

# EQUIPMENT RISK ASSESSMENT

This form can be expanded electronically or extra information (e.g. photos) attached.

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**Department:**

Assessment/Equipment Name:	Assessment Date:	Review Date: (3 years maximum)
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**Description of equipment:**

Location: Building \_\_\_\_\_ Room #: \_\_\_\_\_ Person in charge of the equipment: \_\_\_\_\_

Manufacturer/Make/Model:

Serial no and/or UW Asset No: \_\_\_\_\_ Purchase date: \_\_\_\_\_

Installing company (if applicable) :

Service/calibration contractor (if applicable):

**Any relevant regulation, code, standard, guideline or manufacturer handbook (list):**

**Licensing**  
 Are there any licensing requirements associated with ownership or operation of the equipment?  Yes  No  
 E.g.: Ionizing radiation, Biosafety, Laser, X-ray, Cannabis  
 Are licenses obtained and displayed?  Yes  No Permit #:

**Risk assessment and Control** Identify hazards (use the checklist pg. 2) to list hazards and then rate the risk using the Risk Rating Matrix. Detail control measures required to address the risks

Controls to be considered in the following order:

1. Elimination (is it necessary?)	5. Administration (training, SOP,)
2. Substitution	6. Personal Protective Equipment (PPE) (e.g. gloves, leather apron, coveralls, respirator)
3. Isolation (restrict access)	
4. Engineering (guarding, redesign)	

Identified Hazards Exposure	Risk assessment		Risk Rating	Required Controls	Controls Implemented	
	Consequences	Likelihood			Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Yes <input type="checkbox"/>	No <input type="checkbox"/>

**Implementation Plan (for controls not already in place)**

Control Selected	Person(s) responsible	Proposed completion	Actual completion

**Person Completing Assessment**  
 Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Assessment Approval:** (eg Principal researcher, Technical Director, Manager)  
 I am satisfied that the risks are adequately controlled.  
 Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Position Title: \_\_\_\_\_

Hazards: Potential to cause harm to people, property or the environment. Check the applicable hazards				
	<b>Mechanical hazards</b>		<b>Radiation</b>	
<input type="checkbox"/>	Accumulation of energy e.g. springs, liquids or gases under pressure, vacuum	<input type="checkbox"/>	Low-frequency, radio frequency radiation; microwaves	<input type="checkbox"/>
<input type="checkbox"/>	Crushing hazard	<input type="checkbox"/>	Infrared, visible and UV radiation	<input type="checkbox"/>
<input type="checkbox"/>	Cutting, shearing, friction or abrasion hazard	<input type="checkbox"/>	X-rays and gamma rays	<input type="checkbox"/>
<input type="checkbox"/>	Entanglement, drawing in or trapping hazards	<input type="checkbox"/>	Lasers	<input type="checkbox"/>
<input type="checkbox"/>	Impact hazard	<input type="checkbox"/>	Alpha and beta rays, electron beams neutrons	<input type="checkbox"/>
<input type="checkbox"/>	Puncture/injection hazard		<b>Ergonomics/Human Factors</b>	<input type="checkbox"/>
<input type="checkbox"/>	High pressure	<input type="checkbox"/>	Unhealthy postures or excessive effort	<input type="checkbox"/>
	<b>Electrical hazards</b>	<input type="checkbox"/>	Inadequate consideration of hand-arm or foot-leg anatomy	<input type="checkbox"/>
<input type="checkbox"/>	Contact with live parts (direct contact)	<input type="checkbox"/>	Inadequate lighting	<input type="checkbox"/>
<input type="checkbox"/>	Contact with parts which have become live under faulty conditions (indirect contact)	<input type="checkbox"/>	Inadequate design or identification of manual controls or visual display	<input type="checkbox"/>
<input type="checkbox"/>	Approach to live parts under high voltage (arc flash)		<b>Thermal hazards</b>	<input type="checkbox"/>
<input type="checkbox"/>	Electrostatic phenomena	<input type="checkbox"/>	Burns, scalds by contact with objects or materials (hot or cold)	
	<b>Materials and substances</b>		<b>Noise</b>	<input type="checkbox"/>
<input type="checkbox"/>	Contact/inhalation of harmful fluids, gases, mists, fumes, dusts	<input type="checkbox"/>	Hearing loss or other physiological disorders	<input type="checkbox"/>
<input type="checkbox"/>	Fire and explosion	<input type="checkbox"/>	Interference with speech, acoustic signals	<input type="checkbox"/>
<input type="checkbox"/>	Biological or microbiological hazards	<input type="checkbox"/>		
				<b>Movement and controls</b>
				Failure/lack of display or alarm system
				Restoration of energy supply after Interruption
				Errors or vulnerability in software or programming
				Errors made by operator (human/machine mismatch)
				Movement when starting engine
				Movement without all parts in a safe position
				Insufficient ability to slow down, stop and immobilize
				From load falls, collisions, machine tipping (lack of stability)
				Uncontrolled loading-overloading-overturning moments exceeded
				Unexpected/unintended movement of loads
				Hazards from coupling and towing
				<b>Vibration</b>
				Hand-arm vibration
				Whole body vibration
				<b>OTHER</b>

**RISK RATING MATRIX:**

LIKELIHOOD	RISK SEVERITY/CONSEQUENCE			
	CRITICAL <i>(severe injury or fatality - &gt;2 weeks lost time, major property damage)</i>	MAJOR <i>(injury resulting in at least one day lost time, moderate property damage)</i>	MINOR <i>(medical aid only, minor property damage)</i>	NEGLIGIBLE <i>(first aid treatment, minimal threat)</i>
<b>VERY LIKELY</b> <i>(likely to occur in a short period of time, expected to occur frequently)</i>	High	High	Medium	Medium
<b>LIKELY</b> <i>(quite likely to occur in time)</i>	High	Medium	Medium	Low
<b>UNLIKELY</b> <i>(not likely to occur, but possible)</i>	Medium	Medium	Low	Very low
<b>VERY UNLIKELY</b> <i>(Not likely to occur, even over time)</i>	Medium	Low	Very low	Very low

Risk priority	Definitions of priority	Time frame
High	Situation critical, stop work immediately or consider cessation of work process. Must be fixed today, consider short term and/or long term actions.	Now
Medium	Is very important, must be fixed urgently, consider short term and/or long term actions.	1 – 3 weeks
Low	Is still important but can be dealt with through scheduled maintenance or similar type programming. However, if solution is quick and easy then fix it today.	1 - 3 Months
Very low	Review and/or manage by routine processes	Not applicable