

Pollution Incident Response Management Plan

1. (part of Site Emergency Response Plan)

Boral Cement Marulan

**Rev.7
October 2018**

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2. General Information

2.1 Foreword

This document was prepared to fulfil the requirements of the NSW Protection of the Environment Legislation Amendment Act 2011 (POELA Act) in terms of preparation and implementation of a pollution incident response management plan.

This plan forms a part of the overall Boral Emergency Response Plan that was reviewed and amended to ensure that they cover all the new requirements of the POELA Act. The plan is kept, tested and implemented in accordance with the Act and the POEO(G) Regulation.

2.2 Background and legislative requirements

The POELA Act introduces several changes to improve the way pollution incidents are reported, managed and communicated to the general community. The Act includes a new requirement under Part 5.7A of the *Protection of the Environment Operations Act 1997* (POEO Act) to prepare, keep, test and implement a pollution incident response management plan.

The objectives of these plans are to:

- ensure comprehensive and timely communication about a pollution incident to staff at the premises, the Environment Protection Authority (EPA), other relevant authorities specified in the Act (such as local councils, NSW Ministry of Health, WorkCover NSW, and NSW emergency services) 1 and people outside the facility who may be affected by the impacts of the pollution incident
- minimise and control the risk of a pollution incident at the facility by requiring identification of risks and the development of planned actions to minimise and manage those risks
- ensure that the plan is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring that the plan is regularly tested for accuracy, currency and suitability.

The specific requirements for pollution incident response management plans are set out in Part 5.7A of the POEO Act and the Protection of the Environment Operations (General) Regulation 2009 (POEO(G) Regulation)¹.

Definition of a pollution incident

As per the POEO Act, pollution incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.

Examples would include events such as highly alkaline water escaping catchments after a heavy rain event, dust impacting on a neighbours property or a large hydrocarbon spill that could not be contained on site.

A pollution incident is required to be notified if there is a risk of 'material harm to the environment', which is defined in section 147 of the POEO Act as:

(a) harm to the environment is material if:

- (i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

¹ See www.environment.nsw.gov.au

(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

(b) 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.

Industry is now required to report pollution incidents immediately to the EPA, NSW Health, NSW emergency services, WorkCover NSW and the local council. 'Immediately' has its ordinary dictionary meaning of promptly and without delay. These strengthened provisions will ensure that pollution incidents are reported directly to the relevant response agencies so they will have direct access to the information they need to manage and deal with the incident in a faster time.

There are new associated offences, for individuals and corporations, for not preparing a plan, not keeping the plan at the premises to which it relates, not testing the plan in accordance with the Regulations and not implementing the plan in the case of an incident.

3. Risk Assessment and Preventive Actions

3.1 Environmental Registers

Potential environmental pollutants are summarised in a site risk register entitled "Environmental Aspects and Impacts" (**CMT-ENV-004-Form1 Marulan_Environmental Aspects and Impacts Register**), located in WizBiz at http://dcmaru01/sites/WizBizMineralsMarulan/EnvironmentandSustainability/EnvironmentalManagement/Environmental_Aspects_Impacts_Register/default.aspx. This document considers; Aspect, Impact, Controls and Improvements for the site's known environmental hazards in the following areas:

- Fugitive dust emissions from plant and mining areas
- Spills of liquids (e.g. diesel, oil) or powdered solid materials (e.g. Lime), potentially leaving the site. Large spill of powdered solids may result in significant dust nuisance or lead to deposition of significant quantities of high pH particulate matter in the natural water courses.
- Fire
- Blasting/Explosives
- LPG Incidents.

Marulan has a Hazardous Substance and Dangerous Goods Register located at; 'Dcmaru01' (G:)/0.13 SHE Management System/2 Identifying and Managing SHE effects and hazard/2.14 Risk Register/2.14.1 Marulan/Risk Profile Marulan V4

Each Hazardous Substance/Dangerous good has an associated Safety Data Sheet which contains a description of the hazards to both human health and the environment. A current set of SDS's is available through the intranet application; ChemAlert <http://vabndc09:8080/chemalert/> and available in hard copy in the Lab. Safety Data Sheets are displayed in all areas which use or store products of this nature. Supporting signage is also displayed where required.

Hazardous Chemicals and Dangerous Goods are managed onsite in line with the Standard/Protocol for Hazardous Chemicals and Dangerous Goods GRP-HSEQ-4-04, which addresses:

- Determining the level of risk via;
 - SDS
 - Product labelling
 - Hazardous Substances and Dangerous Goods register
 - Risk Assessments
- Controlling the risk via;
 - Purchasing controls
 - Storage Handling and transportation
 - Storage Cabinets
 - Transporting and handling Hazardous substances and Dangerous Goods
 - PPE
 - Atmospheric Monitoring and Health Surveillance
 - Dangerous Goods Manifest
 - Dangerous Goods Audit
 - Hazardous Substance Inspections
 - Appropriate disposal
 - Spill prevention and management.

3.2 Harm Reduction

3.2.1 Prevention

The risk of harm to any persons who are on the premises or who are present where the scheduled activity is being carried out is reduced by measures outlined in “**GRP-HSEQ-8-07 Spill Management**”. These measures include:

- Placement of spill-risk facilities away from sensitive environments (sufficient to allow for effective intervention prior to pollution occurring in the event of a spill)
- Use of secondary spill containment facilities such as bunding around all storage tanks and other areas where hazardous substances are stored;
- Ensuring that areas where risky activities such as storage tank/silo loading are undertaken are bunded and sealed;
- Ensuring drainage structures can be sealed to halt passage of spilt fluids or powdered solids;
- Training of employees and contractors in good environmental practice
- Ensure that the local deluge procedure includes possible overflows and excursions off-site
- Automatic forecast notifications from Weatherzone for wind, rain and lightning events when agreed thresholds are likely to be exceeded. Risky activities can be avoided or managed.

The bunded areas must be capable of preventing the migration of any spillage or leakage to the surrounding environment. The requirement for bunding is relative to the level of risk and type of area. Bunding specifications are summarised in Australian Standard AS 1940:2004.

3.2.2 Maintenance

All bunds, silos, tanks, pipe-work and stores/magazines are inspected monthly and at least annually for signs of damage. Any defect in the bund wall or lining is repaired immediately using appropriate techniques. Damage to the tank or transfer hoses is dealt with immediately to prevent failure.

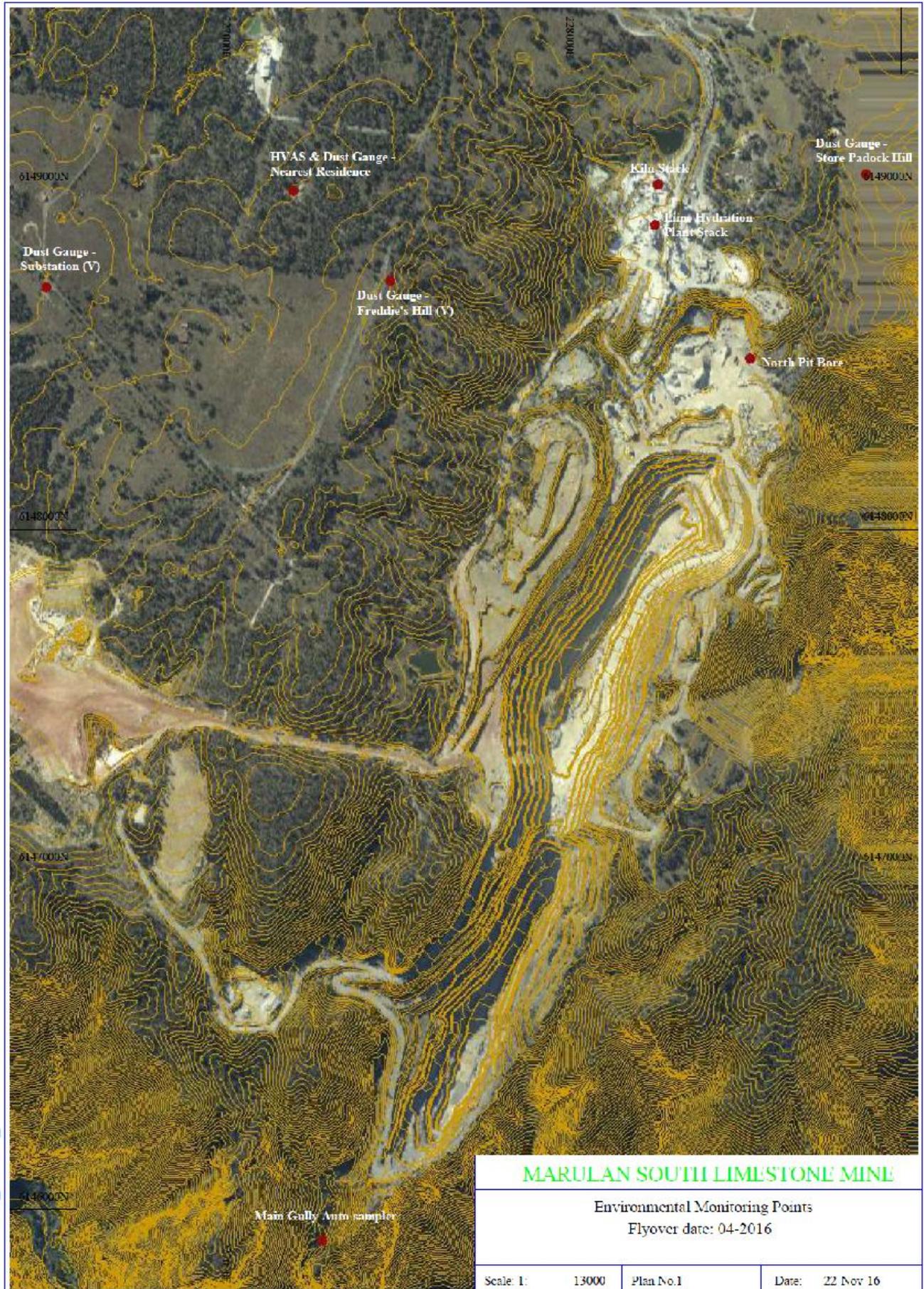
Any liquid in the bund must be promptly removed in an appropriate manner – usually as contaminated matter. Do not allow spilt liquid or stormwater to remain in the bund – it may accumulate and lead to overflowing. Rainwater entering the sump or bunded area should be regarded as potentially contaminated and must be disposed of in an authorised manner.

Any accumulated debris should be promptly removed and disposed of in the correct manner.

3.2.3 Site Maps

An aerial map overleaf (Photo 1) shows the location of the premises to which the licence relates together with the current environmental monitoring points. Photo 2 shows location of Hazardous Chemicals and spill kits on the site.

Stormwater entering the site is channelled/directed to a series of catchment dams and does not escape to the environment.



ap 1 - Site location

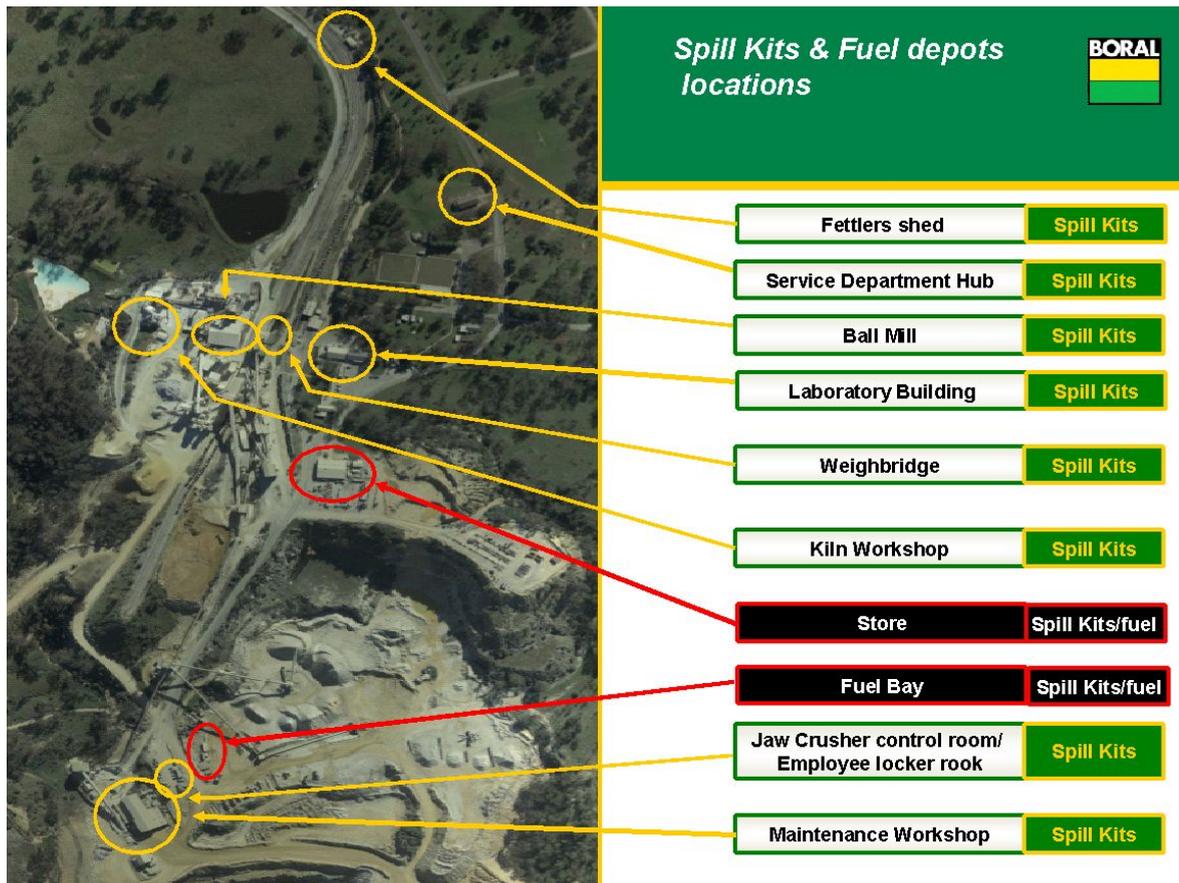


Photo 2: Locations of Spill Kits and Hazardous Chemicals

3.2.4 Safety Equipment

The site utilises 3M spill kits purchased from Blackwoods. The site HSE staff replenish the kits as required but personnel are encouraged to do so themselves post-incident. These kits are capable of containing large spills of hydrocarbon liquids.

A spill kit is a 240L wheelie bin that contains the following:

- 25 x 3M™ HP156 Oil & Petroleum Sorbent Pads (0008 7006)
- 2 x 3M™ P-FL550DD Oil & Petroleum Folded Sorbent Rolls (0082 7747)
- 2 x 3M™ T280 Oil & Petroleum Double Booms (0116 1379)
- 5 x Contaminated Waste Bag (0120 6293)
- 2 x 3M™ 4251 Disposable Half Face Respirator (0034 1020)
- 2 x pair Solvent & Oil Resistant gloves (0403 8056)
- 2 x 3M™ Fahrenheit Goggles (0105 5946)
- 2 x 3M™ 4530+ Protective Coveralls
- 1 x Spill Response Procedure

Spill kit training has been provided through Protector Alsafe.

Fire response on site is addressed in the Marulan Mine & Lime Plant Emergency Management Plan. The type of fire extinguishers used on site are appropriate for their application.

4.

5. Early Notifications

5.1 Immediate Notification of Government Authorities

Any pollution incident that causes or threatens “material harm” to the environment or people must be notified to government authorities immediately upon becoming aware of the incident. When new information comes to hand following the initial notification, this information must also be communicated immediately. For the definition of “*material harm*” caused by a pollution incident refer to Section 1.2.

“Immediately” means “without unreasonable delay”. Remember, safety first.

Only nominated Boral personnel are authorised to make notifications to the Authorities:

Dean Beltrame	Mine Manager, Marulan	02 4820 3061	0401 896 979
Alex Sargent	Lime Operations Plant Manager	02 4820 3047	0401 892 241
Ravi Mehrotra	Technical Manager, Lime	02 4820 3007	0401 895 910
Julian Rodriguez-benitez	Technical Manager, Limestone	02 4820 3056	0401 983 651
Rob Lasker	HSE Advisor, Marulan	02 4820 3023	0401 894 640
Belinda Prideaux	Environment Manager, Boral Cement		0401 893 359

All notifications are to be in line with standard operation procedure **CMT-ENV-001 – Marulan Pollution Incident Notification**, located in WizBiz Reference Library ([Site Procedures - Marulan](#)).

The contact list of Compulsory Authorities is presented in Appendix A. Other Authorities may need to be notified as appropriate; however the Compulsory Authorities must be notified in ALL cases requiring environmental notification. All immediate notifications and updates are to be recorded in the Pollution Incident Immediate Notification Log (**CMT-ENV-001 – Marulan Pollution Incident Notification SOP**).

In borderline situations, where the exceedance of the trigger level of “material harm” of a pollution incident may not be clear, a quick assessment including consultation with Boral environmental personnel should be undertaken to help the decision whether to notify or not.

Boral’s Senior Corporate Management must be informed promptly of the fact of immediate notification to the Authorities. This includes environmental personnel listed above, Ross Harper, Greg Johnson and Richard Strauch.

5.2 Notification of Neighbours

In case of pollution incidents that may potentially pose threat to the health and safety of the neighbours (e.g. toxic fumes, fire, fuel spill into the street or to coastal verge, release of a thick dust cloud, etc.), the neighbours must also be urgently notified.

The early warning of the neighbourhood notification will be undertaken by phone or door knock. The current contact list for neighbours is attached in Appendix B. The initial notification should be brief and contain only a description of the environmental threat together with instructions what to do. For example:

- Due to a dust collector's failure, we are experiencing elevated dust emissions from the site. Please keep your doors and windows closed until further notice.
- An accidental trade effluent discharge occurred from the site to a local creek. Please refrain from recreational use of the area until testing confirms that the water is safe.
- Due to a diesel spillage on the site, a cleanup operation is being organised. Please be watchful for road traffic in relation to this operation.

A follow up information on the resolution of emergency situation would be timely conducted on the phone or by means of a letterbox drop.

6. Pollution Incident Emergency Response

In the event of a pollution incident the risk of harm to human health and the environment will be minimised by engaging an appropriate pollution response as outlined below

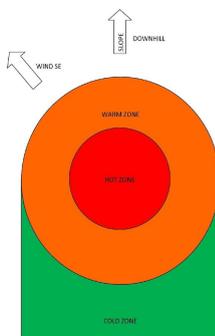
1. **Safety First;** Ensure emergency services are contacted immediately in the event to harm of any personnel.
2. **Stop the source:** If it's safe to do so, stop the process causing the spill/leak or other environmental incident.
3. **Isolate the area:** The first person to notice the spill or leak should remove themselves from the immediate area and take measures such as barricading the area to reduce the risk of exposure to others. This must occur without exposure to danger.
4. **Commence early notification:** The Manager or Supervisor must be notified immediately of the environmental incident. They in turn must immediately inform one of the persons nominated for notification of Authorities (see Appendix A). If the environmental incident is significant, the nominated person implements early notification procedures to the relevant Authorities including emergency services. Alerting the potentially affected neighbours may also be required (see Appendix B), with regular updates provided as needed.
5. **Provide a 1st aid response (if required):** First aid kits including instruction on use are available at the locations indicated in the Site Emergency Response Plan. Emergency shower and eye wash bays are suitably located, easily accessible and in good working order. Appropriate PPE is worn by all staff during periods of potential exposure as outlined in relevant SDS.
6. **Identify the release to the greatest extent possible:** Do so without being at risk. This includes identifying:
 - a. the type of material released;
 - i. Class 1 Explosives
 - ii. Class 2 Gases - compressed, liquefied or dissolved under pressure.
 - iii. Class 3 Flammable Liquids
 - iv. Class 4 Flammable Solids, Substances liable to spontaneous combustion and Substances which in contact with water emit flammable gases
 - v. Class 5 Oxidizing Agents and Organic Peroxides
 - vi. Class 6 Toxic and Infectious Substances
 - vii. Class 7 Radioactive Substances
 - viii. Class 8 Corrosive Substances
 - ix. Class 9 Miscellaneous Dangerous Goods
 - b. The label and Material Safety Data Sheet for the product should give information on safe cleanup.
 - c. The size of the release and whether the release has stopped;
 - d. Whether chemicals involved may be potentially incompatible; and
 - e. Any unusual features such as foaming, odour, smoke, etc.

7. **Determine the level of emergency:** review chemical risk assessments, seek internal advice from area specialists, review SDS's and seek professional advice from the fire brigade and/or hazardous material specialists.
8. **Determine if evacuation is required** and consider the impact that wind, rain, local geographical features such as hills and stormwater drainage systems may have in exposing persons at emergency assembly points. If in doubt commence evacuation to "cold zones" Following a Pollution / Hazardous Material Incident the Emergency Site is to be divided into Hot, Warm and Cold Zones - for management purposes. The Chief Warden is responsible for the management of the COLD ZONE, all personnel are to be evacuated from the hot/warm zone.

Hot Zone This is the area of likely contamination. Only personnel wearing the appropriate level of protective clothing and equipment are to enter this zone. The area of the Hot Zone is defined, controlled and co-ordinated by the Hazmat Controller (FIRE BRIGADE).

Warm Zone This is the area immediately surrounding the Hot Zone where decontamination takes place and personnel and equipment are prepared for deployment. Only personnel wearing the appropriate level of protective clothing and equipment are to enter this zone. The area of the Warm Zone is defined, controlled and co-ordinated by the Hazmat Controller (FIRE BRIGADE).

Cold Zone This is the area immediately surrounding the warm zone. It is the support area where access is limited to support agencies personnel and equipment. This zone contains the Site Control, triage and treatment facilities and other marshalling and assembly areas. The Cold Zone is free of contamination and personnel protective clothing is not required. The area of the cold zone is defined by the site controller in consultation with the Hazmat Controller and managed by the CHIEF WARDEN.



not done prior): prevent further release by isolating the source of the release. (with suitable PPE)

Leading (if safe to do so):

Prevention of contaminated stormwater: Protect stormwater grates with booms, blankets.

Use spill kits to prevent further contamination dispersal, using appropriate absorbent materials such as loose absorbent, socks or pads (land) and booms (water). Refer to "GRP-HSEQ-8-07 Spill Management".

Prevention of dust: Lower down the silo rolling doors to minimise dust, cover stormwater drains to prevent ingress of solids.

Prevention of contaminants into the air: Shut down ventilation systems to keep gases, vapours and dust contained.

Engage specialist spill emergency response contractors (e.g. Transpacific Industrial Solutions, 1800 SPILLS).

12. **Fire:** If possible, endeavour to prevent fire-fighting water from entering the stormwater drains as it typically carries contamination. If possible, divert fire from areas containing materials that may generate toxic fumes when burned (e.g. stores of chemicals, cleaning aids, motor oil, etc.).
13. **Dispose of contaminated spill clean materials and wastes using a licensed contractor.**
14. **If required, remediate the site.**

EARLY NOTIFICATION

EMERGENCY RESPONSE

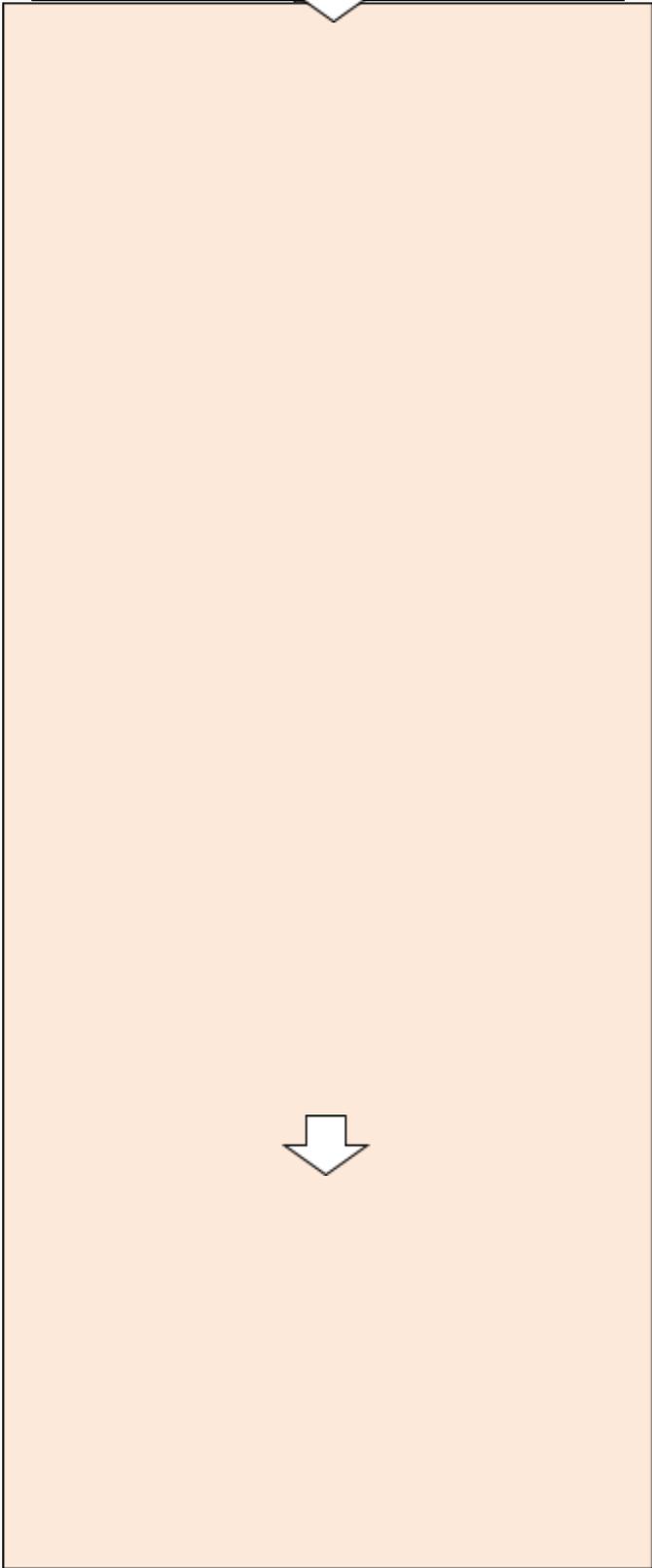
REMOVE ALL PERSONS FROM HARM
ISOLATE THE AREA

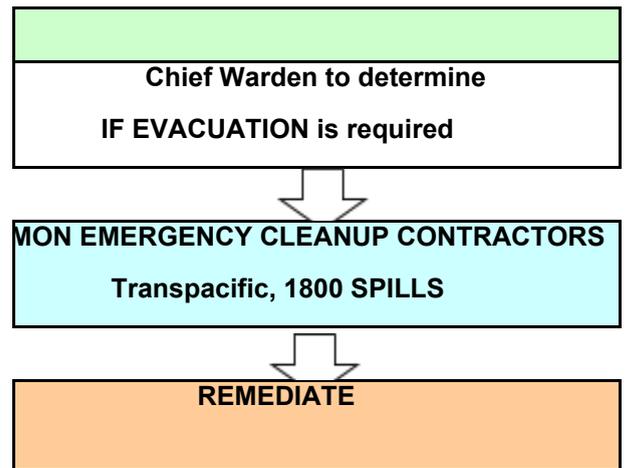
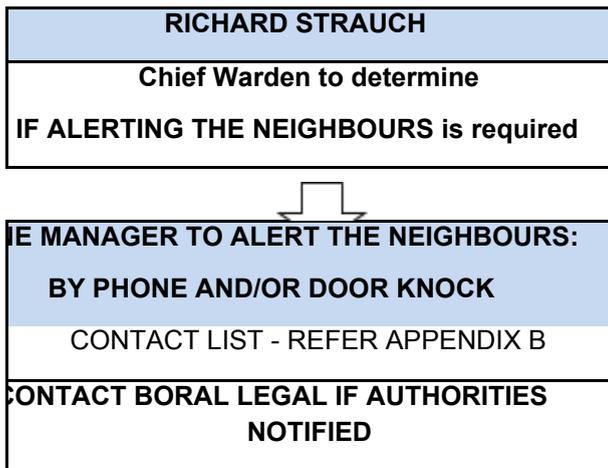
PROVIDE 1ST AID
ENSURE SAFETY OF OTHERS

- IDENTIFY THE SPILL**
- The type of material released;
 - The size of the release and whether it has stopped;
 - Whether potentially incompatible chemicals are involved
 - Any unusual features such as foaming, odour, smoke, etc.
 - Discuss with hazardous material specialist / Fire Brigade
 - Review SDS

CONTAIN THE SPILL, PREVENT FURTHER RELEASE
(If safe and if trained to do so)

DETERMINE “COLD ZONE”
ESTRICT ENTRY TO WARM & HOT ZONES





7. Training and Testing

The Emergency planning Committee will be responsible for training and testing the content of the emergency response (including Pollution Incident Management Plan) annually. Responsibilities of the EPC are outlined under: **Organisational Arrangements and Contacts - 2.1 Emergency Planning Committee**. Pollution incident testing will be undertaken within 1 month of any pollution incident occurring in the course of an activity to which the licence relates so as to assess, in the light of that incident, whether the information included in the plan is accurate and up to date and the plan is still capable of being implemented in a workable and effective manner.

Staff training is recorded in the site Training Matrix.

Emergency response plan is reviewed at least every 2 years by WHS Committee. Testing schedule and a drilling log are recorded in the Marulan ER folder.

8. Revision History

Version	Change Date	Summary of Change	Prepared by	Approved By
Rev.0	1 September 2012	New document	Alex Wnorowski	Debbie Cook
Rev.1	19 December 2012	New Fire & Rescue NSW number for Pollution Incident notifications (replacing calls to 000)	Alex Wnorowski	Alex Wnorowski
Rev.2	1 September 2013	Incorporating company structure changes. Formatting changes.	Alex Wnorowski	Alex Wnorowski
Rev.3	1 September 2014	Annual review.	Alex Wnorowski	Alex Wnorowski
Rev.4	29 July 2015	Update HSEQ references and site contacts	Alex Wnorowski	Alex Wnorowski
Rev.5	11 November 2016	Update contacts and recommendations from PIRMP drill with Environmental Compliance Services	Rob Lasker	Belinda Prideaux
Rev.6	24 th October 2017	PIRMP Drill changes. More dust references, Boral Legal inclusion in notification flowchart	Rob Lasker	Belinda Prideaux
Rev.7	27 th September 2018	Neighbour and Boral management details update	Rob Lasker	

9.

APPENDIX A: Immediate Pollution incident Notification - Authority Contacts.
 See Section 3.1 on page 8 of the PIRMP

GOVERNMENT AUTHORITY - COMPULSORY NOTIFICATIONS	EMERGENCY NOTIFICATION PHONE NUMBER
EPA – Environment Line	131 555
Fire & Rescue NSW	1300 729 579
Goulburn Mulwaree Council	02 4823 4444 A/H 02 4822 1080
Dept Trade and Investment. Mines Inspector	02 4222 8311 0418 424 779
Public Health Unit (Sydney South West) – Camperdown Office	BH: 02 9515 9420 AH: 02 9515 6111 Ask for Public Health Officer on call
WorkCover Authority of NSW	131050 Company ABN asked: 62 008 528 523
GOVERNMENT AUTHORITY - RING IF RELEVANT	EMERGENCY NOTIFICATION PHONE NUMBER
Roads and Maritime Services	132 701
NSW Office of Water	8838 7885
Bush Fire Control Officer	1800 049933
Poisons Information Centre	131 126

10.

11.

12. APPENDIX B: Neighbours Contact List - Marulan South

DIRECTION	NEIGHBOURS	ADDRESS	EMERGENCY NOTIFICATION	METHOD
North/East	Peppertree Quarry	843 Marulan South Road	02 48 411 701	Phone/Door knock
West	Tony Fagan	683 Marulan South Road	0401 896 055	Phone
	Foti Fireworks	452 Marulan South Road	0418 242 406	Phone/Door knock
	Aglime Fertilisers	709 Marulan South Road	02 4841 1528	Phone/Door knock
	Julian Rodriguez-benitez	565 Marulan South Road	0401 893 651	Phone/Door knock
	Steve and Annette Pace	381 Marulan South Road	02 4841 1116	Phone/Door knock
	Barry Armitt	357 Marulan South Road	02 4841 1547	Phone/Door knock
	Pat and Bridgette Mulligan	400 Marulan South Road	02 4841 1399	Phone/Door knock
	Steven Lichtenberger	270 Glynmar Road	02 4841 1299	Phone/Door knock
South	Bungonia State Recreation Area	838 Lookdown Road, Bungonia	02 4827 4700	Phone

13.