



Pollution Incident Response Management Plan (PIRMP)

Ivanhoe North Rehabilitation Project

DOCUMENT REVIEW HISTORY

Issue	Date	Description
1	June2012	Initial document prepared to meet the PIRMP guidelines.
2	September 2012	Review
3	December 2013	Review and Update
4	December 2014	Review and Update
5	May 2016	Review and Update
6	May 2017	Review and Update

TESTING OF THE PLAN HISTORY

Issue	Date	Description
1	5 December 2013	Simulated phone call from member of public.
2	18 December 2014	Simulated phone call from member of public
3	25 May 2016	Simulated phone call from member of public
4	23 May 2017	Simulated phone call and email from member of public

* Links to procedure and plans within this PIRMP are available on request.



1.0 INTRODUCTION

1.1 Background to Ivanhoe Colliery

Ivanhoe Coal Pty Limited's Ivanhoe North Rehabilitation Project (INRP), commenced mining operations on 8th July, 2009 and mining was completed on 26th March 2012. Mining targeted the coal remaining between the remnant high wall of the Cullen Main West open cut and the underground workings of Ivanhoe No2 Colliery.

The INRP is located within the Ben Bullen State Forest on Mining Lease (ML) 1627, and has been the subject of previous mining related operations.

The INRP operates under the Environmental Protection Licence (EPL) 13063 and Development Consent (05_0103). Mining has ceased at the INRP, and final land shaping and rehabilitation was completed in 2012. No chemicals or dangerous goods are stored on site.

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

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 Ivanhoe 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.



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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; 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

There are no potential pollutants (chemicals) stored on site or transported to Ivanhoe No2.

7.0 INVENTORY OF SAFETY EQUIPMENT

Table 3 outlines the safety equipment kept on site.

Table 2: Inventory of Safety Equipment

Product Name	Location/s of where product is stored	Calibration/Maintenance Requirement
Fire Extinguisher	Ivanhoe vehicle	Monthly (manufacturer requirement)
First Aid	Ivanhoe vehicle	As needed



8.0 MINIMISING HARM TO PERSONS ON THE PREMISES

There are no contractors or staff permanently onsite. All staff and contractors are inducted appropriately before completing any work on site.

Minimising the impact to persons at Ivanhoe 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 Ivanhoe Duty Card ([Appendix 3](#)).

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

9.1 Actions to Prevent a Pollution Incident

The [Pollution Risk Assessment \(RA-2868\)](#) outlines potential pollution incidents at Ivanhoe. 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

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 Ivanhoe Site Manager or the Ivanhoe 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



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- Details of any assistance required.

The details of any emergency call will be recorded on the Emergency Duty Card Form ([Appendix 3](#)).

Some additional controls for managing a pollution incident include:

- Visually assess the situation. Undertake emergency response if required;
- Contact the ARAs in accordance with the PIRMP;
- 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.

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 \(Appendix 4\)](#) 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 \(Appendix 5\)](#) and the Incident Report Form will also be completed.

Within a month following a pollution incident, the PIRMP will be reviewed and tested. Ivanhoe 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 Ivanhoe Mine Manager and Environmental Coordinator are responsible for reporting the environmental incidents. **Table 3.**

Table 3. Primary Contacts for INRP

Key Contact	Position	Contact details
Terry O'Brien	Site Manager	6354 8721
Tom Hollis	Environment and Community Coordinator	6354 8960



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 INRP.

Table 4. Appropriate Regulatory Authorities Contact Details

Report Type	Report to	Report Mechanism	Reported By	Report Time
Pollution Reporting under the POEO Act.	EPA	Phone; 131 555	Mine Manager or nominee	Immediately
	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

10.3 Details for Surrounding Receptors

Table 5 below provides contact details of surrounding receptors including residents at in the Portland and Cullen Bullen Area.

Table 5: Surrounding Receptors

Receptor	Key Contact	Contact Details
Resident, Back Cullen Rd	Stan Taylor	(02) 6355 5321
Resident, Boulder Rd	Jeff Taylor	0417 791 156
Forests NSW	Mrs Melanie Klootwijk Acting Stewardship Forester Macquarie Region Planted Forests Operations Branch Forests NSW	PO Box 143 Cnr Panorama Ave and Browning Street Bathurst 2795 (02) 6330 1025 Melanie.Klootwijk@fcnsw.com.au



11.0 COMMUNICATION WITH NEIGHBOURS AND THE LOCAL COMMUNITY

INRP is located close to nearby receptors. The nearest residential properties are located in neighbouring land to the west and south west are approximately 1000 metres from the site. Other key features near INRP include:

- Castlereagh Highway; and
- Invincible Colliery (Closed)

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

- When an incident occurs, Ivanhoe will **immediately** contact the five ARA's listed in **Table 4**
- The site 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 relevant Ivanhoe 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.

13.0 AVAILABILITY OF PLAN

A copy of the PIRMP (electronic copy) is kept on the Centennial Document System, and a hard copy stored in the Ivanhoe vehicle. Ivanhoe 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 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.

The PIRMP was last tested and updated on 18 December 2014. A practical exercise was carried out to ensure the PIRMP was up to date and capable of being implemented. The testing was conducted by Tom Hollis and Emma Mudford which included a phone call simulation of a pollution incident.



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