with this activity:					

Job Task: Chain Hoist Operation

Hazards: Foot injury due to dropped items, head injury from swinging item or hoist, and hand pinch or crushing injury due to moving the item

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Operate the hoist in strict accordance with manufacturer's instructions. Do not overload the hoist. Ensure hoist is provided with an annual certified inspection. Inspect slings and hoist prior to use.

Entity notes for special precautions with this activity:				

Job Task: Chain Saw Operation

Hazards: Hand, finger and limb injuries due to cuts or falling items, eye and head injury from projectiles, inhalation of airborne wood dust and exhaust fumes, hearing loss due to high noise, inhalation of fumes when refueling, and foot injury due to dropped object or impact with saw blade

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield (Safety Screen)	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
X	Respirator (Dust Mask is Optional)		Fall Protection
X	Hearing Protection	X	Other (Chaps)

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow only trained authorized users to operate or perform routine maintenance and repair on equipment. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Protective clothing should include chaps. Shoes and boots should be cut resistant. Always operate in an open well ventilated area or vent exhaust directly outdoors. Avoid inhaling fumes and fuel away from ignition sources. Never refuel while engine is running or in presence of open flame. Stop engine before performing any maintenance or trouble shooting and disable the ignition system. Ensure all guards are in place prior to operation and after repairs. Keep hands, hair and clothing away from moving parts. Use a particulate filter respirator if needed. Follow proper lifting techniques.

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Entity notes for special precautions with this activity:

Job Task: Chemical Agent Use

Hazards: Toxic inhalation and skin and eye irritation

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat		Safety Shoes/Boots
	Safety Glasses	X	Chemical Resistant Clothing
X	Goggles (Chemical)	X	Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Chemical Resistive)		Reflective Garment/Vest
X	Respirator (Per MSDS)		Fall Protection
	Hearing Protection		Other

Additional Comments: Review the Material Safety Data Sheet (MSDS) to determine the proper types of personal protective equipment. Ensure adequate neutralizing agent or emergency eye/wash station is present. Transfer chemicals in a well ventilated area and avoid breathing vapors. Wash hands thoroughly after handling chemicals and before smoking, eating or drinking.

Entity notes for special precautions with this activity:					

Job Task: Chemical (Handling and Pouring)

Hazards: Eye, face and inhalation injury from splashes and vapors, skin burns due to chemical contact with skin, foot injury from dropped containers, and fire and explosion hazards

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses	X	Chemical Resistant Clothing
X	Goggles (Chemical)		Apron
X	Face Shield (Optional)		Long Sleeve Shirt/Pants
X	Gloves (Chemical Resistive)		Reflective Garment/Vest
X	Respirator (As Needed per MSDS)		Fall Protection
	Hearing Protection		Other

Additional Comments: Read and understand the Material Safety Data Sheet (MSDS) for the chemical being handled. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Ensure emergency eye wash/shower is readily accessible. Transfer chemicals in a well ventilated area and avoid breathing vapors. Use proper bonding and grounding procedures for flammable and combustible liquids. Wash hands thoroughly after handling chemicals and before smoking, eating or drinking. Use two people to move or lift heavy drums or use mechanical means if available. Push drums rather than pulling them on a dolly to prevent them from falling on worker in case of a fall.

Entity notes for special precautions with this activity:					

Job Task: Chipper Machine Operation

Hazards: Hand and limb amputation, head, eye and face injuries from flying objects, exposure to high noise, items falling onto feet, exposure to vehicles when working near traffic, and strains and sprains while handling materials

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow only trained authorized users to operate or perform routine maintenance and repair on equipment. Never refuel while engine is running or in presence of open flame. Never remove radiator cap from liquid cooled engines while they are hot. Stop engine before performing any maintenance or trouble shooting and disable the ignition system. Ensure all guards are in place prior to operation and after repairs. Keep hands, hair and clothing away from moving parts. Reflective vests should be worn when working in or near roadways. Follow proper work area protection. Wear appropriate gloves when object being handled could cause cuts, punctures, or abrasions to hands. Use proper lifting techniques. Stretch prior to activity to warm up muscles.

Entity notes	ntity notes for special precautions with this activity:					

Job Task: Chlorine Cylinder Replacement

Hazards: Inhalation and skin exposure to chlorine gas and being caught between large cylinders

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
X	Goggles (Chemical)		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator (SCBA)		Fall Protection
	Hearing Protection		Other

Additional Comments: If an SCBA is used, chemical goggles are not needed. Use a wheel dolly or hoist to move cylinders. Follow proper change out procedures and implement the emergency plan in the event of a significant leak.

Entity notes for special precautions with this activity:						

Job Task: Circular Saw Operation

Hazards: Eye injuries due to flying particles, amputation of hand and limbs due to blade contact, high noise exposure, foot injuries due to falling lumber, and inhalation of airborne wood dust

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator (Dust Mask is Optional)		Fall Protection
X	Hearing Protection		Other

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Ensure the proper tool guards are in place and operating correctly. Clean up to reduce combustible dust. Use a particulate filter respirator. Inspect electrical cord for damage.

Entity notes for special precautions with this activity:						

Job Task: Cleaning (Bodily Fluid Clean-Up)

Hazards: Eye injury from vapors, splashes and dust from cleaning agents, infectious disease from contact with bodily fluids, foot injury from dropped containers, and possible ingestion of chemicals or bodily fluids

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
X	Goggles (Chemical)	X	Apron
X	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Latex or Rubber)		Reflective Garment/Vest
X	Respirator (Dust Mask)		Fall Protection
	Hearing Protection		Other

Additional Comments: Follow bloodborne pathogen policy procedures. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Wash hands thoroughly after task and before eating, drinking or smoking. Allow only authorized and trained employees to perform this task.

Entity notes for special precautions with this activity:	

Job Task: Compound Miter Saw Operation

Hazards: Inhalation of dust and particles, eye injury from projectiles, hand, arm, or leg injury from contact with blade or moving parts, foot injury from dropped objects, electrical shock due to improper grounding, skin burns or fire due to sparks, and high noise

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator (Dust Mask is Optional)		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with the manufacturer's instructions. Allow only authorized trained users to operate saw. Ensure all guarding is in place before operation. All portions of the blade should be enclosed or guarded, except the working portion of the blade. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Disposable respirator is optional. Wear gloves if the object being cut could cause cuts, punctures or abrasions. Keep hands, hair and loose clothing clear of all moving parts. Remove or protect flammable and combustibles in the immediate area from sparks. Follow lockout/tagout procedures during repair. Ensure the saw and electrical plug are properly grounded.

Entity notes for special precautions with this activity:	

Job Task: Concrete Construction

Hazards: Hand, back, foot and eye injuries due to material handling, and potential exposure to vehicle traffic

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Use material handling equipment and follow proper lifting techniques. Reflective vests should be worn when working in or near roadways. Follow proper work area protection.

	Entity notes for sp	pecial precaution	is with this activ	vity:	
, 					

Job Task: Concrete Cutting Machine Operation

Hazards: Hand and foot injuries from contact with the blade, eye injuries from flying objects, high noise exposure, and vehicle exposure if working near traffic

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
X	Respirator (Dust Mask)		Fall Protection
X	Hearing Protection		Other

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Reflective vests should be worn when working in or near roadways. Follow proper work area protection.

Entity notes	Entity notes for special precautions with this activity:								

Job Task: Concrete Removal

Hazards: Hand, foot and back injuries due to material handling, eye injuries from small particles, and vehicle exposure if working near traffic

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Reflective vests should be worn when working in or near roadways. Follow proper work area protection. Follow proper lifting techniques.

ntity notes for special precautions with this activity:						

Job Task: Confined Space Entry

Hazards: Exposure to insufficient oxygen, inadequate ventilation, limited means of entry/exit, combustible and toxic gases, entrapment and engulfment, eye and face injuries from work being performed, and slip and fall hazards

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator (Type Based on Exposure)		Fall Protection
X	Hearing Protection (As Needed)	X	Other (Air Monitor)

Additional Comments: Confined space entry procedures should be followed. A SCBA is needed for entry to spaces that are immediately dangerous to life and health (IDLH). Hearing protection may be needed depending upon the activity being performed.

Entity notes:	Entity notes for special precautions with this activity:							

Job Task: **Degreasing/Parts Cleaning**

Hazards: Inhalation of toxic vapors, skin and facial exposure to chemicals, foot injury due to dropped items, and possible fire hazard due to heat, sparks or slag

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
X	Goggles (Chemical)	X	Apron
X	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Chemical Resistive)		Reflective Garment/Vest
X	Respirator (As Required per MSDS)		Fall Protection
	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Ensure emergency eye wash/shower is readily accessible. Gloves, apron and respirator (if needed) should comply with the MSDS recommendations. Ensure adequate ventilation and avoid ignition sources if liquid is flammable. Dispose of used solvents per EPA and state regulations.

Entity notes for	Entity notes for special precautions with this activity:					

Job Task: Digging with Hand Shovel						
Hazards: Hand and foot injuries and back strain						
Although other exposures exist, they are not controlled by personal protective equipment therefore, they are not indicated in this manual.						
Recommended Persona	ıl Pr	otective Equipment:				
Hard Hat	X	Safety Shoes/Boots				
X Safety Glasses		Chemical Resistant Clothing				
Goggles		Apron				
Face Shield		Long Sleeve Shirt/Pants				
X Gloves (Leather)		Reflective Garment/Vest				
Respirator		Fall Protection				
Hearing Protection		Other				
Additional Comments: Ensure utility locates are conducted before operations begin. Entity notes for special precautions with this activity:						

Job Task: Ditch/Side of Roadway Cleaning

Hazards: Exposure to vehicle traffic, hand and foot injuries from glass and sharp objects, and dangerous waste

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Take precautions to ensure any bags or containers found do not contain Meth or other harmful waste. If necessary, provide proper work area protection. Follow the label instructions when using pesticides.

Entity notes for special precautions with this activity:						

Job Task: Drill Bit Sharpener Operation

Hazards: Eye injury from projectiles, hand injury from contact with moving parts, and electrical shock due to improper grounding

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	Safety Shoes/Boots
X	Safety Glasses or	Chemical Resistant Clothing
X	Goggles	Apron
	Face Shield	Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)	Reflective Garment/Vest
	Respirator	Fall Protection
	Hearing Protection	Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield.

Entity notes for special precautions with this activity:						

Job Task: **Drill Press Operation**

Hazards: Eye and head injuries from flying particles, hand injuries from contact with the bit, foot injury from dropped items, and electrical shock due to improper grounding

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator (Dust Mast is Optional)		Fall Protection
	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. If designed for a fixed location, securely anchor press to prevent movement during use. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Ensure the drill bit is tightened and belts are guarded. A disposable respirator is optional. Keep hands, hair and loose clothing clear of all moving parts.

Entity notes for special precautions with this activity:					

Job Task: Edger Operation

Hazards: Eye injury from flying debris, inhalation of dust and airborne particles or fumes when refueling, hearing loss due to high noise, inhalation of fumes when refueling, and vehicle exposures when working near traffic

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather Optional)	X	Reflective Garment/Vest
X	Respirator (Dust Mask is Optional)		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with the manufacturer's instructions. Ensure all machine guarding is in place before operation. Where any object handled could possibly cause cuts, punctures or abrasions to the hands, appropriate gloves should be worn. To reduce the chance of fire, do not refuel a hot machine. Avoid inhaling fumes when refueling. Fuel in a well ventilated area. Use particulate filter respirators if necessary. Keep the general public away from the trimming activity. Keep hands, hair, and clothing away from moving parts. Reflective vests should be worn when working in or near roadways.

Entity not	Entity notes for special precautions with this activity:						

Job Task: Electrical Equipment Maintenance

Hazards: Electrocution, hand, finger and limb injuries from power surges, and arc flash burns

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other (Arc Flash Suit or Clothing)

Additional Comments: Follow proper lockout/tagout procedures. Perform work according to the National Electrical Code.	
Entity notes for special precautions with this activity:	

Jo	b Task: Electrical Installation		
На	azards: Electrocution and hand, foot and l	imb	injuries due to arc flash
	Ithough other exposures exist, they are not erefore, they are not indicated in this manual resonance. Recommended Persona	ıal.	
X	Hard Hat	X	Safety Shoes/Boots
X	<u> </u>		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	,		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other (Arc Flash Suit or Clothing)
pro an too	dditional Comments: Follow the National otection if working with live currents. Fac d should always be worn with safety glass ols are properly insulated and lockout/tagontity notes for special precautions with this	e shi ses or out p	elds are considered secondary protection goggles under the shield. Ensure all rocedures are followed.

Job Task: Emergency Medical Response

Hazards: Exposure to vehicle traffic, infectious disease, and back injuries due to lifting

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat		Safety Shoes/Boots	
X	Safety Glasses		Chemical Resistant Clothing	
	Goggles		Apron	
X	Face Shield		Long Sleeve Shirt/Pants	
X	Gloves (Latex or Rubber)		Reflective Garment/Vest	
X	Respirator (Medical Mask)		Fall Protection	
	Hearing Protection	X	Other (Inhalers)	

Additional Comments: Avoid contact with bodily fluids. Dispose of needles, sharps and contaminated waste in biohazard containers. Use respirators/inhalers/pocket masks when necessary.

Entity notes for special precautions with this activity:						

Job Task: Engine and Equipment Maintenance

Hazards: Hand and finger injuries from contact with hot or sharp objects and pinch points, eye injuries from fluids and engine parts, and back injuries due to material handling

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Use hoist for lifting heavy parts. Follow Material Safety Data

sheets (MSDS) for chemicals used. Use the proper tools.	
Entity notes for special precautions with this activity:	

Job Task: Excavating

Hazards: Trench failure, objects falling into the trench, flammable gas or liquids leaching into the trench, toxic vapors entering trench, fall hazards, and exposure to vehicles

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other (Air Monitor)

Additional Comments: Follow safe trenching procedures. Ensure utility locates are

conducted before operations begin. Test for confined space atmosphere.
Entity notes for special precautions with this activity:

Job Task: Fence Installation and Maintenance

Hazards: Cuts from sharp fence components and tools, back strains, and sprains due to material handling

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

dditional Comments: Ensure utility locates are conducted before operations begin.					
Entity notes for special precautions with this activity:					
	_				

Job Task: Fire Fighting (AFFF-Airplane Fuel Fire)

Hazards: Fire, explosion, toxic gases and vapors, debris, slip and falls and back injuries from lifting

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses	X	Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Use fully approved protective clothing with a self-contained breathing apparatus.

Entity notes for special precautions with this activity:						

Job Task	: Fire Fighting	(Apparatus I	Bay Maintenance)
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Hazards: Slip and falls and toxic fumes from vehicle exhaust

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

additional Comments: Ensure adequate ventilation when vehicles are operating. Vegloves as needed.	vear
Entity notes for special precautions with this activity:	

Job Task: Fire Fighting (Auto Extraction)

Hazards: Fire, explosion, contact with sharp metal and glass, and contact with cutting saw

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other (Full Protective Gear)

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Ensure proper universal precautions are followed. Wear full protective equipment.

ntity notes for special precautions with this activity:						

Job Task: Fire Fighting (Building Collapse Rescue)

Hazards: Fire, explosion, toxic gases, falling objects, electrocution, and slip and falls

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or	X	Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator		Fall Protection
	Hearing Protection	X	Other (Full Protective Gear)

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Wear full protective gear including an SCBA or other appropriate particulate or chemical respirator.

Entity notes for	ntity notes for special precautions with this activity:					

Job Task: Fire Fighting (Filling SCBA Cylinders)

Hazards: Ruptured tanks injuries from release of high pressure air and struck by hose

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Perform a pre-inspection of cylinders for defects, ensure connections are adequate, and check air purity. Use protective shields and barriers when filing cylinders.

Entity n	tity notes for special precautions with this activity:						

Hazards:	Fire, explosion,	toxic gases a	nd vapors,	and cuts from sh	arp objects
∆ lthough	other exposures	exist they ar	e not cont	rolled by persona	l protective equipr

Job Task: Fire Fighting (Forcible Entry)

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or	X	Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator		Fall Protection
	Hearing Protection	X	Other (Full Protective Gear)

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Wear full protective gear if fire or chemical release is involved.

Entity notes	ntity notes for special precautions with this activity:						

Job Task: Fire Fighting (Hose Operation)

Hazards: Fire, explosion, falls, back injuries from material handling, struck by high pressure hose, and slip and falls

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or	X	Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator		Fall Protection
	Hearing Protection	X	Other (Full Protective Gear)

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Wear full protective gear if fire or chemical release is involved.

Entity notes for special precautions with this activity:							

Job Task: Fire Fighting (Ice Rescue)
Hazards: Falls through ice (drowning and hypothermia), back injuries, and slip and falls
Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other (Dry Suit)

Additional Comments: Use proper rescue equipment and techniques, monitor staff for hypothermia, and use dry suits if available.					
Entity notes for special precautions with this activity:					

Job Task: Fire Fighting (Indoor Search and Rescue)

Hazards: Fire, explosion, toxic vapors and gases, struck by hoses, flying debris, strains and sprains, and slip and falls

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or	X	Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator		Fall Protection
	Hearing Protection	X	Other (SCBA)

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Wear full protective gear including SCBA.

Entity notes for special precautions with this activity:					
-	ons with this acti	ons with this activity:	ons with this activity:		

Job Task: Fire Fighting (Investigation)

Hazards: Toxic gases and vapors, hot materials, explosives, sharp objects, fall materials, slip and falls, and electrocution

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Hazardous material suits may be necessary. Ensure gas, electricity and other utilities are shut off. Use SCBA or chemical cartridge respirators.
Entity notes for special precautions with this activity:

Jol	Job Task: Fire Fighting (Outdoor Search and Rescue)							
Ha	Hazards: Temperature extremes, and slip and falls							
	though other exposures exist, they are not erefore, they are not indicated in this manu		trolled by personal protective equipment					
	Recommended Persona	l Pr	otective Equipment:					
X	Hard Hat	X	Safety Shoes/Boots					
	Safety Glasses		Chemical Resistant Clothing					
	Goggles		Apron					
	Face Shield	X	Long Sleeve Shirt/Pants					
X	Gloves (Leather)		Reflective Garment/Vest					
	Respirator		Fall Protection					
	Hearing Protection		Other					
Additional Comments: Follow the search and rescue plan including the communication methods. Wear protective equipment as needed to protect against environmental factors. Entity notes for special precautions with this activity:								

Job Task: Fire Fighting (Rappelling)

Hazards: Trauma due to falls to lower surfaces, struck by falling rocks, equipment and other objects

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
	Respirator	X	Fall Protection
	Hearing Protection		Other

equipment and practices.	
Entity notes for special precautions with this activity:	

Job Task: Fire Fighting (Responding to Scene)

Hazards: Vehicle accident injuries, falls from apparatus, and hearing loss from loud noise

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat		Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection	X	Other (Seat Belt)

Additional Comments: Seat belts should be worn when the vehicle is in operation. Follow all state laws and department policies regarding emergency response. Use defensive driving techniques. Use the three points of contact techniques when mounting and dismounting from the cab. Do not jump from the cab to ground.

Entity notes for special precautions with this activity:							
							

Jol	Task: Fire Fighting (River Rescue)		
На	zards: Drowning, slip and falls, and hypo	ther	mia
	though other exposures exist, they are not erefore, they are not indicated in this manu		trolled by personal protective equipment
	Recommended Persona	l Pr	otective Equipment:
	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other (Dry Suit)
foo	Iditional Comments: Use proper rescue equations of the Monitor staff for hypothermia and tity notes for special precautions with this	luse	e dry suits if available.

Jol	b Task: Fire Fighting (Roof Operations))						
На	Hazards: Falls through roofs, fire, and toxic gases and vapors							
	though other exposures exist, they are not erefore, they are not indicated in this manu		trolled by personal protective equipment;					
	Recommended Persona	ıl Pro	otective Equipment:					
X	Hard Hat	X	Safety Shoes/Boots					
X	Safety Glasses or		Chemical Resistant Clothing					
X	Goggles		Apron					
X	Face Shield		Long Sleeve Shirt/Pants					
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest					
X	Respirator		Fall Protection					
	Hearing Protection	X	Other (Full Protective Gear)					
alv inc	Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Wear full protective gear including a SCBA. Entity notes for special precautions with this activity:							

Job Task: Fire Fighting (Salvage and Overhaul)

Hazards: Contaminated equipment, live energy sources, defective equipment, strains, sprains, and slip and falls

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator		Fall Protection
	Hearing Protection		Other (HazMat Suit)

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Hazardous material suits may be necessary. Ensure gas, electricity and other utilities are shut off. Use SCBA or chemical cartridge respirators.

Entity note	Entity notes for special precautions with this activity:								

Job Task: Fire Fighting (Suppression)

Hazards: Fire, explosion, toxic vapors and gases, struck by hoses, falls, flying debris, strains and sprains, and slip and falls

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or	X	Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator		Fall Protection
	Hearing Protection	X	Other (Full Protective Gear)

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Wear full protective gear including SCBA.

Entity notes for special precautions with this activity:							

Job Task:	Fire Fighting (Tanker Operation)	

Hazards: Struck by other vehicles, fire, explosion, and high water pressure

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or	X	Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
X	Respirator		Fall Protection
	Hearing Protection	X	Other (Seat Belt)

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Follow proper procedures, wear full protective gear as needed to protect against fire or chemical exposures.

Entity notes for	Entity notes for special precautions with this activity:							

Job Task: Fire Fighting (Trench Rescue)

Hazards: Trench collapse, exposure to insufficient oxygen, toxic or flammable gases and liquids, inadequate ventilation, limited means of entry/exit, and eye and face injuries from work being performed, head injuries from falling items, falls into trench and possible traffic exposure

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

X	Hard Hat	X	Safety Shoes/Boots		
X	Safety Glasses		Chemical Resistant Clothing		
	Goggles		Apron		
	Face Shield	X	Long Sleeve Shirt/Pants		
X	Gloves (Leather)		Reflective Garment/Vest		
	Respirator	X	Fall Protection		
	Hearing Protection		Other		

Additional Comments: Follow proper trench rescue methods, control traffic, and test atmosphere for sufficient oxygen, toxic or flammable gases.						
Entity notes for special precautions with this activity:						

Job Task: Fire Hydrant Maintenance

Hazards: Cuts and bruises, strains and sprains from turning wrench, proper damage from running water, and vehicle exposures

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

	Hard Hat	X	Safety Shoes/Boots		
X	Safety Glasses		Chemical Resistant Clothing		
	Goggles		Apron		
	Face Shield		Long Sleeve Shirt/Pants		
X	Gloves (Leather)	X	Reflective Garment/Vest		
	Respirator		Fall Protection		
	Hearing Protection		Other		

Additional Comments: Use the proper hydrant wrench. Follow proper work area protection if working near traffic.
Entity notes for special precautions with this activity:

Job Task: Fire Truck Maintenance

Hazards: Bruises and contusions from contact with truck components, carbon monoxide poisoning from engine exhaust, and slips and falls

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Ensure adequate ventilation when working indoors.						
Entity notes for special precautions with this activity:						

Job Task: Firearms Qualification

Hazards: Hearing loss due to high noise and injuries from bullets shells or fragments

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

	Hard Hat		Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection	X	Other (Bullet Proof Vest and Billed
			Hat)

Additional Comments: Follow approved NRA/CLEA safety procedures.							
Entity notes for special precautions with this activity:							

Job Task: Floor Buffer Operation

Hazards: Eye injury from splashes, trauma from projectiles, impact, vibration, and electrical shock due to improper grounding

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots		
X	Safety Glasses or		Chemical Resistant Clothing		
X	Goggles		Apron		
	Face Shield	X	Long Sleeve Shirt/Pants		
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest		
X	Respirator (Optional)		Fall Protection		
	Hearing Protection		Other		

Additional Comments: Operate buffer in strict accordance with manufacturer's instructions. Wear a respirator or dusk mask if needed. Ensure buffer cord is not damaged and that cord plug has a ground connection. Wear long pants to avoid chemicals splashing on bare legs. Use two people when lifting the buffer. Take occasional breaks to avoid repetitive motion injury from vibration. Keep hands, hair, and loose clothing clear of all moving parts.

Entity notes for special precautions with this activity:					

Job Task: Forklift Operation

Hazards: Injuries from being struck by falling items, tip over, head struck on cage, falling off loading areas, falls while entering and exiting the forklift, high noise from engine, inhalation of engine exhaust, and burns during maintenance

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots		
X	Safety Glasses		Chemical Resistant Clothing		
	Goggles		Apron		
	Face Shield		Long Sleeve Shirt/Pants		
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest		
	Respirator		Fall Protection		
X	Hearing Protection (As Needed)	X	Other (Seat Belt)		

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow use only by trained and authorized individuals. Wear seat belts where provided. Hearing protection may be needed. Use the three points of contact techniques when mounting and dismounting from the cab. Do not jump from the cab to ground. Allow only trained authorized users to operate or perform routine maintenance and repair on equipment. Always operate gas powered forklifts in an open well ventilated area. Never refuel while engine is running or in presence of open flame. Never remove radiator cap from liquid cooled engines while they are hot. Stop engine before performing any maintenance or trouble shooting and disable the ignition system. Ensure all guards are in place prior to operation and after repairs. Keep hands, hair and clothing away from moving parts. Wear seat belt if equipment has rollover protection.

Entity notes for special precautions with this activity:						

Job Task: Front End Loader Operation

Hazards: Falls when entering and exiting equipment, vehicle exposures when working near traffic, and high noise levels

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other (Seat Belt)

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow use only by trained and authorized individuals. Maintain proper distances from overhead line if not involved with electrical line repair/maintenance. Use the three points of contact techniques when mounting and dismounting from the vehicle. Do not jump from the vehicle to ground. Wear seat belt if equipment has rollover protection.

Entity notes for special precautions with this activity:						

Job Task: Grinder Operation

Hazards: Inhalation of dust and particles, eye and head injuries from projectiles, hand or finger injuries from contact with the wheel, foot injury from dropped items, fire hazards from sparks contacting flammable or combustible liquids, electrical shock due to improper grounding, and high noise

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator (Dust Mask)		Fall Protection
	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. A disposable respirator is optional. Ensure the grinder work rest is adjusted to within 1/4 inch of the wheel and the tongue guard is 1/8 inch from the wheel. Ring test new wheels for defects. Do not grind near flammable liquids or gases. Keep hands, hair, and loose clothing clear of all moving parts.

Entity notes for special precautions with this activity:						

Job Task: Hand Held Portable Power Tools

Hazards: Inhalation of dust and particles from machine operation, eye and face injury from projectiles, foot injury from dropped items, hand injury from contact with moving parts, high noise from machine operation, and electrical shock due to improper grounding

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator (Dust Mask)		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate tool in strict accordance with manufacturer's instructions. Allow only trained and authorized employees to operate the tool. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Ensure all guarding is in place before operation. Disposable respirator is optional. Keep hands, hair and loose clothing clear of all moving parts. Ensure the tool and electrical plug are properly grounded.

Entity notes for special precautions with this activity:						

Job Task: Hedge Trimmer (Electrical) Operation

Hazards: Electrical shock or electrocution due to defective cords, cuts to feet and lower legs and hands, eye injuries from flying objects, and high noise exposure

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow use only by trained and authorized individuals. Inspect the electrical cord for defects and ensure proper grounding. Wear reflective vest if working near traffic
Entity notes for special precautions with this activity:

Job Task: Hedge Trimmer (Gas) Operation

Hazards: Eye injury from flying objects, hearing loss due to high noise, inhalation of fumes when refueling, and vehicle exposures when working near traffic

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow use only by trained and authorized individuals. To reduce the chance of fire, do not refuel a hot machine. Avoid inhaling fumes when refueling. Fuel in a well ventilated area. Wear reflective vest if working near traffic.

Entity note	Entity notes for special precautions with this activity:							

Job	Task:	Hy	drau	llic Li	ift C	per	ation				
	_		_						 _		

Hazards: Hand and foot injuries from equipment pinching or dropping and eye injury from debris

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

instructions. Do not overload the lift. Inspect the lift for defects and prior to operating.	,
Entity notes for special precautions with this activity:	

Job Task: Ice Removal (Chipping)

Hazards: Eye injury from projectiles, slip and fall, cold temperatures, strains and sprains due to lifting, impact vibration injuries, and foot injury from dropped tools

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other (Warm Clothing)

Additional Comments: Take occasional breaks to avoid repetitive motion injury from vibration. Wear clothing appropriate for the temperature to prevent frostbite and hypothermia. Use proper lifting techniques. Stretch prior to activity to warm up muscles
Entity notes for special precautions with this activity:

Job Task: Irrigation System Installation (Pipe and Ditch)

Hazards: Trip and fall injuries due to open trenches, high noise due to trencher, and possible traffic exposures

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: To reduce the chance of fire, do not refuel a hot trenching machine. Avoid inhaling fumes when refueling. Use proper work area protection if working near traffic.

Entity notes for special precautions with this activity:						

Job Task: Jack Hammer Operation

Hazards: Noise and dust exposure, injuries due to vibration, cuts and bruises to lower extremes, traffic hazards, and back injuries due to lifting

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
X	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Use a particulate respirator if dusty conditions exist. Follow proper work area protection if working near traffic.

Entity notes for special precautions with this activity:

Job Task: Jointer/Planer Operation

Hazards: Inhalation of dust and particles, eye injury from projectiles, trauma from contact with moving parts, foot injury from dropped items, electrical shock due to improper grounding

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator (Dust Mask)		Fall Protection
	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow use only by trained and authorized individuals. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Ensure all guarding is in place before operation. Disposable respirator is optional. Keep hands, hair and loose clothing clear of all moving parts. Ensure the jointer and electrical plug are properly grounded.

Entity notes for special precautions with this activity:							

Job Task: Ladder Use		
Hazards: Trauma from falls		
Although other exposures exist, they are not therefore, they are not indicated in this many		trolled by personal protective equipment;
Recommended Person	al Pr	otective Equipment:
Hard Hat	X	Safety Shoes/Boots
Safety Glasses		Chemical Resistant Clothing
Goggles		Apron
Face Shield		Long Sleeve Shirt/Pants
Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
Respirator		Fall Protection
Hearing Protection	X	Other
Additional Comments: Wear other protective before climbing and inspect it for defects. Finding the special precautions with this	Place	ladder at a 1:4 ratio to the wall.

Job Task: Lifting and Carrying Materials

Hazards: Trauma injury due to impact, foot injury due to dropped items, strains and sprains while lifting

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Use proper lifting techniques. Two people should manually lift or move heavy items. Where possible use mechanical equipment. Wear appropriate gloves when object being handled could cause cuts, punctures, or abrasions to hands. Use proper lifting techniques. Stretch prior to activity to warm up muscles.

Entity	Entity notes for special precautions with this activity:						

Job Task: Manhole Entry

Hazards: Exposure to insufficient oxygen, inadequate ventilation, limited means of entry/exit, combustible and toxic gases, falls while entering/exiting, eye and face injuries from work being performed, lifting injuries from moving the manhole cover, and possible loud noise from operations

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
X	Respirator	X	Fall Protection
X	Hearing Protection	X	Other (Air Monitor)

Additional Comments: Follow the confined space entry procedures. Check the condition of entry ladder or steps. Use a manhole cover removal device. A SCBA is needed for entry to spaces that are immediately dangerous to life and health (IDLH). Hearing protection may be needed depending upon the activity being performed. Wear reflective vest if working near traffic and follow proper work area protection practices.

Entity notes for special precautions with this activity:						

Job Task: Meter Pit Entry

Hazards: Exposure to insufficient oxygen, inadequate ventilation, limited means of entry/exit, combustible and toxic gases, falls while entering/exiting, eye and face injuries from work being performed, lifting injuries from moving the pit cover, and possible loud noise from operations

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator		Fall Protection
X	Hearing Protection	X	Other (Air Monitor)

Additional Comments: Follow the confined space entry procedures. Check the condition of entry ladder or steps. Use a manhole cover removal device. A SCBA is needed for entry to spaces that are immediately dangerous to life and health (IDLH). Hearing protection may be needed depending upon the activity being performed.

Entity notes fo	Entity notes for special precautions with this activity:						

Job Task: Motor Grader Operation

Hazards: Falls when entering and exiting equipment, vehicle exposures when working near traffic, and high noise levels

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other (Seat Belt)

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow use only by trained and authorized individuals. Use the three points of contact techniques when mounting and dismounting from the vehicle. Do not jump from the vehicle to ground. If necessary, follow proper work area protection practices. Wear safety vest if outside the grader. Wear seat belt if equipment has rollover protection.

Entity notes for s	Entity notes for special precautions with this activity:						

Job Task: Mowers (Push) Operation

Hazards: Eye injury from flying objects, hearing loss due to high noise, inhalation of fumes when refueling, trauma from contact with moving parts, foot injury from mower rolling over foot, and vehicle exposures when working near traffic

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
X	Respirator (Dust Mask)		Fall Protection
X	Hearing Protection	X	Other (Sunscreen)

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow use only by trained and authorized individuals. To reduce the chance of fire, do not refuel a hot machine. Avoid inhaling fumes when refueling. Fuel in a well ventilated area. Stop engine before performing any maintenance or trouble shooting and disable the ignition system. Cut horizontally on slopes. Ensure all guards are in place prior to operation and after repairs. Keep hands, hair and clothing away from moving parts. Wear reflective vest if cutting near traffic. Wearing gloves and dust mask are optional. Wear sun screen.

Entity notes for special precautions with this activity:						

Job Task: Mowers (Riding) Operation

Hazards: Cuts from contact with blade, eye injury from flying objects, hearing loss due to high noise, inhalation of fumes when refueling, and vehicle exposures when working near traffic

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
X	Respirator (Dust Mask)		Fall Protection
X	Hearing Protection	X	Other (Sunscreen)

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow use only by trained and authorized individuals. To reduce the chance of fire, do not refuel a hot machine. Avoid inhaling fumes when refueling. Fuel in a well ventilated area. Cut vertically on slopes. Remove rocks and other objects prior to mowing. Disconnect the spark plug before servicing. Use seat belt if mower is provided with roll over protection. Wear reflective vest if cutting near traffic. Using a dust mask is optional. Wear sun screen.

Entity notes for special precautions with this activity:						

Job Task: Nail Gun Operation

Hazards: Eye injury due to projectiles, struck by flying nails, high air hose noise, trauma due to air pressure and ejection of tool, and foot injury from dropped materials

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow use only by trained and authorized individuals. Inspect tool before use and never assume gun is empty. Never point tool at anyone. Wear gloves if the object being cut could cause cuts, punctures or abrasions.

Entity notes:	Entity notes for special precautions with this activity:						

Job Task: Oxygen – Acetylene Torch Operation

Hazards: Inhalation of fumes, gases and dust, eye and trauma injury due to projectiles, foot injury due to dropped items, and burn injury due to heat, sparks or slag

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
X	Respirator (As Needed)		Fall Protection
	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with the manufacturer's instructions. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Wear eye safety shield/helmet with proper filter lens. Wear appropriate gloves when object being handled could cause cuts, punctures, or abrasions to hands. Gloves should be gauntlet style and clothes should be made of clean fire-resistant materials and should have no front pockets or cuffs. Shirts should be left outside of trousers. Use adequate ventilation or the appropriate type chemical respirator. Remove flammable and combustible material from the immediate area. Provide a fire watch if area cannot be protected or shielded.

Entity notes for	Entity notes for special precautions with this activity:							

Job Task: Painting (Spray Booth)		
Hazards: Fire, explosion, and inhalation of t	oxic	e paint vapors
Although other exposures exist, they are not therefore, they are not indicated in this manu		trolled by personal protective equipment;
Recommended Persona	ıl Pr	otective Equipment:
Hard Hat		Safety Shoes/Boots
Safety Glasses	X	Chemical Resistant Clothing
X Goggles		Apron
Face Shield	X	Long Sleeve Shirt/Pants
X Gloves (Chemical Resistive)		Reflective Garment/Vest
X Respirator		Fall Protection
Hearing Protection		Other
Additional Comments: Wear the appropriate Read the Material Safety Data Sheet (MSDS ignition sources. Follow proper flammable l Entity notes for special precautions with this) foi iqui	the sprays and chemicals. Control d handling practices.

Job Task: Pesticide Application

Hazards: Inhalation of toxic chemicals, eye and skin irritation, and harm to the public and environment

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Chemical Resistive)	X	Reflective Garment/Vest
X	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Follow the pesticide instructions on the label. Mix in a well ventilated area. Dispose of containers and waste according to EPA regulations. Wear respirator per the MSDS. Reflective vests should be worn when working in or near roadways.

Entity notes for	ntity notes for special precautions with this activity:							

Job Task: Pipe Threading Operation

Hazards: Eye injury from flying particles, cuts from the threader and sharp pipe, struck by or exertion injuries from handling pipe, foot injuries from falling pipe, electrical shock due to improper grounding, and high noise

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Wear appropriate gloves when object being handled could cause cuts, punctures, or abrasions to hands. Keep hands, hair and clothing away from moving parts. Wear hearing protection as needed. Provide proper pipe storage racks.

Entity r	ntity notes for special precautions with this activity:							

Job Task: Pipeline Maintenance

Hazards: Toxic, flammable or oxygen deficient atmospheres, hazards of tools and equipment, trench collapse and traffic hazards

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
X	Respirator (As Needed)		Fall Protection
	Hearing Protection		Other

Additional Comments: Follow confined space entry, work area protection and trenching procedures. Use the proper tools and equipment. Wear a respirator if necessary. Reflective vests should be worn when working in or near roadways. Follow proper work area protection.

Entity note	ntity notes for special precautions with this activity:						

Job Task: Pneumatic Impact Wrench Operation

Hazards: Eye injury due to residual pressure and flying debris, high noise levels, and struck by air hose

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Wear gloves if hand protection is necessary. Ensure the hose is properly secured to the wrench.

entity notes for special precautions with this activity:						

Jo	b Task: Police (Confronting and Impour	ndir	ng Animals)
На	azards: Animal bites, scratches, etc		
	though other exposures exist, they are not erefore, they are not indicated in this manu		trolled by personal protective equipment;
	Recommended Persona	ıl Pr	otective Equipment:
	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other
ag teo	Iditional Comments: Use a catch pole, selents as necessary. Use gloves with long gatchniques.	aunt	lets as necessary. Follow proper lifting
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Job Task: Police (Forensic and Laboratory To	esting)
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Hazards: Skin contact or inhalation of toxic and corrosive chemicals

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

	Hard Hat		Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
X	Goggles	X	Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Use adequate ventilation. Follow proper procedures for storage and disposal of hazardous chemicals. Provide emergency showers/eye wash stations.
Entity notes for special precautions with this activity:

Job Task: Police (Hazardous Material Spill)

Hazards: Toxic, flammable, explosive, corrosive and reactive chemicals exposures and traffic hazards

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat		Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
X	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Secure the area and maintain a safe distance from the spill area. Summon HazMat for remedial actions. If necessary, an appropriate chemical respirator should be worn. Wear reflective garments if working near traffic.

Entity notes for special precautions with this activity:						

Job Task: Police (Moving or Transporting Injured or Dead Animals)

Hazards: Animal bites and scratches, back injuries, traffic hazards, and infectious diseases

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Use a transportation board, blankets, or ropes as necessary. Use correct lifting procedures and proper traffic control devices as needed.

Entity notes for special precautions with this activity:

Jo	b Task: Police (Traffic Control)					
Hazards: Traffic hazards, temperature extremes, hazards of terrain, and slips on snow and ice						
Although other exposures exist, they are not controlled by personal protective equipment therefore, they are not indicated in this manual.						
	Recommended Persona	ıl Pr	otective Equipment:			
	Hard Hat	X	Safety Shoes/Boots			
	Safety Glasses		Chemical Resistant Clothing			
	Goggles		Apron			
	Face Shield	X	Long Sleeve Shirt/Pants			
X	Gloves (Leather)	X	Reflective Garment/Vest			
	Respirator		Fall Protection			
	Hearing Protection	X	Other (Warm Clothing)			
Additional Comments: Dress appropriately and wear gloves for the weather conditions. Use flashlights with cones as needed. Use standardized hand and arm signals and movements. Wear appropriate reflective vests.						
	tity notes for special precautions with this		vity:			

Job Task: Portable Generator (Gas) Operation

Hazards: Inhalation of exhaust, trauma due to burns, foot injury due to generator rolling over the foot, and electrical shock due to improper grounding

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow only trained authorized users to operate or perform routine maintenance and repair on equipment. Always operate in an open well ventilated area or vent exhaust directly outdoors. Never refuel while engine is running or in presence of open flame. Never remove radiator cap from liquid cooled engines while they are hot. Stop engine before performing any maintenance or trouble shooting and disable the ignition system. Ensure all guards are in place prior to operation and after repairs. Check connections and generator grounding prior to use. Keep hands, hair and clothing away from moving parts.

Entity notes for special precautions with this activity:						

Job Task: Pressure Washer (Gas) Operation

Hazards: Eye, head, and hand injury from flying debris, trauma from contact with steam, foot injury from dropped items, electrical shock due to improper grounding, and high noise during operation

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection (Optional)		Other

Additional Comments: Operate washer in strict accordance with manufacturer's instructions. Allow only authorized employees to use washer. Prevent bodily contact with high pressure steam. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Always operate gasoline washers in an open well ventilated area or vent exhaust directly outdoors. Never refuel while engine is running or in presence of open flame. Stop engine before performing any maintenance or trouble shooting and disable the ignition system. Ensure all guards are in place prior to operation and after repairs. Keep hands, hair and clothing away from moving parts.

Entity notes for special precautions with this activity:							

Job Task: Pump Maintenance

Hazards: Shock or electrocution, contact with moving parts, exposure to chemicals or hot materials, and pinch point injury from working in tight places

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Follow lockout/tagout procedures, neutralize, isolate or drain chemicals from the system, and reinstall guards after the repair adjustment is completed								
Entity notes for special precautions with this activity:								

Job Task: Radial Arm Saw Operation

Hazards: Inhalation of dust and particles, eye injury from projectiles, hand, arm, or leg injury from contact with blade or moving parts, foot injury from dropped objects, electrical shock due to improper grounding, and noise from saw operation

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
X	Face Shield (Optional)		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator (Dust Mask)		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with the manufacturer's instructions. Allow only authorized trained users to operate saw. Ensure all guarding is in place before operation. All portions of the blade should be enclosed or guarded, except the working portion of the blade. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Disposable respirator is optional. Keep hands, hair and loose clothing clear of all moving parts. Follow lockout/tagout procedures during repair. Ensure the saw and electrical plug are properly grounded.

Entity notes for special precautions with this activity:							
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Job Task: Roadway Maintenance

Hazards: Exposure to vehicle traffic, weather conditions, equipment exposures, and back and shoulder injuries from shoveling and lifting material

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Reflective vests should be worn when working in or near roadways. Follow proper work area protection.
Entity notes for special precautions with this activity:

Job Task: Roadway Painting

Hazards: Motor vehicle traffic, paint contacting the eyes, moving parts of machinery creating pinch point hazards to hands/fingers, and fire hazards

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Chemical Resistive)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other (Seat Belt)

Additional Comments: Clean the painting machine in a well ventilated area. Avoid use of flammable liquids if possible. Reflective vests should be worn when working in or near roadways.

Entity notes for special precautions with this activity:								

Job Task: Roadway Sanding

Hazards: Exposure to dust and noise, cold weather exposure, vehicle exposure, and falls from vehicle while entering and exiting

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
X	Respirator		Fall Protection
	Hearing Protection	X	Other (Warm Clothing)

Additional Comments: Wear hard hat if outside the vehicle. Dress for the cold temperature and use an appropriate respirator if conditions warrant. Reflective vests should be worn when working in or near roadways if outside the vehicle. Use the three points of contact techniques when mounting and dismounting from the cab. Do not jump from the cab to ground.

Entity note	entity notes for special precautions with this activity:						

Job Task: Roller/Compactor Operation

Hazards: Motor vehicle traffic, crushing injuries from the roller, and falls from equipment

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other (Seat Belt)

Additional Comments: Follow proper work area protection practices. Reflective vests should be worn when working in or near roadways. Use the three points of contact techniques when mounting and dismounting from the cab. Do not jump from the cab to ground. Wear seat belt if equipment has rollover protection.

Entity note	Entity notes for special precautions with this activity:						

Job Task: Sewer Rodder Operation

Hazards: Eye injuries from flying particles, exposure to traffic, hand and finger injuries from moving parts, possible high noise, lifting and crushing injuries while removing manhole covers, electrical shock due to improper grounding, and death due to toxic and oxygen deficient atmosphere

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection	X	Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow only trained authorized users to operate equipment. Follow proper work area protection practices. If entering, confined space entry practices should be followed. Use proper devices for removing sewer covers. Keep hands, hair and clothing away from moving parts.

Entity notes for special precautions with this activity:						

Job Task: **Sharpening Tools**

Hazards: Cuts from the tool and the sharpener or grinder, eye injuries from flying particles, hand or finger injuries from contact with the wheel, potential respiratory problems due to inhalation of particles being ground, fire hazards from sparks contacting flammable or combustible liquids, and high noise

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles	X	Apron
X	Face Shield	X	Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Remove flammable and combustible materials from the immediate vicinity.

Entity notes for special precautions with this activity.						

Job Task:	Sign Installation
Hazards:	Eye, hand and foot injuries from equipment used to install signs, and exposure

to vehicles

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Follow MUTCD standards for sign wording, size, color, shape and location.
Entity notes for special precautions with this activity:

Job Task: **Snow Blower Operation**

Hazards: Eye injury from flying debris, cold weather exposures such as frostbite, hypothermia, contact with mechanical parts, slip and fall injuries, strains and sprains, hearing loss due to high noise, inhalation of fumes when refueling, and vehicle exposures when working near traffic

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection	X	Other (Warm Clothing)

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Wear clothing appropriate for the temperature to prevent frostbite and hypothermia. Take occasional breaks to avoid repetitive motion injury from vibration. Use two people to lift snow blower. Stretch prior to activity to warm up muscles. Allow only trained authorized users to operate or perform routine maintenance and repair on equipment. Always operate and refuel in an open well ventilated area. Never refuel while engine is running or in presence of open flame. Avoid inhaling fumes when refueling. Stop engine before performing any maintenance or trouble shooting and disable the ignition system. Ensure all guards are in place prior to operation and after repairs. Keep hands, hair and clothing away from moving parts. Do not cover fire hydrants, street signs, and valves, etc.

entity notes for special precautions with this activity:					

Job Task:	Snow Plowing		

Hazards: Motor vehicle accident injuries, slips and falls, and cold temperature exposures

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other (Seat Belt)

Additional Comments: Wear clothing and gloves as appropriate for the temperature to prevent frostbite and hypothermia if outside the cab. Do not cover fire hydrants, street signs, and valves, etc. Wear reflective vest and gloves if outside the vehicle. Use the three points of contact techniques when mounting and dismounting from the cab. Do not jump from the cab to ground.

Entity notes for speci	Entity notes for special precautions with this activity:					

Job Task: Soldering Gun Operation

Hazards: Inhalation of fumes, vapors and gases during soldering, eye injuries from splattering, skin irritation and burns from cleaners and hot solder, and foot injury from dropped objects

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator (As Needed)		Fall Protection
	Hearing Protection (As Needed)		Other

Additional Comments: Review the Material Safety Data Sheet (MSDS) when using toxic fluxes to determine PPE requirements. Respirator may be needed depending on ventilation and materials used. Avoid breathing fumes and work in an area with adequate ventilation. Remove combustible and flammable materials from the area to prevent fires.

entity notes for special precautions with this activity:						

Job Task:	Sprinkler Head Repair		

Hazards: Slip, trip, and fall hazards, and exposure to vehicles if working near roadways

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

ent of sprinkler heads to prevent flooding o
tivity:

Job Task: Street Sweeping

Hazards: Exposure to dust and noise, vehicle accident exposures, and falls from vehicle while entering and exiting

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)	X	Reflective Garment/Vest
X	Respirator		Fall Protection
X	Hearing Protection	X	Other (Seat Belt)

Additional Comments: Use an appropriate respirator if conditions warrant. Reflective vests should be worn when working in or near roadways if outside the vehicle. Use the three points of contact techniques when mounting and dismounting from the cab. Do not jump from the cab to ground.

Entity notes f	Entity notes for special precautions with this activity:					

Job Task: Table Saw Operation

Hazards: Eye and head injuries due to flying particles, amputation of hand and limbs due to contact with blade, high noise exposure, foot injuries due to falling lumber, inhalation of airborne wood dust, and electrical shock due to improper grounding

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
X	Face Shield		Long Sleeve Shirt/Pants
	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow only trained authorized users to operate or perform routine maintenance and repair on equipment. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Ensure the proper tool guards are in place and operating correctly. Clean up to reduce combustible dust. Use a particulate filter respirator. Inspect electrical cord for damage. Ensure all guards are in place prior to operation and after repairs. Keep hands, hair and clothing away from moving parts. Follow lockout/tagout procedures during repair. Ensure the saw and electrical plug are properly grounded. Use push sticks as needed.

Entity notes for special precautions with this activity:					

Job Task: Tractor Operation and Maintenance

Hazards: Eye injury due to flying particles, hand injury from sharp edges and contact with moving parts, head injury from objects falling during repair, trauma caused by rotating parts, foot injuries due to dropped parts, and noise exposure during operation

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection	X	Other (Seat Belt)

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow only trained authorized users to operate or perform routine maintenance and repair on equipment. Always operate in an open well ventilated area or vent exhaust directly outdoors. Never refuel while engine is running or in presence of open flame. Never remove radiator cap from liquid cooled engines while they are hot. Stop engine before performing any maintenance or trouble shooting and disable the ignition system. Ensure all guards are in place prior to operation and after repairs. Keep hands, hair and clothing away from moving parts. Always use a seat belt where roll over protection is provided.

ntity notes for special precautions with this activity:						

Job Task: Trash Receptacle Dumping

Hazards: Exposure to motor vehicles, strains and sprains due to lifting, cuts and lacerations, slip and falls, exposures to hydraulic equipment, and possible exposure to meth lab waste containing deadly gases and chemicals

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Use proper lifting techniques if mechanical lifting equipment is not provided. Be observant for sharp objects and items protruding from containers. Follow proper hydraulic equipment operating procedures. Be aware of possible hazardous waste. Wear the appropriate reflective vest as required by federal law.

Entity notes for s	unity notes for special precautions with this activity:					

Job Task: Tree Removal (Manual)

Hazards: Hand, finger and limb injuries due to cuts or falling items, eye injury from flying objects, inhalation of airborne wood dust, trip and fall hazards, strains and sprains due to lifting

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
X	Respirator (Dust Mask is Optional)		Fall Protection
	Hearing Protection		Other

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Follow proper lifting techniques.

Entity notes for special precautions with this activity:					

Job Task: Tree Trimming (Aerial Lift)

Hazards: Contact with overhead electrical lines, falls from the lift, lift failures, hand, finger and limb injuries due to cuts or falling items, eye injury from flying objects, and inhalation of airborne wood dust

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
X	Respirator (Dust Mask is Optional)	X	Fall Protection
X	Hearing Protection	X	Other

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Maintain proper distances from electrical lines, or use insulation blankets if necessary. Operate lifts according to the manufacturer's instructions. Use proper procedures to secure the area to protect others from the activity. If a chainsaw is used, follow applicable precautions.

Entity notes for	entity notes for special precautions with this activity:					

Job Task: Tree Trimming (Rope and Saddle)

Hazards: Contact with overhead electrical lines, falls, hand, finger and limb injuries due to cuts or falling items, eye injury from flying objects, and inhalation of airborne wood dust

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
X	Respirator (Dust mask is optional)	X	Fall Protection
X	Hearing Protection	X	Other

Additional Comments: Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Maintain proper distances from electrical lines, or use insulation blankets in necessary. Use proper procedures to secure the area to protect other from the activity. If a chainsaw is used, follow applicable precautions. Inspect the ropes and claiming equipment.

Entity notes for	Entity notes for special precautions with this activity:					

Job Task: Trencher Operation

Hazards: Eye injury from projectiles, cutting into underground lines, high noise exposures, cuts or severe injury due to contact with the rotating parts, and foot injury from equipment rolling over foot

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with manufacturer's instructions. Allow only trained and authorized employees to operate trencher. Locate underground lines prior to digging. Always operate in an open well ventilated area. Never refuel while engine is running or in presence of open flame. Stop engine before performing any maintenance or trouble shooting and disable the ignition system. Ensure all guards are in place prior to operation and after repairs. Keep hands, hair and clothing away from moving parts.

Entity notes for special precautions with this activity:						

Job Task: **Trenching**

Hazards: Collapse of trench, exposure to insufficient oxygen, inadequate ventilation, limited means of entry/exit, combustible and toxic gases, head injuries from falling spoil, and fall into trench

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
	Respirator	X	Fall Protection
	Hearing Protection		Other

Additional Comments: Use proper trenching practices and work area protection practices Follow confined entry space practices.
Entity notes for special precautions with this activity:

Job Ta	ask: Valve Maintenance						
Hazaro	Hazards: High pressure or hazardous materials in lines						
	agh other exposures exist, they are not ore, they are not indicated in this manu		trolled by personal protective equipment;				
	Recommended Persona	l Pr	otective Equipment:				
X Ha	ard Hat	X	Safety Shoes/Boots				
	fety Glasses		Chemical Resistant Clothing				
	oggles		Apron				
	ice Shield (As Needed)	X	Long Sleeve Shirt/Pants				
	oves (Leather/Chemical Resistive)		Reflective Garment/Vest				
	espirator		Fall Protection				
Не	earing Protection		Other				
clothir	Additional Comments: Follow proper lockout/tagout procedures. Wear chemical resistant clothing if dealing with hazardous materials. Entity notes for special precautions with this activity:						

Job Task: Vault Entry

Hazards: Exposure to insufficient oxygen, inadequate ventilation, limited means of entry/exit, combustible and toxic gases, entrapment and engulfment, eye and face injuries from work being performed, and slip and fall hazards

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
X	Respirator		Fall Protection
X	Hearing Protection	X	Other (Air Monitor)

Additional Comments: Confined space entry procedures should be followed. A SCBA is needed for entry to spaces that are immediately dangerous to life and health (IDLH). Hearing protection may be needed depending upon the activity being performed.

Entity notes for special precautions with this activity:					
	special preca	special precautions with	special precautions with this activity:	special precautions with this activity:	special precautions with this activity:

Job Task: Vehicle Towing

Hazards: Failure of hydraulic equipment, motor vehicle accident injuries, slips and falls while entering and exiting the cab or due to ground surfaces, temperature exposure, hand and eye injuries while connecting chains

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield		Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection	X	Other (Seat Belt)

Additional Comments: Ensure the vehicle being towed is adequately secured, inspect hydraulic equipment, drive defensively and follow traffic laws. Wear appropriate clothing based on the temperature. Wear proper reflective vest if outside the vehicle. Use the three points of contact techniques when mounting and dismounting from the cab. Do not jump from the cab to ground.

Intity notes for special precautions with this activity:						

Job Task: Weed Burning Operation

Hazards: Burns due to fire, inhalation of smoke, trip and fall injuries, and exposure to animal/insect bites

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
X	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Wear the appropriate reflective vests if working along the roadway. Follow proper controlled burning techniques, stay upwind of smoke and have fire extinguishing equipment available. Do not burn in high winds. Use a NP-95 respirator if necessary.

Entity notes i	entity notes for special precautions with this activity:						
<u></u>							

Job Task: Weed Trimmer Operation

Hazards: Eye injury from flying debris, inhalation of dust and airborne particles, hearing loss due to high noise, inhalation of fumes when refueling, and vehicle exposures when working near traffic

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses or		Chemical Resistant Clothing
X	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
	Gloves (Leather)	X	Reflective Garment/Vest
X	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with the manufacturer's instructions. Ensure all machine guarding is in place before operation. Where any object handled could possibly cause cuts, punctures or abrasions to the hands, appropriate gloves should be worn. To reduce the chance of fire, do not refuel a hot machine. Avoid inhaling fumes when refueling. Fuel in a well ventilated area. Use particulate filter respirators if necessary. Keep the general public away from the trimming activity. Keep hands, hair, and clothing away from moving parts. Reflective vests should be worn when working in or near roadways.

Entity not	Entity notes for special precautions with this activity:						

Job Task: Welding (Acetylene)

Hazards: Exposure to toxic gases, fumes and dust, hot sparks and metal striking the face or clothing, fire and explosion, and torch noise

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
	Safety Glasses		Chemical Resistant Clothing
X	Goggles	X	Apron
X	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
X	Respirator		Fall Protection
X	Hearing Protection		Other

Additional Comments: Operate equipment in strict accordance with the manufacturer's instructions. Face shields are considered secondary protection and should always be worn with safety glasses or goggles under the shield. Use adequate ventilation or the appropriate type chemical respirator. Remove flammable and combustible material from the immediate area. Provide a fire watch if area cannot be protected or shielded. Use the properly shaded eye wear.

Entity notes for	entity notes for special precautions with this activity:						

Job Task: Welding (Electric)

Hazards: Inhalation of toxic gases, fumes and dust, hot sparks and metal striking the face or clothing, fire and explosion due to sparks and slag, high noise, eye injuries from projectiles, fumes, dust or flashes, foot injury from dropped objects, electrical shock due to improper grounding

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles	X	Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)		Reflective Garment/Vest
X	Respirator (As Needed)		Fall Protection
X	Hearing Protection		Other (Welding Helmet)

Additional Comments: Operate equipment in strict accordance with the manufacturer's instructions. Wear welding helmet with proper filter lens. Gloves should be gauntlet style and clothes should be made of clean fire-resistant materials and should have no front pockets or cuffs. Shirts should be left outside of trousers. Use adequate ventilation or the appropriate type chemical respirator. Remove flammable and combustible material from the immediate area. Provide a fire watch if area cannot be protected or shielded. Check connections and grounding prior to use.

Entity notes for special precautions with this activity:					

Job Task: Window Washing		
Hazards: Slip and fall hazards on ground su	rface	es, and fall from ladders
Although other exposures exist, they are not therefore, they are not indicated in this manual		trolled by personal protective equipment;
Recommended Persona	al Pr	otective Equipment:
Hard Hat	X	Safety Shoes/Boots
X Safety Glasses		Chemical Resistant Clothing
Goggles		Apron
Face Shield		Long Sleeve Shirt/Pants
Gloves (Leather/Chemical Resistive)		Reflective Garment/Vest
Respirator		Fall Protection
Hearing Protection		Other
Additional Comments: Wear other protective before climbing and inspect it for defects. If equipment and fall protection. Entity notes for special precautions with this	fnec	essary, use scaffolding or other lift

Job Task: Work Zone Traffic Control

Hazards: Traffic hazards, temperature extremes, hazards of terrain, slips on snow and ice, and head and eye injuries from items falling from passing equipment

Although other exposures exist, they are not controlled by personal protective equipment; therefore, they are not indicated in this manual.

Recommended Personal Protective Equipment:

X	Hard Hat	X	Safety Shoes/Boots
X	Safety Glasses		Chemical Resistant Clothing
	Goggles		Apron
	Face Shield	X	Long Sleeve Shirt/Pants
X	Gloves (Leather)	X	Reflective Garment/Vest
	Respirator		Fall Protection
	Hearing Protection		Other

Additional Comments: Dress appropriately for the weather conditions. Use flashlights with cones as needed. Use standardized hand and arm signal and movements. Follow the MUTCD. Wear the appropriate reflective vest.

Entity notes for special precautions with this activity:					

Section IV

Personal Protective Equipment Guide Resources,

Standards and Regulations

General Safety Requirements

NFPA 1500 Standard on Fire Department Occupational Safety and Health Program OSHA - Title 29 CFR 1910.132

American National Standards Institute

ANSI S12.68 Methods of Estimating Effective A-Weighted Sound Pressure Levels When Hearing

Protectors are Worn

ANSI Z41.1 Footwear

ANSI Z87.1 Eye and Face Protection

ANSI Z88 Consensus Standards for a Respirator Program

ANSI Z89.1 Head Protection

ANSI /ISEA (International Safety Equipment Association) 105-205 Hand Selection Protection Criteria

ANSI/ISEA (International Safety Equipment Association) 107-2004 High Visibility Safety Apparel

ANSI/ISEA (International Safety Equipment Association) 207-2006 High Visibility Public Safety Vest

American Society for Testing Materials (Electrical)

ASTM D120 Specification for Rubber Insulating Gloves

ASTM D178 Specification for Rubber Insulating Matting

ASTM D1048 Specification for Rubber Insulating Blankets

ASTM D1049 Specification for Rubber Insulating Covers

ASTM D1050 Specification for Rubber Insulating Line Hose

ASTM D1051 Specification for Rubber Insulating Sleeves

ASTM F 478 Specification for In-Service Care of Insulating Line Hose and Covers

ASTM F 479 Specification for In-Service Care of Insulating Blankets

ASTM F496 Specification for In-Service Care of Insulating Gloves and Sleeves

ASTM F711 Specification for Fiberglass-Reinforced Plastic (FRP) Rod and Tube Used in Live Line Tools

ASTM F712 Test Methods for Electrically Insulating Plastic Guard Equipment for Protection of Workers

ASTM F819 Definitions of Terms Relating to Electrical Protective Equipment for Workers

ASTM F1236 Standard Guide for Visual Inspection of Electrical Protective Rubber Products

ASTM F1505 Standard Specification for Insulated and Insulating Hand Tools

Manual on Uniform Traffic Control Devices

(MUTCD) Chapter 6E.02 High-Visibility Safety Apparel

National Fire Protection Association

NFPA 610 Guide for Emergency and Safety Operations at Motorsports Venues

NFPA 1404 Standard for Fire Service Respiratory Protection Training

NFPA 1851 Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting

NFPA 1852 <u>Standard on Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing</u> Apparatus (SCBA)

NFPA 1951 Standard on Protective Ensembles for Technical Rescue Incidents

NFPA 1952 Standard on Surface Water Operations Protective Clothing and Equipment

NFPA 1971 Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting

NFPA 1977 Standard on Protective Clothing and Equipment for Wildland Fire Fighting

NFPA 1981 <u>Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency</u> Services Edition

NFPA 1989 Standard on Breathing Air Quality for Emergency Services Respiratory Protection

NFPA 1991 Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies

NFPA 1992 Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies

NFPA 1994 Standard on Protective Ensembles for First Responders to CBRN Terrorism Incidents

NFPA 1999 Standard on Protective Clothing for Emergency Medical Operations

Occupational Safety and Health Administration

OSHA - Title 29 CFR 1910.95 Occupational Noise Exposure

- OSHA Title 29 CFR 1910.133 Eye and Face Protection
- OSHA Title 29 CFR 1910.134 Respiratory Protection
- OSHA Title 29 CFR 1910.135 Head Protection
- OSHA Title 29 CFR 1910.136 Occupational Foot Protection
- OSHA Title 29 CFR 1910.137 Electrical Protective Devices
- OSHA Title 29 CFR 1910.138 Hand Protection
- OSHA Title 29 CFR 1910.155 Fire Protection
- OSHA Tile 29 CFR 1926.201 Flagging
- OSHA Title 29 CFR 1910.252 Welding, Cutting, and Brazing
- OSHA Title 29 CFR 1910.267(F) Vehicle-Mounted Elevating and Rotating Work Platforms
- OSHA Tile 29 CRF 1910.269 Electric Power Generation, Transmission and Distribution

Section V OSHA Compliance Guidelines for Hazard Assessment and Personal Protective Equipment Selection

Non-mandatory Compliance Guidelines for Hazard Assessment and Personal Protective Equipment Selection. – OSHA 1910 Subpart I Appendix B

This Appendix is intended to provide compliance assistance for public entities and employees in implementing requirements for a hazard assessment and the selection of personal protective equipment.

- 1. Controlling hazards. PPE devices alone should not be relied on to provide protection against hazards, but should be used in conjunction with guards, engineering controls, and sound manufacturing practices.
- **2. Assessment and selection.** It is necessary to consider certain general guidelines for assessing the foot, head, eye and face, and hand hazard situations that exist in an occupational or educational operation or process, and to match the protective devices to the particular hazard. It should be the responsibility of the safety officer to exercise common sense and appropriate expertise to accomplish these tasks.
- **3. Assessment guidelines.** In order to assess the need for PPE the following steps should be taken:
- a. Survey. Conduct a walk-through survey of the areas in question. The purpose of the survey is to identify sources of hazards to workers and co-workers. Consideration should be given to the basic hazard categories:
- (a) Impact
- (b) Penetration
- (c) Compression (roll-over)
- (d) Chemical
- (e) Heat
- (f) Harmful dust
- (g) Light (optical) radiation
- b. Sources. During the walk-through survey the safety officer should observe:
- (a) sources of motion; i.g., machinery or processes where any movement of tools, machine elements or particles could exist, or movement of personnel that could result in collision with stationary objects;
- (b) sources of high temperatures that could result in burns, eye injury or ignition of protective equipment, etc.;
- (c) types of chemical exposures;

- (d) sources of harmful dust;
- (e) sources of light radiation, i.e., welding, brazing, cutting, furnaces, heat treating, high intensity lights, etc.;
- (f) sources of falling objects or potential for dropping objects;
- (g) sources of sharp objects which might pierce the feet or cut the hands;
- (h) sources of rolling or pinching objects which could crush the feet;
- (i) layout of workplace and location of co-workers; and
- (j) any electrical hazards. In addition, injury/accident data should be reviewed to help identify problem areas.
- c. Organize data. Following the walk-through survey, it is necessary to organize the data and information for use in the assessment of hazards. The objective is to prepare for an analysis of the hazards in the environment to enable proper selection of protective equipment.
- d. Analyze data. Having gathered and organized data on a workplace, an estimate of the potential for injuries should be made. Each of the basic hazards (paragraph 3.a.) should be reviewed and a determination made as to the type, level of risk, and seriousness of potential injury from each of the hazards found in the area. The possibility of exposure to several hazards simultaneously should be considered.
- **4. Selection guidelines.** After completion of the procedures in paragraph 3, the general procedure for selection of protective equipment is to:
- (a) become familiar with the potential hazards and the type of protective equipment that is available, and what it can do; i.g., splash protection, impact protection, etc.;
- (b) compare the hazards associated with the environment; i.g., impact velocities, masses, projectile shape, radiation intensities, with the capabilities of the available protective equipment;
- (c) select the protective equipment which ensures a level of protection greater than the minimum required to protect employees from the hazards; and
- (d) fit the user with the protective device and give instructions on care and use of the PPE. It is very important that end users be made aware of all warning labels for and limitations of their PPE.
- **5. Fitting the device.** Careful consideration must be given to comfort and fit. PPE that fits poorly will not afford the necessary protection. Continued wearing of the device is more likely if it fits the wearer comfortably. Protective devices are generally available in a variety of sizes. Care should be taken to ensure that the right size is selected.
- **6. Devices with adjustable features.** Adjustments should be made on an individual basis for a comfortable fit that will maintain the protective device in the proper position.

Particular care should be taken in fitting devices for eye protection against dust and chemical splash to ensure that the devices are sealed to the face. In addition, proper fitting of helmets is important to ensure that they will not fall off during work operations. In some cases a chin strap may be necessary to keep the helmet on an employee's head. (Chin straps should break at a reasonably low force, however, so as to prevent a strangulation hazard). Where manufacturer's instructions are available, they should be followed carefully.

- **7. Reassessment of hazards.** It is the responsibility of the safety officer to reassess the workplace hazard situation as necessary, by identifying and evaluating new equipment and processes, reviewing accident records, and reevaluating the suitability of previously selected PPE.
- **8. Selection chart guidelines for eye and face protection.** Some occupations (not a complete list) for which eye protection should be routinely considered are: carpenters, electricians, machinists, mechanics and repairers, millwrights, plumbers and pipe fitters, sheet metal workers and tinsmiths, assemblers, sanders, grinding machine operators, lathe and milling machine operators, sawyers, welders, laborers, chemical process operators and handlers, and timber cutting and logging workers. The following chart provides general guidance for the proper selection of eye and face protection to protect against hazards associated with the listed hazard "source" operations.

Eye and Face Protection Selection Chart

Source	Assessment of Hazard	Protection
IMPACT - Chipping, grinding machining, masonry work, woodworking, sawing, drilling, chiseling, powered fastening, riveting, and sanding.	Flying fragments, objects, large chips, particles sand, dirt, etc	
HEAT-Furnace operations, pouring, casting, hot dipping, and welding.	Hot sparks	Faceshields, goggles, spectacles with side protection. For severe exposure use faceshield. See notes (1), (2), (3).
	Splash from molten metals	Faceshields worn over goggles. See notes (1), (2), (3).
	High temperature exposure	·

shields. See notes (1), (2), (3).CHEMICALS-Acid and Splash Goggles, eyecup and chemicals handling, cover types. For degreasing plating. severe exposure, use face shield. See notes (3), (11).Irritating mists .. Special-purpose goggles. DUST - Woodworking, Nuisance dust Goggles, eyecup and buffing, general cover types. dusty conditions. See note (8). LIGHT and/or RADIATION - Optical radiation . Welding helmets or Welding: Electric arc welding shields. Typical shades: 10-14. See notes (9), (12).Welding: Gas Optical radiation . Welding goggles or welding face shield. Typical shades: gas welding 4-8, cutting 3-6, brazing 3-4. See note (9). Cutting, Torch Optical radiation .. Spectacles or brazing, Torch welding soldering face-shield. Typical shades, 1.5-3. See notes (3), (9).Poor vision Spectacles with Glare shaded or special-purpose lenses, as suitable. See

Notes to Eye and Face Protection Selection Chart:

notes (9), (10).

⁽¹⁾ Care should be taken to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. Adequate protection against the highest level of each of the hazards should be provided. Protective devices do not provide unlimited protection.

⁽²⁾ Operations involving heat may also involve light radiation. As required by the standard, protection from both hazards must be provided.

⁽³⁾ Faceshields should only be worn over primary eye protection (spectacles or goggles).

⁽⁴⁾ As required by the standard, filter lenses must meet the requirements for shade designations in 1910.133(a)(5). Tinted and

shaded lenses are not filter lenses unless they are marked or identified as such.

- (5) As required by the standard, persons whose vision requires the use of prescription (Rx) lenses must wear either protective devices fitted with prescription (Rx) lenses or protective devices designed to be worn over regular prescription (Rx) eyewear.
- (6) Wearers of contact lenses must also wear appropriate eye and face protection devices in a hazardous environment. It should be recognized that dusty and/or chemical environments may represent an additional hazard to contact lens wearers.
- (7) Caution should be exercised in the use of metal frame protective devices in electrical hazard areas.
- (8) Atmospheric conditions and the restricted ventilation of the protector can cause lenses to fog. Frequent cleansing may be necessary.
- (9) Welding helmets or faceshields should be used only over primary eye protection (spectacles or goggles).
- (10) Non-sideshield spectacles are available for frontal protection only, but are not acceptable eye protection for the sources and operations listed for "impact."
- (11) Ventilation should be adequate, but well protected from splash entry. Eye and face protection should be designed and used so that it provides both adequate ventilation and protects the wearer from splash entry.
- (12) Protection from light radiation is directly related to filter lens density. See note (4) . Select the darkest shade that allows task performance.
- **9. Selection guidelines for head protection.** All head protection (helmets) is designed to provide protection from impact and penetration hazards caused by falling objects. Head protection is also available which provides protection from electric shock and burn. When selecting head protection, knowledge of potential electrical hazards is important. Class A helmets, in addition to impact and penetration resistance, provide electrical protection from low-voltage conductors (they are proof tested to 2,200 volts). Class B helmets, in addition to impact and penetration resistance, provide electrical protection from high-voltage conductors (they are proof tested to 20,000 volts). Class C helmets provide impact and penetration resistance (they are usually made of aluminum which conducts electricity), and should not be used around electrical hazards.

Where falling object hazards are present, helmets must be worn. Some examples include: working below other workers who are using tools and materials which could fall; working around or under conveyor belts which are carrying parts or materials; working below machinery or processes which might cause material or objects to fall; and working on exposed energized conductors. Some examples of occupations for which head protection should be routinely considered are: carpenters, electricians, linemen, mechanics and repairers, plumbers and pipe fitters, assemblers, packers, wrappers, sawyers, welders, laborers, freight handlers, timber cutting and logging, stock handlers, and warehouse laborers.

10. Selection guidelines for foot protection. Safety shoes and boots which meet the ANSI Z41-1991 Standard provide both impact and compression protection. Where necessary, safety shoes can be obtained which provide puncture protection. In some work

situations, metatarsal protection should be provided, and in other special situations electrical conductive or insulating safety shoes would be appropriate.

Safety shoes or boots with impact protection would be required for carrying or handling materials such as packages, objects, parts or heavy tools, which could be dropped; and, for other activities where objects might fall onto the feet. Safety shoes or boots with compression protection would be required for work activities involving skid trucks (manual material handling carts) around bulk rolls (such as paper rolls) and around heavy pipes, all of which could potentially roll over an employee's feet. Safety shoes or boots with puncture protection would be required where sharp objects such as nails, wire, tacks, screws, large staples, scrap metal etc., could be stepped on by employees causing a foot injury.

Some occupations (not a complete list) for which foot protection should be routinely considered are: shipping and receiving clerks, stock clerks, carpenters, electricians, machinists, mechanics and repairers, plumbers and pipe fitters, structural metal workers, assemblers, drywall installers and lathers, packers, wrappers, craters, punch and stamping press operators, sawyers, welders, laborers, freight handlers, gardeners and groundskeepers, timber cutting and logging workers, stock handlers and warehouse laborers.

11. Selection guidelines for hand protection. Gloves are often relied upon to prevent cuts, abrasions, burns, and skin contact with chemicals that are capable of causing local or systemic effects following dermal exposure. OSHA is unaware of any gloves that provide protection against all potential hand hazards, and commonly available glove materials provide only limited protection against many chemicals. Therefore, it is important to select the most appropriate glove for a particular application and to determine how long it can be worn, and whether it can be reused.

It is also important to know the performance characteristics of gloves relative to the specific hazard anticipated; e.g., chemical hazards, cut hazards, flame hazards, etc. These performance characteristics should be assessed by using standard test procedures. Before purchasing gloves, the employer should request documentation from the manufacturer that the gloves meet the appropriate test standard(s) for the hazard(s) anticipated. Other factors to be considered for glove selection in general include:

- (A) As long as the performance characteristics are acceptable, in certain circumstances, it may be more cost effective to regularly change cheaper gloves than to reuse more expensive types; and,
- (B) The work activities of the employee should be studied to determine the degree of dexterity required, the duration, frequency, and degree of exposure of the hazard, and the physical stresses that will be applied.

With respect to selection of gloves for protection against chemical hazards:

(A) The toxic properties of the chemical(s) must be determined; in particular, the ability of the chemical to cause local effects on the skin and/or to pass through the skin and cause systemic effects;

- (B) Generally, any "chemical resistant" glove can be used for dry powders;
- (C) For mixtures and formulated products (unless specific test data are available), a glove should be selected on the basis of the chemical component with the shortest breakthrough time, since it is possible for solvents to carry active ingredients through polymeric materials; and,
- (D) Employees must be able to remove the gloves in such a manner as to prevent skin contamination.
- **12.** Cleaning and maintenance. It is important that all PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision.

For the purposes of compliance with 1910.132 (a) and (b), PPE should be inspected, cleaned, and maintained at regular intervals so that the PPE provides the requisite protection. It is also important to ensure that contaminated PPE which cannot be decontaminated is disposed of in a manner that protects employees from exposure to hazards.

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