

 HSE DOCUMENTS Ready2Use Free Editable	RISK ASSESSMENT FOR TESTING AND COMMISSIONING OF CHILLED WATER PUMPS	
	INVENTORY OF WORK ACTIVITIES	
	Company:	
No.	Process/Location	• Testing and Commissioning of Chilled Water Pumps • General Workplace Hazards

Assessed by	Reviewed by	Reviewed by	Approved by
Name:	Name:	Name:	Name:
Designation:	Designation:	Designation:	Designation:
Date:	Date:	Date:	Date:
Signature:	Signature:	Signature:	Signature:
RISK ASSESSMENT FORM - TESTING AND COMMISSIONING OF CHILLED WATER PUMPS			
Company	Company Name Here	Work Activities	Next Review Date: When change in method or Incident happening or Increase in manpower.
Worksite	Worksite Name Here	Conducted by: [Name] – Mechanical Engineer [Name] - Construction Manager	
Process/ Location:			
Work Scope:	TESTING AND COMMISSIONING OF CHILLED WATER PUMPS		
Checked by (Tech M):	Construction Manager	Date of Review: Work Commencement date: TBC	

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No	Work Activity	Hazard	Persons at Risk	Existing Risk Control (if Any)	Severity	likelihood	Risk Level	Additional Risk Control	Severity	likelihood	Risk Level	Action Officer (Designation) (Follow-up date)
1	Document arrangements	• Improper & Incomplete PTW • Incomplete LOTO • procedure requirements	Operatives	• T & C engineer will request to main contractor for PTW before one day. • [Company Name Here] will follow the approved LOTO procedure - 0000 • Proper signage will be provided regarding the testing and commissioning procedures and authorized personal only. • PPEs will be given to all operatives relevant to their job.	3	3	9	• HSE Officer to verify / ensure PTW is in place for the T&C activity prior to start. • Proper LOTO shall be secured to avoid any unauthorized operation • All the contractors and working team will be informed and coordinate properly about ongoing testing and their hazards. • Third party certification of LOTO in-charge engineer. • Start briefing prior to start the activity.	3	1	3	
2	Site Arrangement	• Slip and trip	Operatives	• PPEs will be given to all operatives relevant to their job. • Access ways shall be ensuring by competent person that all access and egress points are free from obstructions. • Material will be stacked properly at designated place.	3	2	6	• Housekeeping of area prior to start and while leaving the work area. • Designated team will be assigned for housekeeping.	3	1	3	

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3	Working in Summer	• Heat stress • Heat stroke • Dehydration	• Fatigue • To involved personnel	• [Company Name Here] approved Heat stress plan 0000 will be followed. • Proper monitoring of temperature • Breaks and rotations will be given to all involved workers • Easy access to cool water	4	3	12	• Glucose juice shall be given. • Close supervision • Proper communication arrangements • Training will be given to all workers on heat stress.	4	1	4	
4	Testing and Commissioning of Chilled Water Pumps	• Electrocutation. • Poor Lighting • Spillage of Water	• Personal Injury • Finger Injury • Hand Injury	• System under test has been correctly installed and inspected. • Ensure approved work permit is available prior to beginning of any testing • 48 Hrs. notice to CCC prior to the testing and approval shall be obtained / coordinated. • Calibrated equipment will be used • Tools & equipment TPC to be available at site. • Area shall be barricaded (Physical barrier) and Signs placed for unauthorized entry. • Ensure availability of water spill kit during testing of CHW Pumps. • Main contractors approved heat stress plan will be followed. • Sufficient lighting will be provided by main contractor.	5	3	15	• Only trained personnel shall conduct test. • In House Training will be given to the workers. • Proper hand protection gloves shall be worn. • Electrical Engineer / Supervisor shall be available on task • LOTO procedure 00000 - [Company Name Here] - 0000 shall be followed. • Acquired permit to work from the contractor. • In case of an emergency, Emergency Rescue plan of main contractor will be followed. • Fire Extinguisher shall be placed nearby at the area of the task activity. • Proper supervision of the testing activities shall be implemented. • PPEs will be provided as per their job. • Task lights will be provided for illumination.	5	1	5	

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								Proper Communication system shall be provided.				
5	Manual Handling	- Injuries such as Back Strain, - Bruised or broken toes or feet. - Sharp edges	- Muscle pain - Eye strain, headache, fatigue - Stress - Minor injuries	- Task Briefing conducted to workers on ergonomics and manual handling safety - Training related to manual handling - Close supervision by site supervisor - Manual Handling Risks briefed to workforce by the task in charge before commencement of work.	3	3	9	- Only competent personnel will be allowed - Main contractors PTW will be followed [Company Name Here] approved HSE plan will be followed - Ensure housekeeping of all areas.	3	1	3	
6	Hand Tools	- It may cause injuries such as Back Strain, - Defective hand tools	- Hand injuries - Property damage	- All equipment will be inspected prior to use. - Use of Personal Protective Equipment at all times (hard hats, safety glasses, gloves, Ear Protection, etc.)	3	2	6	- Task Briefing conducted to workers on ergonomics and use of hand tools safely - Colour code will be followed of main contractor. - Training related to hand tools.	3	1	3	
7	Emergency arrangements	- Fire - First aid - Dizziness - Heat stroke	Injury and property damage	- Main contractor rescue plan will be followed. - Provision of sufficient and suitable fire extinguishers at site - Provision of first aid box, Stretcher, eyewash at site - Designated fire wardens team - Designated first aider teams	4	3	12	- Designated rescue team - ER team posters will be displayed at site. - Refresher trainings of ER team after 03 months - Good coordination and communication with CCC male nurse.	4	1	4	

Catastrophic	5	- Single or multiply loss of life from injury or occupational disease, immediately or delayed: and/or - Loss of whole production for greater than 3-man days and /or - Total loss in excess of \$ 1 million
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Moderate	4	• Hospital care over 72-man hours. • Broken/fractured bones, loss of sight, major burns. • Total loss in excess of \$137,343.85 but up to \$3,640,500.00
Major	3	• Causing Major Injuries (e.g. unconsciousness, heat stroke) • Hospital care in excess of 24 hours • Damage to works or plant causing delay of up to 1 man-days: and /or • Total loss in excess of \$68,671.92 but up to \$137,343.85
Serious	2	• Causing significant injuries (e.g. Cuts requiring stitches, laceration, burn) Hospital care for less than 24 hours
Minor	1	• Minor injury, no lost time or person involved returns to work during the shift • Minor damage to works or plant does not cause significant delays.

Table II: <u>Risk Index Matrix</u>		Accident Severity Category				
		(5)	(4)	(3)	(2)	(1)
		Catastrophic	Moderate	Major	Serious	Minor
(5)	Frequent	25	20	15	10	5
(4)	Probable	20	16	12	8	4
(3)	Occasional	15	12	9	6	3
(2)	Remote	10	8	6	4	2
(1)	Improbable	5	4	3	2	1
Likelihood	Rating	Description				
Frequent	5	Likely to occur repeatedly				
Probable	4	Likely to occur more than once				
Occasional	3	Could possibly occur				
Remote	2	Unlikely to occur				
Improbable	1	Extremely unlikely to occur based on judgment and where possible, supported by industry experience				

Risk Index	Description	Definition
1-5	Acceptable	Further action may not be necessary
6-10	Moderately Acceptable	Further action is to taken where reasonably practicable to do so.

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12-16	Not Acceptable	Management attention is required. A careful evaluation of the hazards should be carried out to ensure that the risk level is reduced to as low as is practicable within a Defined period of time. Interim risk control measures, such as administrative controls may be implemented.
20-25	Strictly Not acceptable	Immediate management intervention is required before work commences. Very high-risk level must be reduced to at least Medium Risk before work commences. There should not be any interim risk control measures and should not be overly dependent on personal protective equipment or appliances. If need be, the hazard should be eliminated before work commences.