

# Plant Risk Assessment Tower Four, 727 Collins Street Docklands, Victoria

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Collins Square Management  
February 2019



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# Statement of Limitations

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The report has been prepared for the use by Collins Square Management and the use of this report by other parties may lead to misinterpretation of the issues contained in this report. To avoid misuse of this report, Prensa advise that the report should only be relied upon by Collins Square Management and those parties expressly referred to in the introduction of the report. The report should not be separated or reproduced in part and Prensa should be retained to assist other professionals who may be affected by the issues addressed in this report to ensure the report is not misused in any way.

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## **Recommendations for Further Study**

The industry recognised methods used in undertaking the works may dictate a staged approach to specific investigations. The findings therefore of this report may represent preliminary findings in accordance with these industry recognised methodologies. In accordance with these methodologies, recommendations contained in this report may include a need for further investigation or analytical analysis. The decision to accept these recommendations and incur additional costs in doing so will be at the sole discretion of Collins Square Management and Prensa recognises that Collins Square Management will consider their specific needs and the business risks involved. Prensa does not accept any liability for losses incurred as a result of Collins Square Management not accepting the recommendations made within this report.

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## 1 Introduction

This report presents the findings of a Plant Risk Assessment (PLRA) undertaken at Tower Four, 727 Collins Street, Docklands, Victoria (the Property). Brodie Aumont and Mark Dalton of Prensa Pty Ltd (Prensa) conducted the PLRA on 14<sup>th</sup> February 2019 at the request of Jack Gardner of Collins Square Management.

## 2 Objective

The objectives of this PLRA were to:

- Identify plant and equipment at the Property which is considered under the control of Collins Square Management;
- Establish the current level of risk (associated with plant and equipment) at the Property in relation to the relevant legislation, regulations, codes of practice and Australian Standards; and
- Provide recommendations to further reduce the level of risk, where deemed practicable.

## 3 Scope of Works

The scope of the PLRA was defined by Collins Square Management and covered areas under the management of Collins Square Management at the Property. Plant items defined within the Victorian *Occupational Health and Safety Regulations 2017* as ‘high risk’ (i.e lifts) have also been excluded from the risk assessment, as it is recommended these are assessed by specialised maintenance contractors. High risk plant items, however, have still been included within the plant register.

The scope of the PLRA was limited to the areas of the Property which were identified by Collins Square Management.

## 4 Methodology

The PLRA was conducted in accordance with the Victorian *Occupational Health and Safety Regulations 2017*, and comprised:

- A visual inspection of the Property, including identification of plant in accessible areas;
- Identification of potential hazards including:
  - Hazards associated with the operation of plant; and
  - Hazards associated with systems of work relating to plant.
- Conducting plant risk assessments on each class of plant identified at the Property; and
- Documenting the findings and compiling a current plant register for the Property.

Plant risk assessments are detailed further in the following section.

### 4.1 Plant Risk Assessments

Following identification of each item of plant, a risk assessment was conducted which considered plant location, operation, associated systems of work and the nature of any associated hazards. Each hazard was assigned a consequence and likelihood value in accordance with the risk assessment criteria presented in **Appendix C** of this report. Existing and recommended risk controls associated with each hazard were detailed in the plant risk assessments.

In accordance with Regulation 75 of the Victorian *Occupational Health and Safety Regulations 2017*, a risk assessment may be undertaken for a class of plant as opposed to individual items of plant when:

- All items of plant within a class of plant fulfil similar functions and have similar productive capacity; and
- All items of plant within a class of plant pose similar risks to operators.

Plant risk assessments for each class of plant are provided in **Appendix B**.

The types of hazards assessed for each class of plant were derived from Section 2.1 of the Safe Work Australia Code of Practice, *Managing Risks of Plant in the Workplace*, May 2018, and included entanglement, crushing, cutting, stabbing, puncturing and shearing from plant or plant parts, slips, trips, falls, exposure to thermal extremes, ergonomic hazards, electrical hazards and the potential for an explosion. Risk assessment of plant such as lifts, BMU, tri-generators, revolving doors, motorised roofs and escalators are not undertaken as this is considered to be the responsibility of specialised maintenance contractors.

## 5 Legislative Aspects

### 5.1 Definition of Plant

The Victorian *Occupational Health and Safety Regulations 2017*, Regulation 74, defines plant as any of the following:

- Machinery that processes material by way of cutting, drilling, punching, grinding, pressing, forming, hammering, joining, moulding, combining, mixing, sorting, packaging, assembling, knitting or weaving;
- Machinery that lifts or suspends loads including people and materials;
- Pressure equipment;
- Tractors and earthmoving machinery;
- Lasers;
- Scaffolds and temporary access equipment;
- Explosive powered tools;
- Turbines; and
- Amusement structures.

It should be noted that the operation of machinery which relies exclusively on manual power or machinery designed primarily to be supported by hand are not regarded as items of plant. Ships, boats, aircrafts and vehicles designed to be used predominantly as a means of transport on public roads or rails are also not considered to be items of plant.

### 5.2 Statutory Requirements

Statutory requirements (Part 3.5, Victorian *Occupational Health and Safety Regulation 2017*) necessitate that employers must:

- Identify hazards associated with the installation, commissioning, decommissioning, dismantling, erection and use of plant and systems of work associated with plant;
- Assess the risks associated with plant and systems of work associated with plant;
- Eliminate risks, and where this is not reasonably practicable, implement control measures in the way of substitution, engineering controls (including isolation and guarding), administrative controls (including training and inspection) and the use of personal protective equipment (PPE);
- Review and revise risk assessments and risk control measures when: plant is used for the first time; plant function or systems of work associated with plant are altered or undergo a change in

locality; new or additional information regarding plant risks are made available; an incident or near-miss occurs involving plant or systems of work associated with plant; risk control measures are deemed inadequate; or at the request of a health and safety representative; and

- Provide training and information regarding hazard identification, risk control measures and appropriate safety procedures to any employee or any person supervising an employee likely to be exposed to a risk associated with plant or systems of work associated with plant.

### 5.3 Plant Maintenance

Employers who have management and control of a workplace must retain all records of plant inspection and maintenance for the period the employer manages the item of plant.

### 5.4 Plant Certificate of Competency

Employees operating higher risk items of plant are required to have an appropriate certificate of competency in accordance with Part 3.6, 6.1 and Schedule 3 of the Victorian *Occupational Health and Safety Regulations 2017*. Furthermore, people supervising employees who operate higher risk items of plant are also required to have an appropriate certificate of competency. Higher risk items of plant include the following:

- Boilers;
- Scaffolding, dogging and rigging;
- Cranes and hoists;
- Forklifts;
- Building maintenance units;
- Turbines; and
- Reciprocating steam engines.

## 6 Findings

Each item of plant identified during the inspection and indicated to be under the control of Collins Square Management has been included within the Plant Register in **Appendix A**. Detailed Plant Risk Assessments for each class of plant other than high risk plant (BMU, Escalator, Tri-generator and Lifts) identified at the Property are contained in **Appendix B** of this report. The following classes of plant were identified at the Property:

- BMU;
- Chiller;
- Compactor;
- Cooling Tower;
- Diesel Pump (Water);
- Compressor;
- Electric Pump (Oil)
- Electric Motor;
- Electric Pump (Water);
- Escalator;
- Expansion Tank;
- Fan;
- Generator;

- Heat Exchanger;
- Hot Water Heater; and
- Lift Motor.

Suitable control measures (such as insulation, restriction of access to plant areas and regular maintenance) were in place to minimise risks associated with each class of plant. However it was noted that the lift motors located on Level 17 and Level 21 lift motor rooms were not provided with guards to protect workers entanglement risks.

## **7 Recommendations**

It is recommended that the lift motors be provided with guards to lower the risk of entanglement.

## Appendix A: Plant Register

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APPENDIX A - PLANT REGISTER

**Building:** Tower 4 - 727 Collins St, Docklands VIC 3008  
**Completed by:** Brodie Aumont and Mark Dolton (Prensa)  
**Date of Assessment:** 14/02/2019  
**Last Updated:** 14/02/2019  
**Prepared For:** Collins Square Management

Location	Description of Plant	Plant Identification	Class of Plant	Plant Photo	Isolation Photo
Level 17 Lift Motor Room	Lift Motors x 5	LIF-A, LIF-B, LIF-C, LIF-D, LIF-E	Lift Motor		
Level 21 Lift Motor Room	Lift Motors x 3	LIF-F, LIF-G, LIF-H	Lift Motor		
Level 17 Lift Motor Room	Packaged Air Conditioning Unit	PAC-T4-21-01	Fan		
Tower 4 Entrance	Revolving Door x2	RD-04-01, RD-04-02	Electric Motor		
Main Foyer	Escalators x2	ESC-01, ESC-02	Escalator		
Main Foyer	Automatic Swing Door	ASD-01	Electric Motor		
Retail Plant Room	Domestic Air Conditioning Unit x2	DX-T4-00-02B, DX-T4-00-02A	Fan		
Retail Plant Room	Air Handling unit x2	AHU-T4-R-00-03, AHU-T4-00-04	Fan		No Photo Available
Retail Plant Room	Fan Coil Unit x2	FCU-T4-R-00-03, FCU-T4-R-00-04	Fan		
Retail Plant Room	Return Air Fan	RAF-T4-R-00-02	Fan		
Retail Plant Room	Outdoor Air Fan	OAF-T4-R-00-02, OAF-T4-R-00-02	Fan		

APPENDIX A - PLANT REGISTER

Location	Description of Plant	Plant Identification	Class of Plant	Plant Photo	Isolation Photo
Generator Room	Diesel Generator x2	DG-01, DG-02	Generator		No Photo Available
West Building Exit	Automatic Swing Door	ASD-02	Electric Motor		
Lower Ground Water Tank/Plant Room	Cold Water Pump x4	CWP-01, CWP-02, CWP-03, CWP-04	Electric Pump (Water)		
Lower Ground Water Tank/Plant Room	Expansion Tank	ET-01, ET-02	Expansion Tank		No Photo Available
Lower Ground Water Tank/Plant Room	Rain Water Pump x2	RWP-01, RWP-02	Electric Pump (Water)		
Lower Ground Water Tank/Plant Room	Air Compressor	COM-01	Compressor		
Lower Ground Water Tank/Plant Room	Exhaust Fan	EF-B1-02	Fan		
Fire Control Room	Outdoor Air Fan x4	OAF-B1-02	Fan		
Combined Hydrant and Sprinkler Pump Room	Expansion Tank	ET-03	Expansion Tank		
Combined Hydrant and Sprinkler Pump Room	Expansion Tank	ET-04	Expansion Tank		No Photo Available
Combined Hydrant and Sprinkler Pump Room	Jacking Pump x3	JP-01, JP-02, JP-03	Electric Pump (Water)		
Combined Hydrant and Sprinkler Pump Room	Diesel Pump	DP-01	Diesel Pump (Water)		

Location	Description of Plant	Plant Identification	Class of Plant	Plant Photo	Isolation Photo
Combined Hydrant and Sprinkler Pump Room	Electric Pump	EP-01	Electric Pump (Water)		
Combined Hydrant and Sprinkler Pump Room	Exhaust Fan	EF-B1-01	Fan		
Underground Car Park	Domestic Air Conditioning Unit	DX-T4-00-03, DX-T4-00-04	Fan		
Underground Car Park	Automatic Swing Door	ASD-03	Electric Motor		
Refuse Room	Hot Water Unit	HDB-T4-00-01	Hot Water Heater		
Recycling Room	Automatic Swing Door	ASD-04	Electric Motor		No Photo Available
Security Office / Loading Dock	Domestic Air Conditioning Unit	DX-T4-00-05	Fan		
Loading Dock	Domestic Air Conditioning Unit	DX-T4-00-06	Fan		No Photo Available
Retail Waste Room	Automatic Swing Door	ASD-05	Electric Motor		
Retail Waste Room	Compactor/Baler	COM-01	Compactor		
Retail Waste Room	Oil Recycling Unit	ORU-01	Electric Pump (Oil)		
Retail Waste Room	Hot Water Unit	HDB-T4-00-01	Hot Water Heater		

Location	Description of Plant	Plant Identification	Class of Plant	Plant Photo	Isolation Photo
Retail Waste Room	Exhaust Fan	EF-B1-005	Fan		No Photo Available
Loading Dock	Roller Door	RD-01	Electric Motor		No Photo Available
Loading Dock	Stormwater pump	SP-01	Electric Pump (Water)		No Photo Available
Loading Dock	Compactor x2	COM-02, COM-03	Compactor		
Loading Dock	Domestic Air Conditioning Unit	T-AC-G.1	Fan		
Level 6 Plant Room	Rain Water Pump x2	RWP-01, RWP-02	Electric Pump (Water)		
Level 6 Plant Room	Expansion Tank	ET-05	Expansion Tank		No Photo Available
Level 6 Plant Room	Exhaust Air Fan	EAF-T4-06-01	Fan		
Level 6 Plant Room	Supply Air Fan	SAF-T4-06-01	Fan		
Level 3 Plant Room	Domestic Air Condition Unit	DX-T4-03-01	Fan		
Level 3 Plant Room	Plate Heat Exchanger	HHWHEX-T4-03-01	Heat Exchanger		No Photo Available
Level 3 Plant Room	Hot Water Pump	SHHWP-T4-03-01	Electric Pump (Water)		No Photo Available

Location	Description of Plant	Plant Identification	Class of Plant	Plant Photo	Isolation Photo
Level 3 Plant Room	Overflow Pump	ARV-T4-03-01	Electric Pump (Water)		No Photo Available
Level 3 Plant Room	Expansion Tank	ET-T4-03-01	Expansion Tank		No Photo Available
Level 3 Plant Room	Exhaust Air Fan x4	EAF-T4-03-03, EAF-T4-03-02, EAF-T4-03-01A, EAF-T4-03-01B	Fan		
Level 3 Plant Room	Outdoor Air Fan x4	OAF-T4-R-03-03, OAF-T4-R-03-05, OAF-T4-03-01, OAF-T4-R-03-01	Fan		No Photo Available
Level 3 Plant Room	Toilet Exhaust Fan x2	TEF-T4-03-01, TEF-T4-03-02	Fan		
Level 3 Plant Room	Return Air Fan	RAF-T4-R-03-01	Fan		
Level 3 Plant Room	General Exhaust Fan	GEF-T4-03-01	Fan		
Level 3 Plant Room	Fan Coil Unit	FCU-T4-R-03-01	Fan		
Level 3 Plant Room	Air Handling Unit x2	AHU-T4-R-03-02, AHU-T4-R-03-01	Fan		
Level 3 Plant Room	Supply Air Fan	SAF-T4-03-02	Fan		
Level 21 Cooling Tower Plant Room	Expansion Tank x2	ET-T4-21-05, ET-T4-21-02,	Expansion Tank		No Photo Available
Level 21 Cooling Tower Plant Room	Water Pump x14	TPCCWP-T4-21-01, TPCCWP-T4-21-02, TSCCWP-T4-21-01, TSCCWP-T4-21-02, CCWP-T4-21-01, CCWP-T4-21-02, CCWP-T4-21-03, CCWP-T4-21-04, CHWP-T4-21-01, CHWP-T4-21-02, CHWP-T4-21-03, CHWP-T4-21-04, PCCWP-T4-21-02-01	Electric Pump (Water)		

Location	Description of Plant	Plant Identification	Class of Plant	Plant Photo	Isolation Photo
Level 21 Cooling Tower Plant Room	Toilet Exhaust Fan	TTEF-T4-21-01	Fan		
Level 21 Cooling Tower Plant Room	Plate Heat Exchangers x2	TCCWHEX-T4-21-01, TCCWHEX-T4-21-02	Heat Exchanger		No Photo Available
Level 21 Cooling Tower Plant Room	Cooling Tower System x2	CT-T4-21-02B, CT-T4-21-02A	Cooling Tower		No Photo Available
Level 21 Cooling Tower Plant Room	Water Pump	WP-01	Electric Pump (Water)		No Photo Available
Level 21 Cooling Tower Plant Room	Kitchen Exhaust Fan	KEF-T4-R-21-02	Fan		No Photo Available
Level 21 Cooling Tower Plant Room	Stair Pressurisation Fan	SPF-T4-21-01	Fan		No Photo Available
Level 21 Cooling Tower Plant Room	Exhaust Air Fan	EAF-T4-21-01	Fan		No Photo Available
Level 21 Air Handling Room	Toilet Exhaust Fan	TEF-T4-21-01	Fan		
Level 21 Air Handling Room	Air Handling Unit x5	AHU-T4-21-01, AHU-T4-21-02, AHU-T4-21-03, AHU-T4-21-04, AHU-T4-21-05	Fan		
Level 21 Air Handling Room	Kitchen Exhaust Fan x2	TKEF-T4-21-01, TKEF-T4-R-21-01	Fan		
Level 21 Air Handling Room	Outdoor Air Fan x4	TOAF-24-21-01	Fan		
Level 21 Air Handling Room	Exhaust Fan	TGEF-T4-21-01	Fan		

Location	Description of Plant	Plant Identification	Class of Plant	Plant Photo	Isolation Photo
Level 21 Air Handling Room	Cold Water Pump x4	CWP-05, CWP-06, CWP-07, CWP-08	Electric Pump (Water)		No Photo Available
Level 21 Air Handling Room	Expansion Tank	ET-06	Expansion Tank		No Photo Available
Level 21 Air Handling Room	Smoke Spill Fan x3	SSF-T4-21-01, SSF-T4-21-02, SSF-T4-21-03	Fan		
Level 21 Generator Room	Diesel Generator x2	DG-03, DG-04	Generator		No Photo Available
Smoke Exhaust Plant Room	Smoke Spill Fan x2	SSF-T4-21-04, SSF-T4-21-05, SSF-T4-21-06	Fan		
Level 21 Atrium BMU Room	BMU	BMU-01	BMU		No Photo Available
Boiler Room	Hot Water Pump x4	PHHWP-T4--R-21-01, PHHWP-T4-R-21-02, PHHWP-T4--R-21-03, TGHHP-T4-21-01	Electric Pump (Water)		
Boiler Room	Boilers x3	BT-T4-21-01, BT-T4-21-02, BT-T4-21-03	Hot Water Heater		No Photo Available
Boiler Room	Expansion Tank x3	ET-07, ET-08, ET-09	Expansion Tank		No Photo Available
Boiler Room	Hot Water Unit x2	HWU-01, HWU-02	Hot Water Heater		No Photo Available
Boiler Room	Gas Hot Water Unit	GHWU-01	Hot Water Heater		
Level 21 Trigen Plant Room	Tri - Generator	GMTU-T4-21-01	Tri - Generator		No Photo Available

APPENDIX A - PLANT REGISTER

Location	Description of Plant	Plant Identification	Class of Plant	Plant Photo	Isolation Photo
Level 21 Trigen Plant Room	Water Pump	TGHWP-T4-21-01, TGHWP-T4-21-02	Electric Pump (Water)		
Level 21 Trigen Plant Room	Plate Heat Exchanger x2	TGHEX-T4-21-01, TGHEX-T4-21-02	Heat Exchanger		No Photo Available
Level 21 Trigen Plant Room	Expansion Tank	ET-10	Expansion Tank		No Photo Available
Adjacent Lift Motor Room	Kitchen Exhaust Fan	TKEF-T4-21-02	Fan		No Photo Available
Rooftop	Chiller	CH-T4-R21-02	Chiller		
Rooftop	Exhaust Air Fan	EAF-T4-21-03	Fan		
Rooftop Area	Stair Pressurization Fan	SPF-T4-21-02	Fan		
Rooftop Area	Smoke Spill Fan	SSF-T4-21-01	Fan		
External Roof	BMU	BMU-03	BMU		No Photo Available
Retail Chiller Plant Room	Domestic Air Conditioning Unit x2	DX-T4-21-01, DX-T4-21-02	Fan		
Retail Chiller Plant Room	Water Pump x2	CHWP-T4-R-21-05, CHWP-T4-R-21-06	Electric Pump (Water)		
Retail Chiller Plant Room	Expansion Tank	ET-11	Expansion Tank		No Photo Available

## Appendix B: Plant Risk Assessments

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<b>Class of Plant</b>	<b>Page Number</b>
<b>Fan</b>	B.1
<b>Electric Motor</b>	B.6
<b>Cooling Tower</b>	B.10
<b>Electric Pump (Water)</b>	B.14
<b>Diesel Pump (Water)</b>	B.18
<b>Compressor</b>	B.22
<b>Hot Water Heater</b>	B.26
<b>Compactor</b>	B.29
<b>Chiller</b>	B.32
<b>Pressure Vessel - Expansion Tank</b>	B.36
<b>Generator</b>	B.39
<b>Heat Exchanger</b>	B.42
<b>Electric Pump (Oil)</b>	B.45

# Plant Risk Assessment

Fan

Address: Tower 4 - 727 Collins St, Docklands VIC 3008

Items of Plant: Refer to Appendix A

Date of Assessment: 14/02/2019

Assessment:

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Entanglement	Are operators likely to become ENTANGLED with moving parts of the plant or materials in motion?	Yes	The rotating shafts represent potential draw in points for the entanglement of loose clothing, hair and jewellery, however adequate guarding, through the presence of permanent barriers on the rotating shafts, is provided.	Unlikely	Moderate	Low	None
Crushing	Are operators likely to be CRUSHED due to material falling off the plant?	No	Items of plant are stationary and firmly fixed in position.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to movement of plant or its load?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to incapacity of the plant to be slowed, stopped or immobilised?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to the plant tipping, rolling or parts of plant collapsing?	No	As above.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Cutting, Stabbing, Puncturing	Are operators likely to be CUT, STABBED, or PUNCTURED from coming into contact with sharp or flying objects?	No	Moving plant parts are present that could result in cutting, stabbing or puncturing through coming into contact with sharp/flying objects. The following controls are used to reduce the risk of injury posed by moving parts: - Plant not in operation during maintenance, without the use of permanent guards; - Restriction of access to plant areas (authorised personnel only); and - Provision of permanent guards, in place during operation.	Rare	Moderate	Low	None
	Are operators likely to be CUT, STABBED, or PUNCTURED from movement of the plant or plant parts?	Yes	As above.	Rare	Moderate	Low	None
	Are operators likely to be CUT, STABBED, or PUNCTURED from ejection of work pieces?	Yes	As above.	Rare	Moderate	Low	None
Shearing	Are operator body parts likely to be SHEARED or SEVERED due to being caught between fixed and traversing parts of plant?	No	No traversing plant parts are present that could reasonably cause injury through shearing.	Rare	Insignificant	NA	NA
Frictional Burning	Are operators likely to be FRICTIONALLY burnt due to high speed rotating plant, plant parts or material handled by plant?	Yes	The rotating shafts represent potential points for injury from frictional burns due to high speed rotation. Adequate guarding is provided through the presence of permanent barriers.	Unlikely	Moderate	Low	None
Striking	Are operators likely to be STRUCK by the movement of the plant or plant parts?	No	The rotating shafts do not extend beyond the spatial limits of the plant and therefore, could not reasonably cause injury through striking.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Slip / Trip / Fall	Are operators likely to SLIP, TRIP or FALL due uneven, unstable or slippery work surface?	Yes	Items of plant are fixed to flat, stable surfaces. At the time of the assessment, the areas surrounding each item of plant were observed to be accessible and free of obstacles and spills. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations. is undertaken.	Possible	Minor	Low	None
	Are operators likely to SLIP, TRIP or FALL due poor housekeeping?	Yes	At the time of the assessment, the house keeping was observed to be adequate. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
High Pressure Fluid	Are operators likely to sustain injury through contact with HIGH PRESSURE FLUIDS due to plant failure?	No	Pressurised contents of Items of plant are not considered to be sufficiently high as to reasonably cause injury if plant were to fail.	Rare	Insignificant	NA	NA
Extreme Temperatures	Are operators likely to sustain injury caused by EXTREME TEMPERATURES or FIRE due to poorly insulated or maintained hot or cold plant or plant parts?	No	No plant, plant parts or materials handled by plant with extreme temperatures are present that could reasonably result in burns or scalding.	Rare	Insignificant	NA	NA
Ergonomic	Are operators likely to be subject to ERGONOMIC factors such as use of excessive force, awkward posture, repetitive movements or poor workplace design?	No	The design, operation, locality and accessibility of items of plant are considered to be compatible with human characteristics and capacities. Overall plant layouts are not considered to affect the access or egress to and from the workplace.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Electricity	Are operators likely to be subject to ELECTRIC SHOCK due to damaged or poorly maintained electrical leads, cables or switches?	Yes	Electrical items were considered to be in good condition, as no significant damage/wear was observed. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of electrical conductors?	Yes	Electrical conductors were observed to be consistent with the nature of the installation and well maintained. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of water?	Yes	Water associated with cooling coils represents a potential source of electrocution. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
Other Hazards	Are operators likely to sustain injury caused by exposure to chemicals?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to toxic gases or vapours?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to ionising radiation?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to biological hazards?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to noise?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by Fire or explosion?	No	Not applicable.	Rare	Insignificant	NA	NA

# Plant Risk Assessment

Electric Motor



Address: Tower 4 - 727 Collins St, Docklands VIC 3008  
 Items of Plant: Refer to Appendix A  
 Date of: 14/02/2019  
 Assessment:

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Entanglement	Are operators likely to become ENTANGLED with moving parts of the plant or materials in motion?	Yes	The rotating shafts represent potential draw in points for the entanglement of loose clothing, hair and jewellery, however, adequate guarding was provided.	Unlikely	Moderate	Low	None
Crushing	Are operators likely to be CRUSHED due to material falling off the plant?	No	Items of plant are stationary and firmly fixed in position.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to movement of plant or its load?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to incapacity of the plant to be slowed, stopped or immobilised?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to the plant tipping, rolling or parts of plant collapsing?	No	As above.	Rare	Insignificant	NA	NA
Cutting, Stabbing, Puncturing	Are operators likely to be CUT, STABBED, or PUNCTURED from coming into contact with sharp or flying objects?	Yes	Moving plant parts are present that could result in cutting, stabbing or puncturing through coming into contact with sharp/flying objects. The following controls are used to reduce the risk of injury posed by moving parts: - Plant not in operation during maintenance, without the use of permanent guards; - Restriction of access to plant areas (authorised personnel only); and - Provision of permanent guards, in place during operation.	Rare	Moderate	Low	None

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
	Are operators likely to be CUT, STABBED, or PUNCTURED from movement of the plant or plant parts?	Yes	As above.	Rare	Moderate	Low	None
	Are operators likely to be CUT, STABBED, or PUNCTURED from ejection of work pieces?	Yes	As above.	Rare	Moderate	Low	None
Shearing	Are operator body parts likely to be SHEARED or SEVERED due to being caught between fixed and traversing parts of plant?	No	No traversing plant parts are present that could reasonably cause injury through shearing.	Rare	Insignificant	NA	NA
Frictional Burning	Are operators likely to be FRICTIONALLY burnt due to high speed rotating plant, plant parts or material handled by plant?	Yes	Moving plant parts are present that could result in frictional burns due to high speed rotating plant. The following controls are used to reduce the risk of frictional burning posed by high speed rotating parts: - Plant not in operation during maintenance, without the use of permanent guards; - Restriction of access to plant areas (authorised personnel only); and - Provision of permanent guards, in place during operation.	Unlikely	Moderate	Low	None
Striking	Are operators likely to be STRUCK by the movement of the plant or plant parts?	No	The rotating shafts do not extend beyond the spatial limits of the plant and therefore, could not reasonably cause injury through striking.	Rare	Insignificant	NA	NA
	Are operators likely to SLIP, TRIP or FALL due uneven, unstable or slippery work surface?	Yes	Items of plant are fixed to flat, stable surfaces. At the time of the assessment, the areas surrounding each item of plant were observed to be accessible and free of obstacles and spills.	Possible	Minor	Low	None

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Slip / Trip / Fall	Are operators likely to SLIP, TRIP or FALL due poor housekeeping?	No	At the time of the assessment, the house keeping was observed to be adequate. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Possible	Minor	Low	None
High Pressure Fluid	Are operators likely to sustain injury through contact with HIGH PRESSURE FLUIDS due to plant failure?	No	Not applicable.	Rare	Insignificant	NA	NA
Extreme Temperatures	Are operators likely to sustain injury caused by EXTREME TEMPERATURES or FIRE due to poorly insulated or maintained hot or cold plant or plant parts?	No	Not applicable.	Rare	Insignificant	NA	NA
Ergonomic	Are operators likely to be subject to ERGONOMIC factors such as use of excessive force, awkward posture, repetitive movements or poor workplace design?	No	Not applicable.	Rare	Insignificant	NA	NA
Electricity	Are operators likely to be subject to ELECTRIC SHOCK due to damaged or poorly maintained electrical leads, cables or switches?	Yes	Electrical items were considered to be in good condition, as no significant damage/wear was observed. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of electrical conductors?	Yes	Electrical conductors were observed to be consistent with the nature of the installation and well maintained. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of water?	No	Not applicable.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Other Hazards	Are operators likely to sustain injury caused by exposure to chemicals?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to toxic gases or vapours?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to ionising radiation?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to biological hazards?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to noise?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by Fire or explosion?	No	Not applicable.	Rare	Insignificant	NA	NA

# Plant Risk Assessment

Cooling Tower

Address: Tower 4 - 727 Collins St, Docklands VIC 3008  
 Items of Plant: Refer to Appendix A  
 Date of: 14/02/2019  
 Assessment:

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Entanglement	Are operators likely to become ENTANGLED with moving parts of the plant or materials in motion?	Yes	The rotating shafts represent potential draw in points for the entanglement of loose clothing, hair and jewellery. However adequate guarding, through the presence of permanent barriers, is provided.	Unlikely	Moderate	Low	None
Crushing	Are operators likely to be CRUSHED due to material falling off the plant?	No	Items of plant are stationary and firmly fixed in position.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to movement of plant or its load?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to incapacity of the plant to be slowed, stopped or immobilised?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to the plant tipping, rolling or parts of plant collapsing?	No	As above.	Rare	Insignificant	NA	NA
Cutting, Stabbing, Puncturing	Are operators likely to be CUT, STABBED, or PUNCTURED from coming into contact with sharp or flying objects?	Yes	Moving plant parts are present that could result in cutting, stabbing or puncturing through coming into contact with sharp/flying objects. The following controls are used to reduce the risk of injury posed by moving parts: - Plant not in operation during maintenance, without the use of permanent guards; - Restriction of access to plant areas (authorised personnel only); and - Provision of permanent guards, in place during operation.	Rare	Moderate	Low	None
	Are operators likely to be CUT, STABBED, or PUNCTURED from movement of the plant or plant parts?	Yes	As above.	Rare	Moderate	Low	None

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
	Are operators likely to be CUT, STABBED, or PUNCTURED from ejection of work pieces?	Yes	As above.	Rare	Moderate	Low	None
Shearing	Are operator body parts likely to be SHEARED or SEVERED due to being caught between fixed and traversing parts of plant?	No	No traversing plant parts are present that could reasonably cause injury through shearing.	Rare	Insignificant	NA	NA
Frictional Burning	Are operators likely to be FRICTIONALLY burnt due to high speed rotating plant, plant parts or material handled by plant?	Yes	Movement of fan belts represent potential for personnel to incur injury through frictional burns. However, adequate guarding through the presence of permanent barriers and isolation procedures during maintenance are in place.	Unlikely	Moderate	Low	None
Striking	Are operators likely to be STRUCK by the movement of the plant or plant parts?	No	The rotating shafts do not extend beyond the spatial limits of the plant and therefore, could not reasonably cause injury through striking.	Rare	Insignificant	NA	NA
Slip / Trip / Fall	Are operators likely to SLIP, TRIP or FALL due uneven, unstable or slippery work surface?	Yes	Items of plant are fixed to flat, stable surfaces. At the time of the assessment, the areas surrounding each item of plant were observed to be accessible and free of obstacles and spills. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Possible	Minor	Low	None
	Are operators likely to SLIP, TRIP or FALL due poor housekeeping?	Yes	At the time of the assessment, the house keeping was observed to be adequate. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
High Pressure Fluid	Are operators likely to sustain injury through contact with HIGH PRESSURE FLUIDS due to plant failure?	No	Pressurised contents of plant are not considered to be sufficiently high as to reasonably cause injury if plant were to fail.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Extreme Temperatures	Are operators likely to sustain injury caused by EXTREME TEMPERATURES or FIRE due to poorly insulated or maintained hot or cold plant or plant parts?	No	No plant, plant parts or materials handled by plant with extreme temperatures are present that could reasonably result in burns or scalding.	Rare	Insignificant	NA	NA
Ergonomic	Are operators likely to be subject to ERGONOMIC factors such as use of excessive force, awkward posture, repetitive movements or poor workplace design?	No	The design, operation, locality and accessibility of items of plant are considered to be compatible with human characteristics and capacities.	Rare	Insignificant	NA	NA
Electricity	Are operators likely to be subject to ELECTRIC SHOCK due to damaged or poorly maintained electrical leads, cables or switches?	Yes	Electrical items were considered to be in good condition, as no significant damage/wear was observed. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of electrical conductors?	Yes	Electrical conductors were observed to be consistent with the nature of the installation and well maintained. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of water?	Yes	Water is contained within each plant item and represents a potential source of electrocution. However, scheduled maintenance and inspection of electrical devices is undertaken to reduce the relatively low risk of plant failure.	Rare	Major	Low	None
	Are operators likely to sustain injury caused by exposure to chemicals?	Yes	Water treatment chemicals associated with plant create the potential for injury to be sustained due to chemical exposure.	Unlikely	Moderate	Low	None
	Are operators likely to sustain injury caused by exposure to toxic gases or vapours?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to ionising radiation?	No	Not applicable.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Other Hazards	Are operators likely to sustain injury caused by exposure to biological hazards?	Yes	Items of plant create the potential for biological hazards such as Legionella. Preparation and annual review of a Risk Management Plan (including specification of frequencies for inspection, cleaning, water sampling etc. based on the level of risk posed by the cooling tower). Automated dosing is also in place.	Rare	Moderate	Low	None
	Are operators likely to sustain injury caused by exposure to noise?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by Fire or explosion?	No	Not applicable.	Rare	Insignificant	NA	NA

# Plant Risk Assessment

Electric Pump (Water)



Address: Tower 4 - 727 Collins St, Docklands VIC 3008

Items of Plant: Refer to Appendix A

Date of Assessment: 14/02/2019

Assessment:

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Entanglement	Are operators likely to become ENTANGLED with moving parts of the plant or materials in motion?	Yes	The rotating shafts represent potential draw in points for the entanglement of loose clothing, hair and jewellery, however, adequate guarding was provided.	Unlikely	Moderate	Low	None
Crushing	Are operators likely to be CRUSHED due to material falling off the plant?	No	Items of plant are stationary and firmly fixed in position.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to movement of plant or its load?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to incapacity of the plant to be slowed, stopped or immobilised?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to the plant tipping, rolling or parts of plant collapsing?	No	As above.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Cutting, Stabbing, Puncturing	Are operators likely to be CUT, STABBED, or PUNCTURED from coming into contact with sharp or flying objects?	Yes	Moving plant parts are present that could result in cutting, stabbing or puncturing through coming into contact with sharp/flying objects. The following controls are used to reduce the risk of injury posed by moving parts: - Plant not in operation during maintenance, without the use of permanent guards; - Restriction of access to plant areas (authorised personnel only); and - Provision of permanent guards, in place during operation.	Rare	Moderate	Low	None
	Are operators likely to be CUT, STABBED, or PUNCTURED from movement of the plant or plant parts?	Yes	As above.	Rare	Moderate	Low	None
	Are operators likely to be CUT, STABBED, or PUNCTURED from ejection of work pieces?	Yes	As above.	Rare	Moderate	Low	None
Shearing	Are operator body parts likely to be SHEARED or SEVERED due to being caught between fixed and traversing parts of plant?	No	No traversing plant parts are present that could reasonably cause injury through shearing.	Rare	Insignificant	NA	NA
Frictional Burning	Are operators likely to be FRICTIONALLY burnt due to high speed rotating plant, plant parts or material handled by plant?	Yes	Moving plant parts are present that could result in frictional burns due to high speed rotating plant. The following controls are used to reduce the risk of frictional burning posed by high speed rotating parts: - Plant not in operation during maintenance, without the use of permanent guards; - Restriction of access to plant areas (authorised personnel only); and - Provision of permanent guards, in place during operation.	Unlikely	Moderate	Low	None

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Striking	Are operators likely to be STRUCK by the movement of the plant or plant parts?	No	The rotating shafts do not extend beyond the spatial limits of the plant and therefore, could not reasonably cause injury through striking.	Rare	Insignificant	NA	NA
Slip / Trip / Fall	Are operators likely to SLIP, TRIP or FALL due uneven, unstable or slippery work surface?	Yes	Items of plant are fixed to flat, stable surfaces. At the time of the assessment, the areas surrounding each item of plant were observed to be accessible and free of obstacles and spills. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Possible	Minor	Low	None
	Are operators likely to SLIP, TRIP or FALL due poor housekeeping?	Yes	At the time of the assessment, the house keeping was observed to be adequate. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
High Pressure Fluid	Are operators likely to sustain injury through contact with HIGH PRESSURE FLUIDS due to plant failure?	No	Pressurised contents of plant are not considered to be sufficiently high as to reasonably cause injury if plant were to fail.	Rare	Insignificant	NA	NA
Extreme Temperatures	Are operators likely to sustain injury caused by EXTREME TEMPERATURES or FIRE due to poorly insulated or maintained hot or cold plant or plant parts?	No	Piping associated with fluids with hot/cold temperatures was considered to pose an increased risk of burns to operators/personnel. However adequate	Rare	Major	Low	
Ergonomic	Are operators likely to be subject to ERGONOMIC factors such as use of excessive force, awkward posture, repetitive movements or poor workplace design?	No	The design, operation, locality and accessibility of items of plant are considered to be compatible with human characteristics and capacities.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Electricity	Are operators likely to be subject to ELECTRIC SHOCK due to damaged or poorly maintained electrical leads, cables or switches?	Yes	Electrical items were considered to be in good condition, as no significant damage/wear was observed. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of electrical conductors?	Yes	Electrical conductors were observed to be consistent with the nature of the installation and well maintained. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of water?	Yes	Water is contained within each plant item and represents a potential source of electrocution. However, scheduled maintenance and inspection of electrical devices is undertaken to reduce the relatively low risk of plant failure.	Rare	Major	Low	None
Other Hazards	Are operators likely to sustain injury caused by exposure to chemicals?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to toxic gases or vapours?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to ionising radiation?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to biological hazards?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to noise?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by Fire or explosion?	No	Not applicable.	Rare	Insignificant	NA	NA

# Plant Risk Assessment

Diesel Pump (Water)



Address: Tower 4 - 727 Collins St, Docklands VIC 3008  
 Items of Plant: Refer to Appendix A  
 Date of Assessment: 14/02/2019

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Entanglement	Are operators likely to become ENTANGLED with moving parts of the plant or materials in motion?	Yes	The rotating shafts represent potential draw in points for the entanglement of loose clothing, hair and jewellery. However adequate guarding, through the presence of permanent barriers, is provided.	Unlikely	Moderate	Low	None
Crushing	Are operators likely to be CRUSHED due to material falling off the plant?	No	Items of plant are stationary and firmly fixed in position.	NA	NA	NA	NA
	Are operators likely to be CRUSHED due to movement of plant or its load?	No	As above.	NA	NA	NA	NA
	Are operators likely to be CRUSHED due to incapacity of the plant to be slowed, stopped or immobilised?	No	As above.	NA	NA	NA	NA
	Are operators likely to be CRUSHED due to the plant tipping, rolling or parts of plant collapsing?	No	As above.	NA	NA	NA	NA
Cutting, Stabbing, Puncturing	Are operators likely to be CUT, STABBED, or PUNCTURED from coming into contact with sharp or flying objects?	Yes	Moving plant parts are present that could result in cutting, stabbing or puncturing through coming into contact with sharp/flying objects. The following controls are used to reduce the risk of injury posed by moving parts: - Plant not in operation during maintenance, without the use of permanent guards; - Restriction of access to plant areas (authorised personnel only); and - Provision of permanent guards, in place during operation.	Rare	Moderate	Low	None

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
	Are operators likely to be CUT, STABBED, or PUNCTURED from movement of the plant or plant parts?	Yes	As above.	Rare	Moderate	Low	None
	Are operators likely to be CUT, STABBED, or PUNCTURED from ejection of work pieces?	Yes	As above.	Rare	Moderate	Low	None
Shearing	Are operator body parts likely to be SHEARED or SEVERED due to being caught between fixed and traversing parts of plant?	No	No traversing plant parts are present that could reasonably cause injury through shearing.	NA	NA	NA	NA
Frictional Burning	Are operators likely to be FRICTIONALLY burnt due to high speed rotating plant, plant parts or material handled by plant?	Yes	Moving plant parts are present that could result in frictional burns due to high speed rotating plant. The following controls are used to reduce the risk of frictional burning posed by high speed rotating parts: - Plant not in operation during maintenance, without the use of permanent guards; - Restriction of access to plant areas (authorised personnel only); and - Provision of permanent guards, in place during operation.	Unlikely	Moderate	Low	None
Striking	Are operators likely to be STRUCK by the movement of the plant or plant parts?	No	The rotating shafts do not extend beyond the spatial limits of the plant and therefore, could not reasonably cause injury through striking.	NA	NA	NA	NA
Slip / Trip / Fall	Are operators likely to SLIP, TRIP or FALL due uneven, unstable or slippery work surface?	Yes	Items of plant are fixed to flat, stable surfaces. At the time of the assessment, the areas surrounding each item of plant were observed to be accessible and free of obstacles and spills. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Possible	Minor	Low	None

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
	Are operators likely to SLIP, TRIP or FALL due poor housekeeping?	Yes	At the time of the assessment, the house keeping was observed to be adequate. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
High Pressure Fluid	Are operators likely to sustain injury through contact with HIGH PRESSURE FLUIDS due to plant failure?	No	Pressurised contents of plant are not considered to be sufficiently high as to reasonably cause injury if plant were to fail.	NA	NA	NA	NA
Extreme Temperatures	Are operators likely to sustain injury caused by EXTREME TEMPERATURES or FIRE due to poorly insulated or maintained hot or cold plant or plant parts?	No	Piping associated with fluids with hot/cold temperatures was considered to pose an increased risk of burns to operators/personnel. However adequate guarding and insulation was provided.	Rare	Moderate	Low	None
Ergonomic	Are operators likely to be subject to ERGONOMIC factors such as use of excessive force, awkward posture, repetitive movements or poor workplace design?	No	The design, operation, locality and accessibility of items of plant are considered to be compatible with human characteristics and capacities.	NA	NA	NA	NA
Electricity	Are operators likely to be subject to ELECTRIC SHOCK due to damaged or poorly maintained electrical leads, cables or switches?	Yes	Electrical items were considered to be in good condition, as no significant damage/wear was observed. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of electrical conductors?	Yes	Electrical conductors were observed to be consistent with the nature of the installation and well maintained. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of water?	Yes	Water is contained within each plant item and represents a potential source of electrocution. However, scheduled maintenance and inspection of electrical devices is undertaken to reduce the relatively low risk of plant failure.	Rare	Major	Low	None

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Other Hazards	Are operators likely to sustain injury caused by exposure to chemicals?	Yes	Spill kit is provided to contain spills.	Unlikely	Minor	Low	None
	Are operators likely to sustain injury caused by exposure to toxic gases or vapours?	Yes	Diesel working fluid has a high flash point representing low risks for the presence of toxic vapours.	Unlikely	Moderate	Low	None
	Are operators likely to sustain injury caused by exposure to ionising radiation?	No	Not applicable.	NA	NA	NA	NA
	Are operators likely to sustain injury caused by exposure to biological hazards?	No	Not applicable.	NA	NA	NA	NA
	Are operators likely to sustain injury caused by exposure to noise?	Yes	Warning signage was provided at the entrance to areas where, during operation, increased noise levels are generated during plant operation.	Unlikely	Moderate	Low	None
	Are operators likely to sustain injury caused by Fire or explosion?	Yes	Diesel working fluid has a high flash point representing low risk of fire.	Unlikely	Moderate	Low	None

# Plant Risk Assessment

Compressor

Address: Tower 4 - 727 Collins St, Docklands VIC 3008  
 Items of Plant: Refer to Appendix A  
 Date of Assessment: 14/02/2019

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Entanglement	Are operators likely to become ENTANGLED with moving parts of the plant or materials in motion?	Yes	The rotating shafts represent potential draw in points for the entanglement of loose clothing, hair and jewellery, however, adequate guarding was provided.	Unlikely	Moderate	Low	NA
Crushing	Are operators likely to be CRUSHED due to material falling off the plant?	No	Items of plant are stationary and firmly fixed in position.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to movement of plant or its load?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to incapacity of the plant to be slowed, stopped or immobilised?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to the plant tipping, rolling or parts of plant collapsing?	No	As above.	Rare	Insignificant	NA	NA
Cutting, Stabbing, Puncturing	Are operators likely to be CUT, STABBED, or PUNCTURED from coming into contact with sharp or flying objects?	Yes	Moving plant parts are present that could result in cutting, stabbing or puncturing through coming into contact with sharp/flying objects. The following controls are used to reduce the risk of injury posed by moving parts: - Plant not in operation during maintenance, without the use of permanent guards; - Restriction of access to plant areas (authorised personnel only); and - Provision of permanent guards, in place during operation.	Rare	Moderate	Low	None
	Are operators likely to be CUT, STABBED, or PUNCTURED from movement of the plant or plant parts?	Yes	As above.	Rare	Moderate	Low	None

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
	Are operators likely to be CUT, STABBED, or PUNCTURED from ejection of work pieces?	Yes	As above.	Rare	Moderate	Low	None
Shearing	Are operator body parts likely to be SHEARED or SEVERED due to being caught between fixed and traversing parts of plant?	No	No traversing plant parts are present that could reasonably cause injury through shearing.	Rare	Insignificant	NA	NA
Frictional Burning	Are operators likely to be FRICTIONALLY burnt due to high speed rotating plant, plant parts or material handled by plant?	Yes	Moving plant parts are present that could result in frictional burns due to high speed rotating plant.	Unlikely	Moderate	Low	None
Striking	Are operators likely to be STRUCK by the movement of the plant or plant parts?	No	No moving plant parts are present that could reasonably cause injury through striking.	Rare	Insignificant	NA	NA
Slip / Trip / Fall	Are operators likely to SLIP, TRIP or FALL due uneven, unstable or slippery work surface?	Yes	Items of plant are fixed to flat, stable surfaces. At the time of the assessment, the areas surrounding each item of plant were observed to be accessible and free of obstacles and spills. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
	Are operators likely to SLIP, TRIP or FALL due poor housekeeping?	Yes	At the time of the assessment, the house keeping was observed to be adequate. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
High Pressure Fluid	Are operators likely to sustain injury through contact with HIGH PRESSURE FLUIDS due to plant failure?	No	Pressurised contents of plant are not considered to be sufficiently high as to reasonably cause injury if plant were to fail.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Extreme Temperatures	Are operators likely to sustain injury caused by EXTREME TEMPERATURES or FIRE due to poorly insulated or maintained hot or cold plant or plant parts?	No	Not applicable.	Rare	Insignificant	NA	NA
Ergonomic	Are operators likely to be subject to ERGONOMIC factors such as use of excessive force, awkward posture, repetitive movements or poor workplace design?	No	The design, operation, locality and accessibility of items of Items of plant are considered to be compatible with human characteristics and capacities.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Electricity	Are operators likely to be subject to ELECTRIC SHOCK due to damaged or poorly maintained electrical leads, cables or switches?	Yes	Electrical items were considered to be in good condition, as no significant damage/wear was observed. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of electrical conductors?	Yes	Electrical conductors were observed to be consistent with the nature of the installation and well maintained. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of water?	Yes	The relatively low probability of plant failure, given that water is contained within each plant item, represents a potential source of electrocution. Scheduled maintenance and inspection of electrical devices is undertaken to reduce the risk.	Rare	Major	Low	None
Other Hazards	Are operators likely to sustain injury caused by exposure to chemicals?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to toxic gases or vapours?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to ionising radiation?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to biological hazards?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to noise?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by Fire or explosion?	No	Not applicable.	Rare	Insignificant	NA	NA

# Plant Risk Assessment

Hot Water Heater (Electric)



Address: Tower 4 - 727 Collins St, Docklands VIC 3008

Items of Plant: Refer to Appendix A

Date of Assessment: 14/02/2019

Assessment:

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Entanglement	Are operators likely to become ENTANGLED with moving parts of the plant or materials in motion?	No	No moving parts associated with these items of plant were observed that could reasonably cause injury through entanglement.	Rare	Insignificant	NA	NA
Crushing	Are operators likely to be CRUSHED due to material falling off the plant?	No	Items of plant are stationary and firmly fixed in position.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to movement of plant or its load?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to incapacity of the plant to be slowed, stopped or immobilised?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to the plant tipping, rolling or parts of plant collapsing?	No	As above.	Rare	Insignificant	NA	NA
Cutting, Stabbing, Puncturing	Are operators likely to be CUT, STABBED, or PUNCTURED from coming into contact with sharp or flying objects?	No	No moving plant parts are present that could reasonably cause injury through cutting, stabbing or puncturing.	Rare	Insignificant	NA	NA
	Are operators likely to be CUT, STABBED, or PUNCTURED from movement of the plant or plant parts?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CUT, STABBED, or PUNCTURED from ejection of work pieces?	No	As above.	Rare	Insignificant	NA	NA
Shearing	Are operator body parts likely to be SHEARED or SEVERED due to being caught between fixed and traversing parts of plant?	No	No traversing plant parts are present that could reasonably cause injury through shearing.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Frictional Burning	Are operators likely to be FRICTIONALLY burnt due to high speed rotating plant, plant parts or material handled by plant?	No	No moving plant parts are present that could reasonably cause friction burns or abrasions.	Rare	Insignificant	NA	NA
Striking	Are operators likely to be STRUCK by the movement of the plant or plant parts?	No	No rotating shafts are present in plant.	Rare	Insignificant	NA	NA
Slip / Trip / Fall	Are operators likely to SLIP, TRIP or FALL due uneven, unstable or slippery work surface?	Yes	Items of plant are fixed to flat, stable surfaces. At the time of the assessment, the areas surrounding each item of plant were observed to be accessible and free of obstacles and spills. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
	Are operators likely to SLIP, TRIP or FALL due poor housekeeping?	Yes	At the time of the assessment, the house keeping was observed to be adequate. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
High Pressure Fluid	Are operators likely to sustain injury through contact with HIGH PRESSURE FLUIDS due to plant failure?	No	Pressurised contents of plant are not considered to be sufficiently high as to reasonably cause injury if plant were to fail.	Rare	Insignificant	NA	NA
Extreme Temperatures	Are operators likely to sustain injury caused by EXTREME TEMPERATURES or FIRE due to poorly insulated or maintained hot or cold plant or plant parts?	No	Piping associated with fluids with hot/cold temperatures was considered to pose an increased risk of burns to operators/personnel. However adequate guarding and insulation was provided.	Rare	Moderate	Low	None
Ergonomic	Are operators likely to be subject to ERGONOMIC factors such as use of excessive force, awkward posture, repetitive movements or poor workplace design?	No	The design, operation, locality and accessibility of items of Items of plant are considered to be compatible with human characteristics and capacities.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Electricity	Are operators likely to be subject to ELECTRIC SHOCK due to damaged or poorly maintained electrical leads, cables or switches?	Yes	Electrical items were considered to be in good condition, as no significant damage/wear was observed. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of electrical conductors?	Yes	Electrical conductors were observed to be consistent with the nature of the installation and well maintained. Scheduled maintenance and inspection of electrical devices is undertaken	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of water?	Yes	Water is contained within each plant item and represents a potential source of electrocution. However, scheduled maintenance and inspection of electrical devices is undertaken to reduce the relatively low risk of plant failure.	Rare	Major	Low	None
Other Hazards	Are operators likely to sustain injury caused by exposure to chemicals?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to toxic gases or vapours?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to ionising radiation?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to biological hazards?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to noise?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by Fire or explosion?	No	Not applicable.	Rare	Insignificant	NA	NA

# Plant Risk Assessment

Compactor

Address: Tower 4 - 727 Collins St, Docklands VIC 3008  
 Items of Plant: Refer to Appendix A  
 Date of: 14/02/2019  
 Assessment:

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Entanglement	Are operators likely to become ENTANGLED with moving parts of the plant or materials in motion?	Yes	No rotating parts are present. Plant parts were only known to result in sliding motion. Cage with safety interlock is provided to prevent operator interaction.	Rare	Moderate	Low	None
Crushing	Are operators likely to be CRUSHED due to material falling off the plant?	No	Items of plant are stationary and firmly fixed in position.	NA	NA	NA	NA
	Are operators likely to be CRUSHED due to movement of plant or its load?	Yes	Due to the compacting nature of the plant, it is possible that operators could be crushed due to the movement of the plant and/or its load.	Rare	Major	Low	None
	Are operators likely to be CRUSHED due to incapacity of the plant to be slowed, stopped or immobilised?	Yes	Due to the compacting nature of the plant, it is possible that operators could be crushed due to incapacity of the plant to be slowed, stopped or immobilised.	Rare	Major	Low	None
	Are operators likely to be CRUSHED due to the plant tipping, rolling or parts of plant collapsing?	No	Items of plant are stationary and firmly fixed in position.	NA	NA	NA	NA
Cutting, Stabbing, Puncturing	Are operators likely to be CUT, STABBED, or PUNCTURED from coming into contact with sharp or flying objects?	No	No moving plant parts are present that could reasonably cause injury through cutting, stabbing or puncturing.	NA	NA	NA	NA
	Are operators likely to be CUT, STABBED, or PUNCTURED from movement of the plant or plant parts?	No	As above.	NA	NA	NA	NA
	Are operators likely to be CUT, STABBED, or PUNCTURED from ejection of work pieces?	No	As above.	NA	NA	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Shearing	Are operator body parts likely to be SHEARED or SEVERED due to being caught between fixed and traversing parts of plant?	Yes	Sliding motion of plant items could create the potential for injury through shearing. Cage with safety interlock is in use.	Rare	Major	Low	None
Frictional Burning	Are operators likely to be FRICTIONALLY burnt due to high speed rotating plant, plant parts or material handled by plant?	No	No moving plant parts are present that could reasonably cause friction burns or abrasions.	NA	NA	NA	NA
Striking	Are operators likely to be STRUCK by the movement of the plant or plant parts?	No	No rotating parts were present in the plant.	NA	NA	NA	NA
Slip / Trip / Fall	Are operators likely to SLIP, TRIP or FALL due uneven, unstable or slippery work surface?	Yes	Items of plant are fixed to flat, stable surfaces. At the time of the assessment, the areas surrounding each item of plant were observed to be accessible and free of obstacles and spills.	Unlikely	Moderate	Low	None
	Are operators likely to SLIP, TRIP or FALL due poor housekeeping?	Yes	At the time of the assessment, the house keeping was observed to be adequate.	Unlikely	Moderate	Low	None
High Pressure Fluid	Are operators likely to sustain injury through contact with HIGH PRESSURE FLUIDS due to plant failure?	No	Pressurised contents of plant are not considered to be sufficiently high as to reasonably cause injury if plant were to fail.	NA	NA	NA	NA
Extreme Temperatures	Are operators likely to sustain injury caused by EXTREME TEMPERATURES or FIRE due to poorly insulated or maintained hot or cold plant or plant parts?	No	No plant, plant parts or materials handled by plant with extreme temperatures are present that could reasonably result in burns or scalding.	NA	NA	NA	NA
Ergonomic	Are operators likely to be subject to ERGONOMIC factors such as use of excessive force, awkward posture, repetitive movements or poor workplace design?	No	The design, operation, locality and accessibility of items of plant are considered to be compatible with human characteristics and capacities. The location of emergency stop is readily accessible.	NA	NA	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Electricity	Are operators likely to be subject to ELECTRIC SHOCK due to damaged or poorly maintained electrical leads, cables or switches?	Yes	Electrical items were considered to be in good condition, as no significant damage/wear was observed.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of electrical conductors?	Yes	Electrical conductors were observed to be consistent with the nature of the installation and well maintained.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of water?	No	Not applicable.	NA	NA	NA	NA
Other Hazards	Are operators likely to sustain injury caused by exposure to chemicals?	No	Not applicable.	NA	NA	NA	NA
	Are operators likely to sustain injury caused by exposure to toxic gases or vapours?	No	Not applicable.	NA	NA	NA	NA
	Are operators likely to sustain injury caused by exposure to ionising radiation?	No	Not applicable.	NA	NA	NA	NA
	Are operators likely to sustain injury caused by exposure to biological hazards?	No	Not applicable.	NA	NA	NA	NA
	Are operators likely to sustain injury caused by exposure to noise?	No	Not applicable.	NA	NA	NA	NA
	Are operators likely to sustain injury caused by Fire or explosion?	No	Not applicable.	NA	NA	NA	NA

# Plant Risk Assessment

Chiller



Address: Tower 4 - 727 Collins St, Docklands VIC 3008

Items of Plant: Refer to Appendix A

Date of Assessment: 14/02/2019

Assessment:

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Entanglement	Are operators likely to become ENTANGLED with moving parts of the plant or materials in motion?	Yes	The rotating shafts represent potential draw in points for the entanglement of loose clothing, hair and jewellery, however, adequate guarding was provided.	Unlikely	Moderate	Low	None
Crushing	Are operators likely to be CRUSHED due to material falling off the plant?	No	Items of plant are stationary and firmly fixed in position.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to movement of plant or its load?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to incapacity of the plant to be slowed, stopped or immobilised?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to the plant tipping, rolling or parts of plant collapsing?	No	As above.	Rare	Insignificant	NA	NA
Cutting, Stabbing, Puncturing	Are operators likely to be CUT, STABBED, or PUNCTURED from coming into contact with sharp or flying objects?	Yes	No moving plant parts are present that could reasonably cause injury through cutting, stabbing or puncturing.	Rare	Moderate	Low	None
	Are operators likely to be CUT, STABBED, or PUNCTURED from movement of the plant or plant parts?	Yes	As above.	Rare	Moderate	Low	
	Are operators likely to be CUT, STABBED, or PUNCTURED from ejection of work pieces?	Yes	As above.	Rare	Moderate	Low	
Shearing	Are operator body parts likely to be SHEARED or SEVERED due to being caught between fixed and traversing parts of plant?	No	No traversing plant parts are present that could reasonably cause injury through shearing.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Frictional Burning	Are operators likely to be FRICTIONALLY burnt due to high speed rotating plant, plant parts or material handled by plant?	Yes	The moving parts represent potential points for injury from frictional burns due to high speed rotation. Adequate guarding is provided through the presence of permanent barriers.	Unlikely	Moderate	Low	None
Striking	Are operators likely to be STRUCK by the movement of the plant or plant parts?	No	The rotating shafts do not extend beyond the spatial limits of the plant and therefore, could not reasonably cause injury through striking.	Rare	Insignificant	NA	NA
Slip / Trip / Fall	Are operators likely to SLIP, TRIP or FALL due uneven, unstable or slippery work surface?	Yes	Items of plant are fixed to flat, stable surfaces. At the time of the assessment, the areas surrounding each item of plant were observed to be accessible and free of obstacles and spills. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
	Are operators likely to SLIP, TRIP or FALL due poor housekeeping?	Yes	At the time of the assessment, the house keeping was observed to be adequate. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
High Pressure Fluid	Are operators likely to sustain injury through contact with HIGH PRESSURE FLUIDS due to plant failure?	Yes	Pressurised contents of plant are not considered to be sufficiently high as to reasonably cause injury if plant were to fail.	Rare	Moderate	Low	None
Extreme Temperatures	Are operators likely to sustain injury caused by EXTREME TEMPERATURES or FIRE due to poorly insulated or maintained hot or cold plant or plant parts?	No	Piping associated with fluids with hot/cold temperatures was considered to pose an increased risk of burns to operators/personnel. However adequate guarding and insulation was provided.	Rare	Insignificant	NA	None

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Ergonomic	Are operators likely to be subject to ERGONOMIC factors such as use of excessive force, awkward posture, repetitive movements or poor workplace design?	No	The design, operation, locality and accessibility of items of Items of plant are considered to be compatible with human characteristics and capacities.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Electricity	Are operators likely to be subject to ELECTRIC SHOCK due to damaged or poorly maintained electrical leads, cables or switches?	Yes	Electrical items were considered to be in good condition, as no significant damage/wear was observed. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of electrical conductors?	Yes	Electrical conductors were observed to be consistent with the nature of the installation and well maintained. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of water?	Yes	Water is contained within each plant item and represents a potential source of electrocution. However, scheduled maintenance and inspection of electrical devices is undertaken to reduce the relatively low risk of plant failure.	Rare	Major	Low	None
Other Hazards	Are operators likely to sustain injury caused by exposure to chemicals?	No	Not applicable.	Rare	Insignificant	NA	None
	Are operators likely to sustain injury caused by exposure to toxic gases or vapours?	Yes	Refrigerant gases contained within items of plant have the potential to leak, resulting in hazards associated with exposure to toxic gases.	Unlikely	Moderate	Low	
	Are operators likely to sustain injury caused by exposure to ionising radiation?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to biological hazards?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to noise?	Yes	Warning signage was provided at the entrance to areas where, during operation, increased noise levels are generated during plant operation.	Unlikely	Moderate	Low	None
	Are operators likely to sustain injury caused by Fire or explosion?	No	Not applicable.	Rare	Insignificant	NA	NA

Address: Tower 4 - 727 Collins St, Docklands VIC 3008  
 Items of Plant: Refer to Appendix A  
 Date of Assessment: 14/02/2019

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Entanglement	Are operators likely to become ENTANGLED with moving parts of the plant or materials in motion?	No	No moving parts associated with these items of plant were observed that could reasonably cause injury through entanglement.	Rare	Insignificant	NA	NA
Crushing	Are operators likely to be CRUSHED due to material falling off the plant?	No	Items of plant are stationary and firmly fixed in position.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to movement of plant or its load?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to incapacity of the plant to be slowed, stopped or immobilised?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to the plant tipping, rolling or parts of plant collapsing?	No	As above.	Rare	Insignificant	NA	NA
Cutting, Stabbing, Puncturing	Are operators likely to be CUT, STABBED, or PUNCTURED from coming into contact with sharp or flying objects?	No	No moving plant parts are present that could reasonably cause injury through cutting, stabbing or puncturing.	Rare	Insignificant	NA	NA
	Are operators likely to be CUT, STABBED, or PUNCTURED from movement of the plant or plant parts?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CUT, STABBED, or PUNCTURED from ejection of work pieces?	No	As above.	Rare	Insignificant	NA	NA
Shearing	Are operator body parts likely to be SHEARED or SEVERED due to being caught between fixed and traversing parts of plant?	No	No traversing plant parts are present that could reasonably cause injury through shearing.	Rare	Insignificant	NA	NA
Frictional Burning	Are operators likely to be FRICTIONALLY burnt due to high speed rotating plant, plant parts or material handled by plant?	No	No moving plant parts are present that could reasonably cause friction burns or abrasions.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Striking	Are operators likely to be STRUCK by the movement of the plant or plant parts?	No	No moving plant parts are present that could reasonably cause injury through striking.	Rare	Insignificant	NA	NA
Slip / Trip / Fall	Are operators likely to SLIP, TRIP or FALL due uneven, unstable or slippery work surface?	Yes	Items of plant are fixed to flat, stable surfaces. At the time of the assessment, the areas surrounding each item of plant were observed to be accessible and free of obstacles and spills. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
	Are operators likely to SLIP, TRIP or FALL due poor housekeeping?	Yes	At the time of the assessment, the house keeping was observed to be adequate. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
High Pressure Fluid	Are operators likely to sustain injury through contact with HIGH PRESSURE FLUIDS due to plant failure?	No	Pressurised contents of plant are not considered to be sufficiently high as to reasonably cause injury if plant were to fail.	Rare	Insignificant	NA	NA
Extreme Temperatures	Are operators likely to sustain injury caused by EXTREME TEMPERATURES or FIRE due to poorly insulated or maintained hot or cold plant or plant parts?	No	Piping associated with fluids with hot/cold temperatures was considered to pose an increased risk of burns to operators/personnel. However adequate guarding and insulation was provided.	Rare	Moderate	Low	None
Ergonomic	Are operators likely to be subject to ERGONOMIC factors such as use of excessive force, awkward posture, repetitive movements or poor workplace design?	No	The design, operation, locality and accessibility of items of Items of plant are considered to be compatible with human characteristics and capacities.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Electricity	Are operators likely to be subject to ELECTRIC SHOCK due to damaged or poorly maintained electrical leads, cables or switches?	Yes	Electrical items were considered to be in good condition, as no significant damage/wear was observed. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of electrical conductors?	Yes	Electrical conductors were observed to be consistent with the nature of the installation and well maintained. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of water?	Yes	The relatively low probability of plant failure, given that water is contained within each plant item, represents a potential source of electrocution. Scheduled maintenance and inspection of electrical devices is undertaken to reduce the risk.	Rare	Major	Low	None
Other Hazards	Are operators likely to sustain injury caused by exposure to chemicals?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to toxic gases or vapours?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to ionising radiation?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to biological hazards?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to noise?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by Fire or explosion?	No	Not applicable.	Rare	Insignificant	NA	NA

# Plant Risk Assessment

Generator



Address: Tower 4 - 727 Collins St, Docklands VIC 3008  
 Items of Plant: Refer to Appendix A  
 Date of Assessment: 14/02/2019

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Entanglement	Are operators likely to become ENTANGLED with moving parts of the plant or materials in motion?	Yes	The rotating shafts represent potential draw in points for the entanglement of loose clothing, hair and jewellery.	Unlikely	Moderate	Low	None
Crushing	Are operators likely to be CRUSHED due to material falling off the plant?	No	Items of plant are stationary and firmly fixed in position.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to movement of plant or its load?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to incapacity of the plant to be slowed, stopped or immobilised?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to the plant tipping, rolling or parts of plant collapsing?	No	As above.	Rare	Insignificant	NA	NA
Cutting, Stabbing, Puncturing	Are operators likely to be CUT, STABBED, or PUNCTURED from coming into contact with sharp or flying objects?	No	No moving plant parts are present that could reasonably cause injury through cutting, stabbing or puncturing.	Rare	Insignificant	NA	NA
	Are operators likely to be CUT, STABBED, or PUNCTURED from movement of the plant or plant parts?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CUT, STABBED, or PUNCTURED from ejection of work pieces?	No	As above.	Rare	Insignificant	NA	NA
Shearing	Are operator body parts likely to be SHEARED or SEVERED due to being caught between fixed and traversing parts of plant?	No	No traversing plant parts are present that could reasonably cause injury through shearing.	Rare	Insignificant	NA	NA
Frictional Burning	Are operators likely to be FRICTIONALLY burnt due to high speed rotating plant, plant parts or material handled by plant?	Yes	Moving plant parts are present that could result in frictional burns due to high speed rotating plant.	Unlikely	Moderate	Low	None

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Striking	Are operators likely to be STRUCK by the movement of the plant or plant parts?	No	The rotating shafts do not extend beyond the spatial limits of the plant and therefore, could not reasonably cause injury through striking.	Rare	Insignificant	NA	NA
Slip / Trip / Fall	Are operators likely to SLIP, TRIP or FALL due to uneven, unstable or slippery work surface?	Yes	Items of plant are fixed to flat, stable surfaces. At the time of the assessment, the areas surrounding each item of plant were observed to be accessible and free of obstacles and spills. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
	Are operators likely to SLIP, TRIP or FALL due to poor housekeeping?	Yes	At the time of the assessment, the house keeping was observed to be adequate. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
High Pressure Fluid	Are operators likely to sustain injury through contact with HIGH PRESSURE FLUIDS due to plant failure?	No	Pressurised contents of plant are not considered to be sufficiently high as to reasonably cause injury if plant were to fail.	Rare	Insignificant	NA	None
Extreme Temperatures	Are operators likely to sustain injury caused by EXTREME TEMPERATURES or FIRE due to poorly insulated or maintained hot or cold plant or plant parts?	No	Piping associated with fluids with hot/cold temperatures was considered to pose an increased risk of burns to operators/personnel. Piping associated with fluids with hot/cold temperatures is insulated.	Rare	Moderate	Low	None
Ergonomic	Are operators likely to be subject to ERGONOMIC factors such as use of excessive force, awkward posture, repetitive movements or poor workplace design?	No	The design, operation, locality and accessibility of items of Items of plant are considered to be compatible with human characteristics and capacities.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Electricity	Are operators likely to be subject to ELECTRIC SHOCK due to damaged or poorly maintained electrical leads, cables or switches?	Yes	Electrical items were considered to be in good condition, as no significant damage/wear was observed. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of electrical conductors?	Yes	Electrical conductors were observed to be consistent with the nature of the installation and well maintained. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of water?	Yes	The relatively low probability of plant failure, given that water is contained within each plant item, represents a potential source of electrocution. Scheduled maintenance and inspection of electrical devices is undertaken to reduce the risk.	Rare	Major	Low	None
Other Hazards	Are operators likely to sustain injury caused by exposure to chemicals?	Yes	Exposure risks associated with the diesel working fluid were considered applicable. Spill kit is provided.	Unlikely	Moderate	Low	None
	Are operators likely to sustain injury caused by exposure to toxic gases or vapours?	Yes	Diesel working fluid has a high flash point representing low risks for the presence of toxic vapours.	Unlikely	Moderate	Low	None
	Are operators likely to sustain injury caused by exposure to ionising radiation?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to biological hazards?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to noise?	Yes	Warning signage was provided at the entrance to areas where, during operation, increased noise levels are generated during plant operation.	Unlikely	Moderate	Low	None
	Are operators likely to sustain injury caused by Fire or explosion?	Yes	Diesel working fluid has a high flash point representing low risk of fire.	Unlikely	Moderate	Low	None

# Plant Risk Assessment

Heat Exchanger

Address: Tower 4 - 727 Collins St, Docklands VIC 3008  
 Items of Plant: Refer to Appendix A  
 Date of Assessment: 14/02/2019

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Entanglement	Are operators likely to become ENTANGLED with moving parts of the plant or materials in motion?	No	No moving parts associated with these items of plant were observed that could reasonably cause injury through entanglement.	Rare	Insignificant	NA	NA
Crushing	Are operators likely to be CRUSHED due to material falling off the plant?	No	Items of plant are stationary and firmly fixed in position.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to movement of plant or its load?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to incapacity of the plant to be slowed, stopped or immobilised?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to the plant tipping, rolling or parts of plant collapsing?	No	As above.	Rare	Insignificant	NA	NA
Cutting, Stabbing, Puncturing	Are operators likely to be CUT, STABBED, or PUNCTURED from coming into contact with sharp or flying objects?	No	No moving plant parts are present that could reasonably cause injury through cutting, stabbing or puncturing.	Rare	Insignificant	NA	NA
	Are operators likely to be CUT, STABBED, or PUNCTURED from movement of the plant or plant parts?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CUT, STABBED, or PUNCTURED from ejection of work pieces?	No	As above.	Rare	Insignificant	NA	NA
Shearing	Are operator body parts likely to be SHEARED or SEVERED due to being caught between fixed and traversing parts of plant?	No	No traversing plant parts are present that could reasonably cause injury through shearing.	Rare	Insignificant	NA	NA
Frictional Burning	Are operators likely to be FRICTIONALLY burnt due to high speed rotating plant, plant parts or material handled by plant?	No	No moving plant parts are present that could reasonably cause friction burns or abrasions.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Striking	Are operators likely to be STRUCK by the movement of the plant or plant parts?	No	No moving plant parts are present that could reasonably cause injury through striking.	Rare	Insignificant	NA	NA
Slip / Trip / Fall	Are operators likely to SLIP, TRIP or FALL due uneven, unstable or slippery work surface?	Yes	Items of plant are fixed to flat, stable surfaces. At the time of the assessment, the areas surrounding each item of plant were observed to be accessible and free of obstacles and spills. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
	Are operators likely to SLIP, TRIP or FALL due poor housekeeping?	Yes	At the time of the assessment, the house keeping was observed to be adequate. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
High Pressure Fluid	Are operators likely to sustain injury through contact with HIGH PRESSURE FLUIDS due to plant failure?	No	Pressurised contents of plant are not considered to be sufficiently high as to reasonably cause injury if plant were to fail.	Rare	Insignificant	NA	NA
Extreme Temperatures	Are operators likely to sustain injury caused by EXTREME TEMPERATURES or FIRE due to poorly insulated or maintained hot or cold plant or plant parts?	No	Piping associated with fluids with hot/cold temperatures was considered to pose an increased risk of burns to operators/personnel.	Rare	Moderate	Low	None
Ergonomic	Are operators likely to be subject to ERGONOMIC factors such as use of excessive force, awkward posture, repetitive movements or poor workplace design?	No	The design, operation, locality and accessibility of items of Items of plant are considered to be compatible with human characteristics and capacities.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Electricity	Are operators likely to be subject to ELECTRIC SHOCK due to damaged or poorly maintained electrical leads, cables or switches?	Yes	Electrical items were considered to be in good condition, as no significant damage/wear was observed. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of electrical conductors?	Yes	Electrical conductors were observed to be consistent with the nature of the installation and well maintained. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of water?	Yes	The relatively low probability of plant failure, given that water is contained within each plant item, represents a potential source of electrocution. Scheduled maintenance and inspection of electrical devices is undertaken to reduce the risk.	Rare	Major	Low	None
Other Hazards	Are operators likely to sustain injury caused by exposure to chemicals?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to toxic gases or vapours?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to ionising radiation?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to biological hazards?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to noise?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by Fire or explosion?	No	Not applicable.	Rare	Insignificant	NA	NA

# Plant Risk Assessment

Electric Pump (Oil)



Address: Tower 4 - 727 Collins St, Docklands VIC 3008

Items of Plant: Refer to Appendix A

Date of Assessment: 14/02/2019

Assessment:

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Entanglement	Are operators likely to become ENTANGLED with moving parts of the plant or materials in motion?	Yes	The rotating shafts represent potential draw in points for the entanglement of loose clothing, hair and jewellery, however, adequate guarding was provided.	Unlikely	Moderate	Low	None
Crushing	Are operators likely to be CRUSHED due to material falling off the plant?	No	Items of plant are stationary and firmly fixed in position.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to movement of plant or its load?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to incapacity of the plant to be slowed, stopped or immobilised?	No	As above.	Rare	Insignificant	NA	NA
	Are operators likely to be CRUSHED due to the plant tipping, rolling or parts of plant collapsing?	No	As above.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Cutting, Stabbing, Puncturing	Are operators likely to be CUT, STABBED, or PUNCTURED from coming into contact with sharp or flying objects?	Yes	Moving plant parts are present that could result in cutting, stabbing or puncturing through coming into contact with sharp/flying objects. The following controls are used to reduce the risk of injury posed by moving parts: - Plant not in operation during maintenance, without the use of permanent guards; - Restriction of access to plant areas (authorised personnel only); and - Provision of permanent guards, in place during operation.	Rare	Moderate	Low	None
	Are operators likely to be CUT, STABBED, or PUNCTURED from movement of the plant or plant parts?	Yes	As above.	Rare	Moderate	Low	None
	Are operators likely to be CUT, STABBED, or PUNCTURED from ejection of work pieces?	Yes	As above.	Rare	Moderate	Low	None
Shearing	Are operator body parts likely to be SHEARED or SEVERED due to being caught between fixed and traversing parts of plant?	No	No traversing plant parts are present that could reasonably cause injury through shearing.	Rare	Insignificant	NA	NA
Frictional Burning	Are operators likely to be FRICTIONALLY burnt due to high speed rotating plant, plant parts or material handled by plant?	Yes	Moving plant parts are present that could result in frictional burns due to high speed rotating plant. The following controls are used to reduce the risk of frictional burning posed by high speed rotating parts: - Plant not in operation during maintenance, without the use of permanent guards; - Restriction of access to plant areas (authorised personnel only); and - Provision of permanent guards, in place during operation.	Unlikely	Moderate	Low	None

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Striking	Are operators likely to be STRUCK by the movement of the plant or plant parts?	No	The rotating shafts do not extend beyond the spatial limits of the plant and therefore, could not reasonably cause injury through striking.	Rare	Insignificant	NA	NA
Slip / Trip / Fall	Are operators likely to SLIP, TRIP or FALL due uneven, unstable or slippery work surface?	Yes	Items of plant are fixed to flat, stable surfaces. At the time of the assessment, the areas surrounding each item of plant were observed to be accessible and free of obstacles and spills. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Possible	Minor	Low	None
	Are operators likely to SLIP, TRIP or FALL due poor housekeeping?	Yes	At the time of the assessment, the house keeping was observed to be adequate. Maintenance, inspection and cleaning of plant and associated working areas in accordance with designer and manufacturer recommendations is undertaken.	Unlikely	Moderate	Low	None
High Pressure Fluid	Are operators likely to sustain injury through contact with HIGH PRESSURE FLUIDS due to plant failure?	No	Pressurised contents of plant are not considered to be sufficiently high as to reasonably cause injury if plant were to fail.	Rare	Insignificant	NA	NA
Extreme Temperatures	Are operators likely to sustain injury caused by EXTREME TEMPERATURES or FIRE due to poorly insulated or maintained hot or cold plant or plant parts?	No	Piping associated with fluids with hot/cold temperatures was considered to pose an increased risk of burns to operators/personnel. However adequate	Rare	Insignificant	NA	NA
Ergonomic	Are operators likely to be subject to ERGONOMIC factors such as use of excessive force, awkward posture, repetitive movements or poor workplace design?	No	The design, operation, locality and accessibility of items of plant are considered to be compatible with human characteristics and capacities.	Rare	Insignificant	NA	NA

Hazard Class	Potential Hazard Description	Hazard /Risk Applicable (Yes /No)	Existing Risk Control Measures	Likelihood	Consequence	RISK LEVEL	Further Controls Required
Electricity	Are operators likely to be subject to ELECTRIC SHOCK due to damaged or poorly maintained electrical leads, cables or switches?	Yes	Electrical items were considered to be in good condition, as no significant damage/wear was observed. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of electrical conductors?	Yes	Electrical conductors were observed to be consistent with the nature of the installation and well maintained. Scheduled maintenance and inspection of electrical devices is undertaken.	Rare	Major	Low	None
	Are operators likely to be subject to ELECTRIC SHOCK due to working in contact with or in the vicinity of water?	Yes	Water is contained within each plant item and represents a potential source of electrocution. However, scheduled maintenance and inspection of electrical devices is undertaken to reduce the relatively low risk of plant failure.	Rare	Major	Low	None
Other Hazards	Are operators likely to sustain injury caused by exposure to chemicals?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to toxic gases or vapours?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to ionising radiation?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to biological hazards?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by exposure to noise?	No	Not applicable.	Rare	Insignificant	NA	NA
	Are operators likely to sustain injury caused by Fire or explosion?	No	Not applicable.	Rare	Insignificant	NA	NA

## Appendix C: Risk Assessment Criteria

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## Risk Scoring System

A risk matrix has been developed to assess the likelihood and consequence associated with potential hazardous events observed (in relation to plant and equipment). The level of risk for a particular observation has been assessed by taking into consideration the control measures already in place to manage the risk and the practicability of further control.

### Likelihood Scoring System

The likelihood of a hazardous event occurring is detailed in Table 1 below.

**Table 1: Risk Likelihood Rating**

Rating	Likelihood	Description
1	Rare	The event may occur but only in exceptional circumstances (10 years).
2	Unlikely	The event could occur at some time (5 years).
3	Possible	The event should occur sometime (1 year).
4	Likely	The event will probably occur (1 month).
5	Almost Certain	The event is expected to occur in normal circumstances (Daily).

### Severity Scoring System

The consequence of the risk is the impact of the potential outcome that would result if the hazardous event were to occur. It is measured in terms of risks to health and safety, in addition to potential financial loss, and is detailed in Table 2 below.

**Table 2: Risk Consequence Rating**

Rating	Consequence	Potential Consequence
1	Insignificant	No injuries, no environmental harm, low financial loss
2	Minor	Injury requiring first aid treatment, minor environmental harm, medium financial loss
3	Moderate	Injury requiring medical treatment and/or significant loss of asset, on-site release to environment contained without assistance, high financial loss
4	Major	Serious and/or notifiable injury, loss of production capability, off-site release with no detrimental effects, major financial loss
5	Catastrophic	Death, toxic release off-site with detrimental effect, huge financial loss

When allocating a severity score to the potential consequence, the descriptor that defines the most serious consequence was used.

## Risk Evaluation

The risk matrix used to determine the level of risk (low, medium or high) is provided on the following page, based on the severity and likelihood of the hazardous event.

**Table 3: Risk Level Matrix**

	Likelihood				
Severity	1 Rare	2 Unlikely	3 Possible	4 Likely	5 Almost Certain
5 Catastrophic	Medium	Medium	High	High	High
4 Major	Low	Medium	Medium	High	High
3 Moderate	Low	Low	Medium	Medium	High
2 Minor	Low	Low	Low	Medium	Medium
1 Insignificant	Low	Low	Low	Low	Medium

## Appendix D: Limitations

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Assessments are restricted to areas that are reasonably accessible. Given the constraints of practicable access encountered during this assessment, the following areas were not inspected at the time of the assessment:

- Without contravention of relevant statutory requirements or codes of practice;
- Without placing the auditor at undue risk;
- Without demolition or damage to finishes and structure; and
- Excluding plant and equipment that was 'in service' and operational.

Where the Consultant encounters access restrictions during the assessment, these situations are documented and reported below.

Item
Underneath the concrete slab of all building structures.
Within voids or internal areas of plant, equipment, air-conditioning ducts etc.
Within service shafts, ducts etc., concealed within the building structure.
Within totally inaccessible areas such as voids and cavities present but intimately concealed within the building structure.
Pumps within sumps, such as sewer and stormwater pumps.
All areas outside the Scope of Work, such as tenant managed areas.