



**PEABODY ENERGY
POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN**

WI-ENV-MNP-0036

29/05/2016

Contents

1 INTRODUCTION

- 1.1 Definitions
- 1.2 Purpose
- 1.3 Scope
- 1.4 Objectives
- 1.5 Communication

2 STATUTORY REQUIREMENTS

- 2.1 Protection of the Environment Operations Act 1997
- 2.2 Protection of the Environment Operations (General) Regulation 2009

3 RELATIONSHIP TO OTHER MANAGEMENT PLANS

- 3.1 Environmental Management System
- 3.2 Emergency Procedures Manual

4 RELATIONSHIP TO OTHER MANAGEMENT PLANS GENERAL HAZARDS TO HUMAN HEALTH OR THE ENVIRONMENT

- 4.1 Risk Assessment
- 4.2 Pre-emptive Actions to Minimise or Prevent Any Risk of Harm
- 4.3 Safety Equipment/Devices Used To Minimise Risk and Contain/Control Incident
- 4.4 Inventory of Potential Pollutants

5 IMPLEMENTATION OF THIS PIRMP

- 5.1 Pollution Incident Response Key Contacts
- 5.2 Pollution Incident Response Process
- 5.3 Immediate Internal Incident Notification Process
- 5.4 Notification of Pollution Incident to Authorities
- 5.5 Incident Response and Post-Notification Procedures
- 5.6 Notification of Pollution Incident to Community/Local Landholders

6 STAFF TRAINING PROGRAMS

7 MANNER IN WHICH THE PIRMP IS TO BE TESTED AND MAINTAINED

- 7.1 Availability of PIRMP
- 7.2 Testing, Review and Update

8 FAILURE TO COMPLY

9 Roles and Responsibilities

10 References

Appendices 1. PIRMP Legal Requirements

Appendices 2. Risk Assessment (reviewed March 2014)

Appendices 3. Pollutant Inventory

Appendices 4. Pollution Incident Notification Form

Appendices 5. Authorities Notification Form

1 INTRODUCTION

The Wilpinjong Coal Mine ("the Mine") is owned and operated by Wilpinjong Coal Pty Limited (WCPL), a wholly owned subsidiary of Peabody Energy Australia Pty Ltd (PEA).

The Mine is an existing open cut coal mining operation situated approximately 40 kilometres (km) north-east of Mudgee, near the Village of Wollar, within the Mid-Western Regional Local Government Area, in central New South Wales (NSW) (

Figure 1).

Project Approval (05-0021) was granted by the Minister for Planning under Part 3A of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act) on 1 February 2006. The Mine has approval to produce up to 16 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal. Up to 12.5 Mtpa of thermal coal products from the Mine are transported by rail to domestic customers for use in electricity generation and to port for export. Open cut mining operations are undertaken 24 hours per day, seven days per week.

Modification of the Project Approval has occurred five times with the most recent modification (Mod 6) approved in November 2014.

PEA and its subsidiaries, WCPL and Peabody Pastoral Holdings Pty Ltd, is a major landholder owning adjacent rural properties and land to the east and south-east of the mine. Land to the west of the mine is owned by adjacent mining companies, whilst the National Parks and Wildlife Service own significant land to the north and south-west of the Mine.

Private properties are located predominantly in and around the Wollar Village approximately 5 km to the east of the Mine, along Mogo Road to the north of the mine and one property to the south-west of the mine.

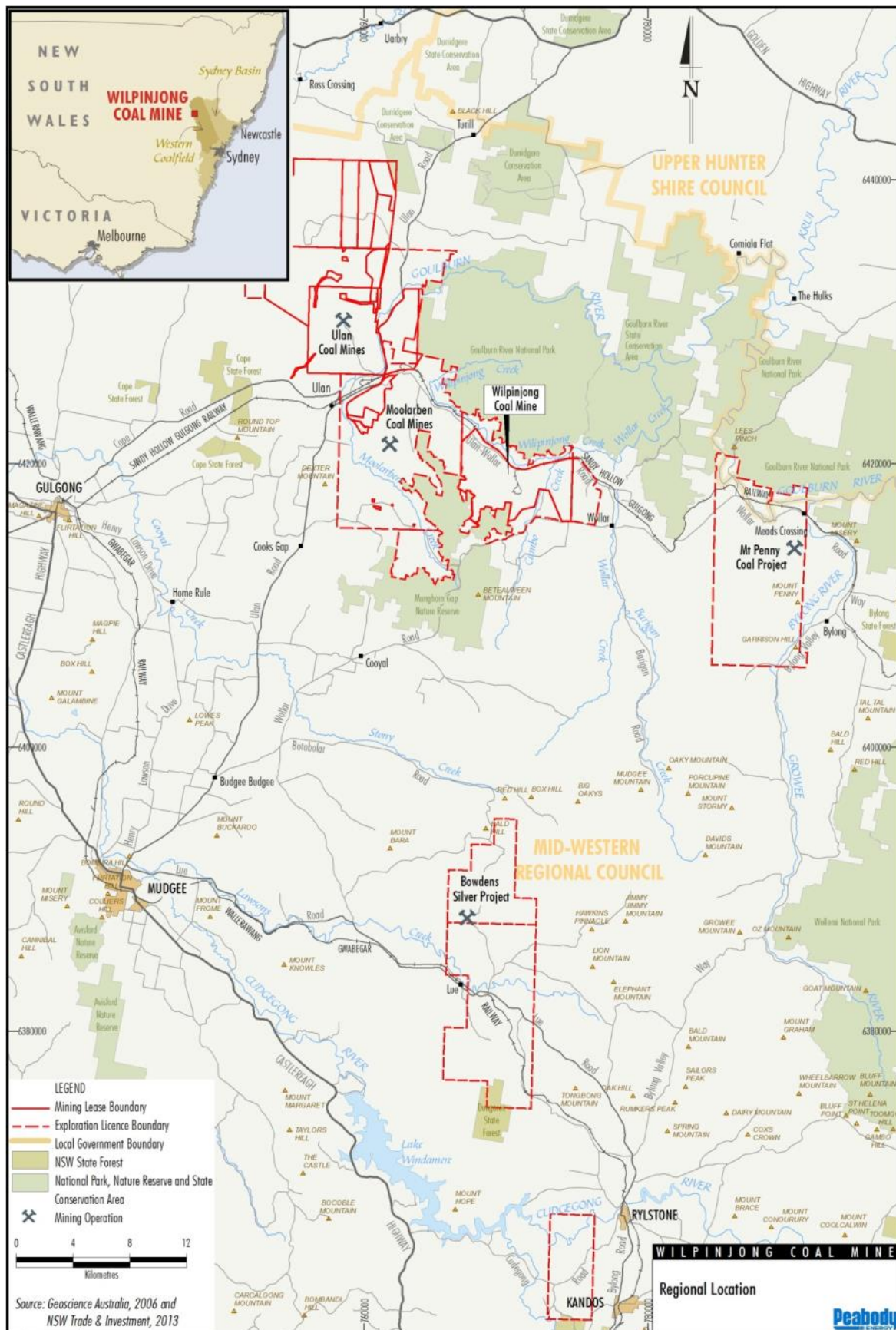


Figure 1: Locality Plan

1.1 Definitions

Word or Acronym	Definition
EL	means exploration licences 6169 and 7091 granted by the Minister for Resources and Energy under the Mining Act 1992 on 3 March 2008 respectively. Both ELs were renewed in 2013; EL 6169 was renewed on 14 October 2013 and EL 7091 was renewed on 12 March 2013.
EPA	means the NSW Environment Protection Authority.
EPL	means Environment Protection Licence 12425 granted by the EPA under the Protection of the Environment Operations Act 1997 (POEO Act).
Management Plan	means this Pollution Incident Response Management Plan (or PIRMP) prepared by WCPL and as amended from time to time.
Material Harm to the Environment	<p>is defined in s147 of the POEO Act i.e. "Harm to the environment is material if:</p> <p>It involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or</p> <p>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)" (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.)</p> <p>For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs".</p>
MIA	means Mine Infrastructure Area
POEO(G) Regulation	means the Protection of the Environment Operations (General) Regulation 2009
Pollution	as defined by the POEO Act, means water pollution or air pollution or noise pollution or land pollution.
Pollution Incident	as defined by the POEO Act, 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.
Project Approval	means Project Approval (05-0021) granted by the Minister for Planning under Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act) on 1 February 2006 (as amended).

Word or Acronym	Definition
RO Plant	means the reverse osmosis water treatment plant.
WCPL	means Wilpinjong Coal Pty Limited.

1.2 Purpose

The purpose of this Pollution Incident Response Management Plan (PIRMP or Management Plan) is to ensure that operational activities at WCPL that have the potential to cause harm or pose a threat to the environment are clearly identified and that adequate response processes are identified and implemented in the event of an incident.

1.3 Scope

This Management Plan has been prepared to assist in the management of all pollution incidents that occur in the course of WCPL's activities that have the potential to cause or threaten material harm to the environment (within the meaning of section 147 of the POEO Act).

This Management Plan has been developed to meet WCPL's obligations under Part 5.7A of the Protection of the Environment Operations Act 1997 (POEO Act) and Chapter 7, Part 3A of the Protection of the Environment Operations (General) Regulation 2009 (POEO(G) Regulation).

This Management Plan applies to the WCPL Mine site and buffer lands, as shown on Figure 2.

1.4 Objectives

The objectives of this Management Plan are to:

- Ensure comprehensive and timely communication about a pollution incident to staff at the Mine, the Environment Protection Authority (EPA), other relevant authorities (such as Mid-Western Regional Council (MWRC), NSW Ministry of Health, SafeWork NSW, and Fire and Rescue NSW) and people outside the Mine who may be affected by the impacts of the pollution incident;
- Minimise and control the risk of a pollution incident at the Mine by requiring identification of risks and the development of planned actions to minimise and manage those risks; and
- 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.

1.5 Communication

This Management Plan has been communicated to relevant stakeholders, including:

- NSW Environment Protection Authority (EPA);
- NSW Department of Planning and Environment (DP&E);
- WCPL Community Consultative Committee (CCC); and
- Mid-Western Regional Council (MWRC)

Page 7 of 45

2 STATUTORY REQUIREMENTS

Part 5.7A of the POEO Act and Chapter 7, Part 3A of the POEO(G) Regulation set out the requirements for the preparation of a PIRMP (Appendices 1). In summary the provision requires the following:

- All holders of environment protection licences (EPLs) must prepare a PIRMP (section 153A, POEO Act);
- The PIRMP 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 PIRMP at the premises to which the EPL relates (section 153D, POEO Act);
- Licensees must test the plan in accordance with the POEO(G) Regulation (clause 98E); and
- 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 PIRMP (section 153F, POEO Act).

2.1 Protection of the Environment Operations Act 1997

The EPA issued EPL 12425 on 8 February 2006 under the POEO Act. EPL 12425 covers the following scheduled activities; coal works and mining for coal. The EPL requires WCPL to report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7A of the POEO Act (Appendices 1).

2.2 Protection of the Environment Operations (General) Regulation 2009

The POEO(G) Regulation contains a range of provisions including those relating to EPLs, the definition of water pollution, issuing of penalty notices and notifications for pollution incidents. Provisions specifically relating to PIRMPs are covered under Section 98 of the POEO(G) Regulation (Appendices 1).

3 RELATIONSHIP TO OTHER MANAGEMENT PLANS

3.1 Environmental Management System

This PIRMP forms part of WCPL's Environmental Management System (EMS), in which the following Management Plans have been prepared to manage environmental aspects and impacts of WCPL's operations:

- Environmental Management Strategy;
- Mining Operations Plan (MOP) (incorporating a Rehabilitation Management Plan);
- Cultural Heritage Management Plan;
- Air Quality Management Plan;
- Noise Management Plan;
- Blast Management Plan;
- Biodiversity Management Plan;
- Waste Management Plan, including:
 - Life of Mine Tailings Strategy;
 - Spontaneous Combustion Management Procedures; and
- Site Water Management Plan, including:
 - Site Water Balance;
 - Erosion and Sediment Control Plan;
 - Surface Water Management and Monitoring Plan;

- Groundwater Monitoring Programme;
- Cumbo Creek Relocation Plan; and
- Surface Water and Groundwater Response Plan.

Apart from Cumbo Creek Relocation Plan, copies of the above plans are available on WCPL's website (<http://www.peabodyenergy.com.au/nsw/wilpinjong-documents.html>).

3.2 Emergency Procedures Manual

WCPL has developed an Emergency Procedures Manual (WI-SAH-PRO-004), which contains procedures for dealing with a range of health and safety emergency scenarios, including fire, flooding and hazardous substances and chemical spills. The actions for hazardous substances and chemical spills are detailed in Procedure 13, and include:

- Raising the alarm (notification);
- Identifying the substance and consulting the Safety Data Sheet (SDS) for advice;
- Rendering medical assistance, where required;
- Evacuating the immediate area and limiting further access by site personnel (not involved in emergency response);
- Controlling/containing the spill (if safe to do so);
- If possible, isolating the spill e.g. constructing earth bund etc;
- Formulating and implementing an action plan to clean up the spill; and
- Investigating the cause of the incident.

4 RELATIONSHIP TO OTHER MANAGEMENT PLANS GENERAL HAZARDS TO HUMAN HEALTH OR THE ENVIRONMENT

The following potential hazards to human health and the environment are generally associated with an open cut coal mining operation (relevant to the PIRMP):

- Pollution of waters as a result of failure of water management structures;
- Pollution of air arising from the carrying out of mining activities such as blasting (fumes), or rehandle of spontaneous combustion affected material (i.e.: Keylah Dump), as defined by the detection at Wollar Village of H₂S and/or SO₂ gas concentrations above the levels specified in the Keylah Dump Removal Management Plan;
- Pollution of land and/ or site water as a result of uncontrolled runoff from disturbed areas, spills and leaks of chemicals (including diesel) as a result of a failure of diversion or containment structures;
- Pollution of land and/or waters from waste materials as a result of a failure to adequately capture and dispose of waste; and
- Radiation exposure.

4.1 Risk Assessment

The Risk Assessment in Appendices 2 evaluates the likelihood of an environmental hazard occurring and the severity (or likely harm) it may cause.

In preparing the Risk Assessment, the following steps were undertaken.

1. Environmental hazards were identified for the Mine site;
2. Each hazard was evaluated, using the Peabody Risk Assessment Matrix (Appendices 2);
3. For each hazard the current or required controls were identified; and
4. The environmental hazards were then re-evaluated using the Risk Assessment Matrix to determine if acceptable controls were in place.

The Risk Assessment for this PIRMP was reviewed in March 2014, as part of the PIRMP review. The major hazards identified in the Risk Assessment were:

1. Chemical storage and onsite transfer (uncontrolled release);
2. Hydrocarbon storage and onsite transfer (uncontrolled release);
3. Mine water and tailings storage and onsite transfer (uncontrolled release);
4. Hazardous waste storage (uncontrolled release);
5. Hazardous waste and hydrocarbon transport (uncontrolled release);
6. Use of radiation devices (uncontrolled release of gas);
7. Disturbed areas (uncontrolled surface water runoff); and
8. Overburden removal using explosives (excessive blast fume).

4.2 Pre-emptive Actions to Minimise or Prevent Any Risk of Harm

In addition to identifying environmental hazards the Risk Assessment also describes pre-emptive actions ('controls') that have been identified to reduce the likelihood of a particular environmental hazard occurring. In addition to the pre-emptive actions specified in the Risk Assessment, WCPL also implements the following general pre-emptive actions to reduce the risk of harm occurring as a result of a Pollution Incident:

1. All WCPL personnel (employees and contractors) receive training as outlined in Section 6;
2. All WCPL personnel (employees and contractors) are trained in the appropriate use of safety equipment and devices to minimise possible incidents;
3. Risk assessments are completed prior to all work to identify and mitigate all health, safety and environmental hazards;
4. Regular monitoring of noise, dust, gases, air quality and water is undertaken in accordance with the Mine's EPL and environmental management plans;
5. Regular checks and maintenance of equipment is carried out by site personnel;
6. All new equipment is inspected thoroughly prior to its use on site to ensure that it meets safety and environmental standards;
7. Regular site meetings are held to ensure site personnel are aware of all activities currently underway on the Mine;
8. Environmental management at the Mine site is internally audited on a regular basis;
9. All incidents are investigated and corrective actions are developed and implemented to prevent a reoccurrence;
10. Incidents are communicated to ensure personnel are aware of the hazards and take appropriate steps to prevent a reoccurrence; and
11. All management plans that apply to the site are periodically reviewed.

4.3 Safety Equipment/Devices Used To Minimise Risk and Contain/Control Incident

All activities occurring at the Mine site will be carried out in a competent and responsible manner. This includes the processing, handling, movement and storage of material and substances used to carry out the activity and the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity. All plant and equipment installed at the Mine site or used in connection with the activity must be maintained in a proper and efficient condition and operated in a proper and efficient manner.

4.4 Inventory of Potential Pollutants

Almost any substance has the potential to become a pollutant if it is of a sufficient quantity and is able to pollute the environment. WCPL has employed a risk based approach in the development of the PIRMP to ensure that particular emphasis is given to substances that have the potential to cause material harm. On this basis the major chemicals stored at the Mine site are listed in Appendices 3.

Figure 3 shows the main storage locations for chemicals/substances listed in Appendices 3 as well as the direction of surface water flow, water collection areas, and the location of spill response equipment. All chemicals (including fuels) are stored in accordance with statutory requirements and relevant Australian Standards. Water run-off from disturbed and/or operational areas is contained on site. All captured water is treated at the Reverse Osmosis (RO) Plant before being discharged from an EPL licenced discharge point into Wilpinjong Creek.



Figure 3: Map of Surface Water Flow, Chemical (including Fuel) Storage Areas and On-Site Spill Kits

5 IMPLEMENTATION OF THIS PIRMP

5.1 Pollution Incident Response Key Contacts

The contact details of the key individuals who are responsible for activating this plan - including notifying authorities and managing the response to a Pollution Incident - are provided in Table 1.

Table 1: Key WCPL Contacts

Person	Role	Daytime phone number	Mobile phone number	Availability
Kieren Bennetts	Environment and Community Manager	(02) 6370 2520	0488 103 807	24hrs/day, 7days/week
Clark Potter	Senior Environmental Advisor	(02) 6370 2527	0458 076 206	24hrs/day, 7days/week
Blair Jackson	General Manager	(02) 6370 2436	0428 466 357	24hrs/day, 7days/week

For the avoidance of doubt, the above individuals are listed in the order to be contacted and only one person needs to be contacted for any one Pollution Incident.

5.2 Pollution Incident Response Process

If a Pollution Incident occurs in the course of an activity at the Mine so that material harm to the environment is caused or threatened (i.e. likely to be caused), WCPL must immediately implement this PIRMP (refer to Section 1.1 as to the meaning of Pollution Incident).

All Pollution Incidents are to be immediately notified in accordance with the Pollution Incident Response Process shown in Figure 4: Pollution Incident Response Process and described in Sections 5.3 to 5.6. This section does not extend to a Pollution Incident involving only the emission of an odour (Section 147(7) of POEO Act).

Note: If you are unsure as to whether material harm to the environment has been caused or threatened, you should immediately notify the incident in accordance with Pollution Incident Response Process in Figure 4

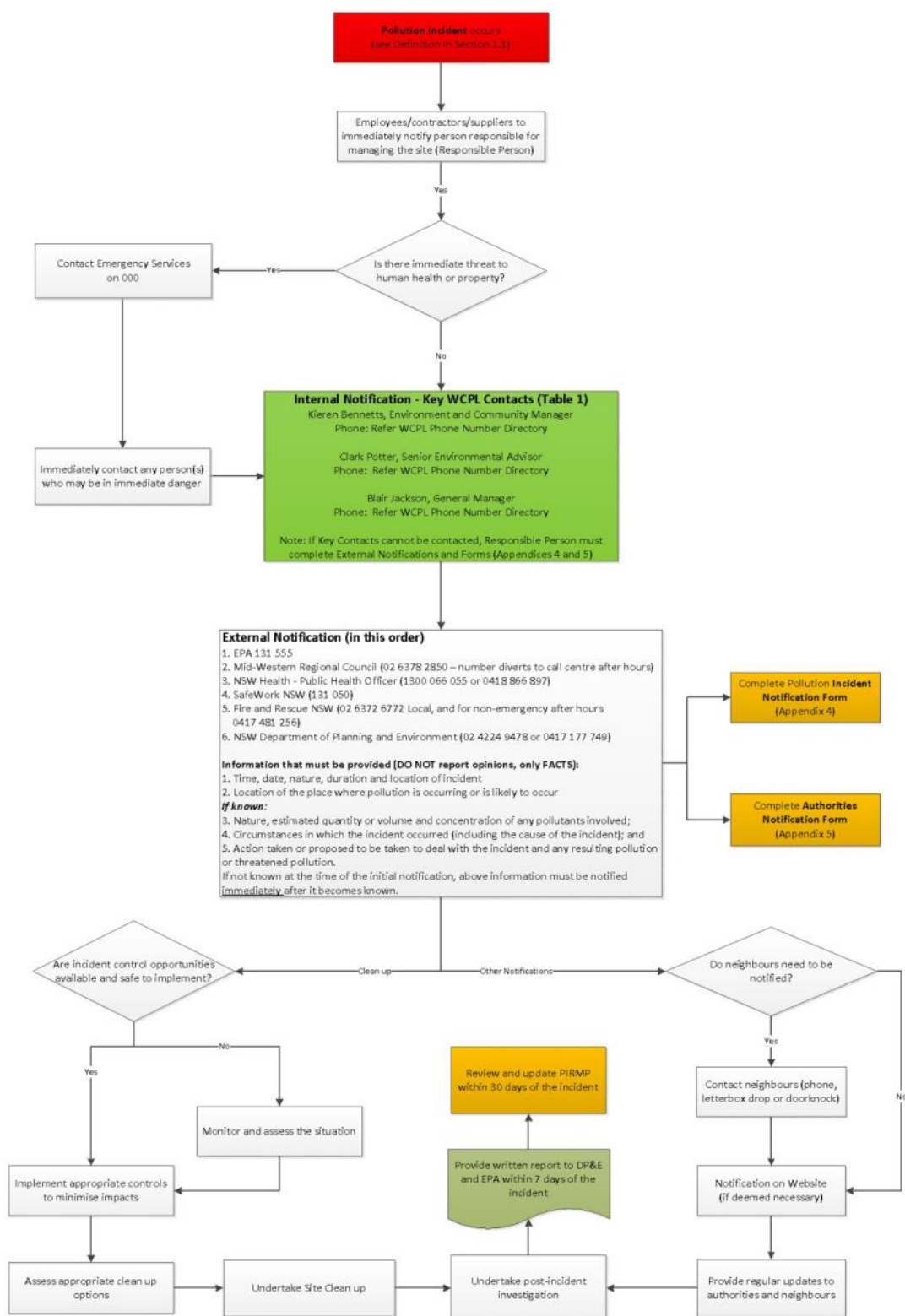


Figure 4: Pollution Incident Response Process

5.3 Immediate Internal Incident Notification Process

The following process is to be followed by all employees, contractors and suppliers of WCPL in the event that a Pollution Incident occurs on site:

1. Immediately notify the person responsible for managing the site i.e. the Responsible Person;
2. If there is an immediate threat to human health or property, then the Responsible Person must call 000 IMMEDIATELY;
3. Contact should also be made with any members of the community who may be directly impacted by the incident;
4. The Responsible Person must then contact one of the Key Contacts listed in Table 1; and provide the following details:
 - Exact location of the incident;
 - Nature and extent of the incident; and
 - Whether First Aid or Emergency Services were called.

If the Responsible Person cannot contact one of the Key Contacts listed in Table 1 then they must complete the External Incident Notifications, in accordance with Figure 4.

5.4 Notification of Pollution Incident to Authorities

The Key Contact (or Responsible Person) is responsible for providing the External Notifications to relevant authorities, IMMEDIATELY after they become aware of the Pollution Incident. These notifications must be undertaken in the order described in Figure 4, i.e.

1. EPA (131 555)
2. Mid-Western Regional Council (02 6378 2850 – number diverts to call centre after hours)
3. NSW Health - Public Health Officer (1300 066 055 or 0418 866 397)
4. SafeWork NSW (131 050)
5. Fire and Rescue NSW (02 6372 6772 Local, and for non-emergency after hours 0417 481 256)
6. NSW Department of Planning and Environment (02 4224-9478 or 0417 177 749)

The following information must be provided to the relevant authorities:

1. Time, date, nature, duration and location of incident;
2. Location of the place where pollution is occurring or is likely to occur; and

If known:

3. Nature, estimated quantity or volume and concentration of any pollutants involved;
4. Circumstances in which the incident occurred (including the cause of the incident); and
5. Action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution.

If any of the above information is not known at the time the Pollution Incident is reported to any of the Authorities, then that information should be notified to the Authorities immediately after it becomes known. Only details that are confirmed to be accurate are to be reported.

5.4.1 Incidents not required to be reported

In accordance with Section 151 of the POEO Act, a person is not required to notify a Pollution Incident under section 148 of the POEO Act if the person is aware that the incident has already come to the notice of each person or authority required to be notified (Section 5.4). Notifications to relevant authorities should be documented in the Authorities Notification Form (Appendices 5) by the person making the notifications.

In addition, a person is not required to notify a Pollution Incident under section 148 of the POEO Act if the incident is an ordinary result of action required to be taken to comply with an EPL, an environment protection notice or other requirement of or made under the POEO Act.

5.4.2 EPA directive to require other notifications

In accordance with Section 151A of the POEO Act, where a Pollution Incident has been notified to the EPA, the EPA may direct a person to notify such other persons of the incident as the EPA requires. This direction is not required to be given in writing.

The direction may specify the manner or form of notifying the Pollution Incident and the information that must be provided. The direction may require that an initial verbal notification be followed by written notification. A person must not fail to comply with a direction given under this section. This section does not extend to a Pollution Incident involving only the emission of an odour.

If a direction under this section is given, the obligations under this section are in addition to the obligations under section 148 of the POEO Act (i.e. Sections 5.1 to 5.4 above).

5.4.3 Incriminating information

Section 153 of the POEO Act states that; “a person is required to notify a Pollution Incident under this Part even though to do so might incriminate the person or make the person liable to a penalty. Any notification given by a person under this Part is not admissible in evidence against the person for an offence or for the imposition of a penalty”, however this does not apply to evidence obtained following or as a result of the notification.

5.5 Incident Response and Post-Notification Procedures

Once all authorities have been notified the appropriate response for the particular hazard must be immediately implemented (refer to the Risk Assessment in Appendices 2). Should the incident not be described in Appendices 2, the following general procedure is to be followed:

1. Assessment - Assess best clean up procedures for each incident based on the pollutant and site issues.
2. Remedial Action - Remove contaminated soil, wastewater and used spill equipment to an appropriate place within the licensed premises for licensed waste disposal and/or remediation. For Spontaneous combustion events e.g.: Keylah Dump rehandling, place an inert cover over hot material.
3. Ongoing Actions - Following an incident the following must be undertaken:
 - I. Undertake further monitoring/ testing if required;
 - II. Complete incident report;
 - III. Organise restocking of spill equipment;
 - IV. Complete reports to Authorities, as necessary; and
 - V. Implement corrective actions to avoid reoccurrence.
4. Reporting - provide written details of the incident to the EPA and DP&E within 7 days of the date on which the incident occurred.

The detailed report to the EPA and DP&E will:

- Describe the date, time, and nature of the incident;
- Identify the cause (or likely cause) of the incident;
- Describe what action has been taken to date; and
- Describe the proposed measures to address the incident.

If any of the information identified in the flowchart in Figure 1 was not known at the time of initial reporting of the Pollution Incident to any of the Authorities, that information should be notified to the Authorities immediately after it becomes known.

All communications with any of the Authorities following the incident are to be made through the Environment and Community Manager or one of the other people specified in Table 1. Following the initial notification of the incident, these personnel will ensure that regular contact is made with all Authorities, and persons who have been notified of the incident, in relation to ongoing actions taken to combat the pollution caused by the incident. In particular these personnel will:

- Liaise with the EPA regarding appropriate actions to be taken to control, manage and mitigate the pollution;
- Work co-operatively with the EPA and any other relevant authorities to clean-up any pollution;
- Notify the community of the results of ongoing monitoring of the pollution; and
- Consult any owners or occupiers in the vicinity of the site regarding any off-site actions to be taken which may impact on their properties.

5.6 Notification of Pollution Incident to Community/Local Landholders

The Mine is located near the village of Wollar (Figure 1). The Mine is also located within the catchment of the Hunter River and more specifically the Wilpinjong Creek catchment. Runoff from disturbed areas of the Mine site is contained on site. Runoff from undisturbed areas of the Mine site is diverted by bunds to Cumbo Creek and Planters Creek, both within the Wilpinjong Creek catchment.

Any Pollution Incident causing or threatening material harm to the environment in these areas will be communicated to all people likely to be adversely affected by the incident. Communication with these people will be made as soon as practicable following a Pollution Incident as well as on an ongoing basis until the incident has been fully controlled and any harm caused as a result of the incident has been rectified.

WCPL will contact people affected by a Pollution Incident either by telephone, letterbox drop or 'doorknocking'. Notifications will also be made, if deemed necessary, on the WCPL website. The method and content of any communication will depend on the Pollution Incident and the actions required to protect human health. For example, advice may be given to avoid the use of water in creeks affected by the discharge of a pollutant to a waterway.

6 STAFF TRAINING PROGRAMS

Employees and contractors will be made aware of this PIRMP:

- Initially, as part of induction training;
- Then, by periodic refresher training; and
- If there are amendments to the PIRMP.

The principal objective of the training is to create an understanding by staff and contractors of the requirements of the PIRMP including specifically the following matters:

- Awareness of the potential for harm to people and the environment from the materials held on-site;
- Information on the sensitivity of the environment surrounding the site;
- The environmental responsibilities of WCPL personnel;
- Use of the correct personal protective equipment and any appropriate and/or necessary health and safety training;
- Reporting procedures if there is a risk of surface water, groundwater, air or land contamination;
- Safe and correct use of all spill clean-up equipment or pollution prevention structures and/or devices on site; and
- Safe handling and legal disposal of contaminated materials and wastes resulting from an incident, including:
 - arrangements for using specialist contractors and services; and
 - appropriate and safe decontamination.

Records of training will be kept in accordance with WCPL's training record management system.

7 MANNER IN WHICH THE PIRMP IS TO BE TESTED AND MAINTAINED

7.1 Availability of PIRMP

WCPL will make the PIRMP publicly available on the WCPL website. On completion of the annual testing and review process (Section 7.2), or following a test in response to an incident, WCPL will review and if necessary amend the PIRMP and make the reviewed or amended version available on the WCPL website.

A hard copy of the PIRMP will also be available at the Mine office (1434 Ulan-Wollar Road, Wilpinjong NSW 2850) and will be provided to all personnel responsible for implementing the PIRMP. The PIRMP will be made available to an Authorised Officer on request.

7.2 Testing, Review and Update

This PIRMP will be tested and reviewed every 12 months, and within one month of any Pollution Incident to ensure the PIRMP is accurate and up-to-date and capable of being implemented in a workable and effective manner.

Testing will be undertaken in accordance with the POEO(G) Regulation. The results of the test will be communicated to relevant staff identifying any non-compliance during the testing procedure. Non-compliances are to be followed up immediately and rectified.

The results of tests and reviews conducted on the PIRMP are detailed in Table 2.

Table 2: PIRMP Test Record

Date Test Was Performed	Purpose	Responsible Person	Description
18 October 2012	Test following incident on 16 October 2012 - odour from spontaneous combustion of coal (counted as Annual test)	Kieren Bennetts	Test completed successfully. Minor changes were made to the PIRMP (refer to table at front of document).
18 December 2013	Test following incident on 18 December 2013 - unauthorised discharge into Cumbo Creek (counted as Annual test)	Kieren Bennetts	Test completed successfully. Minor changes were made to the PIRMP (refer to table at front of document).
31 July 2014	Test following a potential blast fume event that was reported in accordance with: WCPL Blast Fume Management Strategy	Kieren Bennetts	Test completed successfully. Minor changes were made to the PIRMP (refer to table at front of document).
3 November 2014	Test following preparation of Keylah Dump Removal Management Plan (WI-ENV-MNP-0010), and approval by EPA and DP&E.	Kieren Bennetts	PIRMP updated with potential incidents specific to Keylah Dump rehandle.

Date Test Was Performed	Purpose	Responsible Person	Description
9 October 2015	Annual testing of external notification contact details and review of PIRMP content.	Clark Potter	External notification contact details tested and updated as well as PIRMP reviewed to ensure content is accurate and capable of being implemented in an effective manner.
29 April 2016	Test following incident on 28 April 2016 – Emission of ash from Keylah Dump Rehandle (counted as Annual test)	Kieren Bennetts	Test completed successfully. Minor change made to contact details for WorkCover NSW – Now SafeWork NSW and contact number for NSW Department of Planning and Environment.

8 FAILURE TO COMPLY

WCPL takes its responsibilities under the POEO Act seriously. All employees and contractors will be made aware of the maximum penalties prescribed under the POEO Act relating to Pollution Incidents (Table 3).

Table 3: Maximum Penalties for Offences

Offence	Maximum penalty (corporation)	Maximum penalty (individual)
Polluting water/air/land/noise	\$1,000,000 plus \$120,000 for each day the offence continues	\$250,000 plus \$60,000 for each day the offence continues
Failure to report pollution incident immediately (where material harm to the environment caused or threatened) and provide all relevant information and to all authorities provided in the Act	\$2,000,000 plus \$240,000 for each day the offence continues	\$500,000 plus \$120,000 for each day the offence continues
Failure to maintain control equipment in an efficient condition and operate control equipment in a proper and efficient manner	\$1,000,000 plus \$120,000 for each day the offence continues	\$250,000 plus \$60,000 for each day the offence continues
Failure to comply with condition of Environment Protection Licence	\$1,000,000 plus \$120,000 for each day the offence continues	\$250,000 plus \$60,000 for each day the offence continues
Failure to prepare pollution incident response management plan – from 30 August 2012	\$1,000,000 plus \$120,000 for each day the offence continues	\$250,000 plus \$60,000 for each day the offence continues
Failure to implement a pollution incident response management plan following a pollution incident where material harm to the environment caused or threatened – from 30 August 2012	\$2,000,000 plus \$240,000 for each day the offence continues	\$500,000 plus \$120,000 for each day the offence continues
Failure to keep a pollution incident management plan on the licensed premises and make plan available	\$1,000,000 plus \$120,000 for each day the offence continues	\$250,000 plus \$60,000 for each day the offence continues.

Offence	Maximum penalty (corporation)	Maximum penalty (individual)
when required by authorities – from 30 August 2012		
Failure to test a pollution incident response plan every 12 months and within 1 month of a pollution incident – from 30 August 2012	\$1,000,000 plus \$120,000 for each day the offence continues	\$250,000 plus \$60,000 for each day the offence continues

9 Roles and Responsibilities

Role	Responsibility	Timing
General Manager	Ensure that adequate resources are available to effectively implement requirements of this PIRMP	During budget planning
	If required to implement this PIRMP: 1. IMMEDIATELY implement this PIRMP when notified that a Pollution Incident has occurred onsite, including External Notifications to relevant authorities in accordance with Figure 4 Complete appropriate forms (Appendices 4 and 5)	IMMEDIATELY
Environmental and Community Manager	If required to implement this PIRMP: 1. IMMEDIATELY implement this PIRMP when notified that a Pollution Incident has occurred onsite, including External Notifications to relevant authorities in accordance with Figure 4 2. Complete appropriate forms (Appendices 4 and 5)	IMMEDIATELY
	Ensure this PIRMP is kept up to date and that the current version is displayed on the WCPL website and a hard copy is kept at the Mine office (in a prominent, readily accessible location)	At all times
	Ensure that all employees and contractors are given adequate training in identifying and responding to Pollution Incidents, in accordance with Section 6, and ensure they are aware of the penalties for failing to comply (Section 8)	As required (Section 6)
	Ensure this PIRMP is tested annually and that the results of this testing are included in the PIRMP Test Register and summarised in Table 2	Annually
	Ensure this PIRMP is tested within one month of any Pollution Incident and that the results of this testing are included in the PIRMP Test Register and summarised in Table 2	Within one month of any Pollution Incident

	Coordinate the review and update of this PIRMP (including Risk Assessment) following each test and record changes in the table at the front of this PIRMP	Following completion of a test
	Provide written Pollution Incident report to EPA and DP&E in accordance with Section 5.5.	Within 7 days of incident
Senior Environmental Advisor	If required to implement this PIRMP: 1. IMMEDIATELY implement this PIRMP when notified that a Pollution Incident has occurred onsite, including External Notifications to relevant authorities in accordance with Figure 4 2. Complete appropriate forms (Appendices 4 and 5)	IMMEDIATELY
	Undertake regular inspections of the site, including all areas where hazardous waste, chemicals and hydrocarbon products are stored and handled	As possible
	Ensure PIRMP Pollution Incident Response Process (Figure 4: Pollution Incident Response Process) is communicated to all employees and contractors and displayed in prominent places around site e.g. crib rooms, muster areas	At least annually
	Assess and approve requests for new chemicals to be brought onsite (i.e. Chemical Approval forms)	Prior chemicals/hazardous substances being brought to site
	Ensure that tasks relevant to this PIRMP and contained in other WCPL Management Plans are completed as required.	As specified in the respective Management Plan.
Responsible Person e.g. OCE	If required to implement this PIRMP: 1. IMMEDIATELY implement this PIRMP when notified that a Pollution Incident has occurred onsite, including External Notifications to relevant authorities in accordance with Figure 4. 2. Complete appropriate forms (Appendices 4 and 5)	IMMEDIATELY

All employees and contractors (including suppliers and delivery drivers)	Report all Pollution Incidents to the person responsible for the site i.e. the Responsible Person	IMMEDIATELY
	Ensure all chemicals, hydrocarbons and hazardous substances are stored and handled appropriately	At all times
	Report any potential hazards to supervisor	As soon as practicable
	Complete Chemical Approval form prior to bringing new chemicals/hazardous substances to site	Prior to bringing new chemicals/hazardous substances to site
	Evacuate area and/or assist in clean-up operations	If/when instructed to do so
	Adhere to speed limits around site and on access roads	At all times

10 References

Protection of the Environment Operations Act 1997 (POEO Act)

Protection of the Environment Operations (General) Regulation 2009 (POEO(G) Regulation)

Appendices 1. PIRMP Legal Requirements

Instrument	Part/Section	Requirement	Section
POEO Act	5.7/147	<p>Meaning of material harm to the environment</p> <p>(1) For the purposes of this Part:</p> <p>(a) harm to the environment is material if:</p> <p>(i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or</p> <p>(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</p> <p>(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.</p> <p>(2) For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.</p>	1.1
POEO Act	5.7/148	<p>Pollution incidents causing or threatening material harm to be notified</p> <p>(1) Kinds of incidents to be notified - This Part applies where a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened.</p>	5.2
		<p>(2) Duty of person carrying on activity to notify - A person carrying on the activity must, immediately after the person becomes aware of the incident, notify each relevant authority of the incident and all relevant information about it.</p>	5.4 and Figure 4
		<p>(3) Duty of employee engaged in carrying on activity to notify - A person engaged as an employee in carrying on an activity must, immediately after the person becomes aware of the incident, notify the employer of the incident and all relevant information about it. If the employer cannot be contacted, the person is required to notify each relevant authority.</p>	5.3 and Figure 4

Instrument	Part/Section	Requirement	Section
		(3A) Duty of employer to notify - Without limiting subsection (2), an employer who is notified of an incident under subsection (3) or who otherwise becomes aware of a pollution incident which is related to an activity of the employer, must, immediately after being notified or otherwise becoming aware of the incident, notify each relevant authority of the incident and all relevant information about it.	5.4 and Figure 4
		(4) Duty of occupier of premises to notify - The occupier of the premises on which the incident occurs must, immediately after the occupier becomes aware of the incident, notify each relevant authority of the incident and all relevant information about it.	5.4 and Figure 4
		(5) Duty on employer and occupier to ensure notification - An employer or an occupier of premises must take all reasonable steps to ensure that, if a pollution incident occurs in carrying on the activity of the employer or occurs on the premises, as the case may be, the persons engaged by the employer or occupier will, immediately, notify the employer or occupier of the incident and all relevant information about it.	5.3, 5.4 and Figure 4
		(6) Extension of duty to agents and principals - This section extends to a person engaged in carrying on an activity as an agent for another. In that case, a reference in this section to an employee extends to such an agent and a reference to an employer extends to the principal.	5.3 and Figure 4
		(7) Odour not required to be reported - This section does not extend to a pollution incident involving only the emission of an odour.	5.2
		(8) Meaning of "relevant authority" - In this section: "relevant authority" means any of the following: (a) the appropriate regulatory authority, (b) if the EPA is not the appropriate regulatory authority-the EPA, (c) if the EPA is the appropriate regulatory authority-the local authority for the area in which the pollution incident occurs, (d) the Ministry of Health, (e) the WorkCover Authority, (f) Fire and Rescue NSW.	5.4

Instrument	Part/Section	Requirement	Section
POEO Act	5.7/149	Manner and form of notification (1) If the regulations prescribe the manner or form of notifying pollution incidents under section 148, the notification is to conform to the requirements of the regulations. (2) Without limiting subsection (1), the regulations: (a) may require that verbal notification be followed by written notification, and (b) may provide that notification to a designated person or authority is taken to be notification to the relevant person or authority under section 148.	5.4 and Figure 4
POEO Act	5.7/150	Relevant information to be given (1) The relevant information about a pollution incident required under section 148 consists of the following: (a) the time, date, nature, duration and location of the incident, (b) the location of the place where pollution is occurring or is likely to occur, (c) the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known, (d) the circumstances in which the incident occurred (including the cause of the incident, if known), (e) the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known, (f) other information prescribed by the regulations. (2) The information required by this section is the information known to the person notifying the incident when the notification is required to be given. (3) If the information required to be included in a notice of a pollution incident by subsection (1) (c), (d) or (e) is not known to that person when the initial notification is made but becomes known afterwards, that information must be notified in accordance with section 148 immediately after it becomes known.	5.4 and Figure 4
POEO Act	5.7/151	Incidents not required to be reported (1) A person is not required to notify a pollution incident under section 148 if the person is aware that the incident has already come to the notice of each person or authority required to be notified. (2) A person is not required to notify a pollution incident under section 148 if the incident is an ordinary	5.4.1

Instrument	Part/Section	Requirement	Section
		result of action required to be taken to comply with an environment protection licence, an environment protection notice or other requirement of or made under this Act.	
POEO Act	5.7/151A	<p>EPA may require other notification of pollution incidents</p> <p>(1) This section applies to the occupier of premises where a pollution incident has occurred in the course of an activity so that material harm to the environment is caused or threatened.</p> <p>(2) The EPA may direct a person to whom this section applies to notify such other persons of the incident as the EPA requires.</p> <p>(3) The direction is not required to be given in writing.</p> <p>(4) The direction may specify the manner or form of notifying the pollution incident and the information that must be provided.</p> <p>(5) The direction may require that an initial verbal notification be followed by written notification.</p> <p>(6) A person must not fail to comply with a direction given under this section.</p> <p>(7) This section does not extend to a pollution incident involving only the emission of an odour.</p> <p>(8) If a direction under this section is given to a person who is carrying out an activity, is engaged as an employee in carrying out an activity, or is the employer of such a person, the obligations under this section are in addition to, and not in derogation of, the obligations under section 148 (except as provided by section 151 (1)).</p>	5.4.2
POEO Act	5.7/152	<p>Offence</p> <p>A person who contravenes this Part is guilty of an offence.</p> <p>Maximum penalty:</p> <p>(a) in the case of a corporation-\$2,000,000 and, in the case of a continuing offence, a further penalty of \$240,000 for each day the offence continues, or</p> <p>(b) in the case of an individual-\$500,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues.</p> <p>Note: An offence against this section committed by a corporation is an offence attracting special executive liability for a director or other person involved in the management of the corporation-see section 169.</p>	8

Instrument	Part/Section	Requirement	Section
POEO Act	5.7/153	Incriminating information (1) A person is required to notify a pollution incident under this Part even though to do so might incriminate the person or make the person liable to a penalty. (2) Any notification given by a person under this Part is not admissible in evidence against the person for an offence or for the imposition of a penalty. (3) Subsection (2) does not apply to evidence obtained following or as a result of the notification.	5.4.3
POEO Act	5.7A/153A	Duty of licence holder to prepare pollution incident response management plan The holder of an environment protection licence must prepare a pollution incident response management plan that complies with this Part in relation to the activity to which the licence relates. Maximum penalty: (a) in the case of a corporation-\$1,000,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues, or (b) in the case of an individual-\$250,000 and, in the case of a continuing offence, a further penalty of \$60,000 for each day the offence continues. Note: An offence against this section committed by a corporation is an executive liability offence attracting executive liability for a director or other person involved in the management of the corporation-see section 169A.	1 8
POEO Act	5.7A/153B	EPA may direct other persons to prepare pollution incident response management plan	N/A to this plan
POEO Act	5.7A/153C	Information to be included in plan A pollution incident response management plan must be in the form required by the regulations and must include the following: (a) the procedures to be followed by the holder of the relevant environment protection licence, or the occupier of the relevant premises, in notifying a pollution incident to: (i) the owners or occupiers of premises in the vicinity of the premises to which the environment protection licence or the direction under section 153B relates, and	5.6 and Figure 4

Instrument	Part/Section	Requirement	Section
		(ii) the local authority for the area in which the premises to which the environment protection licence or the direction under section 153B relates are located and any area affected, or potentially affected, by the pollution, and	5.4 and Figure 4
		(iii) any persons or authorities required to be notified by Part 5.7,	5.4 and Figure 4
		(b) a detailed description of the action to be taken, immediately after a pollution incident, by the holder of the relevant environment protection licence, or the occupier of the relevant premises, to reduce or control any pollution,	5.5
		(c) the procedures to be followed for co-ordinating, with the authorities or persons that have been notified, any action taken in combating the pollution caused by the incident and, in particular, the persons through whom all communications are to be made,	5.5
		(d) any other matter required by the regulations.	This Plan
POEO Act	5.7A/153D	<p>Keeping of plan</p> <p>A person who is required to prepare a pollution incident response management plan under this Part must ensure that it is kept at the premises to which the relevant environment protection licence relates, or where the relevant activity takes place, and is made available in accordance with the regulations.</p> <p>Maximum penalty:</p> <p>(a) in the case of a corporation-\$1,000,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues, or</p> <p>(b) in the case of an individual-\$250,000 and, in the case of a continuing offence, a further penalty of \$60,000 for each day the offence continues.</p> <p>Note: An offence against this section committed by a corporation is an executive liability offence attracting executive liability for a director or other person involved in the management of the corporation-see section 169A.</p>	7.1
POEO Act	5.7A/153E	<p>Testing of plan</p> <p>A person who is required to prepare a pollution incident response management plan under this Part must</p>	7.1

Instrument	Part/Section	Requirement	Section
		<p>ensure that it is tested in accordance with the regulations.</p> <p>Maximum penalty:</p> <p>(a) in the case of a corporation-\$1,000,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues, or</p> <p>(b) in the case of an individual-\$250,000 and, in the case of a continuing offence, a further penalty of \$60,000 for each day the offence continues.</p> <p>Note: An offence against this section committed by a corporation is an executive liability offence attracting executive liability for a director or other person involved in the management of the corporation-see section 169A.</p>	
POEO Act	5.7A/153F	<p>Implementation of plan</p> <p>If a pollution incident occurs in the course of an activity so that material harm to the environment (within the meaning of section 147) is caused or threatened, the person carrying on the activity must immediately implement any pollution incident response management plan in relation to the activity required by this Part.</p> <p>Maximum penalty:</p> <p>(a) in the case of a corporation-\$2,000,000 and, in the case of a continuing offence, a further penalty of \$240,000 for each day the offence continues, or</p> <p>(b) in the case of an individual-\$500,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues.</p> <p>Note: An offence against this section committed by a corporation is an executive liability offence attracting executive liability for a director or other person involved in the management of the corporation-see section 169A.</p>	5
			8
POEO(G) Regulation	3A/98A	<p>Definition</p> <p>In this Part:</p> <p>"plan" means a pollution incident response management plan required to be prepared under Part 5.7A of the Act.</p>	This plan

Instrument	Part/Section	Requirement	Section
POEO(G) Regulation	3A/98B	Form of plan (1) A plan is to be in written form. (2) A plan may form part of another document that is required to be prepared under or in accordance with any other law so long as the information required to be included in the plan is readily identifiable as such in that other document.	This Plan
POEO(G) Regulation	3A/98C	Additional matters to be included in plan Note: See also section 153C (a)-(c) of the Act. (1) General - The matters required under section 153C (d) of the Act to be included in a plan are as follows: (a) a description of the hazards to human health or the environment associated with the activity to which the licence relates (the "relevant activity"),	4
		(b) the likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood,	4.1
		(c) details of the pre-emptive action to be taken to minimise or prevent any risk of harm to human health or the environment arising out of the relevant activity,	4.2
		(d) an inventory of potential pollutants on the premises or used in carrying out the relevant activity,	4.4
		(e) the maximum quantity of any pollutant that is likely to be stored or held at particular locations (including underground tanks) at or on the premises to which the licence relates,	4.4
		(f) a description of the safety equipment or other devices that are used to minimise the risks to human health or the environment and to contain or control a pollution incident,	4.3
		(g) the names, positions and 24-hour contact details of those key individuals who: (i) are responsible for activating the plan, and (ii) are authorised to notify relevant authorities under section 148 of the Act, and	5.1

Instrument	Part/Section	Requirement	Section
		(iii) are responsible for managing the response to a pollution incident,	
		(h) the contact details of each relevant authority referred to in section 148 of the Act,	Figure 4 and 5.4
		(i) details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of premises in the vicinity of the premises to which the licence relates or where the scheduled activity is carried on,	Figure 4 and 5.6
		(j) the arrangements for minimising the risk of harm to any persons who are on the premises or who are present where the scheduled activity is being carried on,	4.2
		(k) a detailed map (or set of maps) showing the location of the premises to which the licence relates, the surrounding area that is likely to be affected by a pollution incident, the location of potential pollutants on the premises and the location of any stormwater drains on the premises,	Figure 1, Figure 2 and Figure 3
		(l) a detailed description of how any identified risk of harm to human health will be reduced, including (as a minimum) by means of early warnings, updates and the action to be taken during or immediately after a pollution incident to reduce that risk,	4 and Figure 4
		(m) the nature and objectives of any staff training program in relation to the plan,	6
		(n) the dates on which the plan has been tested and the name of the person who carried out the test,	7.2
		(o) the dates on which the plan is updated,	Table at front of plan
		(p) the manner in which the plan is to be tested and maintained.	7
POEO(G) Regulation	3A/98D	Availability of plan (1) A plan is to be made readily available:	7.1.

Instrument	Part/Section	Requirement	Section
		<p>(a) to an authorised officer on request, and</p> <p>(b) at the premises to which the relevant licence relates, or where the relevant activity takes place, to any person who is responsible for implementing the plan.</p> <p>(2) A plan is also to be made publicly available in the following manner within 14 days after it is prepared:</p> <p>(a) in a prominent position on a publicly accessible website of the person who is required to prepare the plan,</p> <p>(b) if the person does not have such a website-by providing a copy of the plan, without charge, to any person who makes a written request for a copy.</p> <p>(3) Subclause (2) applies only in relation to that part of a plan that includes the information required under:</p> <p>(a) section 153C (a) of the Act, and</p> <p>(b) clause 98C (1) (h) and (i) or (2) (b) and (c) (as the case requires).</p> <p>(4) Any personal information within the meaning of the <i>Privacy and Personal Information Protection Act 1998</i> is not required to be included in a plan that is made available to any person other than a person referred to in subclause (1).</p>	
POEO(G) Regulation	3A/98E	<p>Testing of plan</p> <p>(1) 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 a workable and effective manner.</p> <p>(2) Any such test is to be carried out:</p> <p>(a) routinely at least once every 12 months, and</p> <p>(b) 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.</p>	7.2
POEO(G) Regulation	3A/98F	Transitional period for existing licence holders	N/A to this plan

Appendices 2. Risk Assessment (reviewed March 2014)

Appendix 2 - PIRMP Risk Assessment (reviewed March 2014)

Environmental Hazard	Risk Description	Consequence	Inherent Risk			Current Controls	Residual Risk		
			C	L	Inherent Risk Level		C	L	Inherent Risk Level
Chemical storage and onsite transfer	Uncontrolled release of hazardous chemicals to local waterways	Reduced water quality and health impacts to aquatic flora and fauna and livestock. Chemical pollution of waters available for downstream water users	2	C	Moderate	WCPL maintains the ChemWatch register of all chemicals used onsite. Chemical are stored in bunded areas in accordance with AS1940. Chemical Approval procedure. Employee training on safe handling and storage of chemicals and spill response. Chemicals are stored in fit for purpose containers and storage areas. Supply and maintain appropriate spill response equipment. Volumes of chemicals held onsite are consistent with short term requirements. Regular inspections and audits of chemical storage areas. Available earth moving equipment to support spill containment and cleanup process	2	D	Low
Hydrocarbon storage and onsite transfer	Uncontrolled release of hydrocarbons to local waterways or land (groundwater)	Reduced water quality and health impacts to aquatic flora and fauna and livestock. Contamination of surface and ground water resource available for downstream water users	3	C	Moderate	Hydrocarbon management facilities and service trucks are constructed to Australian Standards. Hydrocarbons are stored in bunded areas in accordance with AS1940. Employee training on safe handling and storage of hydrocarbons and spill response. Supply and maintain appropriate spill response equipment. Regular inspections and audits of hydrocarbon storage and refuelling areas. Refuelling areas are sealed and runoff reports to designated storage areas and oil water separators. Refuelling procedures are maintained and communicated to relevant personnel. Wiggins auto cut off refuelling system is in operation. Regular review of hydrocarbon stock levels to identify potential leaks. Routine and regular surface and ground water monitoring program. Available earth moving equipment to support spill containment and cleanup process	3	D	Moderate
Mine water/tailings storage and onsite transfer	Uncontrolled release of mine water/tailings to local waterways	Reduced water quality and health impacts to aquatic flora and fauna and livestock. Pollution of waters available for downstream water users	3	C	Moderate	Site Water Management Plan and system. Segregated mine/tailings water, raw water and clean water systems. Erosion and sediment controls are deployed to limit water contamination and soil movement/loss. Reverse Osmosis Plant for treatment of mine water. Engineered designs for high risk dams. Routine and regular dam monitoring and inspections. Annual dam inspection by certified engineer. Pump crew have Dam Safety Committee training. Surface and ground water monitoring program. S100 tailings dams approvals, Mine Operations Plan (MOP) and EPL. Pipeline inspections. Fit for purpose designed pipelines.	3	D	Moderate
Hazardous waste storage	Uncontrolled release of hazardous waste to local waterways or land (groundwater)	Reduced water quality and health impacts to aquatic flora and fauna and livestock. Contamination of surface and ground water resource available for downstream water users	2	C	Moderate	Hazardous wastes are stored in bunded areas in accordance with AS1940. Employee training on safe handling and storage of hazardous waste and spill response. Supply and maintain appropriate spill response equipment. Waste contractor monitors storage areas and organises regular pickups i.e. hazardous waste volumes onsite are kept to a minimum. Regular inspections and audits of hazardous waste storage areas. Available earth moving equipment to support spill containment and cleanup process	2	C	Low
Hazardous waste/hydrocarbon transport	Uncontrolled release of hazardous waste/hydrocarbons to local waterways or land (groundwater)	Reduced water quality and health impacts to aquatic flora and fauna and livestock. Contamination of surface and ground water resource available for downstream water users	3	C	Moderate	Dedicated transport providers using fit for purpose equipment. Licensed (competent) drivers. Reduced speed limits on access roads. Sealed access road to site. Supply and maintain appropriate spill response equipment. Available earth moving equipment to support spill containment and cleanup process	3	D	Moderate
Use of radiation device	Uncontrolled release of radioactive gases to air	Health impacts to site personnel or nearby residents	3	D	Moderate	Radiation licences current and complied with. Competent persons responsible for managing radiation devices. Sealed radiation devices	3	E	Low

Environmental Hazard	Risk Description	Consequence	Inherent Risk			Current Controls	Residual Risk		
			C	L	Inherent Risk Level		C	L	Inherent Risk Level
Disturbed areas	Uncontrolled surface water runoff off disturbed mining areas	Pollution to natural waterways or contamination of waters available for downstream water users	3	B	High	Site Water Management Plan and system. Segregated mine/tailings water, raw water and clean water systems. Erosion and sediment controls are deployed to limit water contamination and soil movement/loss. Routine and regular inspections. Surface and ground water monitoring program. Progressive rehabilitation program Dedicated mine planning considering minimisation of disturbed areas	3	C	Moderate
Overburden removal using explosives	Excessive blast fume	Health impacts to site personnel, nearby residents or road users	2	C	Moderate	Blast Management Plan Blast management controls including controlled use of explosives and protocols around postponing blasts in adverse weather conditions Blast exclusion zones Notifications to surrounding private receivers, site personnel etc Road closures during blasting Blast monitoring	2	D	Low

CONSEQUENCE

The potential consequence will be expressed in terms of the type of loss (people, assets/production, environment or reputation) and the estimated value of such loss using the table below.

AREA OF EFFECT	ESTIMATED LEVEL OF CONSEQUENCE				
	1	2	3	4	5
Health and Safety (P)	Report Only Near Miss No Medial Treatment (RO)	Slightly injured First aid treatment Low Level short term inconvenience (FA1)	Medical Treatment Injuries Disabling reversible impairment (MTI RWI LTI)	Serious Bodily injury or Disabling Irreversible impairment (LTI PPD TPD)	Fatality/Fatalities Significant Irreversible health effects (TPD)
Environmental Impact (E)	Environmental nuisance causing negligible reversible environmental impact requiring very minor or no remediation Limited damage to minimal area of low significance	Minor short to medium term material environmental harm to small area(s) of limited significance Reversible environmental impact requiring minor remediation	Serious short to medium term environmental harm with widespread impacts. Effects require moderate remediation.	Major environmental harm Relatively wide spread medium to long term impacts requiring significant remediation	Extreme environmental harm Long term wide spread effects on environment requiring major remediation
Asset/ Property Damage (A)	Slight damage <\$5,000 No disruption to operations	Minor damage <\$50,000 Brief disruption < 12 hours	Localised damage <\$500,000 Partial shutdown < 1 day	Major damage <\$2,000,000 Major shutdown <1 week	Extensive damage >\$2,000,000. Extensive loss
Community/ Reputation (R)	Slight impact Public aware but no public concern	Limited impact Some local public concern	Considerable impact with potential for wider public concern	National impact with potential for wider public concern	International impact International public attention
Investment Return AUD NPV	\$599.9k loss or gain	\$600k - \$5.9m loss or gain	\$6m - \$59.9m loss or gain	\$60m - 599.9m loss or gain	\$600 + loss or gain
Legal and Compliance (L)	Minor legal issues, noncompliance and breaches of legislation	Breach of legislation with investigation or report to authority with prosecution and/or moderate fine possible	Major breach of legislation with punitive fine. Significant litigation involving many weeks of senior management time	Major litigation costing \$10m+ Investigation by regulatory body resulting in long term interruption to operations Possibility of custodial sentence	Major litigation or prosecution with damages of \$50m+ plus significant costs Custodial sentence for company Executive Prolonged closure of operations by authorities.

RISK MATRIX

Likelihood		Consequence				
		1	2	3	4	5
Very Likely	A	Low	Moderate	High	Extreme	Extreme
Likely	B	Low	Moderate	High	High	Extreme
Possible	C	Low	Moderate	Moderate	High	Extreme
Unlikely	D	Low	Low	Moderate	Moderate	High
Highly Unlikely	E	Low	Low	Low	Low	Moderate

Likelihood		Consequence				
		1	2	3	4	5
Very Likely	A	5	16	20	23	25
Likely	B	4	12	17	21	24
Possible	C	3	10	13	18	22
Unlikely	D	2	7	11	14	19
Highly Unlikely	E	1	6	8	9	15

RISK REPORTING LEVELS (RECOMMENDED)

Classification	Required Action
Extreme	Advise Board and monitoring required by PE
High	Advise Board and monitoring required by PE
Moderate	Regular monitoring required Executive Management
Low	General monitoring required by staff in functional area/Project Team

LIKELIHOOD

Likelihood is based on an analysis of probability of exposure to the potential consequences of the risk .

Likelihood Category and Related Criteria			
PE Category	Likelihood	Description	Indicative Probability Range
A	Almost Certain	Assessed that this consequence is occurring now or could occur within months	>99%
B	Likely	Assessed that this consequence has occurred	>50 and <99%
C	Possible	Assessed that this consequence may occur shortly but a distinct probability it won't	>20 and <50%
D	Unlikely	Assessed that this consequence is unlikely to occur or could occur within 5 to 20 years	>1 and <20%
E	Rare	Assessed that this consequence requires exceptional circumstances to occur - Exceptionally unlikely, even in the long term future - Occurs less than once every 20 years	<1%

Analysis of likelihood looks at the possibility of the worst credible outcome as the result of the unwanted event occurring, and data for this analysis will come from:

- Site history and where appropriate
- Similar sites history
- Whole of industry history
- Wider history
- Incident databases
- Knowledge and experience of the risk assessment team

CONTROL EFFECTIVENESS	
Satisfactory	Controls are well designed Controls are largely "preventative" and address Management believes that they are effective and Nothing more to be done except review and monitor
Requires Improvement	Most controls are designed correctly and are in place Controls may only treat some of the root causes of the risk, and/or are not Management has doubts about operational More work is required to improve operating
Poor or No Existing Controls	Significant control gaps or no credible control; Either controls do not treat the root causes, are non-existent or, if they do exist, Management has no confidence that any degree Very limited or no operational effectiveness

Appendices 3. Pollutant Inventory

Chemical/Substance	Location	Approximate Quantity	pH	Concentration (w/v %)*	ASSC and ADG Classification*
Diesel	Mine Infrastructure Area	110,000 L (2 tanks)	N/A	N/A	HS, Non-DG
Diesel	Mine Infrastructure Area	88,000 L (2 tanks)	N/A	N/A	HS, Non-DG
Diesel	Mine Infrastructure Area	70,000 L (1 tank)	N/A	N/A	HS, Non-DG
Lube Oil	Mine Infrastructure Area	26,000 L (4 tanks)	N/A	N/A	Non-HS, Non-DG
Waste Oil	Workshop	11,000 L (1 tank)	N/A	N/A	Non-HS, Non-DG
Waste Oil	Mine Infrastructure Area	17,000 L (1 tank)	N/A	N/A	Non-HS, Non-DG
Waste Oil	Mine Infrastructure Area	4,000 L (1 tank)	N/A	N/A	Non-HS, Non-DG
Coolant	Mine Infrastructure Area	20,000 L (1 tank)	N/A	N/A	HS, Non-DG
Grease	Workshop	1 tonne (Pod)	N/A	N/A	Non-HS, Non-DG
Sodium Hydroxide (Caustic)	RO Plant (CDU1)	6,000 L	14 (base)	50	HS, DG, Class 8 Corrosive, PG II
Anti-scalant (RO2102)	RO Plant (CDU2)	1,000 L	10-11 (base)	N/A	Non-HS, Non-DG
Citric Acid	RO Plant	6,000 L	1.8 (acid)	50	HS, Non-DG
Memguard 44	RO Plant (DG Store – Acids)	<800 L	1.8 (acid)	Citric acid 30-60, Water 30-60	HS, Non-DG
Oxalic Acid/Oxyclean	RO Plant (DG Store – Acids)	<400 L	1.3 (acid)	Potassium hydroxide (basic inorganic)	HS, Non-DG
Hydrochloric Acid	RO Plant (DG Store – Acids)	<200 L	<1 (acid)	33	HS, DG, Scheduled Poison

Chemical/Substance	Location	Approximate Quantity	pH	Concentration (w/v %)*	ASSC and ADG Classification*
Proxitane	RO Plant (DG Store – Acids)	<200 L	<1 (acid)	Hydrogen Peroxide 10-30, Peracetic acid 10-30, Acetic acid 10-30	HS, DG, Class 8 Corrosive, 2W
Memguard 61	RO Plant (DG Store – Alkalis)	<800 L	12.6 (base)	Water > 60, Potassium Hydroxide 10-<30, Sequestrant 10-<30, Anionic surfactant <1, Amphoteric surfactant <1	HS, DG, Class 8 Corrosive, PG II
Reflux S830	RO Plant (DG Store – Alkalis)	<400 L	4.5-5.5	Sodium metabisulfite 10-30	HS, Xi: irritant
Reflux E2001	RO Plant (DG Store – Alkalis)	<100 L	7.8 (base)	Subtilisin <10	HS, Non-DG
Radiation Gauge	CHPP	4	N/A	N/A	N/A
Explosives – Class 1.1B	Magazine	50,000 each (max)	N/A	N/A	Non-HS, DG
Explosives – Class 1.1D	Magazine	10,000 kg (max)	N/A	N/A	Non-HS, DG

Appendices 4. Pollution Incident Notification Form

Pollution Incident Notification Form

DATE:
TIME:
NAME & POSITION:
SITE NAME:
SITE TYPE:

Name and position of person reporting the incident

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Description of Incident (including time, date, nature and duration of incident). Provide accurate information only, if some parameters (i.e. chemical type) are unknown **DO NOT SPECULATE.**

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Location of incident

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Describe the area where pollution is or has occurred. That is:

- Is the pollution (e.g. dust or odour) confined to the Mine site or has the pollution moved off the Mine site?
- If pollution has moved off the Mine site how far has it travelled? Confirm by inspecting offsite areas. (DO NOT SPECULATE)

Has the pollution event affected any resident? As a guide:

- The closest leased residence is in Slate Gully (approximately 4.8 klms from CHPP radial stacker).
- The closest privately owned residence is in Wollar Village (approximately 7.0 klms from CHPP radial stacker).

The nature, estimated quantity or volume and the concentration of any pollutants involved, if known, **DO NOT SPECULATE**

The circumstances in which the incident occurred (including the cause of the incident, if known)

Actions being undertaken

Appendices 5. Authorities Notification Form

PIRMP Authorities Notification Form

DATE:	
NAME & POSITION:	
SITE NAME:	Wilpinjong Coal ABN: 87 104 594 694
SITE TYPE:	

This form is to be used in conjunction with the Pollution Incident Notification Form.

The following authorities **MUST** be contacted following an incident:

Authority	Contact details	Authority Reference number
NSW Environment Protection Agency	Pollution Line 131 555	
Call Start Time:	Call End Time:	
Mid-Western Regional Council	(02) 6378 2850 – Note: number diverts to call centre afterhours.	
Call Start Time:	Call End Time:	
NSW Health	1300 066 055 or 0418 866 397	
Call Start Time:	Call End Time:	
SafeWork NSW	13 10 50 (Will request Wilpinjong Coal ABN – refer above)	
Call Start Time:	Call End Time:	
NSW Fire and Rescue	NSW Fire: 02 6372 6772 (Local Station) or 0417 481 256 (Non-Emergency After Hours)	
Call Start Time:	Call End Time:	
NSW Department of Planning & Environment	(02) 4224-9478 or 0417 177 749	
Call Start Time:	Call End Time:	

The following information MUST be provided to the relevant authorities:

- Time: ☐
- Date: ☐
- Nature of Incident (i.e. spill of unknown chemical, dam release with unknown properties etc.): ☐
- Duration of Incident (i.e. how long ago did it occur if known): ☐
- Location of Incident (i.e. Wilpinjong Coal Mine): ☐
- Area where pollution is occurring or is likely to occur: ☐

Estimated quantity of any pollutants involved (**IF KNOWN, DO NOT SPECULATE**): ☐

Concentration of any pollutants involved (**IF KNOWN, DO NOT SPECULATE**): ☐

The circumstances in which the incident occurred, including the cause of the incident – if known (**DO NOT SPECULATE**): ☐

Actions being undertaken to control pollution incident: ☐

Details of other information discussed captured below: ☐

Details