

# Plant Hazard Assessment Form



<b>Assessment Number:</b> 1	<b>Assessment Date:</b> 9/9/20
<b>Plant Type:</b> Submersible Pump <b>Plant Make:</b> Various <b>Plant Model:</b>  <b>Asset/Fleet/Rego No:</b> SUBPUMP <b>Plant Serial No.</b> Various	<b>Assessment Facilitated by:</b> Leigh Evans (Admin/Accounts Manager)  <b>Assessment Participants:</b> Lachlan Horton (Yard Manager)
<b>Plant Owner Name:</b> Northern Hire Group	<b>Initial Assessment</b> <input type="checkbox"/> <b>Follow up Assessment (See below)</b> <input type="checkbox"/>
<b>Follow up based on change to:</b>  Use of plant <input type="checkbox"/> System of work <input type="checkbox"/> Plant Environment <input type="checkbox"/> New or additional information <input type="checkbox"/> Plant through modification <input type="checkbox"/>	

Is the plant designed to perform the task?      Yes X      No

Has the plant been modified from the original condition?      Yes       No X

Is the plant in good working condition and free of weeds & mud?      Yes X      No

All identified action items closed out/addressed (plant checks)?      Yes X      No

Is the plant safe to operate? (On completion of PHA and action closure)      Yes X      No

**Date:**

**Signature:**

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**Risk / Opportunity Rating Table** (see [Risk Management Consultation Process Appendix](#) for a full description of Risk Consequence, Opportunity Consequence and Likelihood Ratings)

<b>Likelihood rating</b>	<i>Almost Certain</i>	D	C	B	A	A
	<i>Likely</i>	D	D	C	B	A
	<i>Possible</i>	E	D	C	C	B
	<i>Unlikely</i>	E	E	D	C	B
	<i>Rare</i>	E	E	D	D	C
		1	2	3	4	5
		<b>Consequence rating</b>				

## Action and Approval Scheme

These suggested timings and tolerance levels in the Action Table will be overridden by specific policies of the company that either dictate shorter timeframes for corrective action or zero tolerance. For example, the company has a zero tolerance policy for Safety and Environmental risks.

The decision to tolerate a risk or capture a opportunity should be based on a consideration of:

- Whether the risk / opportunity is being controlled to a level that is reasonably achievable;
- Whether it would be cost-effective to further control risk or capture the opportunity;
- Whether user wishes to tolerate risks / opportunities of that type

## Action Table

Residual risk / opp level	Suggested action	Timing of status report and management plans	Authority for continued toleration or improvement of residual rating.
<b>A</b>	Take action to eliminate or implement additional controls to reduce it to acceptable level (ALARP/SFAIRP). "Onsite activities" – Intolerable and activity must not commence	Report as soon as practicable. Normally within hours.	Senior Executive Manager Plus Project Manager / Project Leadership Team
<b>B</b>	Implement additional controls reduce it to ALARP/SFAIRP. "Onsite activities" – must not commence without Corporate Management review	Manage and re-evaluate risk / opportunity to allow reporting days.. Manage and re-evaluate risk / opportunity to allow reporting every two weeks	General Manager and / or Project Manager / Project Leadership Team
<b>C</b>	Implement additional controls reduce it to ALARP/SFAIRP. "Onsite activities" – must not commence without Site Management review	Manage and re-evaluate risk / opportunity to allow reporting monthly	"Specialist" Manager, eg Construction or Design Manager
<b>D</b>	Will still require attention within existing operations to reduce to ALARP/SFAIRP. "Onsite Activities" – Site Management must determine appropriate level of management and supervision prior to commencement of activity	Manage and re-evaluate risk / opportunity to allow reporting every quarter	Team Leader
<b>E</b>	Lower priority. May be tolerable. .	Monitor, manage and carryout activity in accordance with identified controls	Supervisor

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	Y	N	N/A							
<p>1. Are there any specific warnings or conditions (manufacturers or other) relating to potential hazards from the operation of the item of plant?</p> <ul style="list-style-type: none"> <li>▪ Refer to technical or operating manuals, SOPs, safe use instructions</li> <li>▪ List any relevant safety warning hazards &amp; controls</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					
<p>2. Are there any <b>COMMUNICATION</b> requirements in relation to the safe operation of the plant?</p> <ul style="list-style-type: none"> <li>▪ Active signalling processes.</li> <li>▪ Point to point communications.</li> <li>▪ Whistle</li> <li>▪ Spotter (with/without whistles)</li> <li>▪ Flag signalling</li> <li>▪ Labels and signage</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					
<p>3. Can anyone be <b>ENTANGLED</b> in the plant?</p> <ul style="list-style-type: none"> <li>▪ Hair or other body parts caught in moving parts</li> <li>▪ PPE caught in moving parts</li> <li>▪ Isolation devices</li> <li>▪ Warning decals</li> <li>▪ Guarding</li> <li>▪ Rotating parts</li> <li>▪ Emergency stops</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					

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<p><b>4. Can anyone be CRUSHED or TRAPPED? (e.g. through unexpected movement, lack of capability for plant or equipment to be slowed, stopped or immobilised, plant tipping or rolling, being thrown from plant)</b></p> <ul style="list-style-type: none"> <li>▪ Emergency stop (E Stop)</li> <li>▪ Service or parking brake</li> <li>▪ Battery isolator</li> <li>▪ ROPs/FOPs</li> <li>▪ Being crushed between moving parts</li> <li>▪ Unexpected movement</li> <li>▪ Neutral Start</li> <li>▪ Reversing/travel alarm</li> <li>▪ Warning horn</li> <li>▪ Amber flashing beacon</li> <li>▪ Rear swing warning lights</li> <li>▪ Pedals non slip surface</li> <li>▪ Appropriate controls</li> <li>▪ Rear view mirror</li> <li>▪ Seat belt</li> <li>▪ Door inter locks</li> <li>▪ Crush zone decals</li> <li>▪ Guarding devices</li> <li>▪ <b>Mandatory secondary protection device installed on all boomtype MEWP</b></li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					

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<b>5. Can anyone be CUT, STABBED or PUNCTURED?</b> <ul style="list-style-type: none"> <li>▪ Flying objects</li> <li>▪ Moving parts</li> <li>▪ Pinch points</li> <li>▪ Sharp edges</li> <li>▪ Isolation devices</li> <li>▪ Warning decals</li> <li>▪ Guarding</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					
<b>6. Can SHEARING occur?</b> <ul style="list-style-type: none"> <li>▪ Between two moving and rotating parts</li> <li>▪ Between fixed and moving parts</li> <li>▪ Warning decals</li> <li>▪ Guarding</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					
<b>7. Can ABRASION, TEARING or STRETCHING occur?</b> <ul style="list-style-type: none"> <li>▪ Continuous contact with moving parts</li> <li>▪ Warning decals</li> <li>▪ Guarding</li> <li>▪ Pulling/pushing</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					
<b>8. Can anyone be STRUCK whilst operating the plant?</b> <ul style="list-style-type: none"> <li>▪ Plant disintegrating</li> <li>▪ Mobility of plant travelling</li> <li>▪ Reversing/travel alarm</li> <li>▪ Amber flashing beacon</li> <li>▪ Work pieces thrown out</li> <li>▪ Moving parts</li> <li>▪ Warning decals</li> <li>▪ Guarding</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					

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	Y	N	N/A							
<b>9. Can a hazardous PRESSURE be produced?</b> <ul style="list-style-type: none"> <li>▪ Hydraulic hoses</li> <li>▪ Radiator</li> <li>▪ Come into contact with fluids under high pressure</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					
<b>10. Can an ELECTRICAL hazard be created?</b> <ul style="list-style-type: none"> <li>▪ Lack of insulation</li> <li>▪ Contact with electrical conductors</li> <li>▪ Poor earthing</li> <li>▪ Water near equipment</li> <li>▪ Lack of isolation</li> <li>▪ Warning decals</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					
<b>11. Can an EXPLOSION or LOSS OF CONTENTS occur?</b> <ul style="list-style-type: none"> <li>▪ Gas emission,</li> <li>▪ Dusts</li> <li>▪ Vapours, lubricants</li> <li>▪ Fuel tank</li> <li>▪ Storage of haz chemicals/ DG's near plant</li> <li>▪ Warning decals</li> <li>▪ Ejection of workpiece</li> <li>▪ Collapse or fragmentation</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					
<b>12. Can anyone using or near the plant SLIP, TRIP or FALL?</b> <ul style="list-style-type: none"> <li>▪ Uneven surface</li> <li>▪ Fall from a height</li> <li>▪ Weather conditions</li> <li>▪ Slippery surfaces</li> </ul>	Y			Potential Hazard	Site specific risk assessment must be undertaken by client prior to operating plant					

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<p><b>13. Are there ERGONOMIC - MANUAL HANDLING hazards associated with the plant?</b></p> <ul style="list-style-type: none"> <li>▪ Poor posture</li> <li>▪ Repetitive or sustained movements</li> <li>▪ Awkward positions</li> <li>▪ Strained movements</li> <li>▪ Poorly designed seating</li> <li>▪ Access and egress</li> <li>▪ Access for maintenance</li> <li>▪ Routine inspections and adjustments</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					
<p><b>14. Are there ERGONOMIC - OPERATING CONTROL hazards associated with the plant?</b></p> <ul style="list-style-type: none"> <li>▪ Difficult to understand</li> <li>▪ Inappropriate colouring</li> <li>▪ Function not identified</li> <li>▪ Inappropriate controls &amp; switches</li> <li>▪ Access and egress</li> <li>▪ Labelling of controls and indicators</li> <li>▪ Variation in operators</li> <li>▪ Operation by two or more persons</li> </ul>		N								

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	Y	N	N/A							
<b>15. Are there specific requirements for ISOLATION of energy sources?</b> <ul style="list-style-type: none"> <li>▪ Hydraulic pressure</li> <li>▪ Compressed gases</li> <li>▪ Electrical feeds/capacitors</li> <li>▪ Motive power systems</li> <li>▪ Suspended loads</li> <li>▪ Operation by two or more persons</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					
<b>16. Can unplanned LOSS of POWER create a hazard?</b> <ul style="list-style-type: none"> <li>▪ Engine shutdown</li> <li>▪ Loss of electrical supply</li> <li>▪ Loss of steering systems</li> <li>▪ Ability to apply brakes and stop</li> <li>▪ Ability to lower suspended loads</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					
<b>17. Can anyone be SUFFOCATED?</b> <ul style="list-style-type: none"> <li>▪ Lack of oxygen</li> <li>▪ Contaminated atmosphere</li> <li>▪ Confined spaces</li> <li>▪ Spaces where air flow is inadequate</li> </ul>		N								
<b>18. Does operation of the plant cause extreme TEMPERATURE changes?</b> <ul style="list-style-type: none"> <li>▪ Fire</li> <li>▪ Burns through conduction</li> <li>▪ Convection</li> <li>▪ Cryogenic burns</li> <li>▪ Operation in extreme heat or cold</li> </ul>		N								



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<b>19. Can a FIRE occur?</b> <ul style="list-style-type: none"> <li>▪ Friction</li> <li>▪ Ingress of materials/fluids</li> <li>▪ Build-up of materials/lubricants</li> <li>▪ Fuels</li> <li>▪ Fire extinguisher</li> </ul>		N								
<b>20. Can certain WEATHER conditions create a hazard?</b> <ul style="list-style-type: none"> <li>▪ Hypothermia / extreme cold</li> <li>▪ Heat stroke / extreme hot</li> <li>▪ Wet conditions</li> <li>▪ Electrical storms</li> <li>▪ Dirt &amp; mud on roads at egress points</li> </ul>	Y			Potential Hazard	Operators are instructed to obtain local weather conditions and warnings					
<b>21. Does VIBRATION of the plant create a hazard?</b> <ul style="list-style-type: none"> <li>▪ Plant becomes unstable</li> <li>▪ Causes physical problems for the operator whilst operating</li> <li>▪ Vibration of equipment</li> <li>▪ Operation could cause unacceptable vibration levels in nearby structures</li> </ul>	Y			Potential Hazard	Please refer to Pump Safety Precautions (attached) or the Operator Manual					
<b>22. Can the plant emit toxic FUMES or VAPOURS?</b> <ul style="list-style-type: none"> <li>▪ Exhaust fumes</li> <li>▪ Chemicals</li> <li>▪ Haz chemicals/DG's</li> </ul>	Y			Potential Hazard from exhaust fumes	Do not use in enclosed spaces.  Ensure adequate ventilation					

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	Y	N	N/A							
<b>23. Carry out NOISE survey on page 14. Is the plant noisy?</b>  <ul style="list-style-type: none"> <li>▪ Emit &gt;85 dBA at the operator</li> <li>▪ Effects operator communication</li> <li>▪ Noise impacts on community during out-of-hours work (including reversing beepers)</li> </ul>	Y			Potential hazard with prolonged use	Please refer to Pump Safety Precautions (attached) or the Operator Manual					
<b>24. Carry out the LIGHT survey on page 14. Is there poor visibility</b>  <ul style="list-style-type: none"> <li>▪ At the controls</li> <li>▪ At the task</li> <li>▪ Darkens surrounding areas</li> <li>▪ Light impacts on community or sensitive natural environment during out-of-hours work</li> </ul>			N/A							
<b>25. Does the plant emit RADIATION?</b>  <ul style="list-style-type: none"> <li>▪ Eg X-rays</li> <li>▪ EMR</li> <li>▪ Laser</li> </ul>		N								

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	Y	N	N/A							
<b>26. Can operation of the plant create DUST?</b> <ul style="list-style-type: none"> <li>▪ Explosive atmosphere</li> <li>▪ Breathing hazard</li> <li>▪ Reduced visibility</li> <li>▪ Nuisance dust at nearby community</li> <li>▪ Impact on local flora and fauna</li> <li>▪ Loss of topsoil and spread of weeds and pathogens</li> </ul>	Y			Potential Hazard	<p>Site risk assessment must be undertaken by client to ensure hazardous dust is not disturbed by plant/task (e.g. asbestos)</p> <p>Exclusion zones and PPE (goggles, mask, protective clothing) will be required and a risk assessment must be undertaken onsite to determine PPE and controls</p>					
<b>27. Can the plant become UNSTABLE during operation?</b> <ul style="list-style-type: none"> <li>▪ Working on uneven / unstable ground</li> <li>▪ Shifting load</li> <li>▪ Lack of plant support</li> <li>▪ Outriggers</li> </ul>	Y			Potential Hazard	<p>Please refer to Pump Safety Precautions (attached) or the Operator Manual</p> <p>Site risk assessment must be undertaken by client onsite to determine PPE and controls</p>					
<b>28. Could LOSS of LOAD occur?</b> <ul style="list-style-type: none"> <li>▪ Failure of ropes/slings</li> <li>▪ Overloading</li> <li>▪ Entanglement in surrounding structures</li> <li>▪ Maintenance requirements</li> </ul>	Y			Potential Hazard	Refer to Operator manual for pre-operational checks, maintenance & load capacity					

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<p><b>29. Is there anything in the SURROUNDING ENVIRONMENT that may produce a hazard?</b></p> <ul style="list-style-type: none"> <li>▪ Power lines</li> <li>▪ Low ceiling</li> <li>▪ Other plant</li> <li>▪ Storage areas</li> <li>▪ Co-located equipment</li> <li>▪ Isolation requirements</li> <li>▪ Potential for flash flooding if operating adjacent to waterways</li> <li>▪ Operating in known areas of weeds, pathogens or contamination</li> <li>▪ Operating in sensitive environments requiring protection from offsite weeds/pathogens or spills</li> </ul>	Y			Potential Hazard	Site specific risk assessment must be undertaken by client to determine controls, PPE & exclusion zones.					
<p><b>30. Can CHEMICALS create a hazard?</b></p> <ul style="list-style-type: none"> <li>▪ Leaking from plant</li> <li>▪ Splashing</li> <li>▪ Explosion</li> <li>▪ PPE considerations</li> <li>▪ Spill kit considerations</li> </ul>	Y			Potential Hazard	Site/liquid specific risk assessment must be undertaken by client to determine controls, PPE & exclusion zones.					

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<b>31. Operator TRAINING / QUALIFICATIONS?</b> <ul style="list-style-type: none"> <li>▪ Training requirements</li> <li>▪ Qualification requirements</li> <li>▪ Competency assessments</li> <li>▪ Documentation</li> <li>▪ Operator's manual</li> <li>▪ Equipment experience</li> <li>▪ Product knowledge</li> </ul>	Y				All operators must completely read and understand the Operator Manual prior to operating plant.  Undertake a Job Safety and Environmental Analysis before use of plant, and use to determine that the relevant safety procedures are in place before commencing work.					
<b>32. Are there <u>ANY OTHER</u> potential hazards generated by or during the use of this item of plant and/or any attachments?</b>	Y			Plant Failure	<i>Pre – Operational Inspection</i>	D	<b>DAILY</b> - Operators must complete  Start-up checklist  Operation checklist  Parking Checklist	E		

**ALL OPERATORS OF THE PLANT OR EQUIPMENT MUST BE BRIEFED ON THE PLANT HAZARD ASSESSMENT (PHA) PRIOR TO FIRST TIME USE.**

**ANY RELEVANT CONDITIONS WHICH MAY IMPACT ON THE OPERATION OF THIS ITEM OF PLANT OR EQUIPMENT MUST BE TRANSFERRED TO THE AMS/TRA.**

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NOISE REPORT			
Equipment Type:	Submersible Pump	Serial/Asset No.	Various
Make:	Various	Model:	Various
Test by (print):	Leigh Evans	Date:	9/9/20
Signature:			
Sound Level Meter Unit Used:			
Manufactures specified noise level:	>80 dBA		
Background level:	dBA		
Results – Operator’s Station (Equipment Operating)	>80 dBA	High Idle	
	>80 dBA	Low Idle	
Comments:	Noise level at operator position (Start Panel) is over 80 dB(A). Hearing protection must be worn at all times within the canopy when the unit is running. Failure to comply may result in hearing damage or loss.		
Results – Bystander Position: At 7 metres from side of equipment – Equipment Operating (High Idle)			
Front			dBA
Rear			dBA
Left			dBA
Right			dBA
Comments:			

LIGHTING REPORT			
Test by (print):		Date:	
Signature:			
Lux Meter used:			
Results – Operator’s station			
At controls		Lux	
At emergency control		Lux	
In front/over task		Lux	
Left side task		Lux	
Right side task		Lux	
Comments:			
Results – Surroundings:			
Clearly seen by others?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Decrease lighting in walkways?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Decrease lighting to other workstations?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Comments:			

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COMMENTS: