

Shop Hazard Assessment

Department:			Contact:			Phone:		
Shop Location:			Assessment performed by:			Date:		
Hazard Category	Subcategory	Working Qtys (not qtys in inventory)	Response		Potential Hazard(s)	Controls		
			Yes	No		Engineering	Administrative	PPE
Machinery 01	Cutting devices (e.g., drill press; milling machine; tables saw; band saw; lathes; or portable tools)	N/A			Eye injury; lacerations	Machine guarding	OSHA Machine Guarding	<ul style="list-style-type: none"> Safety glasses Long pants Closed-toe shoes
Machinery 02	Rotating equipment	N/A			Entanglement	Machine guarding	OSHA Machine Guarding	<ul style="list-style-type: none"> Contain long hair No loose sleeves NO GLOVES
Machinery 03	High noise levels	N/A			Potential ear injury and hearing loss	Noise eliminator, dampener, or baffle	OSHA Hearing Conservation	<ul style="list-style-type: none"> Earplugs or ear muffs depending on noise reduction rating and comfort.
Machinery 04	Dust; flying particles	N/A			Eye injury; lacerations; respiratory injury; skin abrasions; or hearing loss	Protective shield; dust collector	Generate required SOP(s); periodic air sampling	<ul style="list-style-type: none"> Splash goggles or safety glasses Face shield with safety glasses Leather gloves Protective jacket, apron, or coat (e.g., leather, tyvek, or mylar) Long pants; closed-toe shoes Earplugs or ear muffs N95 dust mask (or better)
Machinery 05	List task or activity:	N/A			List hazard(s):	List as appropriate:	Generate required SOP(s)	List appropriate PPE:
Chemical 01	Corrosives: liquids and/or solids	< 4 liters, < 1 lb			<ul style="list-style-type: none"> Eye/skin damage Splash 	<ul style="list-style-type: none"> Chemical fume hood Ventilated cabinet Local ventilated area 	<ul style="list-style-type: none"> General SOP for corrosives Chemical-specific SOP 	<ul style="list-style-type: none"> Splash goggles or safety glasses Chemical-resistant gloves 100% cotton lab coat Chemical-resistant apron
Chemical 02	Corrosives: liquids and/or solids	> 4 liters, > 1 lb			<ul style="list-style-type: none"> Poisoning Greater potential for eye/skin damage Splash 	<ul style="list-style-type: none"> Chemical fume hood Ventilated cabinet Local ventilated area 	<ul style="list-style-type: none"> General SOP for corrosives Chemical-specific SOP 	<ul style="list-style-type: none"> Splash goggles Chemical-resistant gloves 100% cotton lab coat Chemical-resistant apron
Chemical 03	Flammable/combustible solvents; organic fixatives	< 4 liters			<ul style="list-style-type: none"> Eye/skin damage Potential poisoning through skin contact Fire 	<ul style="list-style-type: none"> Chemical fume hood Ventilated cabinet Local ventilated area 	<ul style="list-style-type: none"> General SOP for flammables/combustibles Chemical-specific SOP 	<ul style="list-style-type: none"> Safety glasses or splash goggles Chemical-resistant gloves Flame-resistant lab coat or Nomex Flame-resistant apron
Chemical 04	Flammable/combustible solvents; organic fixatives	> 4 liters			<ul style="list-style-type: none"> Major eye/skin damage Potential poisoning through skin contact Fire 	<ul style="list-style-type: none"> Chemical fume hood Ventilated cabinet Local ventilated area 	<ul style="list-style-type: none"> General SOP for flammables/combustibles Chemical-specific SOP 	<ul style="list-style-type: none"> Safety glasses or splash goggles Chemical-resistant gloves Nomex
Chemical 05	Toxic substances	Any amount			<ul style="list-style-type: none"> Exposure through inhalation, ingestion, injection, or absorption 	<ul style="list-style-type: none"> Chemical fume hood Ventilated cabinet Local ventilated area 	<ul style="list-style-type: none"> General SOP for toxic materials Chemical-specific SOP 	<ul style="list-style-type: none"> Safety glasses or splash goggles Chemical-resistant gloves 100% cotton lab coat
Chemical 06	Chemical spill	< 4 liters			<ul style="list-style-type: none"> Skin or eye damage Respiratory damage 	List engineering control(s):	List SOPs or documents:	<ul style="list-style-type: none"> Safety glasses or splash goggles Chemical-resistant gloves Chemical-resistant apron or suit Boot/shoe covers for high risk activities Respirator as needed
Chemical 07	List task or activity:	List amount:			List hazard(s):	List as appropriate:	Generate required SOP(s)	List appropriate PPE:

Shop Hazard Assessment

Department:			Contact:			Phone:		
Shop Location:			Assessment performed by:			Date:		
Hazard Category	Subcategory	Working Qtys (not qtys in inventory)	Response		Potential Hazard(s)	Controls		
			Yes	No		Engineering	Administrative	PPE
Laser 01	Work with Class 3B laser open beam that can produce a direct exposure or specular reflection	5-500 mW or pulsed 10 J/cm ²			Eye and Skin Damage	Beam dumps for stray beam Barriers, shrouds, beam stops, etc. Interlocks	Access restriction Area controls with NHZ calculation Administrative and/or procedural controls Education and training	Protective eyewear appropriate to wavelength with correct optical density
Laser 02	Work with Class 4 laser open beam that could result in direct exposure or specular or diffuse reflection	>500mW or pulsed >10J/cm			Eye and Skin Damage	Beam dumps for stray beam Barriers, shrouds, beam stops, etc. Interlocks	Access restriction Area controls with NHZ calculation Administrative and/or procedural controls Education and training	Protective eyewear appropriate to wavelength with correct optical density
Laser 03	Enclosed Beam - Exposure during servicing a Class 3B or 4 laser system enclosed within a Class 1 device housing.	N/A			Eye and Skin Damage	Protective housings should be interlocked	Lock out tag out during service	During Service - Protective eyewear appropriate to wavelength with correct optical density
Laser 04	View a Class 3R laser beam with magnifying optics (including eyeglasses)	N/A			Eye and Skin Damage	List as appropriate:	Laser Satey Manual	Appropriately shaded goggles/glasses with optical density based on individual beam parameters
Laser 05	Non-Beam: Repair/service of power source in laser system	N/A			Electrocution and fire	Earthing, good housekeeping	Lock out tag out during service	Electrical isolation mat, flame-resistant lab coat or coveralls
Laser 06	Non-Beam: Working with dyes, solvents and chemicals	N/A			Fire, Carcinogens, Chemical exposure	Containment of chemicals and proper segregation	MSDS access for chemicals	Lab coats for chemicals, Gloves and appropriate eye protection
Laser 07	List task or activity:	N/A			List hazard(s):	List as appropriate:	Generate required SOP(s)	List appropriate PPE:
Physical 01	Cryogenic temperatures	N/A			<ul style="list-style-type: none"> • Burns • Frost bite • Splash 	Ventilated area	<ul style="list-style-type: none"> • General SOP for cryogenic materials • Cryogen-specific SOP 	<ul style="list-style-type: none"> • Safety glasses or splash goggles • Thermal gloves • 100% cotton lab coat (cryogenic)
Physical 02	High pressure or vacuum	N/A			<ul style="list-style-type: none"> • Flying debris • Severe skin/eye damage • Gas/fluid embolism 	Chemical fume hood with blast shield	General SOP for high pressure or vacuum systems	<ul style="list-style-type: none"> • Safety glasses or splash goggles • Face shield • Chemical-resistant gloves • 100% cotton lab coat
Physical 03	Highly energized sources (> 600 V)	N/A			Burns; electrocution ARC flash	List as appropriate:	Electrical Safety; LOTO; ARC flash hazard assesment	<ul style="list-style-type: none"> • Safety glasses or splash goggles • Non-conductive apparel including gloves • Hard-soled shoes • Non-conductive hard hat
Physical 04	Welding, brazing, cutting, glassblowing	N/A			Burns; fire Fumes, heavy metal poisoning	Non-combustible work surface; ventilated area; fire extinguisher Fume extraction	Hot work program Periodic air sampling	<ul style="list-style-type: none"> • Safety glasses, goggles, or welding mask for welding operations • Welding fume-rated respirator • Insulated gloves • Welding apron; jacket; pants; long-sleved shirt; or cape as appropriate • Long pants; closed-toe, leather shoes. <u>NO nylon, acetate, or polyester clothing</u> • Flame-resistant lab coat or Nomex
Physical 05	Open flame (e.g. bunsen burner, alcohol lab burner, etc.)	N/A			Burns; fire	Non-combustible work surface; ventilated area; fire extinguisher	Generate required SOP(s) for work with open flames	<ul style="list-style-type: none"> • Safety glasses or splash goggles • Face shield • Chemical-resistant gloves • Flame-resistant lab coat

Shop Hazard Assessment

Department:			Contact:		Phone:			
Shop Location:			Assessment performed by:			Date:		
Hazard Category	Subcategory	Working Qtys (not qtys in inventory)	Response		Potential Hazard(s)	Controls		
			Yes	No		Engineering	Administrative	PPE
Physical 06	Sharp tools (awls; razor blades; etc.)	N/A			needlestick; puncture; laceration	work bench	Generate required SOP(s)	<ul style="list-style-type: none"> • Puncture-resistant gloves • Cut-resistant gloves
Physical 07	Elevated areas (4 feet or more)	N/A			Falling objects; head injuries; falls	List as appropriate: Handrails, railings	OSHA Elevated Platforms	<ul style="list-style-type: none"> • Hard hat • Harness
Physical 08	Exposed beams or machine parts	N/A			Head injuries	List as appropriate: Padding	Generate required SOP(s) Warning markers	<ul style="list-style-type: none"> • Hard hat
Physical 09	Heavy tools, objects, or equipment	N/A			Leg/foot injuries	List as appropriate:	Generate required SOP(s)	<ul style="list-style-type: none"> • Shin guards, metatarsal protection, work boots or steel-toe boots.
Physical 10	Vibrating or increased motion tools	N/A			Decreased grip; white finger	List as appropriate: Low vibration tools	Generate required SOP(s)	<ul style="list-style-type: none"> • Anti-vibration gloves
Physical 11	Confined spaces	N/A			Bodily injury; fall above six feet; oxygen deficiency or hazardous atmosphere	Retrieval winch Self-retracting lifeline	OSHA Confined Space Entry; rescue plan	<ul style="list-style-type: none"> • Safety glasses or splash goggles • Hard hat • Chemical-resistant suit • Steel-toe shoes or boots • Body harness and shock absorbing lanyard; self-retracting lifeline • SCBA
Physical 12	Slippery or wet areas	N/A			Fall below six feet	List as appropriate:	Generate required SOP(s)	<ul style="list-style-type: none"> • Slip-resistant safety shoes
Physical 13	List task or activity:	N/A			List hazard(s):	List as appropriate:	Generate required SOP(s)	List appropriate PPE:



Shop PPE Training Record

Office of
Environmental
Health & Safety

Department:

Shop Location:

Contact:

Phone:[illegible]