Wyong Pollution Incident Response Management Plan

Prepared by: Chris Davis

Date: 30 June 2022

Revision: 2.0

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1 Pollution Incident Response Management Plan

LICENCE NUMBER: 20941

Approved by: Chris Davis

Position/Title: Site Manager

Signature: <insert signature>

Date: 30/6/2022

2 Purpose

Ixom Operations Pty Ltd holds an Environment Protection Licence with the NSW Environment Protection Authority (EPA) for Wyong Poly-Aluminium Chloride Plant, 8 Pavitt Crescent, North Wyong, NSW, 2259. As per the Protection of the Environment Operations Act 1997 (the POEO Act), the holder of an Environment Protection Licence must prepare, keep, test and implement a pollution incident response management plan (PIRMP) that complies with Part 5.7A of the POEO Act in relation to the activity to which the licence relates.

If a pollution incident occurs in the course of an activity so that material harm to the environment (within the meaning of section 147 of the POEO Act) is caused or threatened, the person carrying out the activity must immediately implement this plan in relation to the activity required by Part 5.7A of the POEO Act.

A copy of this plan must be kept at the licensed premises, or where the activity takes place in the case of mobile plant licences and be made available on request by an authorised EPA officer and to any person who is responsible for implementing this plan.

Parts of the plan must also be available either on a publicly accessible website, or if there is no such website, by providing a copy of the plan to any person who makes a written request. The sections of the plan that are required to be publicly available are set out in clause 98D of the Protection of the Environment Operations (General) Regulation 2009.

3 Environment Protection Licence (EPL) Details

Name of licensee: (including ABN)	Ixom Operations Pty Ltd ABN: 51 600 546 512
EPL number:	20941
Premises name and address:	Wyong Poly Aluminium Chloride Plant 8 Pavitt Crescent WYONG NSW 2259 LOT 13 DP 250522
Company or business contact details	**Name:** Chris Davis **Position or title:** Site Manager **Business hours contact number/s:** 02 4353 3388 **After hours contact number/s:** 0423 299 988 **Email:** chris.davis@ixom.com
Website address:	https://www.ixom.com/being-responsible/environmental-monitoring-data/wyong
Scheduled activity/activities on EPL:	Chemical production
Fee-based activity/activities on EPL:	Chemical Production waste generation -> 5 - 100 T annual volume of waste generated or stored. Dangerous Good Production - 0 - 10000 T annual production capacity

4 Pollution Incident – Person/s Responsible

PIRMP activation	**Name:** Chris Davis **Position or title:** Site Manager **Business hours contact number/s:** 02 4353 3388 **After hours contact number/s:** 0423 299 988 **Email:** chris.davis@ixom.com
Notifying relevant authorities Notification should be made by a person with an appropriate level of authority within the company.	**Name:** Chris Davis **Position or title:** Site Manager **Business hours contact number/s:** 02 4353 3388 **After hours contact number/s:** 0423 299 988 **Email:** chris.davis@ixom.com
Managing response to pollution incident	**Name:** Chris Davis **Position or title:** Site Manager **Business hours contact number/s:** 02 4353 3388 **After hours contact number/s:** 0423 299 988 **Email:** chris.davis@ixom.com

5 Notification of relevant authorities

Fire & Rescue NSW / Rural Fire Service	**Contact number/s:**	1300 729 579
EPA	**Contact number/s:**	131 555
NSW Health	**Relevant Area Health Service:** **Contact number/s:**	Gosford Public Health Unit Office Hours 4320 9730- After hours 4320 2111
SafeWork NSW	**Contact number/s:**	131 050
Local authority/s *Identify the local authority for the area in which the premises to which the environment protection licence relates, and any area, is affected, or potentially affected, by the pollution*.	**Contact number/s:**	(Wyong City Council) 1300 463 954
Any other identified organisation or agency requiring notification (if applicable) *e.g. Water NSW, Department of Planning Industry and Environment, Roads and Maritime Services*	**Contact number/s:**	

6 Recovery Services (24 hours)

Service	Supplier	Phone Number
Water and Sewage	Central Coast Council	1300 463 954
Electricity	Alinta Energy	13 37 02
Electrical Services Provider	Hi-Tech Electrical	0415 939 342
Waste Disposal	Cleanaway	02 4351 2988

7 Notification of Neighbours and The Local Community

Neighbour	Address	Phone Number
Holcim, Cement Factory	Lot 18 Pavitt Crescent	13 11 88
Neil's, Auto Electrical	10 Pavitt Crescent	02 4352 8964
Total Fittings	15 Pavitt Crescent	02 4317 2806

The Ixom ERS will coordinate communications to neighbours, depending on the nature of the incident. This allows the on-site personnel to respond to the emergency and support the emergency services.

8 Media Response and Public Relations

Ixom's company policy is that all media enquiries be referred to the company's Corporate Affairs Manager as quickly as possible. Therefore, all media enquiries about the Ixom Wyong site shall be referred to the Ixom Corporate Affairs Manager.

Any media release will be prepared by the Corporate Affairs Manager, and will state the facts such as cause, actions taken, effectiveness, expected termination and the media co-operation required

9 Description and Likelihood of Hazards / Pre-Emptive Actions / Communicating with Neighbours / Minimising Harm

What are the types of potential pollution incidents?	What is the likelihood of the pollution incident occurring?	Who or what is likely to be affected and to what extent?	How will the site notify the community?	What actions do I need to take to minimize harm?
Hydrochloric acid / Poly aluminium chloride spill or incident leading to chemical reaction and release of gaseous pollutants (Vapour Gas)	Very unlikely.	Site. Neighbouring industrial sites and passers-by. Residents to within 1km south east with prevailing winds and extended incident.	Telephone immediate neighbours if necessary. Emergency services will advise wider community if required. Website or press releases may be used for updates.	Industrial neighbours and passers-by should follow advice from site and emergency services.
Reactor Fire (Rubber lined tanks)	Very Unlikely Fire suppression systems installed on reactors	Site. Neighbouring industrial sites and passers-by Residents to within 1km south east with prevailing winds and extended incident.	Telephone immediate neighbours if necessary. Emergency services will advise wider community if required. Website or press releases may be used for updates.	Industrial neighbours and passers-by should follow advice from site and emergency services,
Truck fire	Very Unlikely	Site. Neighbouring industrial sites and passers-by	Telephone immediate neighbours if necessary.	Industrial neighbours and passers-by should follow advice from site and emergency services.
Contaminated storm water (low pH)	Very Unlikely	Site. Neighbouring industrial sites and passers-by and nearby creek	Telephone immediate neighbours if necessary	Industrial neighbours and passers-by should follow advice from site and emergency services.

10 Inventory of Pollutants

Provide an inventory of potential pollutants on the premises or used in carrying out the activity to which the licence relates:

Product	Location	Hazchem Code	UN no.	Maximum Quantity (tonnes)	Hazardous
Hydrochloric Acid 33%	Tank T-01	2R	1789	40	Yes
Polyaluminium Chloride (PAC 23)	Tanks T-04, 07, 05, 06 & 15			100	Yes
Polyaluminium Chloride (PAC 10)	Tanks T-16 &17			30	Yes
Magnasol LT425 1,080kg IBC	IBC Bund Area			2.16	No
Magnasol LT610 1,080kg IBC	IBC Bund Area			5.4	No
Floquat FL 4526	IBC Bund Area			6	No

11 Facility Description

The facility is located at 8 Pavitt Crescent, North Wyong.

The site is leased by IXOM Australia Pty Ltd. It was acquired in 2006 from Aluminates who ran the existing PAC manufacturing on the site. It was established in 1970s when the industrial estate was built on what was previously swamp land.

The site includes an office building, laboratory room, production office, warehouse and a poly-aluminium manufacturing plant and despatch facility.

Poly-aluminium chloride is manufactured by the reaction of hydrochloric acid, aluminium granules and water in a 25-tonne batch reactor. The hydrochloric acid is delivered to site in 25 tonne bulk tankers and aluminium granules is delivered in 1,000 kg bulky bags by semi-trailer.

Poly-aluminium chloride is typically dispatched in bulk tankers, intermediate bulk containers (IBCs), and 15 L and 200 L drums.

The Ixom site has three full time employees based permanently on-site. They are the Site Manager, and 2 x Plant Operators.

The maximum personnel on site could be up to 5 people comprising:

- 3 x Permanent Ixom Chemicals personnel
- 1 x Truck driver
- 1 x Visitors.

It would be unusual to have all these people on site at a particular time.

12 Working Hours

Days Per Week	7
Typical Hours of Operation	5:00am to 4:30 pm Monday to Friday 5:00am to 1:00 pm Saturday 5:00am to 1:00 pm Sunday
Number of Permanent Personnel On-Site	1-3
Other Personnel that may be On-Site	1-2, Truck drivers for a period up to one hour, visitors, for a period of up to two hours (nominally)

13 Safety equipment

An Emergency Information Container (Site Manifest Box) is located adjacent to the Eastern front access door. The box contains a copy of the site Emergency Services Information Package (ESIP), which includes:

- A company letter head displaying business details, emergency contacts, date prepared and the locations of the emergency plans, manifests and Safety Data Sheets (SDS) on-site
- Copy of site plans
- Manifest for the site (both Dangerous Goods and Hazardous Substances)
- Copies of SDS for selected Dangerous Goods Stored on-site.

Resource	Details	Number
Site Services	Safety Showers/ Eye Wash	3
	First Aid Cabinet	1
	First Aid Box (Mobile)	1
	Safety Information Box (containing Emergency Plan and site manifest)	1
Emergency Equipment	Fire Hydrants	1
	Dry Chemical Fire Extinguishers	4
Alarm Systems	Press Button for Hooter (local only)	1
Site Drainage	All storage buildings have internal bunds. The site drainage system is to the south-east corner of the site (to Kaye's Main Drain) via storm water isolation valve. The total site bund capacity is 1,000 m^3.	
Spills Units	Contain clean-up materials	3

14 Maps

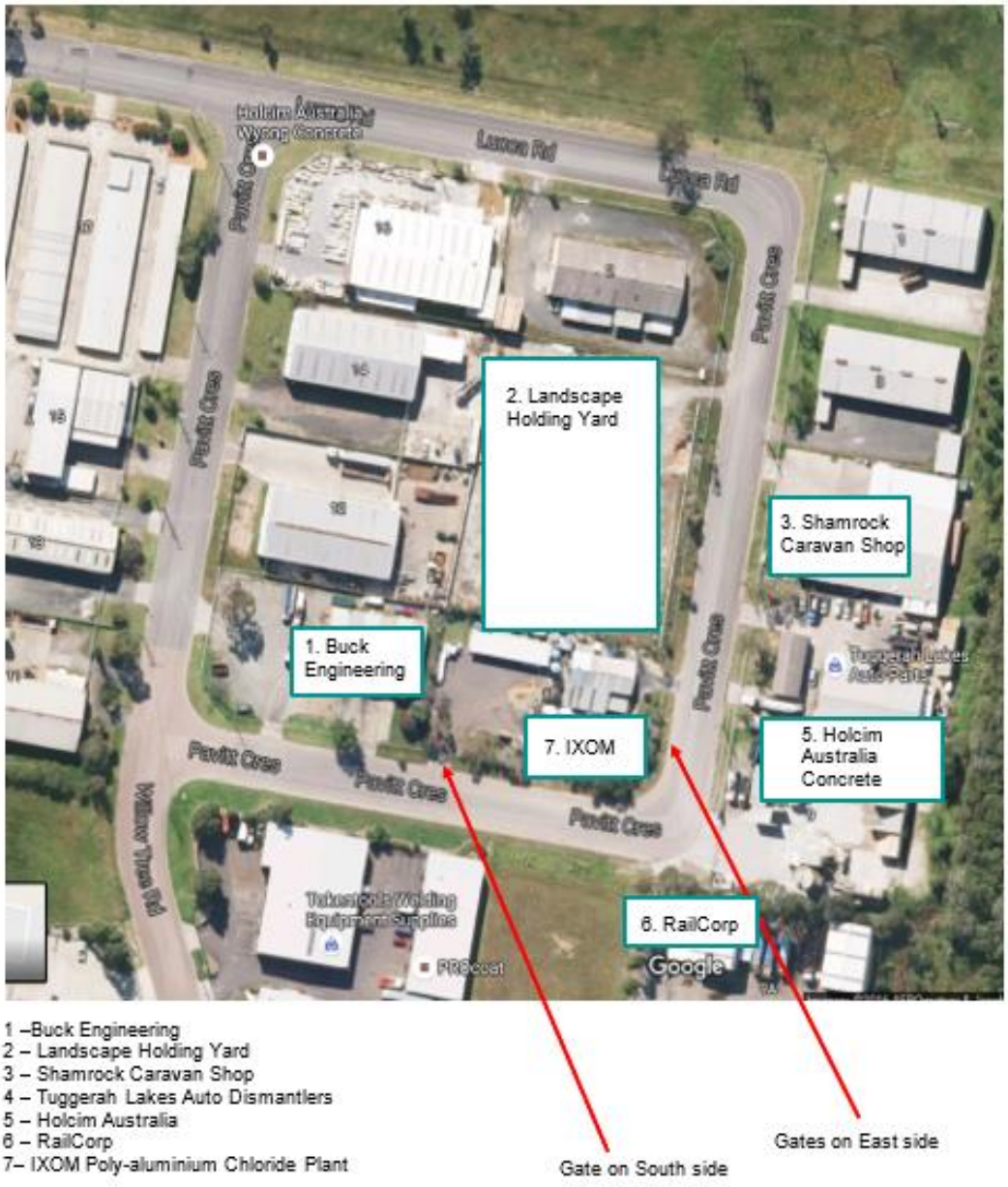

Figure 1: Neighbours

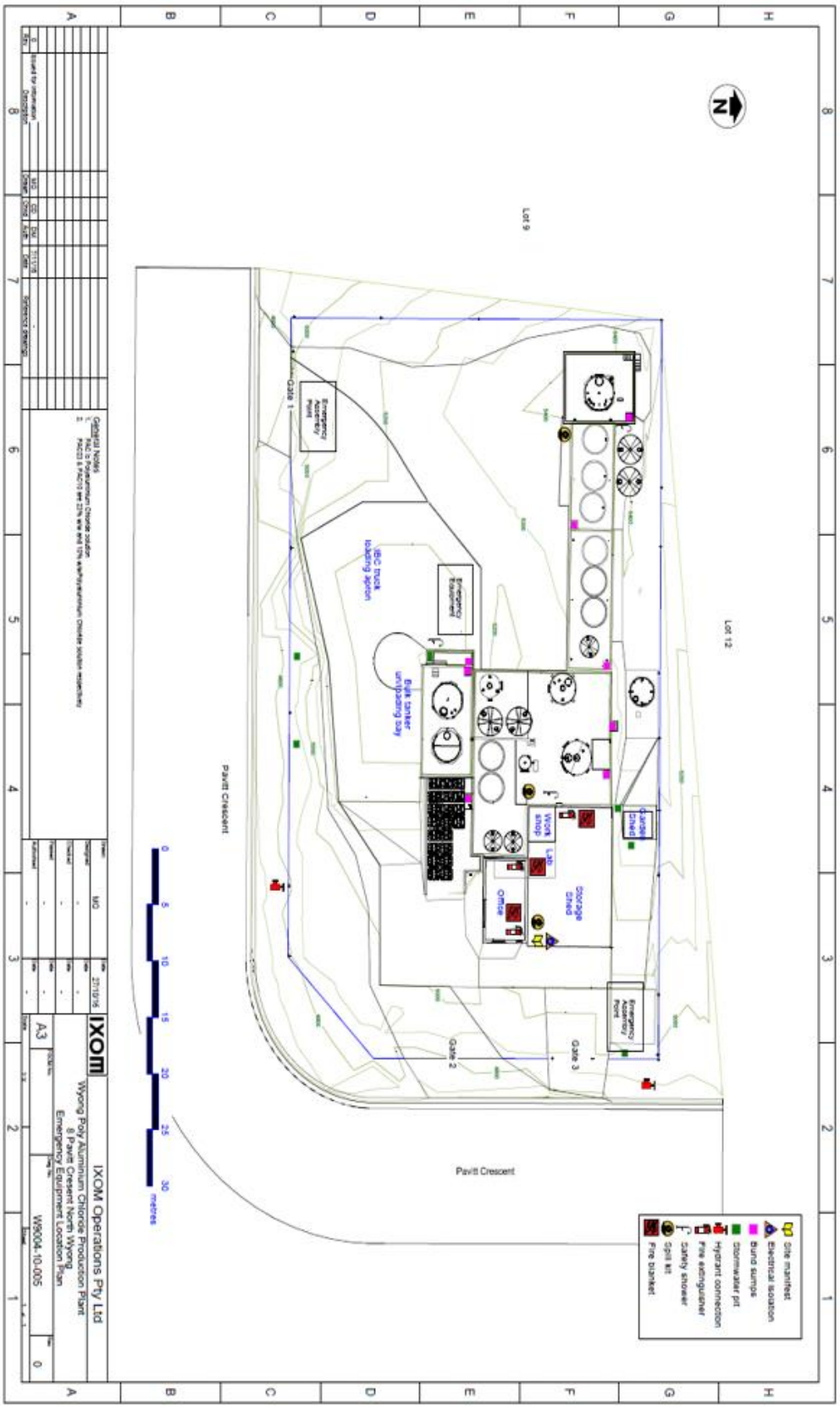

Figure 2: Site Layout

15 Actions to Be Taken During or Immediately After a Pollution Incident

Chemical Spills
Note: Outside office hours, the most senior staff member on site is responsible for these duties and must contact site management as soon as safely possible. Considerations should include but are not limited to Chemical compatibilities (refer to SDS), placement of spill kits, clean up equipment including PPE requirements, protection of stormwater & effluent systems. Protection of soil, Waste disposal, SDS availability, Notification to authorities' e.g. significant DG spill outside of bund. Refer to Pollution Incident Notifications section above to notify neighbours and the local community in the event of a pollution incident with potential off-site impacts. ANY liquid chemical spilt on site requires the following action. It does not matter what size the spill is. The spill is to be controlled, contained and cleaned up and the area decontaminated where safe to do so **PAC IBC & Bulk Spill in unloading pad:** • Ensure first flush valve is shut to prevent PAC discharge to storm water; and • Hose down area and pump all capture pit waste into IBC for processing. **PAC IBC overfilling spill**: • Drain extra PAC back to tank through the filter release valve; and • Mop up excess PAC and dispose into waste pit. **Hydrochloric Acid Spill on unloading pad**: • Ensure first flush valve is shut to prevent PAC discharge to storm water; • Hose down area and pump all capture pit waste into IBC for processing; and • Position a water hose to form a mist to reduce the vapour smell. NOTE: Hydrochloric acid is very corrosive and reactive. During neutralisation it can react violently with alkalis. Follow procedures on the Safety Data Sheet. Production personnel under the instruction of the Chief Warden will complete the chemical clean up as per the appropriate clean up procedure for the material spilt Once the spill has been contained and the site is safe: • Bunds are to be assessed for presence of the chemical • Effluent pit is to be assessed for the chemical If unable to be reworked it must be disposed of via a registered waste disposal company. Contact Cleanaway (Ph: 0243512988) and request to suck out and dispose of. Note: pH must be between 6 and 9 before tanker loads Solid form chemicals can be bagged up or placed in plastic lined boxes, labelled with material type and risk phrases and stored ready for appropriate disposal Solid form chemicals can be bagged up or placed in plastic lined boxes, labelled with material type and risk phrases and stored ready for appropriate disposal

<table>
<tr><th colspan="2">Fire</th></tr>
<tr><td colspan="2">RESPONSE</td></tr>
<tr><td colspan="2">1. Alert others in area and notify site Manager or plant operator.
2. For small localised fires, if person feels confident of extinguishing the fire without risk then use extinguisher in area.
3. Site Manager and plant operator assess incident from safe distance.
4. Site Manager and plant operator classify the emergency as an External site emergency
5. Site Manager will activate the site emergency alarm and consider evacuation.
6. Site Manager will contact emergency services on 000 and then Ixom ERS on 1800 033 111.
7. All personnel move to the emergency assembly areas and the site Manager conducts roll call at emergency assembly area.
8. Plant operator isolates electricity and gas to affected areas
9. Site Manager and plant operator will wait for the emergency services to arrive and then provide specialist advice and assistance as required.
10. Refer to Error! Reference source not found. section above to notify neighbours and the local community in the event of a pollution incident with potential off site impacts.</td></tr>
<tr><td>CAUSE</td><td>CONSEQUENCE</td></tr>
<tr><td rowspan="2">• Combustible material or electrical fire
• Electrical equipment fire
• Office fire
• Vehicle fire
• Laboratory/workshop fire
• Grass fire</td><td>• Burns
• Damage to assets
• Inhalation of smoke and fumes
• Possible off site effect from smoke and fumes</td></tr>
<tr><td>ESCALATIONS
• Fire impacts on ammonia containers or equipment resulting in ammonia release.</td></tr>
<tr><td>DETECTION</td><td>SUPPRESSION/MITIGATION</td></tr>
<tr><td>Personnel working in area</td><td>SUPPRESSION
• Fire extinguishers and fire hoses
• Fire hydrants
MITIGATION
• Activate emergency response plan
• Initiate the site emergency alarm.</td></tr>
<tr><td>PERSONAL SAFETY</td><td>DECONTAMINATION AND RECOVERY</td></tr>
<tr><td>• Chemical PPE.
• Do not put yourself at risk.</td><td>• If related to chemical exposure decontaminate using a safety shower
• Test and treat, if necessary, firewater collected in retention area.
• Arrange for disposal of contaminated firewater at off site treatment facility.
• Preservation of scene for statutory requirements.
• Cleaning and restoration of PPE & other equipment.
• Replacement of consumable emergency equipment.</td></tr>
</table>

16 Coordinating with persons

16.1 Emergency Services

The agencies responsible for specific aspects on a site (when called) or external site emergency are:

16.2 Coordinating Agency

The New South Wales Police will assume the role of Coordinating Agency which will oversee a significant incident with offsite impact.

If the fire services are on the scene before the police, then the senior officer will assume this role until the police arrive.

The senior officer takes charge of:

- Ground control
- Traffic control
- Evacuation - Neighbours
- Security
- Co-ordination.

16.3 Control Agency

The NSW Fire and Rescue will be the Control Agency for most emergency incidents.

The senior officer on -site takes charge of:

- Fire fighting
- Spillage control
- Containment
- Rescue
- Making the area safe
- Clean up
- Decontamination.

16.4 Medical Agency

The NSW Ambulance Service will be the medical authority for emergency incidents.

The senior officer on-site takes charge of:

- Treating victims
- Transport to hospital.

17 Staff training

All employees will receive annual refresher training on the Pollution Incident Response Management Plan (this document).

Training records are maintained electronically under employee records in Ixom's Learning Management System found on our people site – Ixsite (provided by SAP Success Factors) accessible via Ixom intranet.

18 Testing and updating of the PIRMP

The PIRMP is tested as part of the annual emergency exercise, which is schedule in VelocityEHS, as a recurring inspection.

Below are the dates of the exercises and plan revisions**:**

PIRMP testing and Update details				
Date tested	**Tested by (to include the names of all people involved in testing)**	**Details of test (e.g. nature of the test, involvement of other agencies) Note: Testing must cover all components of the plan.**	**Finding of test, including issues identified**	**Next scheduled testing date (must be within 12 months from current test)**
17/12/2019	Chris Davis Andrew Glyde Dean Jury	Site Emergency Plan reviewed, Chemical spill exercise conducted 13/8/2019	Updated contact details names and contact numbers	13/08/2020
17/08/2021	Chris Davis Andrew Glyde Peter Attwood	Reviewed Site Emergency Plan details, Chemical spill exercise conducted 31/7/2020	Updated contact details names and contact numbers	17/08/2021
23/6/2022	Chris Davis Andrew Glyde Craig Singleton	Reviewed Site Emergency Plan details, Chemical spill exercise conducted 23/6/2022		30/6/2023