



# Pollution Incident Response Management Plan (PIRMP)

## Newcastle Grain Terminal

Rev No	Reviewer	Review Date
V1	M.Farnham, E.Dugan	Nov 2012
V2	M. Farnham, E.Dugan	June 2013
V3	M. Farnham, P.Lino	May 2014
V4	M. Farnham, M.Sierszycki	June 2015
V5	M. Farnham, M.Sierszycki, Damien Pfeiffer	May 2016
V6	M Farnham, J Mann, C Casey	May 2017
V7	M Farnham, J Mann, C Casey, A Hurst, M Jelbart, P Thew, M Kennedy	May 2018
V8	J.Mann, C.Casey, S.Moore, A.Donnelly, C.Nixon, M.Kennedy	June 2019

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## 1.0 Purpose and Background

This Pollution Incident Response Management Plan (PIRMP) has been developed to satisfy obligations under the *Protection of the Environment Operations Act 1997* (POEO Act) and associated *Protection of the Environment Legislation Amendment Act 2011* (POELA Act) for licensed facilities.

Under GrainCorp's Emergency Management System, detailed emergency response procedure is already in place for the classification and management of incidents, across GrainCorp operational sites. Under the provisions of Part 3A 98B(2) of the *Protection of the Environment Operations (General) Amendment (Pollution Incident Response Management Plans) Regulation 2012*, to allow for the integration of requirements into existing plans in respect to pollution incident response, requirements under POEO legislation have been integrated into these existing plans where appropriate.

This document has been designed as a reference to existing emergency response plans and associated procedure. It also details additional supplementary site specific information as required under the POEO legislation, in respect to the relevant Environment Protection Licence (EPL) holder.

## 2.0 Scope

This PIRMP covers GrainCorp's Newcastle (Carrington) Grain Terminal (the Terminal) located at Denison St, Carrington NSW 2294. This plan applies to all activities, products and services on the site over which GrainCorp has operational control.

## 3.0 Legislative Requirements

Specific legislative requirements for the development and implementation of this PIRMP are provided below.

Part 5.7A of the <i>Protection of the Environment Operations Act 1997</i> (POEO Act)
Part 5.7A of the <i>Protection of the Environment Legislation Amendment Act 2011</i> (POELA Act)
The <i>Protection of the Environment Operations (General) Amendment (Pollution Incident Response Management Plans) Regulation 2012</i>
Environment Protection License (EPL) 1296

In summary:

- All holders of environment protection licences must prepare a pollution incident response management plan (section 153A, POEO Act).
- The plan must include the information detailed in the POEO Act (section 153C) and be in the form required by the POEO(G) Regulation (clause 98B).
- Licensees must keep the plan at the premises to which the environment protection licence relates or, in the case of trackable waste transporters and mobile plant, where the relevant activity takes place (section 153D, POEO Act).
- Licensees must test the plan in accordance with the POEO(G) Regulation (clause 98E).
- If a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened, licensees must immediately implement the plan (section 153F, POEO Act).

## 4.0 Terms and Definitions

### 4.1 Definition of a pollution incident

A *pollution incident* means an incident or set of circumstances during or as a consequence of which there 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 a premises, but it does not include an incident or set of circumstances involving only the emission of any noise.

### 4.2 Abbreviations

Table 1 – Terms and definitions relevant to the PIRMP

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
CLM Act	Contaminated Land Management Act 1997
EPL	Environment Protection License
ERP	Emergency Response Plan
EMS	Environmental Management System

## 5.0 Notification of a Pollution Incident

### 5.1 What must be notified

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.

### 5.2 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, i.e. promptly and without delay, after the person becomes aware of the incident.

### 5.3 Emergency Response

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.

### 5.4 Contaminated Land

Persons whose activities have contaminated land and owners of land who become aware, or ought reasonably to be aware, that the land has been contaminated must notify the EPA as soon as practicable after becoming aware of the contamination, if the contamination meets certain criteria. The duty to notify is a requirement under section 60 of the *Contaminated Land Management Act 1997* (CLM Act).

## 6.0 Reference Documentation

The following existing internal plans and procedure documentation underpin this PIRMP.

Table 2 – GrainCorp internal plans and procedures underpinning the PIRMP

Doc. No	Document	Format
hs-3-00045	Newcastle Incident Notification and Escalation Flow Chart	Flipchart on site
hs-3-00103	Initial Verbal Escalation Chart	
CDID-16-43	Incident Notification Form	Controlled document on Sharepoint
	Newcastle Site Emergency Planning Manual	
	Group Incident Notification & Escalation Procedure (v.18/12/2018)	Controlled document on Sharepoint

## 7.0 Newcastle PIRMP

### 7.1 Description of Potential Hazards and their Likelihood

An environmental hazard is a term for any situation or state of events which poses a threat to the surrounding environment including human health as a result of an incident. Incident types that may occur at the Newcastle Grain Terminal are detailed below:

- Minor chemical spills and leaks
- Release of contaminants, including emissions, not in accordance with acceptable limits e.g. fumigant venting
- Uncontrolled release of emissions
- Dust from loading/unloading operations using ship, truck or train
- Spillage of material into stormwater drains
- Spillage of material into harbour from loading gantry and unloading activity

Potential hazards to human health and the environment that have been identified as a result of the above listed incidents include water pollution (including stormwater), air pollution and soil/ground pollution. Table 3 below identifies a list of foreseeable hazards that could occur on this site as a result of regular operating activities and the consequence and likelihood of each with current controls

A risk management matrix (Appendix 2) is used to score the residual risk associated with any particular hazard. The purpose of rating risk is to guide decision making on risk management and to eliminate or otherwise reduce the risk to an acceptable level.

Table 3 – Likelihood and consequences assessment of hazards around Newcastle Grain Terminal

Type of pollution	Hazard	Consequence	Likelihood	Risk Score
Water	Contamination of surface water from bulk material being spilled into the harbour from loading gantry	Serious	Extremely unlikely to occur	6
Soil & Water	Contamination of soil from Hydraulic hose failure	Moderate	Likely to occur	8
Soil & Water	Contamination of soil and ground water from Application and handling of contact insecticides	Serious	Extremely unlikely to occur	6
Soil & Water	Contamination of soil and ground water from Fuel and chemical storage areas	Serious	Extremely unlikely to occur	6
Soil & Water	Contamination of soil and ground water from Fuel and chemical dispensing	Serious	Extremely unlikely to occur	6
Soil & Water	Contamination of surface water entering stormwater drains	Serious	Extremely unlikely to occur	6
Air	Generating dust through truck, train wagon unloading, loading	Serious	Extremely unlikely to occur	6

Air	Generate dust through product transfer on conveyor	Serious	Extremely unlikely to occur	6
Air	Generate dust through loading grain ships	Serious	Unlikely to occur	9
Air	Degrade air quality through VOC releases above EPL limits	Moderate	Unlikely to occur	5
Air	Contamination of air and human health exposure through unexpected or not acceptable release of Methyl Bromide or Phosphine	Critical	Unlikely to occur	14

## 7.2 Pre-emptive Actions to be Taken

The following table details descriptions of the pre-emptive actions to be taken to minimise or prevent any risk of harm to human health or to the environment arising from activities occurring at the Newcastle Grain Terminal.

<p><u>Minor Chemical Spill/Leak</u> Only minor quantities of chemicals are stored onsite and any major maintenance activities are undertaken by third party contractors. Chemicals are stored with the appropriate bunding and spill kits are located in areas where there is a potential for a spill to occur including:</p> <ol style="list-style-type: none"> <li>1. Chemical Store;</li> <li>2. Oil Store</li> <li>3. Maintenance Workshop;</li> <li>4. Locomotive Service Area;</li> <li>5. Rail Unloading Shed</li> <li>6. Western Storage Road Hopper</li> <li>7. Main Road Hopper</li> </ol>	 <p><i>Fig.1 Spill kit in Chemical Store</i></p>
<p><u>Uncontrolled Release of Gas</u> There is some storage of fumigant gasses onsite, including methyl bromide and phosphine.</p> <p>All gas cylinders are located and restrained in secured, fenced facilities with restricted access to licensed operators, and appropriate signage in place. All fumigations and subsequent venting activities are carried out by licensed fumigators.</p>	 <p><i>Fig.2 Methyl Bromide Storage Compound</i></p>  <p><i>Fig.3 Facility Signage</i></p>

<p><b><u>Dust Generation</u></b> Newcastle Grain Terminal has in place an Operational Dust Response Program to mitigate potential dust emissions resulting from various activities onsite. Initiatives and improvements introduced to date under the Operational Dust Response Program include:</p> <ul style="list-style-type: none"> <li>• Improvements to ship loader spouts;</li> <li>• Installation of dust systems at rail-receiver hoppers;</li> <li>• Installation of rail receival shed water spray systems;</li> <li>• Installation of exhaust stack broken bag detector systems;</li> <li>• Installation of Tapered Oscillating Microbalance (TEOM) Particle Monitoring stations and alarm system.</li> </ul>	 <p><i>Fig.4 Rail Receival Shed Water Spray System</i></p>
<p><b><u>Storm Water Grates/Mesh</u></b> A site stormwater risk assessment has been completed and stormwater grates/mesh have been installed at drain locations which represent the highest risk of spilled grain entering the stormwater system.</p>	

Other pre-emptive actions taken to minimise the likelihood of potential environmental hazards include:

- The implementation of a site-specific Environmental Management System (EMS);
- Onsite inductions for employees, contractors and suppliers;
- Monthly environmental inspections.

### 7.3 Inventory of Potential Pollutants

The main potential pollutants associated with the site activities are the various types of bulk grains (as listed in Table 4) which can generate excessive dust in the absence of dust minimisation controls. Total capacity of throughput for the terminal is approximately 1 million tonnes per annum. This throughput is impacted by the weather conditions season to season.

Table 4 – Potential grain pollutants

Name of Shipped Bulk Material
• Durum Wheat
• Bread Wheat
• Sorghum
• Barley
• Chickpeas
• Canola

In addition, an inventory of all chemicals is maintained under the SAP system, and monthly audits are undertaken to determine actual volumes stored onsite (Table 5). There are no underground storage facilities at the Newcastle Grain Terminal site. Chemical storage locations are detailed on Map 1, Appendix 1.

Table 5 – Chemicals stored on site at Newcastle Grain Terminal

<b>Chemical</b>	<b>Quantity</b>
Dryacide	Approx. 50kg
Chlorpyrifos-methyl (Reldan & Bichlor)	Approx. 800L
Methoprene (Rizacon & IGR)	Approx. 50L
Deltamethrin (K-Obiol Combi)	Approx. 500L
Phosphine (EcoFume)	Approx. 200kg
Methyl bromide	Approx. 800kg
Insectigas	Approx. 250kg
Spinosad (Conserve)	Approx. 60L
Fenitrothion (Sumithion)	Approx. 50L
Carbryl (Bugmaster, Sevin & Septene)	Approx. 50L
Glyphosate	Approx. 100L
Ethyl formate (Vapourmate)	Approx. 60kg
<b>Oils / Fuels / Grease</b>	<b>Quantity</b>
Gear Box Oil	Approx. 80L
Hydraulic Oil	Approx. 360L
Comp Oil	Approx. 80L
Torque Con Oil	Approx. 40L
EP Oil	Approx. 40L
Diesel Fuel	Approx. 20L
Transformer Oil	Approx. 20L
Grease	Approx. 70kg

#### **7.4 Safety Equipment**

Under GrainCorp’s Safety Management Program and ‘Zero Harm for Life’ campaign, minimum Personal Protection Equipment (PPE) requirements are in place for all Port Terminal Operations for all employees, contractors, visitors and transport operators. Minimum PPE includes high visibility clothing, enclosed footwear, hard hats and safety glasses. Other onsite safety-related equipment includes:

- Onsite safety sign-in and inductions for all employees, contractors and suppliers;
- Gas monitoring meters;
- Dust monitoring and alarm systems;
- Emergency stop/shut down and alarm points;
- Chemical wash stations/showers;
- Spill kits (refer section 7.3);
- Online SDS Register;
- Appropriate process and chemical identification signage;
- First aid facility and kits;
- Restricted chemical access.

## 7.5 Notification Procedure

Incident notification is detailed under the Group Incident Notification & Escalation Procedure (v.18/12/2018). Refer to this procedure to determine what information is required to be immediately reported to authorities in the event of a pollution incident.

In response to requirements under changes to 5.7 of the POEO Act regarding pollution incident notifications, the following specific information and contact details are provided for Newcastle Grain Terminal, in the event of an environmental incident.

**Excerpt from EPA Website - Protocol for Industry Notification of Pollution Incidents:**

<http://www.environment.nsw.gov.au/pollution/notificationprotocol.htm>

*Recent changes to Part 5.7 of the Protection of the Environment Operations Act 1997 (POEO Act) specify new requirements relating to the notification of pollution incidents. The changes take effect from **6 February 2012** and require the occupier of premises, the employer or any person carrying on the activity which causes a pollution incident to immediately notify each relevant authority (identified below) when material harm to the environment is caused or threatened. The following information and procedures may assist those responsible for reporting a pollution incident.*

*Firstly, call 000 if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.*

*If the incident does not require an initial combat agency, or once the 000 call has been made, notify the relevant authorities in the following order. The 24-hour hotline for each authority is given when available:*

- *the appropriate regulatory authority (ARA) for the activity under the POEO Act (usually the EPA or local authority) – the local authority is a local council of an area under the Local Government Act 1993), the Lord Howe Island Board for Lord Howe Island, or the Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council)*
- *the EPA, if it is not the ARA – phone Environment Line on 131 555*
- *the Ministry of Health via the local Public Health Unit – see [www.health.nsw.gov.au/publichealth/infectious/phus.asp](http://www.health.nsw.gov.au/publichealth/infectious/phus.asp)*
- *the WorkCover Authority – phone 13 10 50*
- *the local authority if this is not the ARA*
- *Fire and Rescue NSW – phone 000.*

*The appropriate contact for the relevant local authority and Public Health Unit will vary. All necessary contact numbers should be found in advance and stored for immediate access should a pollution incident need to be notified. These contact numbers should also be identified in the Pollution Incident Response Management Plan prepared for the premises.*

*Complying with these 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 WorkCover.*

If, under application of internal incident classification procedures, an environmental incident is determined to have caused or threatened material harm to the environment at the Newcastle Grain Terminal, the following internal and external stakeholders must be contacted immediately, in alignment with internal notification and escalation procedures.

**Firstly, call 000 if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents. If the incident does not require an initial combat agency, or once the 000 call has been made, notify the relevant authorities in the following order. Refer to Table X for contact details.**

- **the appropriate regulatory authority (ARA)**
- **the EPA, if it is not the ARA**

- **the Ministry of Health via the local Public Health Unit**
- **the SafeWork NSW**
- **the local authority if this is not the ARA**
- **Fire and Rescue NSW**

Complying with these 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 (previously WorkCover).

## 7.6 Contact Details

### 7.6.1 Internal Notification Contact Details

The following Table 6 lists the names, positions and 24-hour contact details of those key individuals who:

- are responsible for activating the plan: and
- are authorised to notify relevant authorities under section 148 of the Act: and
- are responsible for managing the response to a pollution incident.

Table 6 – Internal notification contact details

Internal Notification		
Contact Position	Contact Name	Contact Details
GrainCorp Carrington Site	Site phone number	(02) 4961 8100
Site Manager	Jade Mann	Office: (02) 4961 8137 Mobile: 0407 084 130
Operations Supervisors	Craig Casey Simon Moore	Office: (02) 4961 8120 Mobile: 0417 611 782 Mobile: TBA
Carrington Maintenance Supervisor	Colin Nixon	Office: (02) 49618118 Mobile: 0427 513 175

### 7.6.2 External Notification Contact Details

In response to the introduction of changes to 5.7 of the POEO Act, and as part of this PIRMP, in the event of a notifiable pollution incident, and dependent upon nature and scale, decisions to notify neighbours and the local community will be made in consultation with regulatory authorities (Table 7).

After consultation with the regulatory authorities, if required the Site Manager will undertake the early warning of the immediate neighbours in the first instance by phone. The initial notification will be brief and contain only a description of the environmental threat together with instructions what to do. For example:

- Due to a fire on site, we are experiencing elevated dust emissions from the site. Please keep your doors and windows closed until further notice.
- An accidental discharge occurred from the site. Emergency vehicles may possibly be present on roads leading to the terminal.

- Uncontrolled release of chemicals into waterway. Please avoid fishing or utilising the waterway for recreational purposes until the waterway is deemed safe.

Table 7 – External relevant authority contact details

Authority	Local Authority	Contact Details
Fire and Rescue NSW		000
NSW Environment Protection Authority (Pollution Hotline)		131 555
NSW Ministry of Health	Newcastle Office (diverts to John Hunter Hospital)	Phone: (02) 4924 6477 (Ask for Public Health Officer on call)
NSW WorkCover Authority		131 050
Local Council	Newcastle City Council	Phone: (02) 4974 2000

### 7.6.3 Other Key Stakeholders / Immediate Neighbour Notification Contact Details

Table 8 lists nearby neighbours and key stakeholders that may need to be contacted following a pollution incident.

Table 8 – Other key stakeholders and neighbours contact details

Stakeholder	Contact Name	Contact Details
Port of Newcastle Environment Manager	Jackie Spiteri	Phone: (02) 4985 8204
Newcastle Stainless Pty Ltd	Scott Kerslake	Phone: (02) 4965 3633 Mobile: 0449 867 365
Newcastle Mini Cranes	Lee Taylor	Phone: (02) 4961 5777 Mobile: 0412 098 777
Residents	Not disclosed due to Privacy Act	Not disclosed due to Privacy Act

### 7.6.4 Newcastle Grain Terminal Contact Details

Contact details for Newcastle’s Grain Terminal are publicly available via local directories, from [www.graincorp.com.au](http://www.graincorp.com.au) and via signage on the outer security gate. Graincorp operates a telephone complaint line. The contact details for Newcastle Grain Terminal are as follows:

Address: Denison Street, Carrington NSW 2294

Phone: (02) 4961 8100

Table 9 – Procedures for stakeholder communication including existing ERPs

Document	Format
Newcastle Grain Terminal Emergency Response Procedure	Flipchart on site
Group Incident Notification & Escalation Procedure (v.18/12/2019)	Controlled document on SharePoint

## 8. Minimising Harm to Persons on Premises

The following section includes actions or arrangements that will be in place to minimise the risk of harm to any persons who will be on the premises or who are likely to be on the premise should an incident occur. Persons likely to be on site include employees of GrainCorp, contractors and sub-contractors.

At all times, minimising harm to persons on premises shall be a priority and is achieved through Engineering, Training, Administrative and PPE controls as the last line of defence. Regular health monitoring of fumigation staff is also undertaken.

Training is provided to GrainCorp employees and any other person entering the site so that they are aware of site hazards and processes in the event of a pollution incident. Training includes inductions (online), toolbox talks and simulated desktop scenarios and simulated exercises. A record of site inductions is recorded on the eLearning online database. A record of the most recent simulated desktop scenario and the attendees are located on the Newcastle Network Drive. A full training matrix for personnel at Newcastle Grain Terminal is maintained on site, including the requirement for attendance at the PIRMP toolbox and spill response fundamentals training. The training matrix is located in Appendix 3.

### 8.1 Emergency Response – activation of a warning alarm

As a standard on site, the alarm may be raised by anyone noting an emergency situation. It is also crucial that personnel notify the Operations Supervisor or Site Manager of what has occurred, what your actions have been and any identified issues. Response actions will be initiated based on this information.

A combination of, communication methods are available. They include:

- Verbal communication between employees and others
- Radio communication
- Audible alarm
- Loud-speaker system
- Siren(s)
- Telephone - including mobiles

Electronic alarms are tested and maintained at regular intervals.

Practice evacuations are conducted regularly to meet the requirements of the OHS Management System Program. The alarm system is covered during training and induction processes.

Details of evacuation points are provided in Map 1, Appendix 1.

### 8.2 Standard Site Controls

#### 8.2.1 Engineering controls

- Fire extinguishers located throughout plant
  - 167 x CO2 3.5kg
  - 53 x CO2 5kg
  - 8 x dry chemical 9kg

- 4 x dry chemical 4.5kg
- 3 x dry chemical 1.5kg
- g3 x external air and water 9L
- 1 x foam 9L
- 42 hose reels
- Safety showers and eyewash stations located at the Pesticide and Oil Store, and at the FCOJ Plant
- Caged areas for gassed cylinders located at the Maintenance Workshop and the Fumigation Compound
- Vesda early warning smoke detection system

### 8.2.2 Administrative controls

Administrative controls to minimise harm to persons on site include;

- Risk assessments for tasks undertaken on site
- Safe Work Method Statements
- Safety Signage across the site
- SDS register
- Site safety, health and environment inspection checklists
- Site Emergency Procedures booklet
- Toolbox talks, safety alerts

### 8.2.3 PPE

See section 7.4

## 9. Actions Taken During or Immediately After a Pollution Incident

Internal incident management procedures, including the Notification and Escalation Flowcharts and ERPs provide detailed procedure as to immediate action to be undertaken during or immediately after an incident, dependent upon type and classification.

- 1. Assess and notify of incident if required:** Follow the internal incident management procedures, including the Environmental Emergency tab of the Newcastle Emergency Response Procedure (flipchart). This provides detail on immediate action to be undertaken during or after an incident, dependent upon type and classification.
- 2. Control the incident** with available response equipment and procedures.
- 3. Classify incident and escalate:** Follow internal notification requirements and classify incidents according to the Group Incident Notification & Escalation Procedure. The procedure provides details on classifying emergency incidents as either Level One, Two, Three or Four where Four is the most critical incident.
- 4. Report the Incident:** Follow the Group Incident Notification & Escalation Procedure (v.18/12/2018) and report to Sphera.

As outlined in section 7.1, the main hazards to human health and the environment that have been identified at the terminal are:

- Minor chemical spills/leaks
- Uncontrolled gas release e.g. Methyl bromide
- Release of contaminants/emissions not in accordance with acceptable limits
- Dust from loading/unloading operations ship/truck/rail
- Spillage of bulk grain into stormwater drains
- Spillage of bulk grain into the harbour from loading gantry

In the event of a pollution incident for the hazards above, the following actions are to be taken:

Table 10 – Potential incident, risk and response by the site

Type	Potential Impact	Expected Response
Uncontrolled Gas Release	This type of emergency will, most likely, include escape of fumigant gases from faulty equipment in the event of a breached storage.	<ul style="list-style-type: none"> <li>• Alert the site supervisor</li> <li>• Identify the leak location if possible, isolate the system and contain in accordance with SDS, if it is safe to do so</li> <li>• If unable to contain / stop, raise the alarm* Dial 000 and give name, location and details to the operator, secure the area and, if required, evacuate the site</li> <li>• Ensure access and guidance for emergency services</li> <li>• Follow GrainCorp OHS reporting requirements</li> <li>• Initiate “Internal Emergency” procedures as per the Emergency Procedures booklet</li> </ul>
Release of contaminants/emissions not in accordance with acceptable limits	This type of incident is most likely to be a release to air or water. The receiving environment including sensitive receptors may be impacted	<ul style="list-style-type: none"> <li>• Cease release immediately</li> <li>• Qualify level of exceedance against relevant criteria</li> <li>• Determine if communities/ environment has been harmed</li> <li>• Follow escalation/ notification and PIRMP procedures</li> </ul>
Minor Chemical Spills/Leaks	Generally, small quantities of hazardous materials are held on site and are managed following strict procedures and	<ul style="list-style-type: none"> <li>• Raise the alarm to alert the site supervisor</li> <li>• Identify the material spilt and contain in accordance</li> </ul>

	used by trained and experienced staff. Spill kits are provided as appropriate	<p>with SDS (protect drainage using methods outlined in SDS), if it is safe to do so</p> <ul style="list-style-type: none"> <li>• If unable to contain, Dial 000 and give name, location and details to the operator, secure the area and, if required, evacuate the site</li> <li>• Ensure access and guidance for emergency services</li> <li>• Account for all personnel (including visitors)</li> <li>• Follow GrainCorp OHS reporting requirements</li> <li>• <b>DO NOT ATTEMPT TO CLEANUP IF UNAWARE OF SUBSTANCE NATURE</b></li> <li>• Initiate “Internal Emergency” procedures as per the Emergency Procedures booklet</li> </ul>
Spillage of bulk grain into stormwater drains	Spills generally contained within storage and conveyor areas (internal). Minimal opportunity for grain to be in proximity to drains.	<ul style="list-style-type: none"> <li>• Raise the alarm to alert the site supervisor</li> <li>• Contain spillage to minimise impact</li> <li>• Notify stakeholders (internal and external)</li> <li>• Clean up spillage</li> <li>• Work with authorities</li> </ul>
Spillage of grain into harbour from loading gantry	The ship loaders have to be lowered horizontally for the loading belts to run. The loading belts have overload and alignment sensors.	<ul style="list-style-type: none"> <li>• Raise the alarm to alert the site supervisor</li> <li>• Contain spillage to minimise impact</li> <li>• Notify stakeholders (internal and external)</li> <li>• Clean up spillage</li> <li>• Work with authorities</li> </ul>
Dust from loading/unloading operations Ship/Truck/Rail	Dust generated as a result of grain movement	<ul style="list-style-type: none"> <li>• Cease operation</li> <li>• Assess dust extraction systems functionality</li> <li>• Assess dust suppression systems functionality</li> <li>• Analyse TEOM data</li> <li>• Recommence as appropriate</li> </ul>

## 10. Staff Training and PIRMP Testing

Site staff will be trained in the PIRMP every year via Toolbox lead by management. Training is provided to GrainCorp employees and any other person entering the site so that they are aware of site hazards and processes in the event of a pollution incident. Training includes inductions, toolbox talks and simulated desktop scenarios and when required simulated exercises. A record of site inductions is recorded on the online eLearn database. A record of the most recent simulated desktop scenario and the attendees are located on the Newcastle Network Drive. A full training matrix for personnel at Newcastle Grain Terminal is maintained at the terminal, including the requirement for attendance at the PIRMP toolbox and spill response fundamentals training.

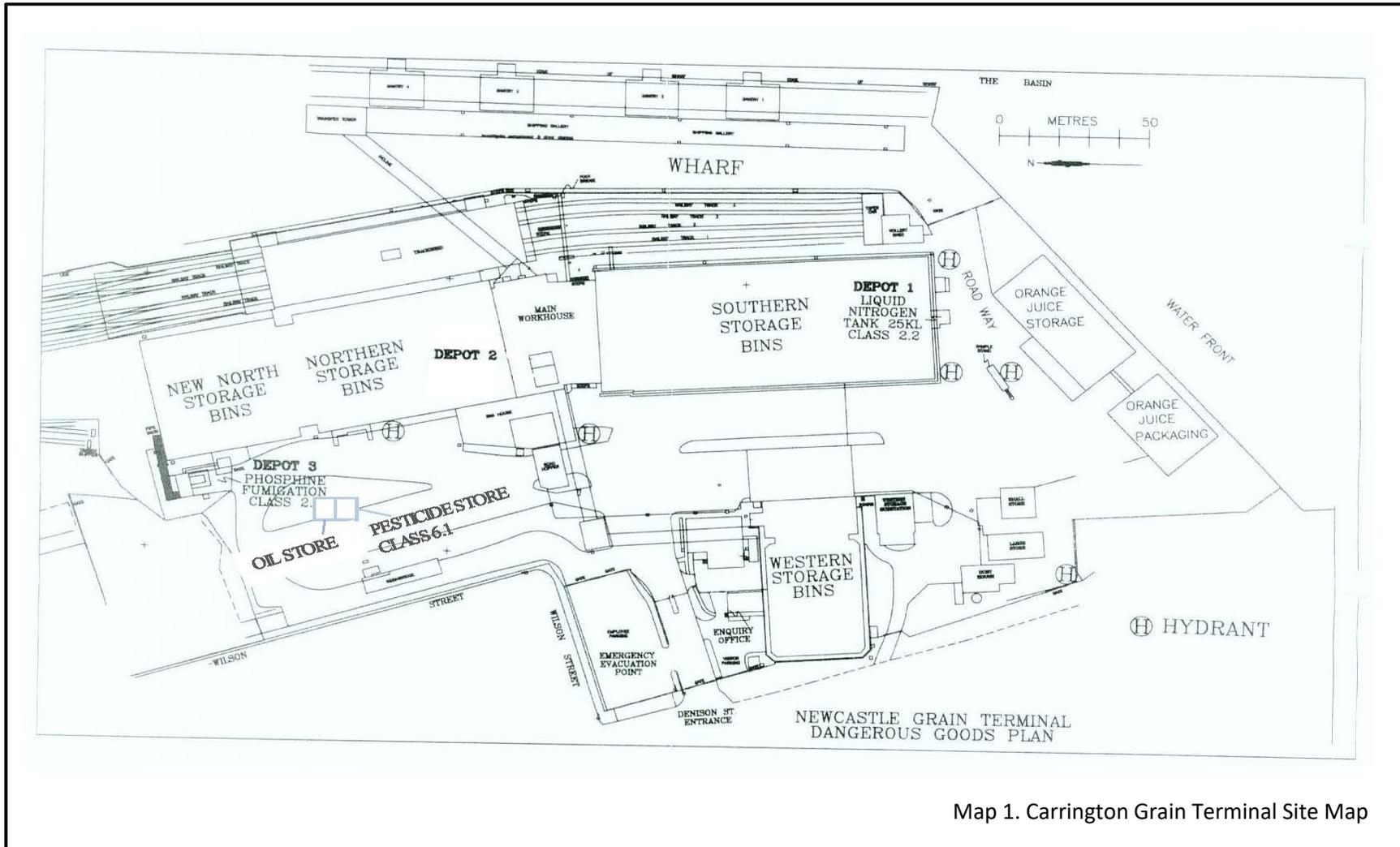
This PIRMP will be tested annually through a desktop review and/or a practical exercise simulating where a spill or a release of chemical/gas has occurred. The practical exercise will determine the practical effectiveness of the ERP and the PIRMP and any areas for improvement.

The PIRMP will also be tested and reviewed within one month of any pollution incident occurring in the course of the site activities where it can be assessed whether the information included in the PIRMP is accurate and up to date, and the plan is still capable of being implemented in a workable and effective manner.

Table 11 – History of PIRMP testing

PIRMP Testing	
Date	Method
Mark Farnham/Peter Lino – 09/05/2014	Desktop Review and Simulation
Mark Farnham/Martin Sierszycki – 18/05/2015	Desktop Review and Simulation
Mark Farnham/Martin Sierszycki - TBA	Desktop Review and Practical exercise
Mark Farnham/Jade Mann/Craig Casey – 11/05/2017	Desktop Review and Simulation
Mark Farnham/Jade Mann/Craig Casey/Anne-Maree Hurst/Paul Thew/Mark Jelbart – 08/05/18	Desktop Review and Simulation
J.Mann, C.Casey, S.Moore, A.Donnely, C.Nixon, M.Kennedy – June 2019	Desktop Review and Simulation

## Appendix 1 – Facility Maps





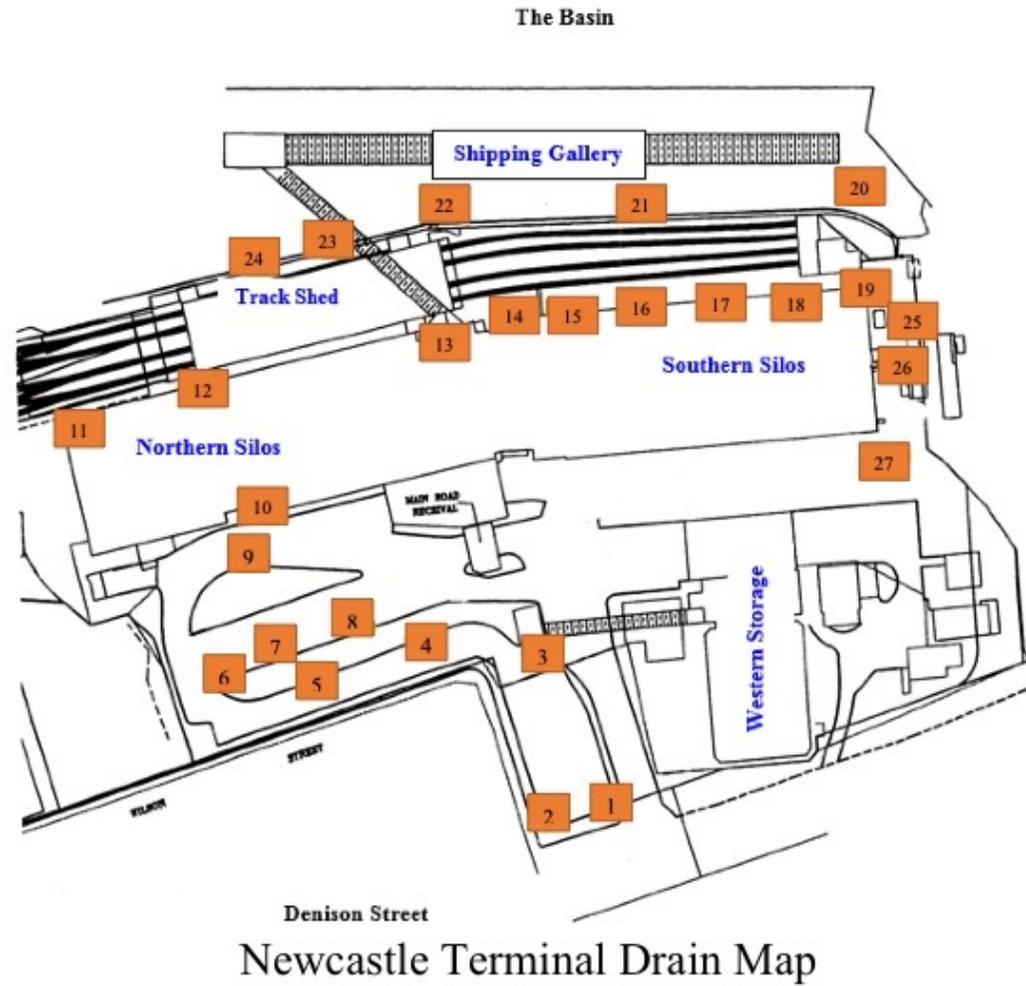
AECOM



● Dust Gauge Location  
 ● HVAS Location  
 Image Source: Google Earth Pro, Accessed 29/9/10

**Figure 1** GrainCorp Carrington HVAS and Dust Gauge Locations  
 GrainCorp Operations Limited  
 Ambient Air Quality Monitoring  
 Carrington, NSW

Map 2. Carrington Grain Terminal Aerial Map



## Appendix 2 – GrainCorp Risk Matrix



# Zero Harm Safe for Life

RISK ASSESSMENT PROCESS		
Consequence	Safety	Environment
<b>Disastrous</b>	Fatality	Release / Impact outside the site boundary with long term major damage Extensive public alarm, media coverage
<b>Critical</b>	Disabling injury - ie amputation and/or permanent loss of bodily function	Release / Impact outside the site boundary with temporary damage Major public alarm, attracting media attention
<b>Serious</b>	Non permanent injury or ill health with the potential for lost time	Release / Impact within the site boundary with significant damage and process / business disruption Serious public alarm
<b>Moderate</b>	Injury requiring medical review	Release / Impact within the site boundary with minimal damage and process / business disruption Moderate public alarm
<b>Minor</b>	Injury resulting in first aid	Release / Impact contained in immediate vicinity No public alarm

RISK ASSESSMENT MATRIX					
LIKELIHOOD \ MOST LIKELY CONSEQUENCE	Almost certainly will occur (Occurrence expected to occur on a weekly basis or more frequently)	Good chance it could occur (Occurrence expected to occur more than once in 3 months, but less than once a week)	Likely to occur (Occurrence expected to occur more than once a year, but less than once in 3 months)	Unlikely to occur (Occurrence expected to occur more than once in 3 years, but less than once a year)	Extremely unlikely to occur (Occurrence has not occurred and is expected to occur less than once in 3 years)
<b>Disastrous</b>	Score 25	Score 24	Score 22	Score 19	Score 15
<b>Critical</b>	Score 23	Score 21	Score 18	Score 14	Score 13
<b>Serious</b>	Score 20	Score 17	Score 12	Score 9	Score 6
<b>Moderate</b>	Score 16	Score 11	Score 8	Score 5	Score 3
<b>Minor</b>	Score 10	Score 7	Score 4	Score 2	Score 1

Level of Risk	Risk Score	Recommended Action
<b>High Risk</b>	<b>20-25</b>	Immediately notify Site Manager Immediately implement controls to reduce risk before task commences Long-term control strategies to be implemented & documented in Site Improvement Plan
<b>Medium Risk</b>	<b>13-19</b>	Notify Site Manager Dept mgers to review risk ass to ensure all possible control measures are identified & implemented Communicate hazard/aspect details to affected personnel Control hazard/aspect before task commences Communicate/review risk ass at appropriate consultative committees (may also be in SHE IMP)
<b>Low Risk</b>	<b>7-12</b>	Notify Department Manager Implement controls where possible Communicate hazard/aspect details to affected personnel Review risk assessment as scheduled or as change occurs
<b>Very Low Risk</b>	<b>1-6</b>	Notify your direct manager/team leader Communicate hazard/aspect details to affected personnel Review risk assessment as scheduled or as change occurs

HIERARCHY OF CONTROL	
<b>Engineering Controls</b>	
<b>1st Elimination / Design Out</b>	- Try to ensure that hazards/aspects are "designed out" when new materials, equipment and work systems are being planned for the workplace.
<b>2nd Substitution/ Replacement</b>	- Remove the hazard/aspect or substitute with less hazardous materials, equipment or substances
<b>3rd Safer / Redesign Process</b>	- Adopt a safer/less environmentally harmful process.
<b>4th Isolation</b>	- Enclose or isolate the hazard/aspect through the use of guards or remote handling techniques.
<b>5th Effective Ventilation</b>	- Provide effective ventilation through local or general exhaust ventilation systems.
<b>Administrative Controls</b>	
<b>6th Administration</b>	- Establish appropriate administrative procedures such as: <ul style="list-style-type: none"> <li>• Process documentation &amp; SOPs</li> <li>• Job rotation to reduce exposure or boredom; or timing the job so that fewer workers are exposed;</li> <li>• Routine maintenance and housekeeping procedures; or</li> <li>• Training on hazards and correct work procedures.</li> </ul>
<b>Personal Protective Equipment</b>	
<b>7th Personal Protective Equipment</b>	- Provide suitable and properly maintained Personal Protective Equipment and training in its use.



## Appendix 3 – GrainCorp Staff Training Matrix

SURNAME	GIVEN NAME	Employee ID	SITE INDUCTION	TSX GDL&2	TSX GDL4	LOTO	CONFINED SPACES	WORKING AT HEIGHTS	RESCUE AT HEIGHTS TRAINING	HAZARDOUS RESCUE EQUIPMENT	Emergency Warden	Fire extinguisher	HFC INDUCTION	GAUNTRY OPERATIONS ROAD HOPPER / WEST	WIEBRIDGE	CHAIN OF RESPONSIBILITY OF OPERATION (HACCP)	RAIL RECEIVAL	GRADING PLANT	MINI CONTROL	PCO FUM	PCO PANT	SUPERVISOR CERTIFICATE	EMP	FEL	PATTICKEF	SKID STEER	Point Lab Induction	SAMPLE STAND	Authorized Officer	LAB COMPETENCY TRAINING	FIRST AID	ADVANCE RESUS	OCCUPATIONAL FIRST AID	OH&S CONSULTATION		
			2yrs	2yrs		2yrs	2yrs	2yrs		exercise every 6 months	exercise every 6 months	5yrs	2yrs														1yr			3yrs						
Operations																																				
BROWN	THOMAS	13517	2/04/2017	30/11/2019	30/11/2019		6/09/2019	29/10/2017	13/11/2016	21/09/2016	Yes	9/09/2017	25/08/2019	Yes	Yes	Yes	Yes	Yes	Yes	21/10/2020	21/10/2020		Yes	Yes	14/09/2020	Yes		1/10/2018			7/10/2018	1/11/2018		Yes 1-4-16		
CARPENTER	PALL	10329	2/04/2017	23/11/2019	23/11/2019	28/09/2019	6/09/2019				Yes	9/09/2017	25/08/2019	Yes	Yes	Yes	Yes	Yes	Yes	24/12/2020	24/12/2020				14/01/2021			1/10/2018			16/09/2019					
CASEY	CRAIG	13284	2/04/2017	23/11/2019	23/11/2019	28/09/2019	6/09/2019				Yes	9/09/2017	24/08/2019	Yes	Yes	Yes	Yes	Yes	Yes				Yes					1/10/2017			7/10/2018	25/11/2018				
COVILING	PAUL	10334	20/09/2016	23/11/2019	23/11/2019	28/09/2019	31/08/2019						1/08/2019	Yes	Yes	Yes	Yes	Yes	Yes	24/12/2020	24/12/2020		Yes			22/04/2019			1/10/2018			29/09/2019				
CROZIER	STEVEN	18679	2/04/2016	23/11/2019	23/11/2019		25/08/2018																													
DONNELLY	ARON	10327	20/09/2016	30/11/2019	30/11/2019	28/09/2019	25/08/2018	9/11/2017	13/11/2016	21/09/2016	Yes	24/10/2022	28/08/2019	Yes	Yes	Yes	Yes	Yes	Yes	21/10/2020	21/10/2020		Yes			21/10/2020			1/10/2017			20/09/2020	29/11/2016		Yes 1-4-16	
FORMAN	JACK							24/01/2019					29/08/2019							6/07/2021	6/07/2021		13/05/2021	Y												
FRYER	GLEN	18654	10/09/2016	30/11/2019	30/11/2019	28/09/2019	18/10/2020				Yes	24/10/2022	17/08/2019	Yes		Yes							Yes					2/08/2022								
GRIFFIS	ANDREW	18650	19/04/2019	30/11/2019	30/11/2019	28/09/2019	24/05/2020						19/08/2019																							
KIDD	STEVEN	18653		30/11/2019	30/11/2019		18/10/2020						4/10/2017										Yes													
LANGLANDS	GEOFFREY	10337	2/04/2017	30/11/2019	30/11/2019	28/09/2019	13/09/2020	23/09/2018					23/09/2016	Yes	9/09/2017	29/08/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	8/11/2020	Yes	1/10/2018			4/05/2021				
MOORE	SIMON	345	2/04/2017	30/11/2019	30/11/2019	28/09/2019	25/08/2018						24/10/2022	29/08/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		1/10/2018			3/10/2020	13/10/2019	15/09/2016	Yes 14/10/16		
NEELL	JASON	10330	20/09/2016	30/11/2019	30/11/2019		31/08/2020						13/11/2016	21/09/2016	Yes	9/09/2017	30/08/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11/08/2018	Yes	1/10/2017			3/10/2020	13/11/2016				
NICHOLS	BRENTON	10328	2/04/2017	30/11/2019	30/11/2019	28/09/2019	31/08/2020	9/11/2017	13/11/2016	21/09/2016	Yes	24/10/2022	30/08/2019	Yes	Yes	Yes	Yes	Yes	Yes	21/10/2020	21/10/2020															
RANIERA	HUJA	13024		30/11/2019	30/11/2019	28/09/2019	13/05/2019						17/08/2019																							
SEYMOUR	NEIL	212	2/04/2017	30/11/2019	30/11/2019	28/09/2019	25/08/2019				Yes	9/09/2017	30/08/2019	Yes	Yes	Yes	Yes	Yes	Yes				Yes	Yes	Yes	2/01/2022		1/10/2018			22/03/2019					
SWEETMAN	SHARNA	18661	22/12/2016	30/11/2019	30/11/2019	28/09/2019	19/09/2019						30/08/2019	Yes	Yes	Yes	Yes	Yes	Yes																	
Lab																																				
ROGER	JOHN																										1/10/2018									
Office																																				
FARNHAM	MARK	633	23/10/2019			28/09/2019	19/09/2019						30/08/2019																							
BUTCHARD	ROB	17577				28/09/2019	21/06/2020																Y	Y	7/09/2019							19/11/2018				
NIXON	COLIN					28/09/2019							24/10/2022	27/07/2019																						
MANN	JADE	344	6/12/2015			28/09/2019							24/10/2022	10/08/2019	Yes																					
Casuals - operations																																				