



CL-10-11

Pollution Incident Response Management Plan (PIRMP)

Clarence Colliery

**DOCUMENT REVIEW HISTORY**

Issue	Date	Description
1	June 2012	Initial document prepared to meet the PIRMP guidelines.
2	August 2012	Publish of Final Document.
3	December 2013	Updated of PIRMP.
4	November 2014	Review & update PIRMP
5	August 2015	Review and Update
6	August 2016	Review and Update

TESTING OF THE PLAN HISTORY

Issue	Date	Description
1	12 December 2013	Simulated phone call from member of public.
2	11 November 2014	Simulated dust complaint from member of public.
3	02 August 2015	Plan reviewed and tested following activation
4	25 August 2016	Plan reviewed and tested following activation



1.0 INTRODUCTION

1.1 Background to Clarence Colliery

Clarence Colliery Pty Ltd (Clarence) operates an underground coal mine, coal handling and preparation plant (CHPP), and water treatment plant in the Western Coalfields of New South Wales (NSW). The operation is located approximately 10 kilometres east-north-east of Lithgow.

Coal is brought to the surface via conveyor belts where it undergoes sizing, and primary and secondary crushing as necessary, before being transferred to the Run of Mine (ROM) stockpile. Coal in the ROM stockpile is pushed onto conveyors using bulldozers, where it is transferred to the CHPP (Coal Handling Preparation Plant). Depending upon coal quality (i.e. ash content) the coal is transferred via one of three conveyors to the washed coal stockpile area. Once there it may be pushed using bulldozers into piles of a desired quality for transfer off-site via haul trucks loaded using frontend loaders, or it may be pushed onto conveyors using bulldozers, for transport off-site via trains. Coal may also be moved around within the washed coal stockpile area using frontend loaders.

Coarse reject from the plant is transferred via a belt from the CHPP to a reject bin and trucked to the Reject Emplacement Area (REA). Fine reject is pumped from the thickener to belt filter presses which compress the slurry into a cake and transfer to the material stockpile.

Clarence Colliery has an Environmental Protection Licence (EPL 726), which covers the premises. The EPL outlines specific conditions for environmental monitoring and reporting.

Figures have been prepared as per the requirements of the Pollution Incident Response Management Plan Guidelines.

[CL-10-11-01 provides the location of Surface Catchment areas at Clarence Colliery.](#)

[CL-10-11-02 provides a location plan of Clarence Colliery](#)

[CL-10-11-03 provides an aerial photo noting surface infrastructure.](#)

[CL-31-01 provides the location of hydrant and Spill Locations at Clarence Colliery.](#)

[CL-31-04 provides the location of Dangerous Goods and Hazardous Substances stored at the Clarence Colliery.](#)

1.2 Key Aspects of the Plan

This plan covers the key actions to prevent a pollution incident and manage a pollution incident if one occurs (during and after a pollution incident). The plan does not have procedures for the treatment of injured persons or the remediation of the environment following a pollution incident.

The plan has been prepared for managing the impact to human health (employees and nearby neighbours) and the environment (onsite and offsite).



2.0 REQUIREMENT TO PREPARE THE PLAN

2.1 Legislative Requirement

The specific requirements for Pollution Incident Response Management Plans (PIRMP) are set out in *Part 5.7A* of the *Protection of the Environment Operations Act 1997* (POEO Act) and the *Protection of the Environment Operations (General) Regulation 2009* (POEO(G) Regulation). In summary, this provision requires the following:

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

2.2 Structure of PIRMP

Table 1 outlines the structure of the PIRMP, as per the requirements of the POEO (G) Regulation.

Table 1: Requirement to Prepare PIRMP

Clause Number	Requirement	Section in Plan
98 C (1) (a)	a description of the hazards to human health or the environment associated with the activity to which the licence relates (the relevant activity),	Section 5
98 C (1) (b)	the likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood,	Section 5
98 C (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,	Section 9.2
98 C (1) (d)	an inventory of potential pollutants on the premises or used in carrying out the relevant activity,	Section 6
98 C (1) (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,	Section 6
98 C (1) (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,	Section 7
98 C (1) (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 (iii) are responsible for managing the response to a pollution incident,	Section 10.1
98 C (1) (h)	the contact details of each relevant authority referred to in section 148 of the Act,	Section 10.2
98 C (1) (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,	9.1



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98 C (1) (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,	Section 8
98 C (1) (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,	Section 1
98 C (1) (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,	Section 9
98 C (1) (m)	the nature and objectives of any staff training program in relation to the plan,	Section 12
98 C (1) (n)	the dates on which the plan has been tested and the name of the person who carried out the test,	Section 14
98 C (1) (o)	the dates on which the plan is updated,	After table of contents
98 C (1) (p)	the manner in which the plan is to be tested and maintained.	Section 14 and Section 15

Clause 98 B (2) of the POEO (G) Regulation states that the PIRMP can form part of another statutory document. This plan forms part of the Clarence Health and Safety Management System, Emergency Management System and Environmental Management System.

3.0 DEFINITION OF A POLLUTION INCIDENT

The POEO Act 1997 defines a pollution incident as:

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

A licensee is required to notify the relevant regulatory authorities of a pollution incident if there is a risk of ‘material harm to the environment’, which is defined in section 147 of the POEO Act as:

(a) *harm to the environment is material if:*

- (i) *it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*
- (ii) *it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and*

(b) *loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.*



4.0 IMMEDIATE NOTIFICATION OF POLLUTION INCIDENT

Licensees will now be required to report pollution incidents "immediately" instead of "as soon as practicable" (section 148 POEO Act). This means that licensees need to report pollution incidents without delay.

Licensees must notify all Appropriate Regulatory Authorities (ARAs) about the incident. These include:

- Environment Protection Authority (EPA);
- Ministry of Health;
- WorkCover Authority;
- Lithgow City Council;
- Department of Planning and Environment; and
- Fire and Rescue NSW.

The procedure and contact details for the ARAs are outlined in the [SOP-2753 Pollution Incident Notification Requirements](#).

5.0 DESCRIPTION AND LIKELIHOOD OF HAZARDS AND PRE-EMPTIVE ACTIONS

This section has been prepared to meet the requirements of clause 98C (1) (a), (b) and (c) of the *POEO(G) Regulation*.

A pollution incident risk assessment for Clarence Colliery has been prepared to:

- Describe the hazards to human health and the environment;
- Describe the likelihood of any such hazards occurring;
- Outline existing controls to prevent pollution incidents occurring; and
- Outline key pollution response measures.

6.0 INVENTORY OF POTENTIAL POLLUTANTS

Table 2 outlines the potential pollutants (chemicals) stored onsite at Clarence Colliery.

An SDS is available for every chemical stored on site and can be downloaded from the CHEMWATCH database.



Table 2: Inventory of Chemicals at Clarence Colliery

Product Name	Location/s of where product is stored	Estimated Total Quantity	Comment	Storage Method
Diesel Fuel	Two above ground tanks located at the Pit Top and CHPP.	106000 L	Tanks are self bunded and are fitted with spill control and containment systems. Refer Clarence Colliery Dangerous Goods and Hazardous Substances Management Plan (DGHMP)	Double bunded storage tank, spill containment system with a pump directing spilled liquids to the sump.
Sulfuric Acid	In a bund adjacent to the coal stockpile water run-off pit. Bund has a level sensor linking to the control room to alarm of any potential spillage.	5000 L	Refer to DGHMP	Bunded white tank surrounded by a metal casing.
Potassium Permanganate	Solids storage depot in a roofed and bunded storage area at the stores compound and the Water Treatment Plant.	1500 kg	Refer to DGHMP	Sheltered bunded area.
Oil storage	Bunded and roofed storage areas in the Workshop Oil Pod Shed, Pit Top Oil Shed and Waste Oil Tank.	12000 L	Refer to DGHMP	Bunded oil storage in pods or drums.



7.0 INVENTORY OF SAFETY EQUIPMENT

Table 3 outlines the safety equipment kept on site.

Table 3: Inventory of Safety Equipment

Product Name	Location/s of where product is stored	Total Quantity	Calibration/Maintenance Requirement
Fire Extinguisher	Refer to CL-31-01 provides the location of hydrant and Spill Locations at Clarence Colliery.	Refer to CL-31-01 provides the location of hydrant and Spill Locations at Clarence Colliery.	Refer to CL-31-01 provides the location of hydrant and Spill Locations at Clarence Colliery.
Spill Kit	Refer to CL-31-01 provides the location of hydrant and Spill Locations at Clarence Colliery.	Refer to CL-31-01 provides the location of hydrant and Spill Locations at Clarence Colliery.	Refer to CL-31-01 provides the location of hydrant and Spill Locations at Clarence Colliery.
PPE	Store, Lamp Room.	Available as Store Stock and stock levels managed by purchasing system.	Available as Store Stock and stock levels managed by purchasing system.
MSDS's	Refer to DGHMP	Refer to DGHMP	Refer to DGHMP
First Aid Kit (Minor)	Refer to First Aid Management Plan	Refer to First Aid Management Plan	Refer to First Aid Management Plan
First Aid Kit (Major)	Refer to First Aid Management Plan	Refer to First Aid Management Plan	Refer to First Aid Management Plan
Floating booms for spill containment	Water Treatment Plant	2	n/a

8.0 MINIMISING HARM TO PERSONS ON THE PREMISES

All staff and contractors are to be inducted before completing any work on site.

Minimising the impact to persons at Clarence Colliery during a pollution incident must be the highest priority.

In the event that a pollution incident results in the requirement to evacuate the site, actions will be completed in accordance with the site Evacuation Procedure. All staff are informed on the location of muster locations through site inductions, signage and on going training. As part of the preparation of the PIRMP, the key aspects of the plan will be provided to staff and contractors.

Emergency reporting will be recorded on the Clarence Colliery Duty Card 1 available in the [Clarence Emergency Management System](#).



9.0 ACTIONS TO BE TAKEN BEFORE, DURING OR IMMEDIATELY AFTER A POLLUTION INCIDENT

9.1 Actions to Prevent a Pollution Incident

For each potential pollution risk, there are a number of controls outlined. Some general controls which are in place to reduce the likelihood of a pollution incident occurring include:

- Site Environmental and Safety Management Plans;
- Regular inspections and maintenance;
- Environmental monitoring;
- Correct storage and waste management; and
- Training and awareness.

The site will make all attempts to ensure pollution incidents do not occur.

The site makes all attempts to prevent pollution incidents, however in a situation where a pollution incident is imminent and may potentially cause detrimental impacts to human health or the environment, the site will contact the necessary stakeholders (employees, contractors, neighbours, ARA's) to provide as much early warning as possible.

9.2 Actions During a Pollution Incident

If an evacuation is required, this shall be completed in accordance with the [Surface Emergency Plan \(GI-1860\)](#). The Clarence Emergency Management System outlines specific actions to be undertaken.

Licensees are required to report pollution incidents *"immediately"* (without delay) to the ARA's listed in **section 10**.

In the event of a pollution incident, the person who has identified the incident should immediately contact the Clarence Colliery Site Manager or the Clarence Colliery Environment and Community Coordinator. The person reporting the pollution incident should provide the following key details:

- Their name and contact details;
- Location of the pollution incident/emergency;
- Nature of the pollution incident/emergency; and
- Details of any assistance required.

The details of any emergency call will be recorded on the Emergency Duty Card No. 1 located in the [Emergency Management Plan](#) and incident reporting will be recorded on the [Incident Report Form \(FM-1133\)](#)

The Trigger, Action, Response Plan (TARP) for [chemical/hydrocarbon spills \(TARP-2625\)](#) outlines actions to be carried out in the event of a pollution incident.

Some additional controls for managing a pollution incident include:

- Visually assess the situation. Undertake emergency response if required;



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- Contact the ARAs in accordance with the PIRMP and [SOP 2753](#);
- If safe and possible to do so, undertake immediate measures that prevent further impacts from the pollution incident;
- Take direction from the ARA's as required;
- If required seek assistance from specialist consultants/contractors; and
- Removal of hazardous waste/hydrocarbons from site requires a licenced contractor and appropriate waste tracking in accordance with the [Clarence Waste Management Plan](#).

9.3 Actions Following a Pollution Incident

If a pollution incident occurs, there will be a detailed incident investigation and a report will be sent to Centennial Corporate and relevant ARA's. The [Incident Report Form \(FM-1133\)](#) will be completed. If Clarence Colliery were notified of the pollution incident by the public then the complaint will be logged as per the [Community Concern Form \(RE-2053\)](#) and the Incident Report Form will also be completed.

Within a month following a pollution incident, the PIRMP will be reviewed and tested. Clarence Colliery will continue to liaise with the relevant ARA's to reduce the likelihood of the pollution incident re-occurring.

Incident investigation will be conducted as per the Centennial incident investigation standard.

All staff and contractors will receive the necessary refresher training, and the key outcomes of the incident investigation will be reported to staff and contractors.

10.0 CONTACT DETAILS

This section has been prepared to meet the requirements of clause 98C (1) (l) of the *POEO(G) Regulation*.

10.1 Details for those Managing the Response

The Clarence Mine Manager and Environmental Coordinator are responsible for reporting the environmental incidents.

Contact details for Clarence personnel are outlined in the [Emergency External Phone Contact List \(GI-1842\)](#)

10.2 Details for Appropriate Relevant Authorities

This section has been prepared to meet the requirements of clause 98C (1) h of the *POEO(G) Regulation*. The [Pollution Incident Notification Requirements \(SOP-2753\)](#) outlines pollution incidents notification requirements. Table 4 outlines the contact details for the appropriate regulatory authorities for reporting pollution incidents from Clarence Colliery.

Table 4. Appropriate Regulatory Authorities Contact Details

Report Type	Report to	Report Mechanism	Reported By	Report Time
Pollution	EPA	Phone; 131 555	Mine Manager or nominee	Immediately



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Reporting under the POEO Act.	Ministry of Health	Phone Dr Vicky Sheppard; (02) 98 403 603	Mine Manager or nominee	Immediately
	Workcover Authority	Phone Hotline; 131 050	Mine Manager or nominee	Immediately
	Local Authority (Lithgow City Council)	Ms Peta Lett; (02) 63 549 999	Mine Manager or nominee	Immediately
	Fire and Rescue and Police	Phone; 1300 729 579	Mine Manager or nominee	Immediately
	Department of Planning and Environment	Phone; 9228 6483	Mine Manager or nominee	Immediately

10.3 Details for Surrounding Receptors

Table 5 below provides contact details of surrounding receptors including residents at Newnes Junction and the operators of surrounding sand mining operations.

Table 5: Surrounding Receptors

Receptor	Key Contact	Contact Details
Hanson Quarry, Clarence	Manager	
Newnes Kaolin	*	*
Resident, Newnes Junction	*	*
Resident, Newnes Junction	*	*
Forests NSW	*	*
SCA	*	*

** Whilst personal contact details for the following are available in the Controlled on site Pollution Incident Response Management Plans they do not appear in this public document under provision of the Privacy and Personal Information Protection Act 1998.*



11.0 COMMUNICATION WITH NEIGHBOURS AND THE LOCAL COMMUNITY

Clarence Colliery is located close to nearby receptors. The nearest residential properties are located in Newnes Junction which are approximately 500 metres from the site. Other key features near Clarence Colliery include:

- Wollangambe River;
- Blue Mountains National Park/Greater Blue Mountains World Heritage Area;
- Bells Line of Road;
- Hanson's Sand Quarry;
- Newnes Kaolin Sand Quarry; and
- Rocla Sand Quarry.

In the event of a pollution incident, Clarence Colliery has the following processes for contacting the community:

- When an incident occurs, Clarence Colliery will immediately contact the five ARA's listed in [Pollution Incident Notification Requirements \(SOP-2753\)](#).
- Clarence Colliery will consult with these ARA's to determine if the community is to be notified of the pollution incident. Clarence Colliery will discuss with the ARA's regarding the most relevant communication strategy.
- Contact with the community to be then completed as per the agreed communication strategy.

12.0 STAFF TRAINING

This section has been prepared to meet the requirements of clause 98C (1) (m) of the *POEO(G) Regulation*.

The requirements of the PIRMP will be outlined in the site induction for all new employees and contractors. A toolbox talk outlining the key components on the PIRMP will be presented to all Clarence Colliery staff and contractors. The objective of training will be to ensure all staff and contractors are aware of the key steps to manage a pollution incident. If a pollution incident occurs, within a month of the pollution incident refresher training will be delivered to staff and contractors and the PIRMP will be reviewed and tested. An emergency simulation is conducted yearly for the life of the PIRMP. Training records and acknowledgement of Tool Box Talks are retained on Clarence's Document Management System.

13.0 AVAILABILITY OF PLAN

A copy of the PIRMP (electronic and hard copy) is kept at Clarence Colliery and a controlled version is kept on the Clarence Controlled Document System (Lotus Notes). Clarence Colliery will provide the NSW OEH (EPA) a copy upon request. The PIRMP is also available on the Centennial Coal Website.

14.0 TESTING OF PLAN

The PIRMP will be tested every twelve months as per the requirement of the *POEO(G) Regulation*. The testing of the PIRMP is carried out in such a manner as to ensure that the information included in the plan



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is accurate and up to date and that each plan is capable of being implemented in a workable and effective manner.

Testing will involve undertaking desktop simulations of incidents and if necessary completing exercises or drills. Testing will cover all the components of the PIRMP including the effectiveness of training.

Plans will also be tested within one month of any pollution incident occurring in the course of an activity to which a licence relates 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.

15.0 DOCUMENT REVIEW AND AUDIT

The [Audit & Review Standard](#) details the protocols in place to systematically undertake the audit and review functions, regarding this Management Plan. Reviews of this Management Plan will comply with the Trigger Action Response Procedure (TARP) illustrated in the below Table 6:

Table 6: TARP

Initiating Trigger	Level of Review to be Undertaken
Minor Failure of the Management Plan	Review Relevant areas of identified failure within Management Plan
Major Failure of the Management Plan	Review entire Management Plan operation looking to identify root cause of failure in event.
External Audit of the Management Plan	Review after results of audit within areas of Non Conformance or Weaknesses
Legislative Change	Review Entire Management Plan with regard to legislative changes.
3 Yearly Review from previous Implementation Date	Review Entire Management Plan taking into consideration any of the previous identified TARP responses that may have been undertaken.
As required by the Manager of Mining Engineering	Review as required depending on purpose of review
A health and safety representative requests a review under WHSR 2011	Review as required depending on purpose of review



16.0 REFERENCES

NSW Office of Environment and Heritage, Environmental Protection Licence (EPL) 726

Environmental Protection Authority 2012, Guideline for the Preparation of Pollution Incident Response Management Plans

Protection of the Environment Operations (General) Amendment (Pollution Incident Response Management Plans) Regulation 201