



## **Pollution Incident Response Management Plan**

For Stone & Wood Brewery – 35-37 Kite Crescent, South Murwillumbah

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## Overview

To improve the efficiency of pollution reporting, NSW parliament amended the Protection of the Environment Operations (POEO) Act 1997 resulting in the protection of the Environment Legislation Amendment (POELA) Act 2011.

This Pollution Incident Response Management Plan (PIRMP) has been developed in accordance with the POEO Act 1997, POEO (General) Regulation 2009 and preparation of PIRMP's Environmental guidelines.

This PIRMP contains the following sections as required by the regulations:

- **Background** – describes the main features of the regulation
- **Hazards, likelihood and pre-emptive actions** - describes type of pollution incidents that may be possible and lists procedures that are already in place to minimise and manage pollution
- **Maps** – showing location of neighbours and environmentally sensitive areas
- **Emergency incident response procedures** – what to do in case of a pollution incident
- **Early warnings** – when to contact neighbours in case of pollution incidents
- **Implementation** – when the plan is to be implemented
- **Training** – information to be passed onto staff and contractors
- **Testing** – frequency of drills to test effectiveness of PIRMP

## Introduction

This Pollution Incident Response Management Plan has been prepared for the Stone and Wood brewery located at 35-37 Kite Crescent, South Murwillumbah, and is required to apply for a license under the EPA. The brewery is operating under the approval of Development Application 13/0346 and subsequent development applications for alterations and additions

### Objectives

As stated in the guidelines, the objectives of this PIRMP are to:

- Ensure comprehensive and timely communication about a pollution incident to personnel at the premises, the Environment Protection Authority (EPA), other relevant authorities specified in the Act such as local Council, NSW Ministry of Health, Workcover NSW and the Fire Brigade and Rescue NSW, SES and people outside the site who may be affected by the impact of a pollution incident.
- Minimise and control 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 a plan is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring that the plan is tested for accuracy, currency and suitability.

### Scope

This PIRMP is for the use of all Stone and Wood (the brewery) staff involved in the activities that have the potential for pollution incidents but does include works undertaken by external contractors. The PIRMP will be implemented if material harm to human health or the environment occurs or threatens to occur.

The brewery is located at Lot 207 DP 1122768, 35-37 Kite Crescent, South Murwillumbah. Environmental Management practices at the site are subject to ongoing improvements and to accommodate these improvements, the plan will be progressively reviewed.

This plan clearly defines the requirements of Stone and Wood staff at this site to report and respond to pollution incidents in accordance with the 2011 changes to the POEO Act 1997 and the POEO (General) Regulation 2010.

### Responsibilities

Managers and operators listed below are responsible for ensuring staff are aware of this plan and their roles where appropriate. They are also responsible for training their staff.

Role	Responsibility
Stone and Wood	<ul style="list-style-type: none"> <li>outline the policies and procedures which are to be adhered to when reporting pollution incidents and implementing the PIRMP</li> </ul>
Sustainability Manager	<ul style="list-style-type: none"> <li>assisting with advice, reporting and response processes;</li> <li>ensuring this plan is made available to staff responsible for implementing the plan;</li> <li>giving advice on whether environmental incidents need to be reported to external agencies;</li> <li>assistance with the implementation of response actions to pollution incidents;</li> <li>training staff with roles in activating the plan;</li> <li>testing; and</li> <li>reviewing this plan</li> </ul>
Supervisors and Managers	<ul style="list-style-type: none"> <li>ensuring their staff are aware of the PIRMP and their roles where appropriate</li> </ul>
Workers	<ul style="list-style-type: none"> <li>immediately notify the manager/ supervisor after becoming aware of a pollution incident and supply all relevant information about the incident</li> </ul>

Contact details of key staff are provided below:

- Head of Production – Richard Crowe
- Sustainability Manager – James Perrin
- Office – 02 6685 5172

### Documentation

The environmental incident register is used to record and monitor any environmental incidents within the brewery. The register will assist with record keeping, reporting and determining improvements to incident response and review of the plan. The register will be kept and updated by the Sustainability Manager.

### Location

The subject site is located at 35-37 Kite Crescent, South Murwillumbah, with the surrounding locality presented in Figure 1.



**Figure 1: Surrounding locality** (source SIX Maps LPI 2018, not to scale)

## Terms and Definitions

A "**pollution incident**" under the POEO Act 1997 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.

Abbreviation	Explanation
EPA	Environment Protection Authority
PIRMP	Pollution Incident Response Management Plan
POEO Act	Protection of the Environment Operations Act 1997
POELA Act	Protection of the Environment Legislation Amendment Act 2011

## Notification of a Pollution Incident

A pollution incident is required to be immediately **notified** if there is a risk of '**material harm to the environment**', defined under 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

(ii) it results in actual or potential loss or property damage or 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.

Responsibility to notify Under Section 148 of the POEO Act, the following people have a duty to notify a pollution incident occurring in the course of an activity that causes or threatens material harm to the environment:

- The person carrying on the activity;
- An employee or agent carrying on the activity;
- An employer carrying on the activity
- The occupier of the premises where the incident occurs.

Once determined that the incident causes or threatens material harm to the environment, notification must be given immediately, ie. promptly and without delay, after the person becomes aware of the incident.

If a pollution incident occurs, all necessary action should be taken to minimise the size and any adverse effects of the release. If the incident presents an immediate threat to human health or property, Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service should be contacted first for emergency assistance (phone 000). The other response agencies must still be contacted after that to satisfy notification obligations.

## Assessment of Hazards and Pollutants

This chapter deals with the POEO (General) Regulation 2009's sections 98(a) to 98(f) and deals with the hazard, likelihood and pre-emptive actions to minimise the risks.

This assessment considers each potential hazard that may arise as part of the brewery operations on the site, such as the use and storage of hazardous chemicals.

### Description and Likelihood of Hazards/Pollutants

The potential hazards to human health and the environment have been identified and are discussed in the following sections. A summary of the main types of pollutants is provided in Table 2 below, and further details are provided in the following sections.

**Table 2: List of typical main pollutants for brewing activities**

Description	Comments
<b>Air Based Emissions</b>	
Dust	Unloading grain into the hopper is a potential pollutant. Dust is covered under this plan.

Fire	Fire is not considered an environmental incident, but the smoke from the fire can be. Fire management is covered under - OP-OHS-SOP- 003 Site Evacuation
Noise	Emitted by plant and equipment. Noise is not considered a pollution incident and is not covered under this plan.
Odour	Some odour is generated by the wastewater and brewing processes. Odour incidents are not considered to be material environmental harm.
<b>Spill Type Emissions</b>	
Beer	In brewing or transportation processes. Covered under this plan
Wastewater and other waste products	Storage of wastewater, spent grain and spent yeast. Covered under this plan
Gases	LPG and CO <sup>2</sup> used in brewing process. Covered under this document
Flammable Liquids, Corrosive Substances & Oxidising Substances	Material Safety Data Sheets (MSDS) are located next to all chemicals around the plant and are also in the Dropbox file

## Dust

Potential Hazard	Causes	Possible Consequences	Pre-emptive Mitigation Measures
Dust emissions when loading the hopper	Dust created and released during unloading/ loading	Dust enters stormwater system	Signage Schedule regular dust inspections and cleaning of equipment
Dust explosion	Milling process Ignition of dust within storage container or milling equipment	Equipment damage Injury to staff	Signage Structures and equipment earthed Vacuums located near milling equipment to remove dust accumulation Schedule regular dust inspections and cleaning of equipment

## Spills

Potential Hazard	Causes	Possible Consequences	Pre-emptive Mitigation Measures
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Beer spill/ overflow	Overfilling tanks – eg filling a tank already partly full  Damage to kegs or cartons during loading for transport or storage	Contamination of stormwater	All tanks are in bunded areas with 110% capacity  Spill kits are located and maintained on site during all operations and regularly inspected and maintained  Humeceptor as part of stormwater infrastructure  Call waste contractor following a spill ASAP to get a vacuum truck on site to suck out stormwater drains and/ or bund pits
Chemical spill	Damage to chemical container or overfilling/ leak from a tank		All chemicals and tanks are bunded as well as spill kits in place  Call waste contractor following a spill ASAP to get a vacuum truck on site to suck out stormwater drains and/ or bund pits
General building			Maintain fencing and access controls to prevent unauthorised access  Ensure adequate signage is maintained  If unauthorised persons are found on the site, work should be stopped, and persons escorted from the site  High visibility clothing and PPE to be worn at all times  Maintain clean and organised work areas to prevent accidents

## Wastewater and waste

Wastewater is generated during the brewing process from cleaning vessels, cleaning kegs and bottles, wash down of equipment and floors. The tradewaste comprises suspended solids from wash down processes and acidic/ alkaline chemical residues from cleaning. The wastewater treatment system is located to the eastern side of the brewery and is partially under an awning.

Potential Hazard	Causes	Possible Consequences	Pre-emptive Mitigation Measures
Spill/ overflow/ leak	Wastewater loads exceed capacity	Contamination of stormwater	All tanks are in bunded areas with 110% capacity  Contingency plans are in place in the event that wastewater loads exceed capacity, and include; trucking

			<p>excess wastewater offsite or limiting or ceasing production</p> <p>Spill kits are located and maintained on site during all operations and regularly inspected and maintained</p> <p>Prevent stormwater entering tradewaste areas through roofing and bunding</p>
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## Gases

The following gases are stored on the site:

Potential Pollutant	Maximum Storage Quantity	Storage Location	DG Class
LPG	Up to 5000L per vessel 4x vessels	Tanks located outside to the east of the building	2.1
Liquid Carbon Dioxide	Up to 20 tonnes	Tank under awning roof	2.2

The potential hazards and pre-emptive measures have been identified below:

Potential Hazard	Causes	Possible Consequences	Pre-emptive Mitigation Measures
LPG Release	<p>Piping failures</p> <p>Impact from vehicle</p> <p>Leak from hose when filling</p>	<p>Fires</p> <p>Potential for explosion if gas is confined and ignited</p> <p>Potential for loss of life</p> <p>Loss of production and business interruption</p>	<p>LPG tanks stored outside of building with barriers to prevent vehicles impacting</p> <p>Pipes designed to natural gas standards</p> <p>Maintenance and inspections by gas supplier</p> <p>LPG supplied and filled by LPG specialist supplier</p> <p>Ensure the area around the LPG tanks is kept clear of dry vegetation and wooden pallets (fire hazard)</p> <p>No smoking signage</p>

## Flammable Liquids, Corrosive Substances and Oxidising Substances

Potential Pollutant	Maximum Quantity
Foaming hand sanitiser	1200mL
Bru-Solv	1000L
Interox AG	230kg
Oxonia Active	200kg
Phosphoric Acid	1000L
Sodium Chlorite	20L

Topax 545	25L
Topax 620	25L
Trimeta CD	1000L
CIP chemicals	Acid to 50 HL Caustic 50 HL
Sodium hydroxide solution	
Oxonia Active	1000L

The potential hazards and pre-emptive measures have been identified below:

Potential Hazard	Causes	Possible Consequences	Pre-emptive Mitigation Measures
Accidental release of caustic or acid	Piping/leaks failures Overflow Tank failure	Burns Harmful to aquatic life	Maintenance of equipment  Spill kits are located and maintained on site during all operations and regularly inspected and maintained  Ensure that there is adequate ventilation of the area before entering  Prevent water from coming into contact with material

## Safety Equipment and Procedures

The following section details the safety equipment and measures that are undertaken to minimise the risk to human health or the environment, and to control a pollution incident.

### ***Safety Induction***

All visitors to the site must sign in at the site office on arrival.

### ***Equipment***

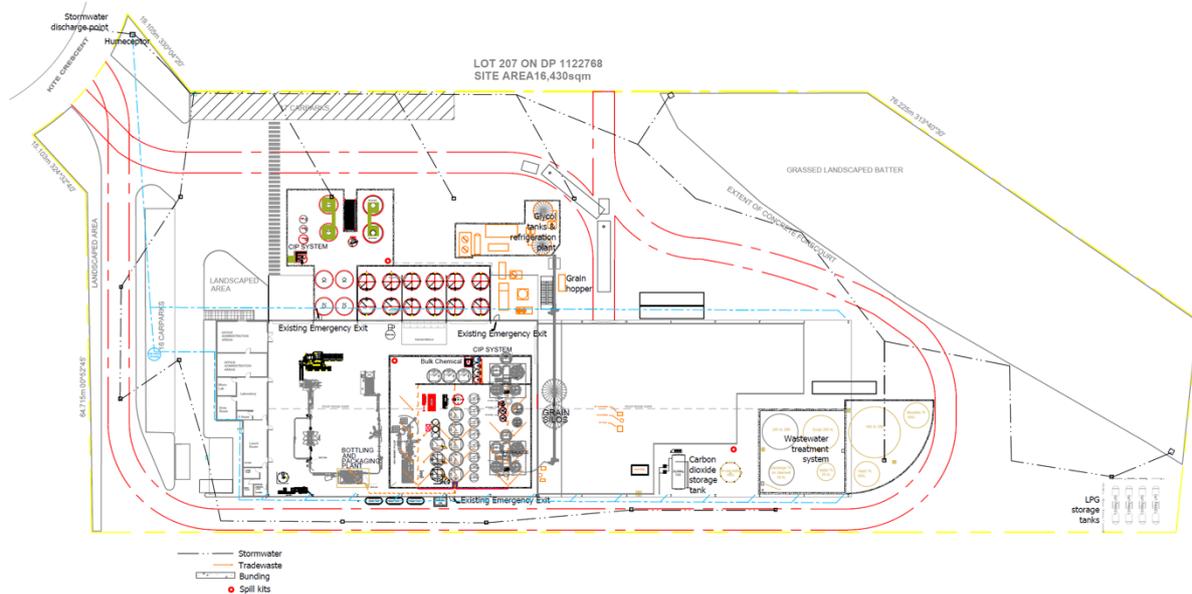
Personal protection equipment (PPE) requirements are in place for all employees and visitors whilst in the brewery. Other safety equipment includes a first aid kit which is located in the site office.

Fire extinguishers are located within the brewery and at the site office.

### ***Signage***

Signage is provided in areas that contain hazardous and flammable material. Additionally, access to the site is restricted through fencing and boom gates with an access code to prevent access by unauthorised persons.

## Map



## Spill Procedure

It is important to read the Material Safety Data Sheet of any product used at the site. The MSDS are located next to all chemicals used in the brewery and are also available in the

the MSDS must be stored in a readily accessible location, this document is to be updated as required for any new substance used at the site. The MSDS may provide specific clean up measures and this should be consulted.

Ensure that spill kits are in a readily accessible location, as shown on the map above.

Spill kits will differ for the different substances at the site.

Spill kits are to be used for clean-up of spills from the following:

- Caustic and acid substances
- Fuels (ie vehicle accident – no other fuels are kept on premise)
- Wastewater
- Beer



**Photograph 1: Recommended spill kit for oils and fuels**

The spill kit in photograph 1 is suitable for cleaning up oil, fuel, diesel, petrol, solvents and other petroleum products.

Suppliers (Global Spill Control) state that the oil and fuel spill kits contain a variety of meltblown polypropylene absorbents which are colour-coded white for easy identification and can absorb up to 20 times their own weight in oil and have a fast-wicking action to clean up spills quickly. The spill kit will include:

- Suitability for larger spills
- Contains Global Peat floorsweep and polypropylene oil and fuel-only maintenance absorbents.
- Clean non-allergenic, non-hazardous absorbents, with little or no dust.
- A Global audit tag is included and when fitted will readily identify when the kit has been accessed or used.
- Oil and fuel spill kit includes labels, laminated re-order form and operating instructions contained within a specially designed document holder fitted to the back inside wall of the wheelie bin.
- UV-stabilized and colour-coded labels are fitted to the front and sides of the wheelie bin. The front label identifies the type of spill kit and liquids absorbed, whilst the two side labels provide clear and concise emergency response instructions.
- Spill kit can be converted to a Pollution Control Station with accessories such as shovels (long- handled or non-sparking), wall mounted signs, bassine brooms, bin covers, squeegees, bin locks or rakes.
- Spill kit is supplied in a yellow 240 litre wheelie bin



**Photograph 2: Recommended spill kit for Hazchem spill kit for acids and bases**

The spill kit in photograph 2 is suitable for cleaning up bigger spills of acids, bases, coolants, solvents, oils and hazardous chemicals – all liquids.

Suppliers (Global Spill Control) state that Hazchem spill kits contain a variety of meltblown polypropylene absorbents which are colour-coded pink for easy identification. These absorbents are able to absorb up to 20 times their own weight in liquids and have a fast-wicking action to clean up spills quickly. Hazchem absorbents are inert and dust-free and will not degrade or chemically react with absorbed liquids.

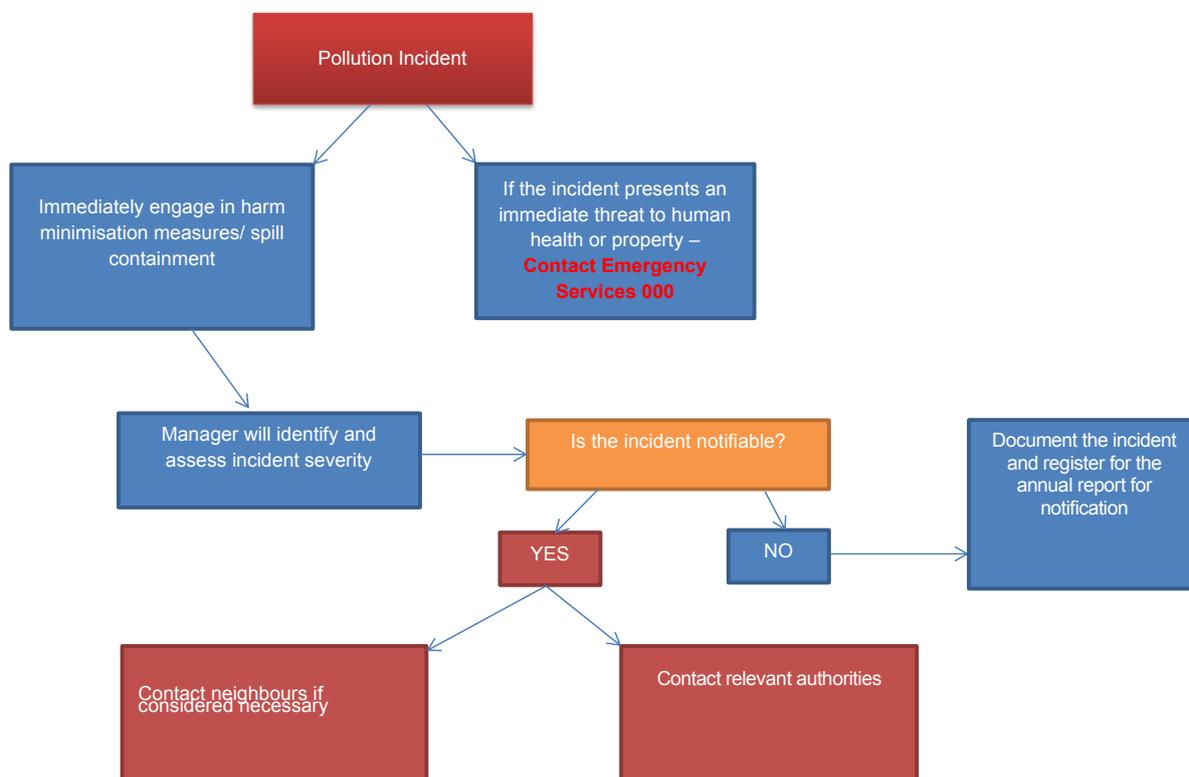
- Large premium hazchem spill kit for bigger spills.
- Contains polypropylene hazchem maintenance absorbents.
- Clean, inert, non-allergenic, non-hazardous absorbents, with little or no dust.
- This large spill kit also includes a range of spill clean up tools to assist with safe response and disposal.
- A Global audit tag is included and when fitted will readily identify when the kit has been accessed or used.
- Hazchem spill kit includes labels, laminated re-order form and operating instructions contained within a specially designed document holder fitted to the back inside wall of the wheelie bin.
- UV-stabilized and colour-coded labels are fitted to the front and sides of the wheelie bin. The front label identifies the type of spill kit and liquids absorbed, whilst the two side labels provide clear and concise emergency response instructions.
- Spill kit can be customised by adding/removing/swapping components.
- Spill kit is supplied in a red 240 litre wheelie bin.
- Bins are well sealed against dust and water ingress and manufactured from UV-stabilised polyethylene that is tough and corrosion resistant.

Disposal shall be at Tweed Council landfill provided that notification is provided to this landfill before removal of waste to the site. Landfill contact details are:

- Stotts Creek Resource Recovery Centre Leddays Creek Road, Stotts Creek NSW 2487 Phone: (02) 6670 7400

## Pollution Incident Procedure

In the event of a pollution incident, Stone and Wood will be required to follow the procedure below.



In the event of a pollution incident that is determined to have caused material harm:

**DO NOT HESITATE TO CALL IF THERE IS RISK TO HUMAN HEALTH**

### External Notification Contact Details:

#### Authority

<b>Emergency Services</b>	<b>000</b>
<b>Murwillumbah Fire Station</b>	<b>02 6672 8305</b>
<b>NSW EPA</b>	<b>131 555</b>
<b>NSW Ministry of Health</b>	<b>02 9391 9000</b>
<b>Tweed Shire Council</b>	<b>02 6670 2400</b>
<b>SES</b>	<b>02 6625 2070</b>
<b>NSW Work Cover</b>	<b>131 050</b>
<b>Murwillumbah District Hospital</b>	<b>02 6672 1822</b>

## Communicating with neighbours

Early warnings for affected or potentially affected community members for any pollution incident are to be communicated to those members via a door knock process. The Manager or his representative will be responsible for this action.

For air pollution incidents that may affect neighbours those neighbours will be asked to close window and stay indoors until further notice. The Manager or their representative will be responsible for this.

For water pollution incidents that may affect property owners or the stormwater system, the notice will be given to neighbours and Council to assist managing the situation.

## Implementation

In accordance with the requirements of Section 153F of the POEO Act, if a pollution incident occurs in the course of any activity so that material harm to the environment (within the meaning of section 147) is caused or threatened, the person carrying out the activity must immediately implement any pollution incident response management plan in relation to the activity required by this part.

A full copy of the Pollution Incident Response Management Plan is kept at the Office. The plan will be made publicly available on the company website and provided to any person on written request.

## Staff Training

Staff will be trained in the information and the requirements of reporting or dealing with any incident

Training will be incorporated into training sessions that are part of the Company's continuous improvement program.

## Testing

The testing of a plan is to be carried out in such a manner as to ensure that the information included in the plan is accurate and up to date and the plan is capable of being implemented in the workplace in an effective manner. Any such test mentioned to be carried out and recorded.

Tests are to be routinely carried out once every twelve months. Testing will also be carried out within 1 month following any pollution incident so as to assess whether the information included in the plan is accurate and up to date, and consider whether changes are warranted.