



Pollution Incident Response Management Plan

Highland Pine Products

Site 1 Oberon EPL 887

Site 2 Oberon EPL 11229

Bathurst Treatment Plant (LOSP) EPL 105.



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Purpose	Guidance for HPP personnel and emergency services on Pollution Incident Response			

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AMENDMENT REGISTER

SUBSEQUENT TO THE FINALISATION OF THIS PIRMP, THE FOLLOWING AMENDMENTS WERE MADE AND REQUIRE IMPLEMENTATION.

Section	Amendments Made	Reason for Amendment	Responsibility	Done (Initial & Date)

KEY CONTACTS

THE ENVIRONMENTAL MANAGER IS ULTIMATELY RESPONSIBLE FOR IMPLEMENTATION AND MAINTENANCE OF THIS PIRMP.

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REVIEW REGISTER

Review Date	Review Team	Changes Made (Section)
1 May 2014	BG, TW,HD	NIL
2 May 2015	BG,SK.	Minor wording.
3 May 2016	SK, BG	nil
1 June 2017	SK, BG	Minor wording
1 June 2018	WL, PDS	Nil
1 Jan 2019	SK, WL, BG	All sections – Format change

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1. INTRODUCTION

This Pollution Incident Response Management Plan (PIRMP) has been developed to conform to requirements as outlined in the Protection of the Environment Operations Act (POEO Act) 1997 and subordinate legislation. This document covers Highland Pine Products (HPP) facilities in Oberon and Bathurst, NSW. The plan applies to emergency services, all employees, visitors, contractors and also potentially impacted off site receptors in the event of a pollution incident.

This PIRMP is a module in a suite of documents that support compliance with environmental legislation and development consents. The related Environment Management System (EMS) document is the interface between the HPP Management System requirements and the site specific Environment Management Plan (EMP). The EMS, EMPs and related modules comprise an integrated environmental management system. This PIRMP and its modules not only seek to ensure environmental compliance but to continually improve performance.

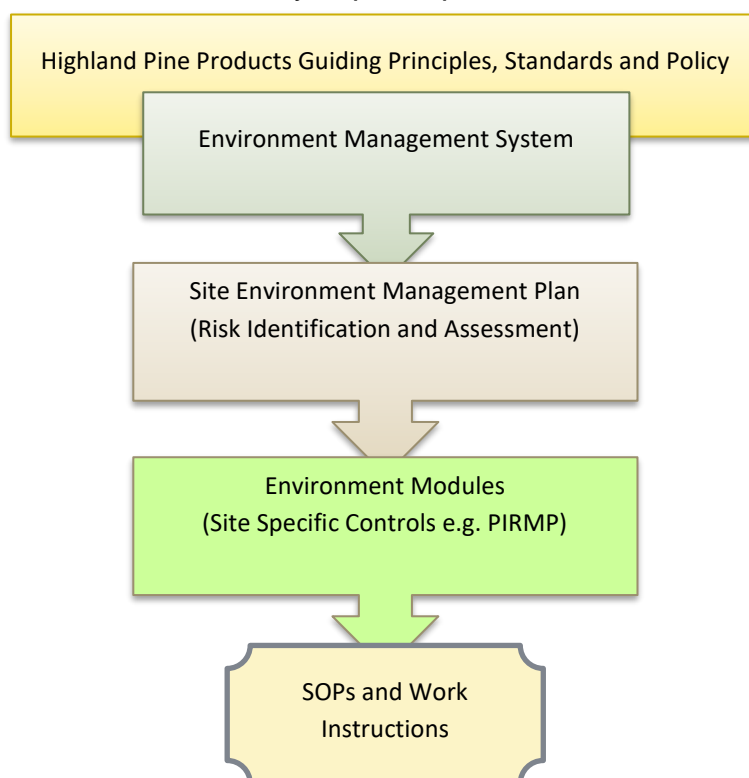


FIGURE 1: HPP ENVIRONMENT MANAGEMENT SYSTEM FRAMEWORK.

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The purpose of this plan is to;

- Detail how the business will assess and respond to a pollution incident to minimize the potential harm to human health and the environment.
- Detail the process to ensure timely reporting of incidents, and
- Detail how the business will notify those within the vicinity of the operations of potential impacts should a pollution incident occur.

2. HPP NSW OPERATIONS

This plan is applicable to the following HPP premises.

Site	Location	Environmental protection licence	Link
Highland Pine Products Site 1	Lowes Mount Road (Via Gate 3 Albion St) Oberon 2787	EPL 887	https://apps.epa.nsw.gov.au/prpoeoapp/
Highland Pine Products Site 2	Gate 3, Albion St Oberon 2787	EPL 11229	
Bathurst Timber Treatment Plant (LOSP)	Stewart St Bathurst NSW 2795	EPL 105	

TABLE 1: HPP OPERATIONS IN NSW

3. LEGAL REQUIREMENTS

Part 5.7A of the Act and associated regulations requires all licensees in NSW to prepare and implement a PIRMP. The Protection of the Environment Operations (General) Amendment (Pollution Incident Response Management Plans) Regulation 2012 sets out details of the requirements for this PIRMP.

This PIRMP must be tested/reviewed within 1 month of a pollution incident that is externally reportable and at least once annually. The Act imposes significant penalties for not preparing, keeping on the site, testing and implementing this PIRMP.

This plan is available electronically and can be accessed via Security at Gate 3, Albion St, Oberon NSW or by request in writing to the Environment Manager, HPP. Gate 3, Albion st Oberon NSW.

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4. ACTIVATION OF THIS PLAN

All pollution incidents will be measured against this plan which will be activated when a pollution incident has the potential to cause material harm.

An incident is considered material under s.147 of the POEO Act if;

- it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or (ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and
 - the loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.
- It does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

The incumbent in the following roles are authorised to activate the PIRMP and notify the required authorities.

- General Manager
- Environment Manager
- Maintenance Manager
- EHSR Advisor
- Production Manager

Other members of the site lead team may also activate the PIRMP if trained to do so.

When an immediate threat to human life or property exists, all personnel are authorised to Dial 000 for emergency services and enact the site emergency response plan.

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5. OBJECTIVES OF THIS PLAN

This Plan will:

- Identify the main hazards on the site;
- Describe systems for dealing with pollution incidents;
- Detail mechanisms for minimizing risk, loss and damage from pollution incidents;
- Outline incident management structures;
- Ensure that the required review and update process is completed.

6. DESCRIPTION AND LIKELIHOOD OF MAIN HAZARDS.

Main hazards are potential pollutants that pose the greatest risk to the environment or human health.

A survey of potential pollutants on each site (Appendix 1) has been conducted to determine hazards with potential to impact on the environment. Parameters as detailed in **Table 2** and **Table 3** have been used to assess the risk to the environment or human health of each hazard. Main hazards (potential pollutants with risks assessed Minor and above) are recorded in the Main Hazard & Risk Table (Appendix 3). Potential pollutants with risks scores of Insignificant are not considered main hazards. Insignificant hazards are managed with non-specific infra-structure and administrative controls and are not covered by this Plan.

Consequences	Risk of Hazard to Environment and/or People				
	Insignificant	Minor	Moderate	Major	Disastrous
No measurable environmental impact. Very low level toxic and not dangerous.	Measurable environmental impact. Mildly toxic or low level dangerous.	Noticeable environmental impact. Toxic and medium level dangerous.	Significant environmental impact. Very toxic and high level dangerous.	Catastrophic environmental impact. Extremely toxic and very dangerous.	

TABLE 2- PARAMETERS USED TO ASSESS THE RISK TO THE ENVIRONMENT OR HUMAN HEALTH

Likelihood	Failure of Existing Controls				
	Extremely Unlikely	Unlikely	Possible	Likely	Almost Certain
Could occur in exceptional circumstances.	May occur at some time.	Will occur at some time.	Probably occur in most circumstances.	Expected to occur in most circumstances.	

TABLE 3- PARAMETERS USED TO ASSESS THE LIKELIHOOD OF FAILURE OF EXISTING CONTROLS.

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7. RISK REDUCTION CONTROLS

A number of infrastructure and administrative controls have been installed and implemented. Controls are site specific measures that are tailored to the assessed environmental risk potential and are detailed in Tables 4 and 5. Subject to the potential environmental risk, a number of controls may be implemented on a specific hazard event as detailed in (Appendix 3).

The effectiveness of implemented controls has been assessed using the EHSR Risk Rating Matrix (Appendix 4).

Control	Purpose	Details
Bundling	Act as secondary containment for liquid pollutants.	Diesel tank double skinned system. Hydraulic packs mostly banded but some not. Treatment line and chemical storage area banded. Portable bunding installed for tanks and drums across the site.
Sprinkler System	Reduce risk and extent of fires	Comprehensive sprinkler across the whole site (Site 2). Sprinklers in key areas of Site 1. Sprinkler system across LOSEP Bathurst.
Spill Kits	Limit impact of liquid pollutant spills	Strategically placed around all sites especially high-risk areas. Maintained by third party contractor.
Triple Interceptors	Reduce amount of pollutants discharged from site.	Above ground triple interceptor on boiler slab. Logyard in-ground part of first flush system.
First Flush Dams	Reduce amount of solid pollutants discharged from site.	System of pits and open dam to intercept first flush from site 1 and 2. LOSEP Bathurst fully sealed.
Water Treatment Plant	Reduce amounts of contaminants discharging from site.	NA
Over/Under Interceptors	Reduce amount of solid pollutants discharged from site.	Channel Reach 1,2 & 3 all have stormwater over/under interceptors. Site 1 has gross pollutant traps prior to discharge. LOSEP Bathurst has no interceptors.
Gate Valves	Contain spills to site for more effective clean up.	Channel Reach 1, 2 and 3 have gate valves.
Back Flow Prevention Devices	Prevent waste water entering town supply	Green mill saw cooling backflow valve. All potable water lines in to each site have back flow prevention systems fitted.
Fire Hydrants	Reduce risk and extent of fires	Comprehensive hydrant across all sites.
Crash Barriers	Protect infrastructure from mobile plant collisions.	Strategically placed across all sites to protect sensitive plant and fittings.

TABLE 4 – INFRASTRUCTURE CONTROLS

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Control	Purpose	Details
Standard Operating Procedures	Provide instruction for proper response to incidents.	Developed and maintained for all routine tasks
Safe Work Procedures	Provide direction on management of risk.	Developed and maintained for all non-routine tasks.
Housekeeping Inspections	Identify risks and recommend corrective actions	Implementing LEAN process.
Audits	Identify risks and recommend corrective actions	Regular audits internal Environment Department. In-house reviews under LEAN process.
Incident/Hazard/Near Miss Reporting	Identify risks and recommend corrective actions. Identify training, work procedure and infrastructure improvement requirements. Essential to continual improvement	Use HPP flash/investigation system. Reporting reviewed monthly and corrective actions tracked to completion.
Environmental Monitoring	Comply with license conditions. Monitor performance.	Environmental Department complete all monitoring requirements.
Change Management	Reduce risk posed by changes to process.	Business wide Change Management system implemented.
Emergency Plan	Reduce impact of emergencies on environment and business continuity. Reduce risks to human health and safety.	Emergency Plan detailing responses required in any emergency event
Induction Training	Alert all employees and visitors to their environmental responsibilities.	Site specific inductions. "Switch Back On" re-start induction after every extended shut. Annual reinduction for all employees.

TABLE 5 - ADMINISTRATIVE CONTROLS

8. PROCEDURE FOR INTERNAL AND EXTERNAL INCIDENT REPORTING

All incidents must be reported and investigated. Protocols have been developed to provide guidance on the level of environmental reporting required Acts and Regulations.

INTERNAL INCIDENT REPORTING.

All incidents, hazards and near misses must be reported under well-established reporting procedures. This provides all stakeholders with information regarding severity of a risk or incident and details corrective actions required. These procedures include a review system to ensure all corrective actions are completed.

EXTERNAL INCIDENT REPORTING.

HPP has developed an incident notification procedure (refer to [Appendices 2A and 2B](#) Spill Response Wall Chart and Notification Assessment Book) to provide specific direction in the event of an environmental incident. Subject to employee level of responsibility, specific training is provided

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on an annual basis. All training is tracked through the site training matrix and signoff attendance sheets. An example of a training matrix is provided in [Appendix 5](#).

Complying with the PIRMP notification requirements does not remove the need to comply with any other obligations for incident notification, for example, those that apply under other environment protection legislation or legislation administered by SafeWork NSW.

This procedure and associated documentation provide clear guidelines for reporting to external parties and was developed to comply with the Protection of the Environment Operations Act and regulations.

9. MECHANISMS FOR PROVIDING EARLY WARNINGS AND UPDATES TO NEIGHBOURS

If an incident has occurred that requires first response emergency services all communication to external parties and the public will be managed by emergency services. Each site and incident will require unique solutions to communication with the community. The following is a list of tools that may be used by authorized personnel to communicate with neighbours and the community.

- Notification on website
- Twitter
- FaceBook
- Telephone calls
- SMS
- Email to community representatives e.g. consultative committee
- Letter box drops for updates
- Door Knocks
- Town meetings for updates.

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10. DETAILED MAP

Each HPP facility has a detailed site map developed as part of the site emergency response process (See appendix 6). Key features of each site map includes;

- Location of site
- Surrounding area that might be affected
- Location of potential pollutants
- Storm-water lines and discharge points

See **Appendix 6** for a detailed site plan for the three sites covered by this PIRMP.

11. MANNER IN WHICH PLAN IS TO BE TESTED AND MAINTAINED

This PIRMP requires scheduled testing and maintenance to ensure the process remains current and incident response/notification is completed without delay. As a minimum, the following summary details the review requirements for this plan.

- Review at least once every 12 months and after every incident.
 - Record annual review in Risk Manager.
 - Senior management sign off is required for annual review.
- Spill response training and drills every 12 months.
- Provide relevant training on regular basis.
- Amend this PIRMP and record details in **Amendment Register**.

Task	Who	Frequency
Full review of plan including chemical risk assessment. Review must be documented.	Site EHSR, Engineering Dept, Production Dept. Site Manager	Annual
Post incident plan review.	Site EHSR, Engineering Dept, Production Dept. Site Manager	Within 30 days of this plan being activated.
Spill response training drills	All shop floor personnel	Annually
PIRMP responsibility training	All site personnel	Annually
PIRMP review signoff	Site Manager, Site EHSR	Annually
Amend register and update records	Site EHSR	Annually or as updates occur.

TABLE 6: PIRMP TESTING AND MAINTENANCE.

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APPENDIX 1A – POTENTIAL POLLUTANT INVENTORY- HPP SITE 2 EPL 11229 (BY LOCATION)

Description	Location	Container	Est Volume	Controls/notes	Risk Rating
Compressor Condensate	Area 1 Drymill	Bund	50L	Compressor enclosure has internal bund	Moderate
Compressor Oil	Area 1 Drymill	Compressor	50L	Inside	Moderate
Dust	Area 1 Drymill	Baghouse	NA	Enclosed system	Moderate
Dymark Ink	Area 1 Drymill	20L plastic drums	300L	bunded	Moderate
hydraulic oil	Area 1 Drymill	powerpack	1000L	bunded	Moderate
hydraulic oil	Area 1 Drymill	powerpack	5000L	bunded	Moderate
hydraulic oil	Area 1 Drymill	powerpack	200L	bunded	Moderate
hydraulic oil	Area 1 Drymill	Powerpack	200L	bunded	Moderate

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Description	Location	Container	Est Volume	Controls/notes	Risk Rating
hydraulic oil	Area 1 Drymill	powerpack	1500L	bunded	Moderate
hydraulic oil	Area 1 Drymill	powerpack	1500L	bunded	Moderate
Ink	Area 1 Drymill	20L Plastic	200L	Some bunded some not.	Moderate
paint	Area 1 Drymill	4 litre plastic cans	160l	DG Cabinet	Insignificant
Shavings	Area 1 Drymill	NA	NA	Blow lines	Moderate
thinners	Area 1 Drymill	4 litre plastic tins	16L	DG Cabinet	Moderate
Transformer Oil	Area 1 Drymill	Transformer	100L	Bunded	Minor
various CL 2 aerosols	Area 1 Drymill	Spray Cans	160L	DG Cabinet	Insignificant
various cl2 aerosols 2 x cabinets	Area 1 Drymill	Spray Cans	200L	DG Cabinet	Moderate
various oils	Area 1 Drymill	20L small drums	250L	DG Cabinet	Moderate
waste oils	Area 1 Drymill	20-200L drums	500L	bunded	Moderate
wd40	Area 1 Drymill	20L	160L	DG Cabinet	Moderate

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Description	Location	Container	Est Volume	Controls/notes	Risk Rating
Bar and Chain Oil	Area 1 Greenmill	205L Drums	600	bunded	Moderate
Chain Lube	Area 1 Greenmill	20L drums	700	DG Cabinet	Moderate
Chain Lube	Area 1 Greenmill	205L Drums	800	bunded	Moderate
Gear oil	Area 1 Greenmill	205L Drums	400	bunded	Moderate
Grease	Area 1 Greenmill	Drums and 20L plastic	500L	In old shipping container	Insignificant
Hydraulic Oil	Area 1 Greenmill	Blowers x 3	300L	Bunded internally	Moderate
Hydraulic oil	Area 1 Greenmill	205L Drums	600	bunded	Moderate
Hydraulic Oil	Area 1 Greenmill	powerpack	2000	bunded	Moderate
Hydraulic Oil	Area 1 Greenmill	tanks	1000L	bunded	Moderate
hydraulic oil	Area 1 Greenmill	powerpack	1000l	bunded	Moderate
hydraulic oil	Area 1 Greenmill	powerpack	200L	bunded	Moderate
hydraulic oil	Area 1 Greenmill	powerpack	600L	bunded	Moderate
Performance 130CH 32 oil	Area 1 Greenmill	205L Drums	600	bunded	Moderate
Radioactive material	Area 1 Greenmill	Scanner heads	6off	Registered user	Insignificant
Argon	Area 2 Drymill	Cylinders	2	Not bunded - chained to wall	Insignificant

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Description	Location	Container	Est Volume	Controls/notes	Risk Rating
Determite H2 Timber treatment biocide - Dilute	Area 2 Drymill	treatment system	2000L	bunded	Disastrous
hydraulic oil	Area 2 Drymill	powerpack	200L	bunded	Moderate
hydraulic oil	Area 2 Drymill	powerpack	400L	bunded	Moderate
hydraulic oil	Area 2 Drymill	powerpack	200L	bunded	Moderate
hydraulic oil	Area 2 Drymill	powerpack	1500L	bunded	Moderate
oxy/acetylene set	Area 2 Drymill	cylinders	4	mobile	Insignificant
Transformer Oil	Area 2 Drymill	transformer yard	1000L	bunded and caged	Minor
various cl2 aerosols 2 x cabinets	Area 2 Drymill	Spray Cans	60L	DG Cabinet	Moderate
Chain Lube	Area 2 Greenmill	205L Drums	400l	bunded	Moderate
Dymark ink	Area 2 Greenmill	20L drum (plastic)	400L	DG Cabinet	Moderate
Gear Oil	Area 2 Greenmill	Sump	20L	unbunded	Moderate
Hydraulic Oil	Area 2 Greenmill	Power Packs x 2	400L	bunded	Moderate
hydraulic oil	Area 2 Greenmill	205L drum	600L	bunded	Moderate

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Description	Location	Container	Est Volume	Controls/notes	Risk Rating
hydraulic oil	Area 2 Greenmill	powerpack	2000L	bunded	Moderate
hydraulic oil	Area 2 Greenmill	powerpack	200L	bunded	Moderate
hydraulic oil	Area 2 Greenmill	powerpack	2000L	bunded	Moderate
hydraulic oil	Area 2 Greenmill	powerpack	1000L	bunded	Moderate
hydraulic oil	Area 2 Greenmill	powerpack	1000L	bunded	Moderate
Kiln Condensate	Area 2 Greenmill	NA	NA	sent to Borg for recycle via their Waste water plant.	Major
Refrigerant	Area 2 Greenmill	Air Con Units	20L		Insignificant
Transformer oil	Area 2 Greenmill	Transformer	100L	Bunded	Minor
Unleaded Petrol	Area 2 Greenmill	50L plastic	50L	DG Cabinet	Insignificant
various CL 2 aerosols	Area 2 Greenmill	Spray Cans	400L	DG Cabinet	Moderate
various CL 3 flammables	Area 2 Greenmill	small drums	500L	DG Cabinet	Moderate
waste ink	Area 2 Greenmill	205L Drum (plastic)	205L	bunded	Insignificant
Accubatch Blue #35 Ink	Area 3 Drymill	20kg drums	600kg	bunded	Moderate

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Description	Location	Container	Est Volume	Controls/notes	Risk Rating
Determine H2 Timber treatment biocide - Dilute Chemical in make-up tanks x 3	Area 3 Drymill	tanks x 3	30000L	bunded	Disastrous
Determine H2 Timber treatment biocide - Empty IBC's (residue)	Area 3 Drymill	IBC's x 20 stored	20 IBC's	bunded	Disastrous
Determine H2 Timber treatment biocide - Neat Chemical	Area 3 Drymill	IBC's	10000L	bunded	Disastrous
360 dispersant	boiler	15L Plastic	60L	spill tray	Moderate
Ash	boiler	Bins	Continuous	Collected in bunded area. Sent to tip	Minor
Boiler Blow Down	boiler	Pit	NA	Solids filtered out sent to tip and liquid sent to MDF treatment plant.	Major
Compressor oil	boiler	Compressors	50L	Bunded	Moderate
Diesel	boiler	Tank	50L	Covered by boiler bund	Insignificant

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Description	Location	Container	Est Volume	Controls/notes	Risk Rating
Hydraulic Oil	boiler	Power Pack	250L	Fuel bin - Bunded	Moderate
Hydraulic Oil	boiler	Power Packs and 205 litre drums	3000L	Fuel bin-unBunded	Moderate
Hydrogen peroxide	boiler	20L plastic	40L	spill tray-Chemical store lockup.	Insignificant
inline cleaner	boiler	20L Plastic	60L	spill tray	Moderate
Micro Treat Biocide	boiler	20L plastic	40L	spill tray-Chemical store lockup.	Moderate
Natural gas	boiler	NA	NA		Disastrous
Omega Tan	boiler	20L plastic	200L	spill tray-Chemical store lockup.	Insignificant
Paint	boiler	Tins	200L	DG Cabinet	Insignificant
SAS 206 Biocide	boiler	15L Plastic	60L	spill tray	Moderate
SAS403 Alkalinity builder	boiler	15L Plastic	60L	spill tray	Moderate
sawdust	boiler	fuel bins	50T	unbunded	Moderate
turps	boiler	Tins	8L	DG Cabinet	Moderate
Water softener salts	boiler	Tanks and bags	200kg	unbunded	Moderate

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	Date of Issue	01/01/2019	Review Freq	Annual
Purpose	Guidance for HPP personnel and emergency services on Pollution Incident Response			

Description	Location	Container	Est Volume	Controls/notes	Risk Rating
Wonderclean	boiler	15L Plastic	15L	unbunded	Insignificant
Grease	De-barker	Steel drum	200L	bunded	Insignificant
Hydraulic Oil	De-barker	Power Pack x 2	5000L	Bunded	Moderate
ink	De-barker	20 litre plastic	20L	bunded	Moderate
Diesel	Fire Booster Pumps	Tank	100L	bunded	Insignificant
Log yard Runoff	Site	First Flash Dam	10000L	Retained volume	Moderate
Sawdust	Site	NA	NA		Moderate
Sewerage	site	Pits and pipes	NA		Moderate
Glass Cleaner	Store	20L plastic	20L	DG Cabinet	Insignificant
herbicide	store	20 litre plastic	20L	unbunded	Insignificant
Innox	Store	20L plastic	20L	DG Cabinet	Insignificant
Refrigerant	Store	Air Con units	20L	inside system	Insignificant
Spray Paint	Store	Spray Cans	5L	DG Cabinet	Insignificant
Thinners	Store	20L steel	20L	DG Cabinet	Insignificant

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Description	Location	Container	Est Volume	Controls/notes	Risk Rating
Truck Wash	Store	20L steel	40L	DG Cabinet	Insignificant
various aerosols	store	300ml cans	200L	DG-Cabinet in store	Moderate
various aerosols	store	300ml cans	150L	DG-Cabinet rear store	Moderate
Acetylene	Workshop	Cylinder	6	Gas Cage	Insignificant
Argon	Workshop	Cylinders	6	Gas Cage	Insignificant
Argon	Workshop	Cylinder	3	Gas Cage	Insignificant
Argoshield	Workshop	cylinder	3	Gas Cage	Insignificant
Cutting Coolant	Workshop	Tank	50L	Re-circulates	Insignificant
Cutting fluid	Workshop	20L steel	20L	Not banded	Insignificant
Hydraulic Oil	Workshop	Power pack	200L	Outside unbanded	Moderate
LPG	Workshop	cylinder	3	Gas Cage	Insignificant
Nitrogen gas	Workshop	Cylinder	3	Gas Cage	Insignificant

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Description	Location	Container	Est Volume	Controls/notes	Risk Rating
Oxygen	Workshop	Cylinder	6	Gas Cage	Insignificant
Refrigerant	Workshop	Air Con Units	20L		Insignificant
Refrigerant	Workshop	Air Con Units	10L		Insignificant
Used Computer Printer Cartridges	Workshop	Recycle bin	15 pieces	Stored for recycling pick up	Insignificant
wire rope lube	Workshop	20 litre plastic	20L	unbunded	Insignificant

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APPENDIX 1B – POTENTIAL POLLUTANT INVENTORY- HPP SITE 1 EPL 887 (BY LOCATION)

Description	Location	Container	Est. Volume	Controls/Notes	Risk Rating
Transformer Oil	Boiler	Transformers	50L	Bunded	Minor
H2 waste (liquid and solid)	Boiler	drums and IBC's	10 T	waste stored in old boiler fuel bin. Unbundled but away from traffic.	Moderate
Hydraulic Oil	Clam Bin	Power Pack	200L	Bunded	Moderate
paints	Green Mill (bulk Store)	tins 4-20 litres	100L	Unbundled but in locked cupboard	Insignificant
Oil	Green Mill (bulk Store)	tins 4-20 litres	500L	Unbundled	Moderate
Hydraulic oil	Holtec	Power Pack	300L	bunded	Moderate
Saw chain and bar oil	Holtec	205L drum	410L	Bunded	Moderate
misc. flammables (aerosols)	Holtec	spray cans	20L	Class 3 Cabinet (class 2 aerosols)	Moderate
Unleaded	Holtec	drums	40L	class 3 Cabinet	Moderate
Waste Water	Mobile Plant Wash Bay	Pit	2000L	Pumped out by Clean Away	Moderate
Oil	Oil Store	205L drums	5000L	In bunded store	Major
Grease	Oil Store	20L plastic	220L	Unbundled	Moderate
waste oil and grease	Oil Store	20-205 litre drums	500L	bunded	Moderate
Coolant	Saw Doctor Workshop	205L drums	410L	Outside Workshop - Bunded	Moderate

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Description	Location	Container	Est. Volume	Controls/Notes	Risk Rating
Acetylene	Saw Doctor Workshop	Cylinder	2		Insignificant
Argon	Saw Doctor Workshop	Cylinder	1		Insignificant
Cleaner	Saw Doctor Workshop	Drum	50L	Inside building	Insignificant
Coolant	Saw Doctor Workshop	20L Plastic	20L	Inside building	Insignificant
Gear oil	Saw Doctor Workshop	Gear Boxes	Small amounts	Unbunded	Insignificant
Glass cleaner	Saw Doctor Workshop	20L plastic	40L	Bunded and inside	Insignificant
Grease	Saw Doctor Workshop	Tin	4L	Inside building	Moderate
Innox	Saw Doctor Workshop	20L plastic	20L	Bunded and inside	Insignificant
Argoshield	Saw Doctor Workshop	Cylinder	2	Chained to wall	Insignificant
Butane	Saw Doctor Workshop	Cylinder	5 small	stored in cabinet	Insignificant
GPA 200	Saw Doctor Workshop	20 L drum	1	Unbunded	Moderate
White Metal (melted solid)	Saw Doctor Workshop	30L when melted in crucible.	liquid in crucible.	Unbunded	Insignificant
misc. flammables (aerosols)	Saw Doctor Workshop	300ml to 4L	30 litres	DG cabinet	Moderate

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Description	Location	Container	Est. Volume	Controls/Notes	Risk Rating
Diesel	Site 1 fuel depot	20m3 self-bunded fuel cell. Bowser and delivery bunded. Interceptor installed.	20m3	Self-bunded. Separated from building	Major
Acetylene	Site 1 Maintenance Workshop	Cylinder	1		Insignificant
Argon	Site 1 Maintenance Workshop	Cylinder	1		Insignificant
degreaser/detergent	Site 1 Maintenance Workshop	drum	50L	in parts washer	Insignificant
Grease	Site 1 Maintenance Workshop	Drums	205L	Bunded	Moderate
Oxy/acetylene set	Site 1 Maintenance Workshop	Cylinder	2	portable, chained to oxy set.	Insignificant
coolant	Site 1 Maintenance Workshop	drum	50L	oil storage bund	Insignificant
Argoshield	Site 1 Maintenance Workshop	Cylinder	2	chained to welders	Insignificant
paint and thinners	Site 1 Maintenance Workshop	plastic drums and tins. Misc. volumes.	250L	In Flammable bunded cupboard.	Insignificant
Oil	Site 1 Maintenance Workshop	205L drums	1000L	Bunded	Moderate

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Description	Location	Container	Est. Volume	Controls/Notes	Risk Rating
Hydraulic Oil	Site 1 Maintenance Workshop	Power Pack	200L	unbunded	Moderate
Dust	Site Wide	NA	NA		Moderate
Sewerage	Site Wide	Pits and pipes	NA		Moderate
Coolant	Toyota Workshop	5 litre plastic	150L	in container. Unbunded	Insignificant
misc. flammables (aerosols)	Toyota Workshop	300mls	15L	in container. Unbunded	Moderate
degreaser/detergent	Toyota Workshop	drum	50L	in parts washer	Insignificant
Compressor oil	Toyota Workshop	Compressors	20L	Unbunded	Minor
Transformer Oil	Toyota Workshop	Transformers	100L	Bunded	Minor
Hydraulic oil	Toyota Workshop	10-20 litre plastic drums	300L	unbunded.	Moderate
Oxy/acetylene set	Toyota Workshop	Cylinder	2	in container. Unbunded	Insignificant
Hydraulic oil, gear oil and diesel	Toyota Workshop	Tanks and sumps	50L	Toyota plant serviced in Old Green Mill	Moderate
oil	Toyota Workshop	4 litre drums	1400L	Bunded	Moderate

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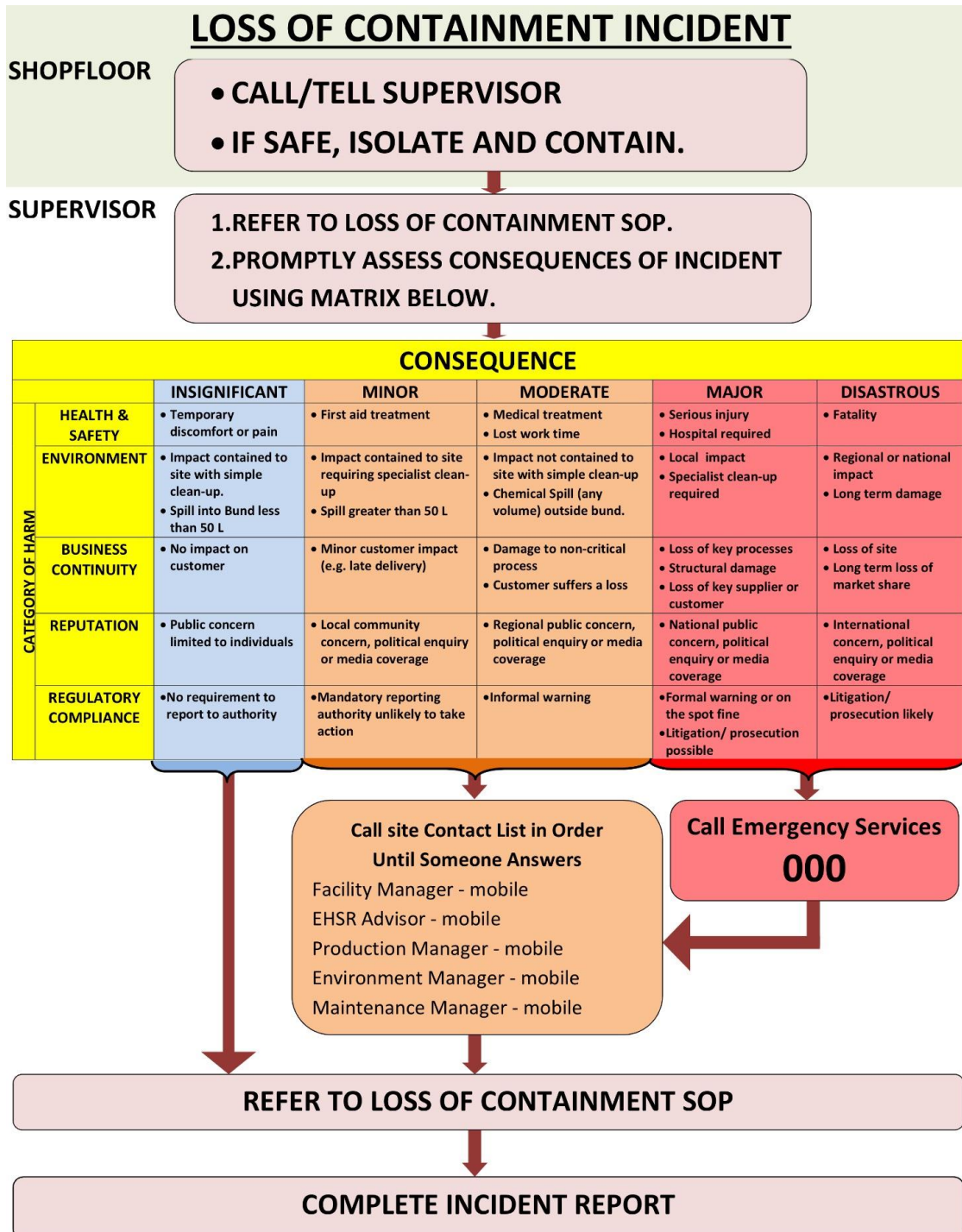
APPENDIX 1C – POTENTIAL POLLUTANT INVENTORY- HPP LOSEP SITE BATHURST EPL 105 (BY LOCATION)

Description	Location	Container	Est. Volume	Controls/Notes	Risk Rating
Antifreeze	Treatment Plant Admin Building	Plastic drums	60 L	Portable spill Bund. Inside building.	Insignificant
Round-up	Treatment Plant Admin Building	Plastic drum	40L	Portable spill Bund. Inside building.	Insignificant
Blue Control	Treatment Plant Admin Building	Plastic drums	40L	Portable spill Bund. Inside building.	Insignificant.
Ink	Treatment Plant Admin Building	Plastic drums	20L	Portable spill Bund. Inside building.	Insignificant.
Treatment chemical waste water	Treatment plant Drip Pad	Sumps and drains	3000L	Within bunded area.	Moderate
Treatment Chemical waste solids	Treatment plant Drip pad	IBC's	3000KG	Within bunded area.	Moderate
Treatment Chemical	Treatment Plant Drip Pad Depot 3	Residues in tanks and vessels	500 L	Inside vessels within bunded area	Moderate

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APPENDIX 2A – LOSS OF CONTAINMENT WALLCHART.

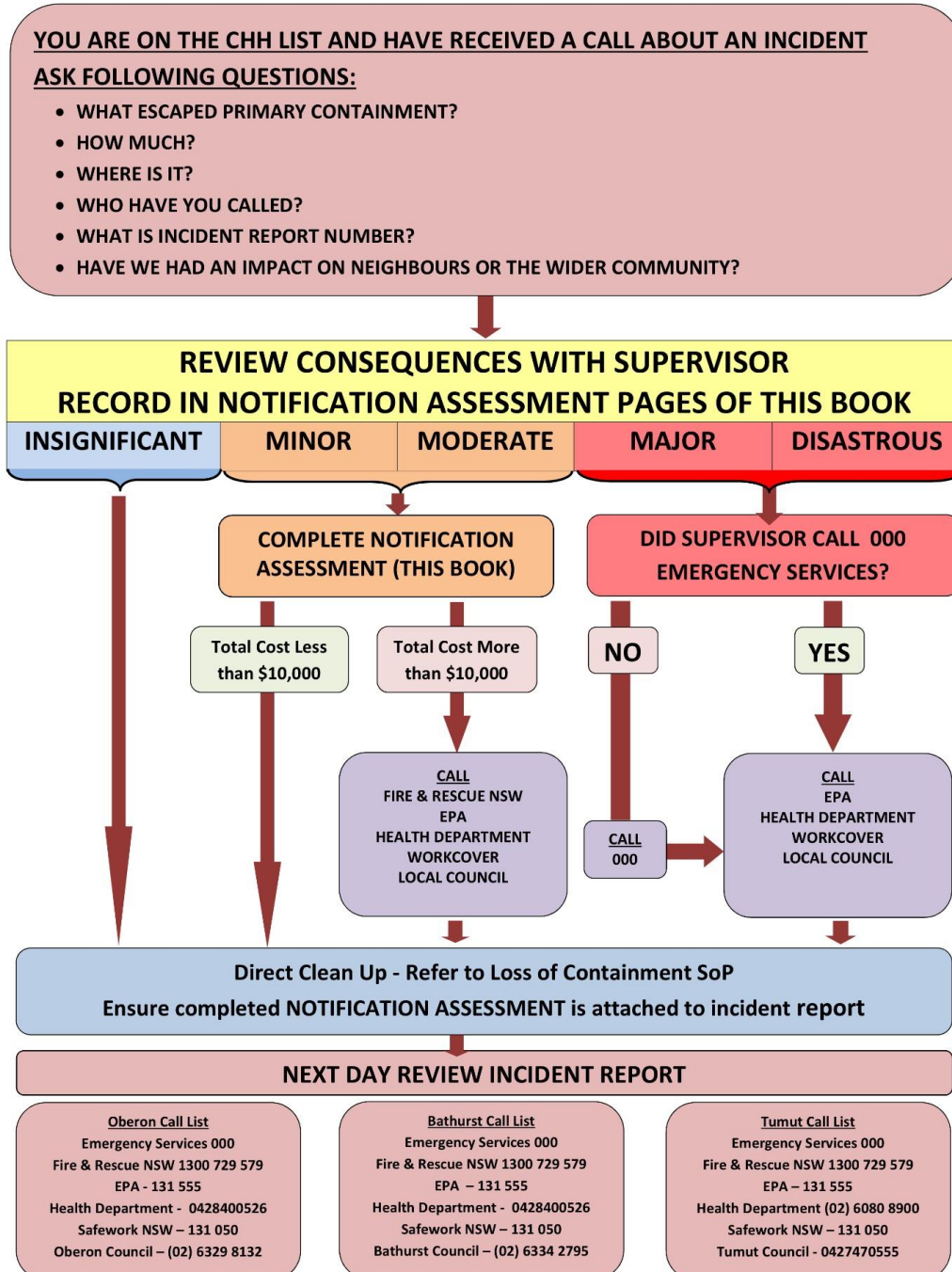


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APPENDIX 2B – NOTIFICATION ASSESSMENT BOOK PROTOCOL.

NOTIFICATION ASSESSMENT



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APPENDIX 2B – NOTIFICATION ASSESSMENT BOOK PROFORMA.

NOTIFICATION ASSESSMENT

Date	Time	Name	Incident Report Number
Description of Incident			

CONSEQUENCE (TICK THE BOX)						
CATEGORY OF HARM		INSIGNIFICANT	MINOR	MODERATE	MAJOR	DISASTROUS
	HEALTH & SAFETY	<ul style="list-style-type: none"> Temporary discomfort or pain <input type="checkbox"/>	<ul style="list-style-type: none"> First aid treatment <input type="checkbox"/>	<ul style="list-style-type: none"> Medical treatment Lost work time <input type="checkbox"/>	<ul style="list-style-type: none"> Serious injury Hospital required <input type="checkbox"/>	<ul style="list-style-type: none"> Fatality <input type="checkbox"/>
	ENVIRONMENT	<ul style="list-style-type: none"> Impact contained to site with simple clean-up Spill into a bund less than 50 L <input type="checkbox"/>	<ul style="list-style-type: none"> Impact contained to site requiring specialist clean-up. Spill greater than 50 litres <input type="checkbox"/>	<ul style="list-style-type: none"> Impact not contained to site requiring simple clean-up Chemical spill (any volume) outside bund. <input type="checkbox"/>	<ul style="list-style-type: none"> Local impact Specialist clean-up required <input type="checkbox"/>	<ul style="list-style-type: none"> Regional or national impact Long term damage <input type="checkbox"/>
	BUSINESS CONTINUITY	<ul style="list-style-type: none"> No impact on customer <input type="checkbox"/>	<ul style="list-style-type: none"> Minor customer impact (e.g. late delivery) <input type="checkbox"/>	<ul style="list-style-type: none"> Damage to non-critical process Customer suffers a loss <input type="checkbox"/>	<ul style="list-style-type: none"> Loss of key processes Structural damage Loss of key supplier or customer <input type="checkbox"/>	<ul style="list-style-type: none"> Loss of site Long term loss of market share <input type="checkbox"/>
	REPUTATION	<ul style="list-style-type: none"> Public concern limited to individuals <input type="checkbox"/>	<ul style="list-style-type: none"> Local community concern, political enquiry or media coverage <input type="checkbox"/>	<ul style="list-style-type: none"> Regional public concern, political enquiry or media coverage <input type="checkbox"/>	<ul style="list-style-type: none"> National public concern, political enquiry or media coverage <input type="checkbox"/>	<ul style="list-style-type: none"> International concern, political enquiry or media coverage <input type="checkbox"/>
	REGULATORY COMPLIANCE	<ul style="list-style-type: none"> No requirement to report to authority <input type="checkbox"/>	<ul style="list-style-type: none"> Mandatory reporting authority unlikely to take action <input type="checkbox"/>	<ul style="list-style-type: none"> Informal warning <input type="checkbox"/>	<ul style="list-style-type: none"> Formal warning or on the spot fine Litigation/prosecution possible <input type="checkbox"/>	<ul style="list-style-type: none"> Litigation/prosecution likely <input type="checkbox"/>

FILL IN THE WHITE BOXES			
Cost of material lost	L	X	Estimated Cost \$
Oil		X	\$20.00/L
Acid		X	\$20.00/L
Resin		X	\$852.00/T
Caustic		X	\$20.00/L
Fuel		X	\$10.00/L
Chip/dust		X	\$105.00/T
Waste Water		X	\$10.00/L
Treatment Chems		X	\$100.00/L
What critical process went down?			
	Hrs	Down	X \$1250
What non-critical process went down?			
	Hrs	Down	X \$250
Clean up			
	Hrs	X	Men X \$50
Sucker truck		Hrs	X \$180
spill kits x \$700			half kits x \$350
Waste disposal			
Tip fees		M3	X \$100
Special disposal		T	X \$200
Waste testing	1		X \$500
Total Cost =			

CALLS MADE CHECKLIST (FILL IN THE WHITE BOXES)		
AUTHORITY	CALLED	REFERENCE NO.
No call necessary	<input type="checkbox"/>	NA
Emergency Services 000	<input type="checkbox"/>	
Fire & Rescue NSW	<input type="checkbox"/>	
EPA	<input type="checkbox"/>	
Health Department	<input type="checkbox"/>	
Safework NSW	<input type="checkbox"/>	
Local Council	<input type="checkbox"/>	

WHAT TO TELL AUTHORITIES (KEEP TO THE FACTS)

- Time
- Date
- Location – site address
- Environment Protection Licence Number (EPL)
- Nature of Issue – fire, spill etc
- Quantity of material lost
- Other relevant information known at the time.

EPL Numbers

HPP1 – 887 HPP2 – 11229 LOSP – 105
Tumut Timber – 63 Gilmore – 1459

This estimation tool provides guidance when assessing potential cost of an incident.

Signed:

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APPENDIX 3A – DESCRIPTION AND LIKELIHOOD OF MAIN HAZARDS HPP SITE 2 EPL 11229

Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
<p style="text-align: center;">Ash</p> <div style="border: 2px solid red; padding: 5px; margin: 5px;"> <p style="text-align: center;">Uncontrolled Environmental Consequences</p> <p style="text-align: center;">Minor – Risk Score 8</p> </div> <p style="text-align: center;">Storage Method and Location</p> <p>In bins at boilers</p>	Fire	Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	3
	Flood	Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	3
	Hit storage container with mobile plant	Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	4
	Container integrity failure	Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	4
	Container fitting failure	Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	4
	Delivery infrastructure failure	Bunding, Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	3
	Transfer Infrastructure failure	Bunding, Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	3
	Damage transfer infrastructure	Bunding, Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	3
	Damage container during delivery.	Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	4
	Damage container – internal transfer	Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	4
	Damage infrastructure delivery	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	4
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Bar and Chain Oil	Fire	Bunding, spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	5
Uncontrolled Environmental Consequences Moderate – Risk Score 13	Flood	NA	NA
	Hit storage container with mobile plant	Bunding, spill response training, spill kits. Containers not located near traffic. Site water runoff stopped by gate valves	5
	Container integrity failure	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	3
	Container fitting failure	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	3
	Delivery infrastructure failure	NA	NA
Area 1 GreenMill	Transfer Infrastructure failure	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	3
	Damage transfer infrastructure	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	3
	Damage container during delivery.	Spill response training, spill kits. Site water runoff gate valves	5
	Damage container – internal transfer	Spill response training, spill kits. Site water runoff gate valves	5
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	3
	Earthquake	NA	NA
	Storms (wind, lightening)	NA	NA
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score	
Water Treatment Chemicals	Fire	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	8	
	Flood	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	5	
	Hit storage container with mobile plant	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	5	
Uncontrolled Environmental Consequences	Container integrity failure	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	5	
	Container fitting failure	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	5	
	Delivery infrastructure failure	NA	NA	
	Transfer Infrastructure failure	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	5	
	Damage transfer infrastructure	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	5	
	Damage container during delivery.	Spill response training, spill kits. Site water runoff stopped by gate valves	8	
	Damage container – internal transfer	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	5	
Storage Method and Location 200L plastic drums, tanks and bags at boiler house	Damage delivery infrastructure	NA	NA	
	Damage internal transfer infrastructure	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	5	
	Earthquake	NA	NA	
	Storms (wind, lightening)	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	3	
	Loss of Utilities	NA	NA	

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Lubricating Oil	Fire	Bunding, spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	5
Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Container varies and oil is stored across the site, some areas banded others not banded.	Flood	NA	NA
	Hit storage container with mobile plant	Bunding, spill response training, spill kits. Containers not located near traffic. Site water runoff stopped by gate valves	5
	Container integrity failure	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	3
	Container fitting failure	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	3
	Delivery infrastructure failure	Spill response training, spill kits. Site water runoff stopped by gate valves	5
	Transfer Infrastructure failure	Spill response training, spill kits. Site water runoff stopped by gate valves	5
	Damage transfer infrastructure	Spill response training, spill kits. Site water runoff stopped by gate valves	5
	Damage container during delivery.	Spill response training, spill kits. Site water runoff stopped by gate valves	5
	Damage container – internal transfer	Spill response training, spill kits. Site water runoff stopped by gate valves	5
	Damage delivery infrastructure	Spill response training, spill kits. Site water runoff stopped by gate valves	5
	Damage internal transfer infrastructure	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	5
	Earthquake	NA	NA
	Storms (wind, lightening)	Bunding, spill response training, spill kits. Site water runoff stopped by gate valves	3
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Transformer Oil <div style="border: 1px solid red; background-color: yellow; padding: 5px; width: fit-content;"> Uncontrolled Environmental Consequences Minor – Risk Score 8 </div> Storage Method and Location Contained in transformers across the site.	Fire	Bunding, spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	4
	Flood	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Hit storage container with mobile plant	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Container integrity failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Container fitting failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Delivery infrastructure failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Transfer Infrastructure failure	NA	NA
	Damage transfer infrastructure	NA	NA
	Damage container during delivery.	NA	NA
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	Bunding, spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	4
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
<p>Waste Water – Boiler Wash Down, Boiler Blow Down, Kiln Condensate.</p> <p>Uncontrolled Environmental Consequences</p> <p>Major – Risk Score 18</p> <p>Storage Method and Location</p> <p>Waste water collected in pits and pipelines. Water discharged to Borgs for process.</p>	Fire	Bunding, spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	4
	Flood	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Hit storage container with mobile plant	Bunding, spill response kits and training. Container located away from traffic. Site water runoff stopped by gate valves	4
	Container integrity failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Container fitting failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Delivery infrastructure failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Transfer Infrastructure failure	NA	NA
	Damage transfer infrastructure	NA	NA
	Damage container during delivery.	Bunding, spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	4
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	Bunding, spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	4
	Damage internal transfer infrastructure	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	Bunding, spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	4
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Natural Gas	Fire	Spill response kits and training, fire fighting system. Emergency Response Plan	9
	Flood	NA	NA
Uncontrolled Environmental Consequences Disastrous – Risk Score 19 Storage Method and Location Not stored on site but there is a delivery point and transfer piping to gas boiler.	Hit storage container with mobile plant	Training in Emergency Response Plan NA	9
	Container integrity failure	Training in Emergency Response Plan	9
	Container fitting failure	Training in Emergency Response Plan	9
	Delivery infrastructure failure	Training in Emergency Response Plan	9
	Transfer Infrastructure failure	Training in Emergency Response Plan	9
	Damage transfer infrastructure	Training in Emergency Response Plan	9
	Damage container during delivery.	Training in Emergency Response Plan	9
	Damage container – internal transfer	Training in Emergency Response Plan	9
	Damage delivery infrastructure	Training in Emergency Response Plan	NA
	Damage internal transfer infrastructure	Training in Emergency Response Plan	9
	Earthquake	NA	NA
	Storms (wind, lightening)	Training in Emergency Response Plan	9
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Sawdust, Chip and Shavings (Boiler Fuel)	Fire	Spill training, fire fighting system. Emergency Response Plan. Site water runoff stopped by gate valves	5
	Flood	NA	NA
Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Piles in yard, bag houses and blow lines.	Hit storage container with mobile plant	Spill training; Emergency Response Plan. Site water runoff stopped by gate valves	5
	Container integrity failure	Spill training; Emergency Response Plan. Site water runoff stopped by gate valves	5
	Container fitting failure	Spill training; Emergency Response Plan. Site water runoff stopped by gate valves	5
	Delivery infrastructure failure	Spill training; Emergency Response Plan. Site water runoff stopped by gate valves	5
	Transfer Infrastructure failure	Spill training; Emergency Response Plan. Site water runoff stopped by gate valves	5
	Damage transfer infrastructure	Spill training; Emergency Response Plan. Site water runoff stopped by gate valves	5
	Damage container during delivery.	Spill training; Emergency Response Plan. Site water runoff stopped by gate valves	5
	Damage container – internal transfer	Spill training; Emergency Response Plan. Site water runoff stopped by gate valves	5
	Damage delivery infrastructure	Spill training; Emergency Response Plan. Site water runoff stopped by gate valves	5
	Damage internal transfer infrastructure	Spill training; Emergency Response Plan. Site water runoff stopped by gate valves	5
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	5
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Dymark Ink and Dye	Fire	Spill training, fire fighting system. Emergency Response Plan. Site water runoff stopped by gate valves	8
	Flood	NA	NA
Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Various containers in Area 1 Drymill and Debarker.	Hit storage container with mobile plant	Bunding, spill response kits and training. Container located away from traffic. Site water runoff stopped by gate valves	8
	Container integrity failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	8
	Container fitting failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	8
	Delivery infrastructure failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	8
	Transfer Infrastructure failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	8
	Damage transfer infrastructure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	8
	Damage container during delivery.	Bunding, spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	8
	Damage container – internal transfer	Bunding, spill response kits and training. Site water runoff stopped by gate valves	8
	Damage delivery infrastructure	Bunding, spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	8
	Damage internal transfer infrastructure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	8
	Earthquake	NA	NA
	Storms (wind, lightening)	Bunding, spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	8
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Compressor Oil and Condensate Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location In compressors.	Fire	Spill training, fire fighting system. Emergency Response Plan. Site water runoff stopped by gate valves	8
	Flood	NA	NA
	Hit storage container with mobile plant	Bunding, spill response kits and training. Container located away from traffic. Site water runoff stopped by gate valves	4
	Container integrity failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Container fitting failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Delivery infrastructure failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Transfer Infrastructure failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Damage transfer infrastructure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Damage container during delivery.	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Sewerage	Fire	Spill training, fire fighting system. Emergency Response Plan. Site water runoff stopped by gate valves	3
Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Pits and pipes.	Flood	NA	NA
	Hit storage container with mobile plant	NA	NA
	Container integrity failure	Spill training. Site water runoff stopped by gate valves	5
	Container fitting failure	Spill training. Site water runoff stopped by gate valves	5
	Delivery infrastructure failure	Spill training. Site water runoff stopped by gate valves	5
	Transfer Infrastructure failure	Spill training. Site water runoff stopped by gate valves	5
	Damage transfer infrastructure	Spill training. Site water runoff stopped by gate valves	5
	Damage container during delivery.	NA	NA
	Damage container – internal transfer	Spill training. Site water runoff stopped by gate valves	5
	Damage delivery infrastructure	Spill training. Site water runoff stopped by gate valves	5
	Damage internal transfer infrastructure	Spill training. Site water runoff stopped by gate valves	5
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	5
	Loss of Utilities	Spill training. Site water runoff stopped by gate valves	5

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Gear oil, hydraulic oil and diesel Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Mobile plant tanks and sumps.	Fire	Spill training, fire fighting system. Emergency Response Plan. Site water runoff stopped by gate valves	5
	Flood	Spill training. Emergency Response Plan. Site water runoff stopped by gate valves	5
	Hit storage container with mobile plant	Spill training. Site water runoff stopped by gate valves	5
	Container integrity failure	Spill training. Site water runoff stopped by gate valves	5
	Container fitting failure	Spill training. Site water runoff stopped by gate valves	5
	Delivery infrastructure failure	NA	NA
	Transfer Infrastructure failure	NA	NA
	Damage transfer infrastructure	NA	NA
	Damage container during delivery.	NA	NA
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill training. Site water runoff stopped by gate valves	5
Loss of Utilities	NA	NA	

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Determite H2 timber treatment Biocide	Fire	Bunding, spill response kits and training, fire fighting system	8
	Flood	NA	NA
Uncontrolled Environmental Consequences Disastrous – Risk Score 19	Hit storage container with mobile plant	Bunding, spill response training and kits. Located away from traffic and procedures to ensure only traffic is during delivery.	8
	Container integrity failure	Bunding, spill response kits and training.	5
	Container fitting failure	Bunding, spill response kits and training.	5
	Delivery infrastructure failure	Bunding, spill response kits and training.	5
	Transfer Infrastructure failure	Bunding, spill response kits and training.	5
	Damage transfer infrastructure	Bunding, spill response kits and training	5
	Damage container during delivery.	Limit of one lift for removal and install to reduce risk of hit by mobile plant. Delivery vehicle parked as close as possible to storage point. Spill response training and kits. Site water runoff stopped by gate valves	8
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	Bunding, spill kits and response training	8
Storage Method and Location Various containers at treatment lines Area 2 & 3 Drymill.	Earthquake	NA	NA
	Storms (wind, lightening)	Bunding, spill kits and response training	5
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Accubatch Blue #35 Ink	Fire	Bunding, spill response kits and training, fire fighting system	8
	Flood	NA	NA
Uncontrolled Environmental Consequences Disastrous – Moderate 13.	Hit storage container with mobile plant	Bunding, spill response training and kits. Located away from traffic and procedures to ensure only traffic is during delivery.	8
	Container integrity failure	Bunding, spill response kits and training.	5
	Container fitting failure	Bunding, spill response kits and training.	5
	Delivery infrastructure failure	Bunding, spill response kits and training.	5
	Transfer Infrastructure failure	Bunding, spill response kits and training.	5
	Damage transfer infrastructure	Bunding, spill response kits and training	5
Storage Method and Location Bunded Area 3 (H2 make up area) for storage and delivery.	Damage container during delivery.	Limit of one lift for removal and install to reduce risk of hit by mobile plant. Delivery vehicle parked as close as possible to storage point. Spill response training and kits. Site water runoff stopped by gate valves	8
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	Bunding, spill kits and response training	8
	Earthquake	NA	NA
	Storms (wind, lightening)	Bunding, spill kits and response training	5
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Mixed Class 2 Aerosols Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Generally in DG cabinets across the site (most locations) in small (300ml) spraycans.	Fire	Spill training, fire fighting system. Emergency Response Plan. Site water runoff stopped by gate valves	5
	Flood	NA	NA
	Hit storage container with mobile plant	Spill training. Site water runoff stopped by gate valves	5
	Container integrity failure	Spill training. Site water runoff stopped by gate valves	5
	Container fitting failure	Spill training. Site water runoff stopped by gate valves	5
	Delivery infrastructure failure	NA	NA
	Transfer Infrastructure failure	NA	NA
	Damage transfer infrastructure	NA	NA
	Damage container during delivery.	NA	NA
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill training. Site water runoff stopped by gate valves	5
Loss of Utilities	NA	NA	

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Mixed Class 3 flammables Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Area 3 Greenmill. Small containers.	Fire	Spill training, fire fighting system. Emergency Response Plan. Site water runoff stopped by gate valves	5
	Flood	NA	NA
	Hit storage container with mobile plant	Spill training. Site water runoff stopped by gate valves	5
	Container integrity failure	Spill training. Site water runoff stopped by gate valves	5
	Container fitting failure	Spill training. Site water runoff stopped by gate valves	5
	Delivery infrastructure failure	NA	NA
	Transfer Infrastructure failure	NA	NA
	Damage transfer infrastructure	NA	NA
	Damage container during delivery.	NA	NA
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill training. Site water runoff stopped by gate valves	5
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Wd40 bulk	Fire	Spill training, fire fighting system. Emergency Response Plan. Site water runoff stopped by gate valves	5
	Flood	NA	NA
Uncontrolled Environmental Consequences Moderate – Risk Score 13 Drymill Area 1 DG Cabinet near Metroguard.	Hit storage container with mobile plant	Spill training. Site water runoff stopped by gate valves	5
	Container integrity failure	Spill training. Site water runoff stopped by gate valves	5
	Container fitting failure	Spill training. Site water runoff stopped by gate valves	5
	Delivery infrastructure failure	NA	NA
	Transfer Infrastructure failure	NA	NA
	Damage transfer infrastructure	NA	NA
	Damage container during delivery.	NA	NA
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill training. Site water runoff stopped by gate valves	5
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
<p>Hydraulic Oil</p> <p>Uncontrolled Environmental Consequences</p> <p>Moderate – Risk Score 13</p> <p>Storage Method and Location</p> <p>Power packs across site, some bunded others not bunded.</p>	Fire	Sprinklers, bunding mass loss sensors, hose reels, extinguishers. Site water runoff stopped by gate valves.	5
	Flood	NA	NA
	Hit storage container with mobile plant	Level mass loss controls and sprinkler over each main HPU. Located away from traffic. Site water runoff stopped by gate valves	3
	Container integrity failure	Bunding, spill kits and training. Site water runoff stopped by gate valves	3
	Container fitting failure	Bunding, spill kits and training. Site water runoff stopped by gate valves	8
	Delivery infrastructure failure	Spill kits and spill response training. Site water runoff stopped by gate valves	5
	Transfer Infrastructure failure	Spill kits and spill response training. Site water runoff stopped by gate valves	5
	Damage transfer infrastructure	Spill kits and spill response training. Site water runoff stopped by gate valves	5
	Damage container during delivery.	Spill kits and spill response training. Site water runoff stopped by gate valves	5
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	Spill kits and spill response training. Site water runoff stopped by gate valves	5
	Damage internal transfer infrastructure	Spill kits and spill response training. Site water runoff stopped by gate valves	5
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill kits and spill response training. Site water runoff stopped by gate valves	3
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Logyard Runoff	Fire	Spill training, fire fighting system. Emergency Response Plan. Site water runoff stopped by gate valves	2
Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location First flush basin and used by Structaflor as process water.	Flood	NA	NA
	Hit storage container with mobile plant	NA	NA
	Container integrity failure	NA	NA
	Container fitting failure	NA	NA
	Delivery infrastructure failure	NA	NA
	Transfer Infrastructure failure	NA	NA
	Damage transfer infrastructure	NA	NA
	Damage container during delivery.	NA	NA
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	NA	NA
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Saw Blade Oil Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Various containers in the dry and green mills.	Fire	Bunded, Spill training, fire fighting system. Emergency Response Plan. Site water runoff stopped by gate valves	5
	Flood	NA	NA
	Hit storage container with mobile plant	Bunded, Spill training. Site water runoff stopped by gate valves	5
	Container integrity failure	Bunded, Spill training. Site water runoff stopped by gate valves	5
	Container fitting failure	Bunded, Spill training. Site water runoff stopped by gate valves	5
	Delivery infrastructure failure	Bunded, Spill training. Site water runoff stopped by gate valves	5
	Transfer Infrastructure failure	Bunded, Spill training. Site water runoff stopped by gate valves	5
	Damage transfer infrastructure	Bunded, Spill training. Site water runoff stopped by gate valves	5
	Damage container during delivery.	Bunded, Spill training. Site water runoff stopped by gate valves	5
	Damage container – internal transfer	Bunded, Spill training. Site water runoff stopped by gate valves	5
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	Bunded, Spill training. Site water runoff stopped by gate valves	5
	Earthquake	NA	NA
	Storms (wind, lightening)	NA	NA
Loss of Utilities	NA	NA	

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
<p>Waste Oil</p> <p>Uncontrolled Environmental Consequences</p> <p>Moderate – Risk Score 13</p> <p>Storage Method and Location</p> <p>Various containers in Area 1 and 2 Greenmill and minor storage Area 1 Drymill. Bunded.</p>	Fire	Bunding, spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	4
	Flood	NA	NA
	Hit storage container with mobile plant	Bunding, spill response kits and training. Container located away from traffic. Site water runoff stopped by gate valves	4
	Container integrity failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Container fitting failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Delivery infrastructure failure	Bunding, spill response kits and training. Site water runoff stopped by gate valves	4
	Transfer Infrastructure failure	Spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	4
	Damage transfer infrastructure	Spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	4
	Damage container during delivery.	Spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	4
	Damage container – internal transfer	Spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	4
	Damage delivery infrastructure	Spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	4
	Damage internal transfer infrastructure	Spill response kits and training, fire fighting system. Site water runoff stopped by gate valves	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	NA	NA
	Loss of Utilities	NA	NA

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APPENDIX 3B – DESCRIPTION AND LIKELIHOOD OF MAIN HAZARDS HPP SITE 1 EPL 887

Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
<p>Transformer Oil</p> <p>Uncontrolled Environmental Consequences</p> <p>Minor – Risk Score 8</p> <p>Storage Method and Location</p> <p>Contained in transformers across the site.</p>	Fire	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	4
	Flood	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	4
	Hit storage container with mobile plant	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	4
	Container integrity failure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	4
	Container fitting failure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	4
	Delivery infrastructure failure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	4
	Transfer Infrastructure failure	NA	NA
	Damage transfer infrastructure	NA	NA
	Damage container during delivery.	NA	NA
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	4
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Waste Oil <div style="border: 1px solid red; background-color: yellow; padding: 5px; margin: 5px 0;"> Uncontrolled Environmental Consequences Moderate – Risk Score 13 </div> Storage Method and Location Various containers in Area 1 and 2 Greenmill and minor storage Area 1 Drymill. Bunded.	Fire	Bunding, spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	4
	Flood	NA	NA
	Hit storage container with mobile plant	Bunding, spill response kits and training. Container located away from traffic. Site water runoff via First Flush Over/Under.	4
	Container integrity failure	Bunding, spill response kits and training. Site water runoff via First Flush Over/Under.	4
	Container fitting failure	Bunding, spill response kits and training. Site water runoff via First Flush Over/Under.	4
	Delivery infrastructure failure	Bunding, spill response kits and training. Site water runoff via First Flush Over/Under.	4
	Transfer Infrastructure failure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	4
	Damage transfer infrastructure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	4
	Damage container during delivery.	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	4
	Damage container – internal transfer	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	4
	Damage delivery infrastructure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	4
	Damage internal transfer infrastructure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	NA	NA
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Hydraulic Oil/compressor oil.	Fire	Sprinklers, hose reels, extinguishers. Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under. Bunding.	5
	Flood	NA	NA
Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Power packs , Drums. Oil store bunded.	Hit storage container with mobile plant	Located away from traffic. Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	3
	Container integrity failure	Bunding, spill kits and training.	3
	Container fitting failure	Bunding, spill kits and training.	8
	Delivery infrastructure failure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Transfer Infrastructure failure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Damage transfer infrastructure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Damage container during delivery.	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Damage internal transfer infrastructure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	3
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Sawshop Coolant	Fire	Bunded, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Flood	NA	NA
Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Stored in bunded area between saw shop and Greenmill.	Hit storage container with mobile plant	Bunded, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Container integrity failure	Bunded, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Container fitting failure	Bunded, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Delivery infrastructure failure	Bunded, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Transfer Infrastructure failure	Bunded, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Damage transfer infrastructure	Bunded, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Damage container during delivery.	Bunded, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Damage container – internal transfer	Bunded, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	Bunded, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Earthquake	NA	NA
	Storms (wind, lightening)	NA	NA
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Diesel Uncontrolled Environmental Consequences Major – Risk Score 18 Storage Method and Location Self banded bulk storage tank.	Fire	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	8
	Flood	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	8
	Hit storage container with mobile plant	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	8
	Container integrity failure	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	8
	Container fitting failure	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	8
	Delivery infrastructure failure	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	8
	Transfer Infrastructure failure	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	8
	Damage transfer infrastructure	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	8
	Damage container during delivery.	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	8
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	8
	Damage internal transfer infrastructure	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	5
	Earthquake	NA	NA
	Storms (wind, lightening)	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	8
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Mixed Class 2 Aerosols Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Generally in DG cabinets across the site (most locations) in small (300ml) spraycans.	Fire	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	5
	Flood	NA	NA
	Hit storage container with mobile plant	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	5
	Container integrity failure	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	5
	Container fitting failure	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	5
	Delivery infrastructure failure	NA	NA
	Transfer Infrastructure failure	NA	NA
	Damage transfer infrastructure	NA	NA
	Damage container during delivery.	NA	NA
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	Bunding, spill response kits and training, Surface water discharge to adjacent dam via triple interceptor.	5
Loss of Utilities	NA	NA	

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Determite H2 timber treatment solid and liquid wastes.	Fire	Spill response kits and training.	8
	Flood	NA	NA
	Hit storage container with mobile plant	Spill response training and kits. Located away from traffic.	8
Uncontrolled Environmental Consequences Disastrous – Risk Score 19	Container integrity failure	Spill response kits and training.	5
	Container fitting failure	Spill response kits and training.	5
	Delivery infrastructure failure	Spill response kits and training.	5
	Transfer Infrastructure failure	Spill response kits and training.	5
	Damage transfer infrastructure	Spill response kits and training.	5
	Damage container during delivery.	NA	NA
	Damage container – internal transfer	Spill response kits and training.	5
Storage Method and Location Boiler fuel bin	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	Spill response kits and training.	8
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill response kits and training.	5
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Sewerage	Fire	Spill response kits and training.	3
	Flood	NA	NA
Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Pits and pipes.	Hit storage container with mobile plant	NA	NA
	Container integrity failure	Spill response kits and training.	5
	Container fitting failure	Spill response kits and training.	5
	Delivery infrastructure failure	Spill response kits and training.	5
	Transfer Infrastructure failure	Spill response kits and training.	5
	Damage transfer infrastructure	Spill response kits and training.	5
	Damage container during delivery.	NA	NA
	Damage container – internal transfer	Spill response kits and training.	5
	Damage delivery infrastructure	Spill response kits and training.	5
	Damage internal transfer infrastructure	Spill response kits and training.	5
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill response kits and training.	5
	Loss of Utilities	Spill response kits and training.	5

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Lubricating Oils, grease. <div style="border: 1px solid red; background-color: yellow; padding: 5px; width: fit-content;"> Uncontrolled Environmental Consequences Moderate – Risk Score 13 </div> Storage Method and Location Container varies and oil is stored across the site, some areas banded others not banded.	Fire	Bunding, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Flood	NA	NA
	Hit storage container with mobile plant	Bunding, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Container integrity failure	Bunding, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	3
	Container fitting failure	Bunding, Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	3
	Delivery infrastructure failure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Transfer Infrastructure failure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Damage transfer infrastructure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Damage container during delivery.	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Damage container – internal transfer	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Damage delivery infrastructure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Damage internal transfer infrastructure	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under.	5
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under. Bunding.	3
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Waste Water – Washdown Bay	Fire	Spill response kits and training, fire fighting system. Site water runoff via First Flush Over/Under. Bunding.	4
	Flood	Spill response kits and training. Site water runoff via First Flush Over/Under. Bunding.	4
	Hit storage container with mobile plant	Spill response kits and training. Site water runoff via First Flush Over/Under. Bunding.	4
Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Washdown Bay – Remote from operational areas but potential fire risk.	Container integrity failure	NA	NA
	Container fitting failure	NA	NA
	Delivery infrastructure failure	NA	NA
	Transfer Infrastructure failure	NA	NA
	Damage transfer infrastructure	NA	NA
	Damage container during delivery.	NA	NA
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill response kits and training. Site water runoff via First Flush Over/Under. Bunding.	4
	Loss of Utilities	NA	NA

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Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Sawdust, Chip and Shavings (Boiler Fuel)	Fire	Spill response kits and training. Emergency Response Plan. Site water runoff via First Flush Over/Under.	5
	Flood	NA	NA
Uncontrolled Environmental Consequences Moderate – Risk Score 13 Storage Method and Location Piles in yard, Fuel Bin adjacent to washdown bay.	Hit storage container with mobile plant	NA	NA
	Container integrity failure	NA	NA
	Container fitting failure	NA	NA
	Delivery infrastructure failure	NA	NA
	Transfer Infrastructure failure	NA	NA
	Damage transfer infrastructure	NA	NA
	Damage container during delivery.	NA	NA
	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	Spill response kits and training. Emergency Response Plan. Site water runoff via First Flush Over/Under.	5
	Loss of Utilities	NA	NA

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APPENDIX 3B – DESCRIPTION AND LIKELIHOOD OF MAIN HAZARDS HPP LOSP BATHURST EPL 105

Description of Hazard	Risk Event	Description of Controls	Reduced Risk Score
Timber treatment solid and liquid wastes.	Fire	Fully Bunded. Sumps. Spill response kits and training.	8
	Flood	NA	NA
Uncontrolled Environmental Consequences Disastrous – Risk Score 19	Hit storage container with mobile plant	Fully Bunded. Sumps. Spill response kits and training.	8
	Container integrity failure	Fully Bunded. Sumps. Spill response kits and training.	5
	Container fitting failure	Fully Bunded. Sumps. Spill response kits and training.	5
	Delivery infrastructure failure	Fully Bunded. Sumps. Spill response kits and training.	5
	Transfer Infrastructure failure	Fully Bunded. Sumps. Spill response kits and training.	5
	Damage transfer infrastructure	Fully Bunded. Sumps. Spill response kits and training.	5
	Damage container during delivery.	NA	NA
Storage Method and Location In bins on slabs, residues in tanks and vessels. Bunded under main treatment plant roof.	Damage container – internal transfer	NA	NA
	Damage delivery infrastructure	NA	NA
	Damage internal transfer infrastructure	NA	NA
	Earthquake	NA	NA
	Storms (wind, lightening)	Fully Bunded. Roofed to reduce rainwater ingress. Sumps. Spill response kits and training.	5
	Loss of Utilities	NA	NA

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APPENDIX 4 – EHSR RISK RATING MATRIX

		POTENTIAL CONSEQUENCE				
		INSIGNIFICANT	MINOR	MODERATE	MAJOR	DISASTROUS
CATEGORY OF HARM	HEALTH & SAFETY	<ul style="list-style-type: none"> Temporary discomfort or pain 	<ul style="list-style-type: none"> First aid treatment 	<ul style="list-style-type: none"> Medical treatment Lost work time 	<ul style="list-style-type: none"> Serious injury (e.g. amputation, admittance to hospital or permanent loss of body function) 	<ul style="list-style-type: none"> Fatality
	ENVIRONMENT	<ul style="list-style-type: none"> No adverse impact (e.g. appearance issue only) 	<ul style="list-style-type: none"> Impact contained to site with simple clean-up process 	<ul style="list-style-type: none"> Impact contained to site requiring specialist clean-up 	<ul style="list-style-type: none"> Significant local environmental impact Specialist clean-up required 	<ul style="list-style-type: none"> Environmental impact of regional or national significance Long term damage
	BUSINESS CONTINUITY	<ul style="list-style-type: none"> Process disruption, no impact on customer 	<ul style="list-style-type: none"> Process disruption with minor customer impact (e.g. late delivery) 	<ul style="list-style-type: none"> Damage to non-critical process (e.g. can transfer work to another process) Customer inconvenienced (e.g. customer suffers a loss) 	<ul style="list-style-type: none"> Loss of key processes Structural damage to facilities Loss of key supplier or customer Financial loss >\$500k NZD 	<ul style="list-style-type: none"> Effective loss of site Long term loss of market share
	REPUTATION	<ul style="list-style-type: none"> Public concern limited to individuals No broader political concern or media coverage 	<ul style="list-style-type: none"> Local community concern, political enquiry or media coverage 	<ul style="list-style-type: none"> Regional public concern, political enquiry or media coverage 	<ul style="list-style-type: none"> National public concern, political enquiry or media coverage Reduced ability to obtain capital or insurance 	<ul style="list-style-type: none"> International public concern, political enquiry or media coverage Reduced company or brand market value
	REGULATORY COMPLIANCE	<ul style="list-style-type: none"> No requirement to report to authority 	<ul style="list-style-type: none"> Mandatory reporting but authority unlikely to take any action 	<ul style="list-style-type: none"> Authority likely to give informal warning 	<ul style="list-style-type: none"> Authority likely to give formal warning or on the spot fine Litigation/ prosecution possible 	<ul style="list-style-type: none"> Litigation/ prosecution likely
LIKELIHOOD	ALMOST CERTAIN Is expected to occur in most circumstances	11 MEDIUM	16 HIGH	20 EXTREME	23 EXTREME	25 EXTREME
	LIKELY Will probably occur in most circumstances	7 MEDIUM	12 MEDIUM	17 HIGH	21 EXTREME	24 EXTREME
	POSSIBLE Should occur at some time	4 LOW	8 MEDIUM	14 HIGH	18 HIGH	22 EXTREME
	UNLIKELY Could occur at some time	2 LOW	5 LOW	9 MEDIUM	15 HIGH	19 HIGH
	EXTREMELY UNLIKELY May occur but only in exceptional circumstances	1 LOW	3 LOW	6 LOW	10 MEDIUM	13 MEDIUM

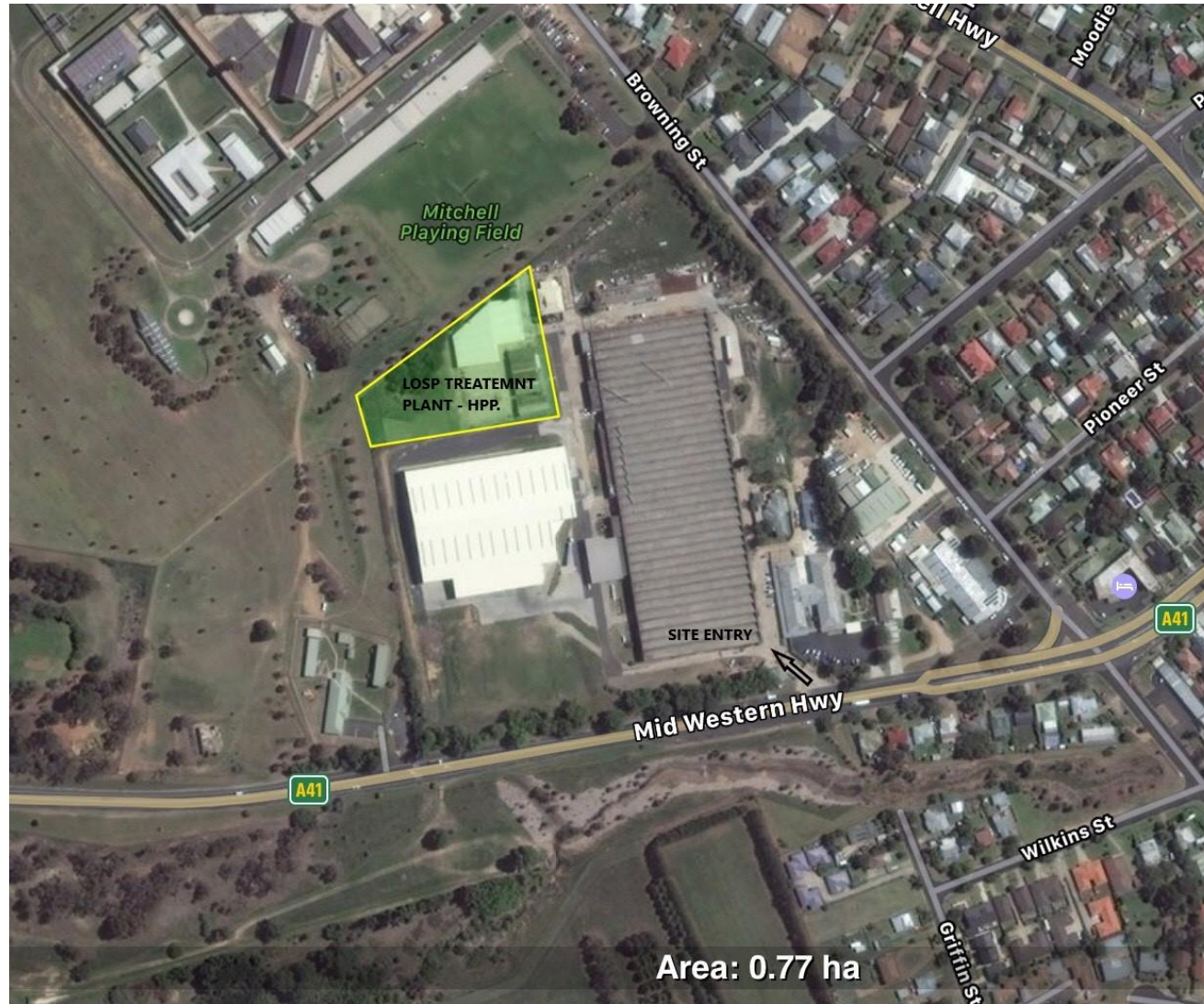
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APPENDIX 5 – STAFF TRAINING MATRIX

Function	General Manager	OHS Manager	Maint Manager	Production Manager	Dispatch Manager	Site Services Manager	Operators	Maintenance Personnel	Contractors (regular)
Legal and other requirements									
Compliance with legal requirements	x	x	x	x	x	x	x	x	x
Assess compliance with objectives and performance outcomes as outlined in this PIRMP	x	x				x			
Operational control									
Review chemical register		x				x			
Maintain controls			x			x		x	
Report potential failures in process		x		x		x	x	x	
Report all incidents	x	x	x	x	x	x	x	x	x
Training and awareness									
Maintain training schedule		x				x			
Deliver training to all personnel		x				x			
Review									
Maintain review schedule		x				x			
Sign-off review complete	x								
Documentation and Document Control									
Maintain update schedule as per legislative requirements.		x				x			

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APPENDIX 6 – SITE LOCATION PLANS



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