

# PLANT – RISK ASSESSMENT FORM

This form is to be used in conjunction with the Environment Health & Safety Procedure. Risk Management.

Location name: <b>Art Workshop, School of Art, VCA</b>		Building No: <b>School of Art</b>	Date: <b>Feb. 2011</b>	Assessed by: <b>Sam Muratore</b>	Health & Safety Rep.: <b>Sam Muratore</b>	
Users of the plant: <b>STAFF. Students under direct supervision.</b>		Plant (Manufacture's name & model no): <b>ELECTRIC HOIST DONATI 434C</b>			Serial No.	
Purpose of Plant: <b>HEAVY LIFTING BY A CHAIN AND HOOK</b>						
Description of how the Plant is used: <b>THE HOIST HAS A CONTROL BOX ON A LEAD WITH "UP-DOWN" BUTTONS. THE HOIST CAN BE PULLED ALONG VIA AN OVER HEAD RAIL</b>			Risk Assessment No. <b>R-36</b> VER. 11.0	SOPs No. <b>S-36</b> VER. 11.0	Equipment maintenance No. <b>M-36</b> VER. 11.0	
Does the operator require a License or Competency?	External License:		License or Certificate Required:			
	Internal Competency		Other Competency Required:			
	No specific competency		<b>INDUCTION, TRAINING FOR STAFF AND STUDENTS</b>			
Workplace conditions (Describe layout and physical conditions - including access and egress) <b>On ground level, two external exists.</b>						
<b>Consider operation outside of normal conditions</b>		Operations		Control Description (Current & Proposed)		Type
<ul style="list-style-type: none"> <li>• Cleaning</li> <li>• Breakdown &amp; Repair</li> <li>• Commissioning</li> <li>• Non-standard use</li> <li>• Maintenance</li> <li>• Decommissioning</li> </ul>		<ul style="list-style-type: none"> <li>- <b>CLEANING</b></li> <li>- <b>REPAIRS</b></li> <li>- <b>MAINTENANCE</b></li> </ul>		<ul style="list-style-type: none"> <li>- <b>Power lockout switch</b></li> <li>- <b>Lock doors to workshop</b></li> </ul>		ENG
<b>List systems at work for using the Plant</b> <ul style="list-style-type: none"> <li>• Training procedure</li> <li>• Manufacturer's information and instructions</li> <li>• SOPs</li> <li>• Inspections</li> </ul>		<ul style="list-style-type: none"> <li>- <b>TRAINING, INDUCTIONS</b></li> <li>- <b>SOPs</b></li> <li>- <b>MAINTENANCE SCHEDULE</b></li> <li>- <b>INSPECTIONS.</b></li> <li>- <b>ISOLATE POWER SUPPLY TO THE HOIST BY LOCKABLE SWITCH.</b></li> <li>- <b>Direct supervision for students.</b></li> </ul>				
<b>Is there past experience with the plant operation that may assist in the Assessment?</b> <ul style="list-style-type: none"> <li>• Existing controls</li> <li>• Industry standards</li> <li>• Training</li> <li>• SOPs</li> <li>• Incidents &amp; near-hits</li> <li>• Incident Investigation</li> </ul>		<ul style="list-style-type: none"> <li>- <b>TRAINING</b></li> <li>- <b>EXISTING CONTROLS</b></li> <li>- <b>SOPs</b></li> </ul>				

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## Hierarchy of Control (Type)

Determine a risk rating by using the Two Variable Risk Matrix or using the Three Variable Risk Score Calculator. Using the Two Variable Risk Matrix, enter the Consequence and Likelihood and the Risk Rating from;

OR Using the Three Variable Risk Score Calculator, enter the Consequence, Exposure and Likelihood and the Risk Rating.

Describe the when and where the hazard is present

Describe the proposed controls. Detail the Type of control from the Hierarchy of Control

**EI** – Elimination

**S** – Substitution

**En** – Engineering

**A** – Administrative

**P** - PPE

**Is**- Isolation

**T**- Training

**G**- Guarding

**In**- Inspection

Can the following items become <b>ENTANGLED</b> with moving parts of the plant, or materials in motion:	Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
<ul style="list-style-type: none"> <li>• Hair</li> <li>• Jewellery</li> <li>• Rags</li> </ul>	Low.	Entanglement in moving parts	PPE. T	<ul style="list-style-type: none"> <li>- Appropriate clothing.</li> <li>- Remove loose jewelry</li> </ul>	
<ul style="list-style-type: none"> <li>• Clothing</li> <li>• Other Materials</li> </ul>					
<b>EMERGENCY STOP BUTTONS</b> - can injury from Interaction with the plant be caused by:	Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
<ul style="list-style-type: none"> <li>• Lack of prominence of emergency stop</li> <li>• Emergency stop not being fail safe</li> </ul>					
<ul style="list-style-type: none"> <li>• Emergency stop not red in colour</li> <li>• Stored energy being released slowly or at a sequent time</li> </ul>					
<ul style="list-style-type: none"> <li>• Lack of clarity of emergency stop markings</li> <li>• Restarting plant by resetting the emergency stop button</li> </ul>					
Can anyone be <b>CRUSHED</b> due to:	Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
<ul style="list-style-type: none"> <li>• Falling, uncontrolled or unexpected movement of plant</li> <li>• Lack of capacity to slow, stop or immobilise the plant</li> </ul>	LOW	WHEN MOVING A CRUCIBLE	T IN A	INDUCTION SYSTEM PLANT INSPECTION SCHEDULE MAINTENANCE	
<ul style="list-style-type: none"> <li>• Falling, uncontrolled or unexpected movement of plant's load</li> <li>• Being thrown off</li> </ul>					
<ul style="list-style-type: none"> <li>• Under or trapped between plant and materials or fixed Structure</li> <li>• Contact with moving parts during testing, inspection, maintenance, cleaning or repair</li> </ul>					
<ul style="list-style-type: none"> <li>• Tipping or rolling over</li> <li>• Parts of plant collapsing</li> </ul>					

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Can anyone be <b>CUT, STABBED or PUNCTURED</b> by Coming in contact with:		Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
• Moving plant or parts	• Work pieces disintegrate					
• Sharp or flying objects	• Other factors not Mentioned?					
• Work pieces ejected						
<b>SHEARING</b> – Can anyone's body parts be cut off between:		Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
• Two parts of the plant						
• A part of the plant and a work piece or structure?						
Can anyone be injured by <b>ELECTRICAL</b> shock or burnt due to:		Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
• Damaged/poorly maintained leads or switch	• Working near or contact with live electrical conductors	<b>Low</b>	<b>If electrical leads are mistreated or aged.</b>	<b>A</b> <b>A</b>	- <b>Tagging</b> - <b>Weekly inspection</b>	
• Water near electrical equipment	• Lack of isolation procedures					
Can anyone be injured by an <b>EXPLOSION</b> of the following Items triggered by plant operation?		Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
• Gas	• Dust					
	• Other substances					
• Vapours	• Liquids					
<b>FRICTION</b> - Can anyone be burnt due to:		Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
• Contact with moving parts or surfaces of the plant	• Material handled by the plant?					
Can anyone be <b>STRUCK</b> by moving objects due to:		Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
• Plant or work pieces being ejected or disintegrated	• Mobility					
• Uncontrolled or unexpected plant movement	• Other factors?					

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Can anyone using the plant or in the vicinity of the plant, <b>SLIP, TRIP or FALL</b> due to:			Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
• The working environment	• Uneven work surfaces	• Lack of Guardrails?					
• Poor housekeeping	• Slippery work surfaces	• Other factors?					

<b>HIGH TEMPERATURE OR FIRE</b> – Can anyone:		Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
• Come into contact with objects at high temperature	• Be injured by fire?	<b>LOW</b>	<b>WHEN UNLOADING THE FURNACE CRUCIBLE</b>	<b>PPE PPE T</b>	<b>-FULL REFLECTIVE APRON, LEATHER JACKET, GLOVES, FULL FACE SHIELD AND STEEL CAPPED BOOTS MUST BE WORN. -INDUCTION SYSTEM</b>	
<b>TEMPERATURE</b> (Thermal Comfort) – Can anyone suffer ill health due to:		Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
• Exposure to high temperatures?						
• Exposure to low temperatures?						
Can anyone come into contact with FLUIDS or GASES under <b>HIGH PRESSURE</b> due to:		Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
• Failure of the plant?						
• Misuse of the plant?						

<b>Ergonomic</b> (including Manual Handling) - Can anyone be injured due to:			Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
• Seating design	• Excessive effort						
• Repetitive body movement or posture	• Poor lighting						
• Lack of consideration for human behaviour	• Other factors not mentioned						
• Poor workplace or plant design causing mental or physical stress							
Can anyone be injured or suffer ill health from Exposure to <b>OTHER HAZARDS</b> :			Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
• Chemicals	• Fumes	• Dusts	<b>LOW</b>	<b>FUMES FROM THE FURNACE</b>	<b>ENG</b>	<b>- FUME EXTRACTION SYSTEM</b> <b>- AIR EXCHANGE SYSTEM</b> <b>- AIR CERTAIN SURROUNDS THE FURNACE</b>	
• Radiation	• Vibration	• Noise					
• Toxic gases or vapours	• Other factors not mentioned						
Does the plant generate significant <b>ENVIRONMENTAL</b> aspects due to:			Risk Score	Comments (when and where hazard is present)	Type	Control Description (Current & Proposed)	Action needed
• Energy consumption	• Hazardous emissions	• Other factors not mentioned					
• Water consumption	• Nuisance noise						
• Hazardous waste	• Dust						

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No.	CONCLUSION DRAWN FROM THIS RISK ASSESSMENT	TYPE	PROPOSED CONTROL ACTION	ACTION LIST REF. No.
1	No proposed actions.			
2	Eye protection must be worn (full face shield)	PPE		
3	Appropriate clothing must be worn	PPE		
4	Dust extractor must be switched on whilst operating this equipment.	ENG		
5	Direct supervision	S/Level		
6	Steel capped boots must worn	PPE		
7	Workshop safety inspection.	A		
8	Fume extraction must be operating	ENG		
9				

Determine the person responsible for deciding upon and implementing the proposed controls. Obtain the authorization of the Management Representative.  
Ensure the HSR (if applicable) has been consulted. Ensure the users of the plant have been consulted.

<b>Person Responsible or Escalated to</b>	Sam Muratore Art Workshop Coordinator.	<b>Proposed</b>	<b>Due Date</b>
Signature of Management Representative		Date	
Signature of HSR		Date	
Signature of User of Plant		Date	