

Licence Variation



Licence - 767

METROPOLITAN COLLIERIES PTY. LTD.
ABN 91 003 135 635
PO BOX 402
HELENSBURGH NSW 2508

Attention: Mr Stephen Love

Notice Number 1627339
File Number EF13/3271
Date 09-May-2023

NOTICE OF VARIATION OF LICENCE NO. 767

BACKGROUND

- A. METROPOLITAN COLLIERIES PTY. LTD. ("the licensee") is the holder of Environment Protection Licence No. 767 ("the licence") issued under the *Protection of the Environment Operations Act 1997* ("the Act"). The licence authorises the carrying out of activities at PARKES STREET, HELENSBURGH, NSW, 2508 ("the premises").

Licence Review

- B. In late 2022, the EPA commenced a review of the adequacy of the licence in meeting the objectives of the Act. The review was initiated in response to a series of incidents at the premises during 2022 involving the discharge of turbid water containing coal to Camp Gully Creek, and the Hacking River in the Royal National Park.
- C. The EPA invited public submissions on the licence through 3 February 2023. Over 200 public submissions were received from individuals, environment groups and industry representatives. The principal areas of concern were the environmental effects of water discharges from the mine on downstream waterways and the Royal National Park. Many submissions requested that the licence be updated with new conditions including water quality and ecological monitoring programs, pollutant limits, and controls on discharges to Camp Gully Creek.
- D. The EPA has taken consideration of the public submissions in making amendments to the licence through the review process. In particular, new conditions have been attached in relation to improvements to the capture and treatment of stormwater run-off from coal stockpiles. Existing conditions requiring water quality monitoring have been expanded to be more contemporary, comprehensive, provide warning of potential incidents, and improve the management of water and coal sediment at the premises. These are in addition to the *Discharge Impact Assessment Monitoring Program* attached to the licence in February 2023.

Licence Variation



- E. The licence changes are described in more detail below and contained in the attached Notice issued in accordance with section 58 of the Act.

Background to licence amendments

- F. Heavy rainfall and runoff at the premises erodes coal from stockpiles that must be captured and removed before water can be discharged from the premises into the environment. This is done by transferring the stormwater to one of the 2 sediment basins on site where heavier suspended material settles out.
- G. The EPA has attached a new licence condition requiring a specific wet weather retention capacity for storage and treatment.
- H. To further improve performance, the EPA has attached a condition called a Pollution Reduction Program, *Options Assessment - Prevent or Minimise Discharges from the Turkey's Nest Dam*, requiring further investigation of ways to prevent or minimise the frequency of discharges from the spillway. The condition requires examination of additional storage of water, the diversion of rainfall and stormwater from coal stockpiles, and ways to limit the erosion of fine coal entering the sedimentation basins.
- I. Another condition, *Options Assessment - Stormwater Treatment to Remove Coal Fines*, requires the assessment of further treatment options to remove coal particles in the sediment basins. This could include chemical treatment and different sediment basin configurations.
- J. More stringent monitoring conditions have been attached to the licence. The monitoring will assist in the identification and response to incidents, improve knowledge of possible environmental impacts from ongoing discharges, and assess the effectiveness of environmental management practices. The new conditions include multi-analyte testing of chemicals of concern to supplement older technology-based testing parameters. This information is required to be reported on the licensee's website within 14 days of obtaining the data.
- K. *A Real Time Water Quality And Flow Monitoring* requires continuous measurement of certain parameters such as pH, conductivity and turbidity in the main discharge point (LDP7) as well as upstream and downstream in Camp Gully Creek. The results must be made publicly available as soon as practicable via the licensee's website.
- L. New conditions, including *Storage Dam Capacity Monitoring System*, require the routine measurement and removal of coal fine sediment that accumulates in the sediment basins. The intention of the conditions is to ensure that coal fines occupy a minimum volume in the basins thereby allowing the majority of the capacity for collection and treatment of rainfall run-off. The volume of sediment and available free space is also to be reported online and in the Annual Return provided to the EPA.
- M. Following clean up of the incidents in 2022, small amounts of coal are still depositing periodically in sections of the downstream waterways. The *Ongoing Waterway Monitoring and Coal Removal Program* condition requires the ongoing assessment and clean up of any coal deposited along Camp Gully Creek and sections of the Hacking River. The intent of this condition is to monitor and remove any coal deposits which appear in the waterways due to influences such as heavy rain.
- N. The new *Coal Discharge Monitoring And Response Plan* requires the company to maintain a monitoring system and level of preparedness to identify and respond immediately to any future coal discharge incidents at the premises.
- O. Both the *Surface Facilities Water Management Plan* and the *Air Quality Management Plan* must be revised. These revisions would be based on updated information in water management infrastructure,

Licence Variation



processes, and monitoring, as well as a review of the current air quality monitoring network against contemporary standards respectively.

VARIATION OF LICENCE NO. 767

1. By this notice the EPA varies licence No. 767. The attached licence document contains all variations that are made to the licence by this notice.
2. The following variations have been made to the licence:

Administrative conditions

A2 Premises or plant to which this licence applies

A2.1

Added new premises map reference

P1 Location of monitoring/discharge points and areas

P1.3

Removed point 6 (and associated licence limits).

Modified point 8 (Turkey's Nest Dam overflow) to a discharge and monitoring point.

Added GNSS co-ordinates for each discharge/monitoring point.

Modified description of monitoring points.

P1.5

Added Weather station, Point 17.

Limit conditions

L1 Pollution of waters

L2.4 Removed licence limits for oil and grease (redundant).

Operating Conditions

O4 Other operating conditions

O4.1 Added conditions for operation of sediment basins.

Monitoring Conditions

Licence Variation



M2.3 Water and/ or Land Monitoring Requirements

Point 9

Added monthly sampling during discharge for electrical conductivity, total & bicarbonate alkalinity, turbidity, dissolved aluminium, antimony, molybdenum, nickel, nitrogen (total), nitrates, phosphorous (total), reactive phosphorous. These are in addition to pH and total suspended solids.

M4 Weather monitoring

M4.1 *Added* condition for daily rainfall to be measured at the weather monitoring station.

M7 Requirement to monitor volume or mass

M7.1 *Added* continuous flow monitoring at Point 8.

M8 Other monitoring and recording conditions

M8.1 *Added* condition to monitor and record discharges through point 8.

M8.2 *Added* condition for continuous monitoring equipment availability.

Reporting Conditions

R1 Annual return documents

R1.8

Added condition for Annual Return Supplement to report monitoring data.

Pollution Studies and Reduction Programs

Added condition: Real time water quality and flow monitoring.

Added condition: Storage Dam Capacity Monitoring System.

Added condition: Options assessment – Prevent or Minimise Turkey's Nest Dam Discharges.

Added condition: Options assessment - Storm Water Treatment to Remove Coal Fines.

Added condition: Ongoing Waterway Monitoring and Coal Removal Program.

Added condition: Coal Discharge Monitoring and Response Plan.

Special Conditions

Licence Variation



Added Condition: Air Monitoring Network Review.

Added condition: Surface Facility Water Management Plan.

Removed condition: E1 Assessment of environmental impact and remediation options for coal spill.

.....
Greg Newman
Unit Head
Environment Protection Authority
(by Delegation)

INFORMATION ABOUT THIS NOTICE

- This notice is issued under section 58(5) of the Act.
- Details provided in this notice, along with an updated version of the licence, will be available on the EPA's Public Register (<http://www.epa.nsw.gov.au/prpoeo/index.htm>) in accordance with section 308 of the Act.

Appeals against this decision

- You can appeal to the Land and Environment Court against this decision. The deadline for lodging the appeal is 21 days after you were given notice of this decision.

When this notice begins to operate

- The variations to the licence specified in this notice begin to operate immediately from the date of this notice, unless another date is specified in this notice.
- If an appeal is made against this decision to vary the licence and the Land and Environment Court directs that the decision is stayed the decision does not operate until the stay ceases to have effect or the Land and Environment Court confirms the decision or the appeal is withdrawn (whichever occurs first).

Environment Protection Licence

Licence - 767

Licence Details

| | |
|-------------------|------------|
| Number: | 767 |
| Anniversary Date: | 01-January |

Licensee

METROPOLITAN COLLIERIES PTY. LTD.

PO BOX 402

HELENSBURGH NSW 2508

Premises

METROPOLITAN COLLIERY

PARKES STREET

HELENSBURGH NSW 2508

Scheduled Activity

Coal works

Mining for coal

Fee Based Activity

Scale

| | |
|-----------------|--|
| Coal works | > 2000000-5000000 T annual handling capacity |
| Mining for coal | > 2000000-3500000 T annual production capacity |

Contact Us

NSW EPA

6 Parramatta Square

10 Darcy Street

PARRAMATTA NSW 2150

Phone: 131 555

Email: info@epa.nsw.gov.au

Locked Bag 5022

PARRAMATTA NSW 2124



Environment Protection Licence

Licence - 767

| | |
|--|-----------|
| INFORMATION ABOUT THIS LICENCE | 4 |
| Dictionary | 4 |
| Responsibilities of licensee | 4 |
| Variation of licence conditions | 4 |
| Duration of licence | 4 |
| Licence review | 4 |
| Fees and annual return to be sent to the EPA | 4 |
| Transfer of licence | 5 |
| Public register and access to monitoring data | 5 |
| 1 ADMINISTRATIVE CONDITIONS | 6 |
| A1 What the licence authorises and regulates | 6 |
| A2 Premises or plant to which this licence applies | 6 |
| A3 Information supplied to the EPA | 7 |
| 2 DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND | 7 |
| P1 Location of monitoring/discharge points and areas | 7 |
| 3 LIMIT CONDITIONS | 9 |
| L1 Pollution of waters | 9 |
| L2 Concentration limits | 9 |
| 4 OPERATING CONDITIONS | 10 |
| O1 Activities must be carried out in a competent manner | 10 |
| O2 Maintenance of plant and equipment | 10 |
| O3 Dust | 10 |
| O4 Other operating conditions | 11 |
| 5 MONITORING AND RECORDING CONDITIONS | 11 |
| M1 Monitoring records | 11 |
| M2 Requirement to monitor concentration of pollutants discharged | 12 |
| M3 Testing methods - concentration limits | 13 |
| M4 Weather monitoring | 14 |
| M5 Recording of pollution complaints | 14 |
| M6 Telephone complaints line | 14 |
| M7 Requirement to monitor volume or mass | 15 |
| M8 Other monitoring and recording conditions | 15 |
| 6 REPORTING CONDITIONS | 15 |
| R1 Annual return documents | 15 |
| R2 Notification of environmental harm | 17 |



Environment Protection Licence

Licence - 767

| | | |
|----------|---|-----------|
| R3 | Written report | 17 |
| 7 | GENERAL CONDITIONS | 17 |
| G1 | Copy of licence kept at the premises or plant | 17 |
| G2 | Other general conditions | 18 |
| 8 | POLLUTION STUDIES AND REDUCTION PROGRAMS | 19 |
| U1 | Water Discharge Impact Assessment | 19 |
| U2 | Real Time Water Quality & Flow Monitoring | 21 |
| U3 | Storage Dam Capacity Monitoring System | 22 |
| U4 | Options Assessment - Prevent or Minimise Turkey's Nest Dam Discharges | 23 |
| U5 | Options Assessment - Storm water Treatment to Remove Coal Fines | 25 |
| U6 | Ongoing Waterway Monitoring and Coal Removal Program | 26 |
| U7 | Coal Discharge Monitoring and Response Plan | 26 |
| 9 | SPECIAL CONDITIONS | 27 |
| E1 | Air Monitoring Network Review | 27 |
| E2 | Update Surface Water Management Plan | 28 |
| | DICTIONARY | 29 |
| | General Dictionary | 29 |

Environment Protection Licence

Licence - 767

Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).



Environment Protection Licence

Licence - 767

The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

| |
|--|
| METROPOLITAN COLLIERIES PTY. LTD. |
| PO BOX 402 |
| HELENSBURGH NSW 2508 |

subject to the conditions which follow.

Environment Protection Licence

Licence - 767

1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

| Scheduled Activity | Fee Based Activity | Scale |
|--------------------|--------------------|--|
| Coal works | Coal works | > 2000000 - 5000000 T annual handing capacity |
| Mining for coal | Mining for coal | > 2000000 - 3500000 T annual production capacity |

A2 Premises or plant to which this licence applies

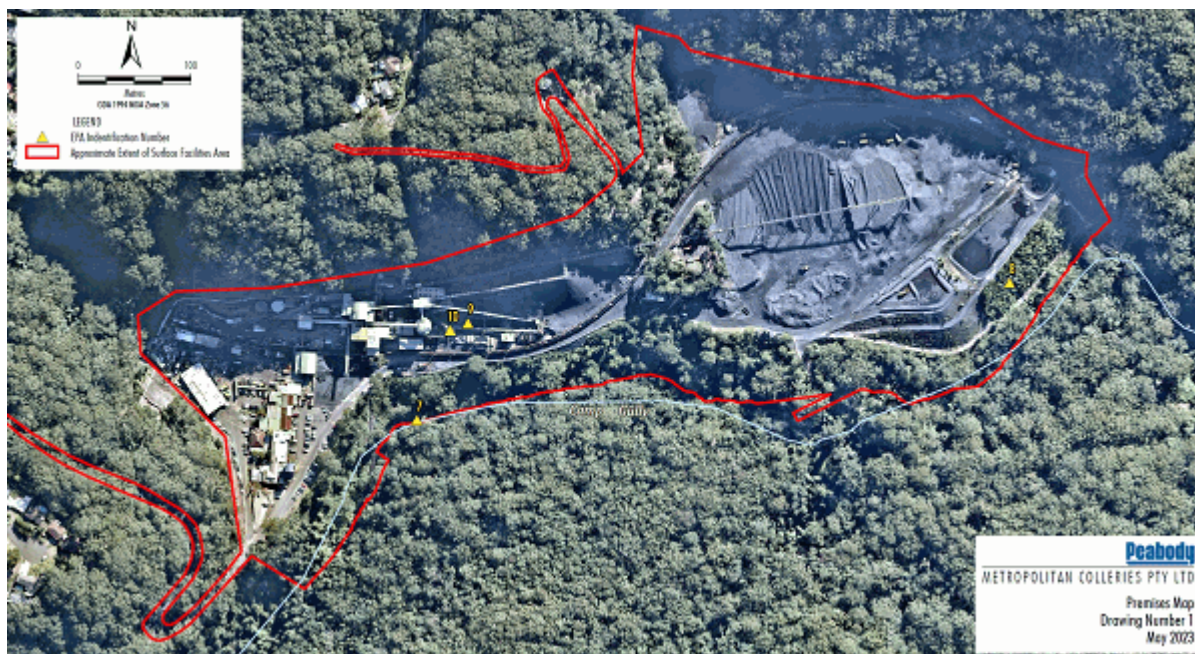
A2.1 The licence applies to the following premises:

| Premises Details |
|--|
| METROPOLITAN COLLIERY |
| PARKES STREET |
| HELENSBURGH |
| NSW 2508 |
| LOT 1 DP 229817, LOT 342 DP 752033, LOT 617 DP 752033 |
| MINING PURPOSES LEASE 276, 725 AND 1344. THE PREMISES BOUNDARY IS MARKED IN RED ON THE MAP TITLED, "PREMISES MAP, DRAWING NUMBER 1, MAY 2023" LOCATED ON EPA FILE DOC23/357066. |

A2.2 The premises location is shown on the map below.

Environment Protection Licence

Licence - 767



A3 Information supplied to the EPA

A3.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

- a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
- b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

| <i>Air</i> | | | |
|------------------------|--------------------------|-------------------------|---|
| EPA identification no. | Type of Monitoring Point | Type of Discharge Point | Location Description |
| 1 | Dust Monitoring | | Dust gauge located at 136 The Crescent labelled "1" on the "Discharge & Monitoring Points" Map. |

Environment Protection Licence

Licence - 767

| | | |
|----|------------------------|---|
| 2 | Dust Monitoring | Dust gauge located at 28 Old Station Rd labelled as "2" on the "Discharge & Monitoring Points" Map. |
| 3 | Dust Monitoring | Dust gauge located at the Mine entrance labelled as "3" on the "Discharge & Monitoring Points" Map. |
| 4 | Dust Monitoring | Dust gauge located at Helensburgh Golf Club labelled as "4" on the "Discharge & Monitoring Points" Map. |
| 5 | Dust Monitoring | Dust gauge located at 83 Parkes Street labelled as "5" on the "Discharge & Monitoring Points" Map. |
| 11 | Dust Monitoring | Dust gauge located at 59 Parkes Street labelled as "11" on the "Discharge & Monitoring Points" Map. |
| 12 | Dust Monitoring | Dust gauge located at 32 Old Station Road labelled as "12" on the "Discharge & Monitoring Points" Map. |
| 13 | Dust Monitoring | Dust gauge located at 88 Parkes Street labelled as "13" on the "Discharge & Monitoring Points" Map. |
| 14 | Dust Monitoring | Dust gauge located at Helensburgh Public School labelled as "14" on the "Discharge & Monitoring Points" Map. |
| 15 | Dust Monitoring | Dust gauge located at Helensburgh Private School labelled as "15" on the "Discharge & Monitoring Points" Map. |
| 16 | Ambient Air Monitoring | PM10 monitor located at 12 Robertson Street labelled as "16" on the "Discharge & Monitoring Points" Map. |

P1.2 All Points are marked on the map titled "Discharge & Monitoring Points, Drawing Number 2, May 2023" held on EPA file DOC23/357066-1.

Note: The above points may be revised as an outcome of the Air Monitoring Review.

P1.3 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

P1.4 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

Water and land

| EPA Identification no. | Type of Monitoring Point | Type of Discharge Point | Location Description |
|------------------------|--------------------------|-------------------------|---|
| 7 | | Discharge to Waters | The outlet of the concrete flume from the Water Treatment Plant to Camp Gully Creek and labelled "7" on the Premises Map. Lat. long -34.188148, 150.993095. |

Environment Protection Licence

Licence - 767

| | | | |
|----|---|---|--|
| 8 | Discharge to Waters: Volume Monitoring | Discharge to Waters: Volume Monitoring | The overflow weir on the spillway at the Turkey's Nest Dam flowing to Camp Creek and labelled "8" on the Premises Map. Lat. long -34.187060, 150.998842 |
| 9 | Effluent Quality Monitoring | | The sampling tap at the clean water tank of the Water Treatment Plant and labelled "9" on the Premises Map. Lat. long. -34.187527, 150.993675 |
| 10 | Volume Monitoring | | The flowmeter on the pipeline discharging from the clean water tank in the Water Treatment Plant and labelled "10" on the Premises Map. Lat. long -34.187476, 150.993682 |

Note: The "Premises Map" is the document titled, "METROPOLITAN COLLIERIES PTY. LTD. Premises Map. Drawing Number 1. May 2023" and held on EPA file DOC23/357066.

P1.5 The following points referred to in the table below are identified in this licence for the purposes of weather and/or noise monitoring and/or setting limits for the emission of noise from the premises.

Noise/Weather

| EPA identification no. | Type of monitoring point | Location description |
|------------------------|--------------------------|---|
| 17 | Meteorological Station | Weather station at 12 Robertson Street Helensburgh labelled as "17" on the "Discharge & Monitoring Points" Map. |

3 Limit Conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Concentration limits

L2.1 For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

L2.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

L2.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those

Environment Protection Licence

Licence - 767

specified in the table/s.

L2.4 Water and/or Land Concentration Limits

POINT 7

| Pollutant | Units of Measure | 50 percentile concentration limit | 90 percentile concentration limit | 3DGM concentration limit | 100 percentile concentration limit |
|------------------------|---------------------|-----------------------------------|-----------------------------------|--------------------------|------------------------------------|
| pH | | | | | 6.5 - 8.5 |
| Total suspended solids | milligrams per gram | | | | 30 |

Note: The monitoring at Point 9 required by condition M2 is to be conducted by the licensee to determine compliance with the limits specified for Points 7 in condition L2.4. A non-compliance is only taken to have occurred if the results of water quality monitoring required by the licence at point 9 are greater than the limits in L2.4 and there is a discharge occurring from Points 7 at the time of sampling.

Note: Additional pollutants may be added to the above table as an outcome of Condition U1: *Water Discharge Impact Assessment*.

4 Operating Conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:

- a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:

- a) must be maintained in a proper and efficient condition; and
- b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the

Environment Protection Licence

Licence - 767

premises.

O4 Other operating conditions

O4.1 Sediment Basin Management

The licensee must:

- I. maintain sediment accumulated in the Turkey's Nest Dam and Settling Pond below 25% of the total volume of each storage, averaged over 12 months.
- II. empty the Turkey's Nest Dam of accumulated sediment & water every second year for inspection and maintenance.
- III. empty the Settling Pond of accumulated sediment & water every second (alternate) year for inspection and maintenance
- IV. until the completion of the condition *Storage Dam Capacity Monitoring System*, monitor the volume of sediment and percentage of the total volume in Turkey's Nest Dam fortnightly and provide the results available to the EPA upon request.
- V. maintain wet weather storages at the premises to retain 160 millimetres of rainfall over any consecutive five-day period,
- VI. report the relevant monitoring data, verification information, and a short explanation on each of the above in the Annual Return Supplement.

Note: The EPA will give consideration to extreme rainfall events should there be any non compliance with the above requirements.

Note: These conditions may change as an outcome of one of the Pollution Reduction Programs on this licence or as other relevant information becomes available.

5 Monitoring and Recording Conditions

M1 Monitoring records

- M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.
- M1.2 All records required to be kept by this licence must be:
- a) in a legible form, or in a form that can readily be reduced to a legible form;
 - b) kept for at least 4 years after the monitoring or event to which they relate took place; and
 - c) produced in a legible form to any authorised officer of the EPA who asks to see them.
- M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
- a) the date(s) on which the sample was taken;
 - b) the time(s) at which the sample was collected;
 - c) the point at which the sample was taken; and
 - d) the name of the person who collected the sample.

Environment Protection Licence

Licence - 767

M2 Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

M2.2 Air Monitoring Requirements

POINT 1,2,3,4,5

| Pollutant | Units of measure | Frequency | Sampling Method |
|--------------------|----------------------------------|-----------|------------------------------------|
| Ash | grams per square metre per month | Monthly | Australian Standard 3580.10.1-2003 |
| Combustible solids | grams per square metre per month | Monthly | Australian Standard 3580.10.1-2003 |
| Insoluble solids | grams per square metre per month | Monthly | Australian Standard 3580.10.1-2003 |

POINT 11,12,13,14,15

| Pollutant | Units of measure | Frequency | Sampling Method |
|--------------------|----------------------------------|-----------|------------------------------------|
| Ash | grams per square metre per month | Monthly | Australian Standard 3580.10.1-2003 |
| Combustible solids | grams per square metre per month | Monthly | Australian Standard 3580.10.1-2003 |
| Insoluble solids | grams per square metre per month | Monthly | Australian Standard 3580.10.1-2003 |

POINT 16

| Pollutant | Units of measure | Frequency | Sampling Method |
|-----------|----------------------------|-----------|----------------------|
| PM10 | micrograms per cubic metre | Monthly | AS/NZS 3580.9.6:2003 |

M2.3 Water and/ or Land Monitoring Requirements

POINT 9

| Pollutant | Units of measure | Frequency | Sampling Method |
|-----------------------------------|----------------------|--------------------------|-----------------|
| Alkalinity (as calcium carbonate) | milligrams per litre | Monthly during discharge | Grab sample |
| Aluminium (dissolved) | micrograms per litre | Monthly during discharge | Grab sample |

Environment Protection Licence

Licence - 767

| | | | |
|-------------------------|-------------------------------|--------------------------|-------------|
| Antimony (dissolved) | micrograms per litre | Monthly during discharge | Grab sample |
| Bicarbonate alkalinity | milligrams per litre | Monthly during discharge | Grab sample |
| Electrical conductivity | microsiemens per centimetre | Monthly during discharge | Grab sample |
| Molybdenum (dissolved) | micrograms per litre | Monthly during discharge | Grab sample |
| Nickel (dissolved) | micrograms per litre | Monthly during discharge | Grab sample |
| Nitrogen (total) | micrograms per litre | Monthly during discharge | Grab sample |
| Nitrogen Oxides | micrograms per litre | Monthly during discharge | Grab sample |
| pH | pH | Monthly during discharge | Grab sample |
| Phosphorus (total) | micrograms per litre | Monthly during discharge | Grab sample |
| Reactive Phosphorus | micrograms per litre | Monthly during discharge | Grab sample |
| Total suspended solids | milligrams per litre | Monthly during discharge | Grab sample |
| Turbidity | nephelometric turbidity units | Monthly during discharge | Grab sample |
| Vanadium (dissolved) | micrograms per litre | Monthly during discharge | Grab sample |

Note: These requirements may change as an outcome of condition U1, *Water Discharge Impact Assessment*.

M3 Testing methods - concentration limits

M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:

- any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
- if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or
- if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The *Protection of the Environment Operations (Clean Air) Regulation 2022* requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

M3.2 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

Environment Protection Licence

Licence - 767

M4 Weather monitoring

M4.1 At the point(s) identified below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units of measure, averaging period and sampling frequency, specified opposite in the Columns 2, 3, 4 and 5 respectively.

POINT 17

| Parameter | Sampling method | Units of measure | Averaging period | Frequency |
|-----------|-----------------|------------------|------------------|------------|
| Rainfall | Continuously | millimetres | 24 hours | Continuous |

M5 Recording of pollution complaints

M5.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M5.2 The record must include details of the following:

- a) the date and time of the complaint;
- b) the method by which the complaint was made;
- c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- d) the nature of the complaint;
- e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- f) if no action was taken by the licensee, the reasons why no action was taken.

M5.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M5.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M6 Telephone complaints line

M6.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M6.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M6.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

Environment Protection Licence

Licence - 767

M7 Requirement to monitor volume or mass

M7.1 For each discharge point or utilisation area specified below, the licensee must monitor:

- a) the volume of liquids discharged to water or applied to the area;
- b) the mass of solids applied to the area;
- c) the mass of pollutants emitted to the air;

at the frequency and using the method and units of measure, specified below.

POINT 8

| Frequency | Unit of Measure | Sampling Method |
|------------|--------------------|---|
| Continuous | kilolitres per day | Electronic level sensor and continuous logger |

POINT 10

| Frequency | Unit of Measure | Sampling Method |
|------------|--------------------|----------------------------------|
| Continuous | kilolitres per day | Flow meter and continuous logger |

M8 Other monitoring and recording conditions

M8.1 The licensee must monitor and record the following information in relation to discharges that occur through point 8:

- a) the time, date and length of time that a discharge occurs;
- b) the daily volume of discharge;
- c) the cumulative rainfall total for the preceding 5 days up to the time of discharge; and
- d) the quantity of sediment and water stored in both dams prior to, during, and following the rainfall and discharge events.

The information above must be reported in the Annual Return Supplement.

M8.2 All continuous monitoring equipment must be operated and maintained to achieve an availability of 90% of the time during the reporting period.

6 Reporting Conditions

R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

1. a Statement of Compliance,
2. a Monitoring and Complaints Summary,
3. a Statement of Compliance - Licence Conditions,
4. a Statement of Compliance - Load based Fee,
5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,

Environment Protection Licence

Licence - 767

- 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
- 7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee notification that the Annual Return is due.

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

R1.3 Where this licence is transferred from the licensee to a new licensee:

- a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
- b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:

- a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
- b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- a) the licence holder; or
- b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R1.8 Annual Return Supplement

The licensee must submit an Annual Return Supplement to the EPA for each reporting period with the Annual Return.

The Supplement must include the following information:

- a) All monitoring data collected for Point 9 excluding data collected by continuous monitoring.
- b) Any monitoring data or information required under condition O4.1 and M8.1 in this licence.

Environment Protection Licence

Licence - 767

R2 Notification of environmental harm

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which they became aware of the incident.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:

- a) where this licence applies to premises, an event has occurred at the premises; or
- b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:

- a) the cause, time and duration of the event;
- b) the type, volume and concentration of every pollutant discharged as a result of the event;
- c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
- d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
- g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

7 General Conditions

G1 Copy of licence kept at the premises or plant

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

Environment Protection Licence

Licence - 767

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

G2 Other general conditions

G2.1 Completed Programs

| Program | Description | Completed Date |
|--|--|------------------|
| PRP1: Wastewater Collection and Treatment System | Wastewater collection and treatment system installed to collect and treat contaminated surface stormwater runoff from the coal and coal waste stockpile area catchments. | 30-June-1997 |
| PRP2: Turkeys Nest Pond and Pumping System Upgrade | Turkeys Nest Pond and Pumping System upgrade to ensure no discharge of contaminated runoff into Camp Creek. | 31-October-2000 |
| PRP3: Settlement Pond Upgrade | Settlement Pond upgrade to enhance the collection and treatment of contaminated stormwater from the upper catchment of the premises | 31-December-2000 |
| PRP4: Taj Mahal Upgrade | Taj Mahal upgrade to facilitate the use of stormwater for operational purposes and to provide a means of underground disposal of excess contaminated stormwater from significant rainfall events. | 31-January-2001 |
| PRP5: Dust Monitoring Program | Install dust deposition monitoring network. Assess the impact of dust from coal mine on local community | 31-March-2003 |
| PRP6: Surface Dust Action Plan | Complete a surface dust action plan. Minimise the impact of dust from coal mine | 30-June-2003 |
| PRP7: Surface Water Assessment | Prepare a surface water management plan including surveys of all water containment structures and determine storm event (24hr) that site can capture and treat. Protect Hacking River Catchment and make licence more enforceable by determining capacity of site to capture and treat stormwater run off. | 31-August-2004 |
| PRP8: Improvement to Dust Suppression Systems | Prepare and submit a report investigating installation of additional stockpile sprays. Installation of sprays to reduce impact of dust on community | 31-August-2004 |
| PRP9: Noise Assessment Report | Assess noise from the premises in accordance with INP and determine if they meet requirements of the policy. Eliminate public concern caused by machinery operations at night and prepare noise limits for licence | 31-October-2004 |
| PRP10: Improvements to Rail Line Dust Supression | Install six additional dust supression sprays along the rail line near the stockpile. Reduce dust emissions from the stockpile and during rail loading operations | 31-December-2005 |

Environment Protection Licence

Licence - 767

| | | |
|---|---|-------------------|
| PRP11: Noise Emission Reduction Program | Noise Emission Reduction Program Report. Investigate measures to reduce noise emissions from the premises with the aim of meeting the noise criteria outlined.(+) | 30-April-2006 |
| PRP12: Stage 2 Noise Investigation and Mitigation | Stage 2 Noise Investigation and Mitigation Program. Identify reasonable and feasible noise controls and management measures for the premises.(+) | 31-March-2008 |
| PRP13: Coal Mine Particulate Matter Control Best Practice | Requires licensee to conduct a site specific Best Management Practice (BMP) determination to identify ways to reduce particle emissions | 21-September-2012 |
| EIP 1: Rail Wagon Profiler | Installation of a rail noise profiler to reduce noise and dust emissions | 30-June-2018 |

8 Pollution Studies and Reduction Programs

U1 Water Discharge Impact Assessment

U1.1 Discharge Impact Assessment Monitoring Program

The Licensee must engage a suitably qualified and experienced person to prepare and undertake an assessment of the environmental impact of discharges from the premises on Camp Gully Creek (Camp Creek) and the Hacking River.

The assessment must include at a minimum the following.

Water Quality Impact Assessment

Identification of all potential pollutants which may be present in discharges from the water treatment plant point 7 (LDP 7) and overflows from the Turkey's Nest Dam LDP 8 that pose a risk of nontrivial harm to human health or the environment. The list of potential pollutants is expected to include but not necessarily be limited to:

pH, turbidity, total suspended solids, EC, dissolved oxygen (% saturation), alkalinity (speciated), hardness, total and filtered metals (ICPMS & ICPAES), major cations and anions, nutrients (ammonia, oxides of nitrogen, total nitrogen, filterable reactive phosphate, total phosphorus).

Sampling of discharges from LDP 7 and LDP 8, and at sites on Camp Creek (upstream and downstream of the discharges), and the Hacking River for identified potential pollutants of concern on at least seven independent sampling dates.

- I. The licensee must consult with the EPA regarding the locations of the proposed sampling sites.
- II. Sampling of sites in Camp Creek must be undertaken to reflect the maximum concentration of potential pollutants caused by discharge from LDP 7.
- III. Sampling may be undertaken from LDP 9 to determine water quality for LDP 7 due to the difficulty of access to point 7.
- IV. If during the sampling period, a discharge of water does not occur from LDP 8, the licensee must take representative water samples from the turkey's nest dam and/or settling pond.
- V. The sampling should attempt to capture the full variability of water quality discharged including

Environment Protection Licence

Licence - 767

average and worst-case scenarios for the range of operational processes and rainfall conditions that may materially impact discharge water quality.

VI. The level of reporting for concentrations of pollutants should be sensitive enough to detect pollutants at levels related to their environmental risk and ANZG default guideline value for high conservation value ecosystems (where available) while having regard to the best available analytical practical quantification limits using available technology.

VII. Reference to ANZG in this licence is a reference to the current online version of the Australian & New Zealand Guidelines for Fresh & Marine Water Quality.

Flow Assessment

Determination of flow rates and volumes in Camp Creek below the discharge points during the assessment period in order to determine the dilution of discharges under varying climatic conditions.

Details of number and volume of discharges occurring from the premises during the assessment period, including the times, flow rates and volumes of discharges.

Macroinvertebrate Assessment

Quantitative sampling and analysis of macroinvertebrates at sampling locations along Camp Creek and the Hacking River upstream and downstream of the discharges. There must be at least four sampling events with one sampling event undertaken during Autumn of 2023. The sampling events may include surveys already undertaken by the licensee in 2022.

Toxicity testing

Toxicity testing on at least three sampling occasions using the test species and methodology given below.

Testing must be carried out at LDP7 and LDP8 as well as at an upstream sampling point and the nearest downstream sampling point(s) representative of fully mixed conditions.

Toxicity testing should be undertaken using receiving water as the diluent.

| Species | Sampling Method | Sampling Frequency |
|--|--|--|
| Ceriodaphnia dubia | Chronic toxicity US EPA Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 4th Edition (2002), EPA-821-R-02-013.) | Three times (minimum of 30-day intervals) |
| Melanotaenia duboulayi (Crimson spotted rainbowfish) or Melanotaenia splendida (Eastern Rainbowfish) | 96-hour larval imbalance test US EPA (2002). Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms. 5 ed. EPA-821-R-02-012. Washington DC, USA | Three times (minimum of 30-day intervals) |

Environment Protection Licence

Licence - 767

Raphidocelis subcapitata
(Selenastrum capricornutum)

Growth test method US EPA Short-term
Methods for Estimating the Chronic
Toxicity of Effluents and Receiving
Waters to Freshwater Organisms, 4th
Edition (2002), EPA-821-R-02-013.)

Three times
(minimum of 30-day intervals)

U1.2 Sediment Assessment

Identification of potential pollutants from LDP 7 and LDP 8 that can accumulate in sediment, and which may pose a risk of nontrivial harm to human health or the environment.

Collection and analysis of sediment samples for identified potential pollutants of concern. The samples should be taken from locations in Camp Creek and the Hacking River at sampling sites to characterise the extent of potential impacts from the discharge at LDP 7 and LDP 8.

The sample design should take consideration of recommendations in ANZG for assessment against "Toxicant default guideline values for sediment quality". Where no default guideline values are available for a pollutant of concern, a natural background reference site should be used.

The licensee must submit a draft Discharge Impact Assessment plan for the discharge impact assessment program to the EPA for review by **28 February 2023**.

Received by EPA on 28 February 2023.

U2 Real Time Water Quality & Flow Monitoring

U2.1 Background

The premises currently has 2 licensed discharge points to Camp Gully Creek: the water treatment plant (LDP7) and the Turkey's Nest Dam spillway (LDP8). Camp Gully Creek flows through the adjacent Royal National Park before joining the Hacking River. The pre-existing licence monitoring requirements were limited to simple water quality parameters intended to verify the performance of the treatment plant. The monitoring occurred monthly and did not match the intermittent nature of discharges, or account for the sensitive receiving water catchment.

The aim of this PRP is for the licensee to develop a contemporary, real time monitoring system that can detect variations in ambient water quality caused by discharges from the mine. This will enable the licensee to rapidly detect and manage potential water quality incidents, provide information on the effect of the discharge on water quality under varying river flow conditions, and make the information publicly available on the licensee's website.

Requirements

Unless otherwise agreed in writing by the EPA:

1. By 19 May 2023 the licensee must submit a scoping document (including timelines) for the installation of new water quality and flow monitoring systems at the premises to the EPA. The system must include continuous real time monitoring at the following locations:

- a. upstream of the mine in Camp Gully Creek;
- b. downstream of the mine in Camp Gully Creek (in the vicinity of the railway corridor);
- c. at the water treatment plant LDP7; and
- d. at the spillway LDP8.

Environment Protection Licence

Licence - 767

The Scoping Document must be accompanied by a revised Premises Map incorporating the new monitoring locations (a and b above).

The system must provide continuous real time readings for the following parameters:

- a. water quality (electrical conductivity, turbidity, temperature and pH); and
- b. water flowrates from LDP 7 and LDP 8.

2. By 15 July 2023 the licensee must have installed and commenced operation of the monitoring system.

3. By 31 August 2023 the licensee must develop and submit a Trigger Action Response Plan (TARP) that includes water quality and water flow trigger levels at which actions and responses will be implemented.

The system must have the capability of notifying appropriate site personnel(s) in real time of potential water pollution in Camp Gully Creek as a result of incidents at the premises. The licensee must make the data publicly available in real time on the Licensee's website.

4. By 31 June 2024, the licensee must review the effectiveness of the entire system including real time monitoring, notifications, publicly available data and trigger levels and submit a report on the outcomes of the review. The report must include an evaluation of performance and provide recommendations about the ongoing usage of real time monitors for water quality and water flow.

Due Dates:

1. Water quality real-time monitoring methodology – 19 May 2023
2. System install and commissioning – 15 July 2023
3. Trigger Action Response Plans – 31 August 2023
4. System Review - 31 June 2024

U3 Storage Dam Capacity Monitoring System

U3.1 Background

The premises water management system includes two sediment retention dams: the "Settling Pond" and the "Turkey's Nest Dam" (the Dams). Contaminated water from the mine, coal processing areas, stockpiles and stockpiling areas report to the dams. The water management system was unable to consistently manage the water flows and sediment loads during wet weather in 2021 and 2022. Coal accumulating in the dams reduced the available storage volume and increased the number of discharge events during 2021 and 2022. This condition requires the licensee to propose a sediment and water monitoring system to inform and help facilitate improved dam management practices.

Requirements

Unless otherwise agreed in writing by the EPA:

1. By 15 June 2023 the licensee must develop and submit a proposal for a dam capacity monitoring system to the EPA. The proposal must include a methodology to determine the available dam volume for capture and storage of water in real time. The methodology must be able to continuously monitor the depth and quantity of

Environment Protection Licence

Licence - 767

solids and water in both Dams. The methodology must account for providing representative information on sediment levels across both dams.

2. A due date for the operational system will be added to this licence following submission of the above methodology.

Notes:

1. The EPA anticipates this system will be integrated with other existing and proposed real time monitoring systems at the premises and will be utilised in broader management plan(s) for water management at the premises.

2. The EPA proposes to add further conditions in relation to dam management following the completion of other PRPs at the premises.

Due Dates:

1 System Methodology: 15 June 2023

2 System Commissioning: To be determined (anticipated Q3 2023)

3 Integration with Real Time Monitoring System: To be determined (anticipated Q3 2023)

U4 Options Assessment - Prevent or Minimise Turkey's Nest Dam Discharges

U4.1 Background

The water management system at the premises captures contaminated stormwater that runs off coal stockpiles and coal handling areas. The stormwater collection system includes two main catchment areas with 6 stockpiles and 2 sediment retention basins: the "Settling Pond" and the "Turkey's Nest Dam" (the Dams). Contaminated water from coal processing areas, stockpiles, and stockpiling areas reports to the dams. Contaminated water from the mine's underground workings is also pumped to the dams.

Stormwater runoff water and underground water contain suspended solids (herein called coal fines) and dissolved salts including dissolved metals and bicarbonate. Contaminated water in the dams is treated by filtration to remove suspended solids before discharge from LDP 7. During wet weather, untreated water may overflow from the Turkey's Nest Dam spillway (LDP 8) to Camp Gully Creek.

The Turkey's Nest Dam discharged during wet weather periods in 2021 and 2022. Coal fines that had deposited in the dams reduced the volume of stormwater runoff that was able to be captured and treated prior to discharge. The removal of coal fines from the dams was limited by the ability of the washery plant to accept and process the fines. The result was a series of discharges where quantities of coal material entered Camp Gully Creek and the Hacking River. The EPA contends that actions could have been taken to reduce the level of coal fines in the dams and prevent or minimise the incidents.

The aim of this PRP is to engage a suitably qualified and experienced professional or company to investigate all reasonable and feasible options to avoid discharges occurring through point 8 in the first instance and then if discharges are unavoidable, to reduce the frequency of any discharges.

Requirements

Unless otherwise agreed in writing by the EPA:

1. By the 23 June 2023 the licensee must propose a suitably qualified professional/s or company/ies

Environment Protection Licence

Licence - 767

(expert/s) to the EPA with experience in mine stockpile and stormwater management to undertake the required investigations.

2. The approved expert/s must investigate all reasonable and feasible options to avoid discharges and if discharges are unavoidable, reduce the frequency of discharges that occur from the Turkey's Nest Dam (point 8) during wet weather events.

The options examined must include but not be limited to the following:

a) Increased capacity to capture and store rainfall runoff.

The expert/s must assess options to increase the water storage capacity to capture a greater volume of run-off. This must include, but may not be limited to, expanding or deepening the existing storage basins, finding new areas for water storage, and maintaining contingency storage in the old mine workings.

b) Reduction in coal fines runoff and contaminated stormwater generated.

The expert/s must assess options for each stockpile to minimise the generation of water contaminated with coal fines when exposed to rainfall or stormwater runoff.

The options must include, but are not limited to, diverting or piping stormwater flows around stockpiles, covering or installing roofs over stockpiles (particularly highly ranked stockpiles), constructing enclosures or sheds, applying binders to any longer term or less active stockpiles, and installing stormwater diversions around stockpiles.

The licensee must also assess options to minimise the volume of contaminated water that reports to the dams. The options must include but may not be limited to direct reuse in surface equipment, retention underground, diversion back to mine workings, or treatment prior to storage in the dams.

The licensee must assess the feasibility of each option with consideration of factors including reduced sediment load, cost, and impediment to site operations.

c) Increased rate of removal of water and coal fines from the dams.

The expert/s must assess options to increase the rate of removal and processing of coal fines and water from the dams. The options must include but are not limited to: coal handling plant upgrade(s) to increase the maximum slurry transfer rate; examination of the increased rate of transfer of contaminated water from the dams for treatment in the water treatment plant; processing systems that are separate to the coal handling plant to remove and dewater coal fines and combine them with exported product coal. These should include, for example, belt presses and drying beds used in combination with mixing mill(s).

3. Water Balance Model

A water balance model using a daily timestep analysis must be prepared to compare the effectiveness of the options identified (above 2a – 2c) with:

- The baseline water management system that was in place on 31 December 2022
- A type D sediment basin in a sensitive receiving catchment following 'Managing Urban Stormwater: Soils and Construction (vol 1)' and 'Mines and Quarries (vol 2E)'.

A report which details the above works and assesses the feasibility of implementing the identified options must be submitted to the EPA by the due date.

Due Date: To be determined with consideration of Expert advice.

Environment Protection Licence

Licence - 767

U5 Options Assessment - Storm water Treatment to Remove Coal Fines

U5.1 Background

Stormwater from the pit top area and some groundwater from mining activities are stored in the 2 retention basins at the premises: the Settling Pond and the Turkey's Nest Dam (the dams). The dams rely on settling to remove coal particles and suspended material (coal fines) prior to reuse on site or discharge.

Discharges can contain elevated levels of coal fines.

The aim of this PRP is to assess options to upgrade dam infrastructure and stored water treatment to improve the quality of any discharges.

Note: The requirements of this PRP may be varied with consideration of the outcomes of the *Options Assessment – Prevent of Minimise Turkey's Nest Dam Discharges* condition.

Requirements

Unless otherwise agreed in writing by the EPA:

1. By the due date the licensee must propose a suitably qualified and experienced professional (expert) to the EPA with experience in designing and implementing treatment systems which remove coal fines from stormwater.

The approved expert must undertake an options assessment of upgraded dam infrastructure and retained water treatment and propose some conceptual designs for systems which could be implemented at the premises. The system should be designed to maximise the removal of coal fines of any discharge.

2. By the due date the EPA approved professional must undertake an options assessment and submit a report to the EPA for treatment system/s options.

3. The system assessment report must include, but may not be limited to,

- chemical flocculation and / or coagulation at one or both of the 2 dams. This must include High Efficiency Sediment (HES) Basins and associated infrastructure (forebay, dosing system, level spreader, decanting system, and spillway discharge) the premises, and physical treatment.

b) physical treatment systems such as filtration and gravity separation

The options report must assess, but may not be limited to the following the following considerations: available space, design options and configurations for both dams; infrastructure locations, costs, appropriate dosing systems, suitable chemicals and potential toxicity, expected improvements to discharge water quality, the frequency of discharges, and operation with current management systems e.g. offtake to the washery

4. The report must include potential conceptual design configurations on site.

Due Date: To be determined with consideration of Condition U4 outcomes and Expert advice. (Anticipated Q4 2023)

Environment Protection Licence

Licence - 767

U6 Ongoing Waterway Monitoring and Coal Removal Program

U6.1 Background

In response to discharges of coal sediment from the premises in July and September 2022 (the incidents) the EPA issued legal notices requiring the removal of the coal from Camp Gully Creek and the Hacking River.

These clean up activities required planning approval from the National Parks and Wildlife Service and were undertaken in accordance with approved protocols and with ecological oversight.

While the main clean up of material from these incidents has been completed, coal material has reappeared periodically in these waterways, usually after rainfall. It is possible that rainfall and elevated water levels remobilise some deposited coal remaining in the waterways.

Aim

The aim of this condition is to oversee the development and implementation of an ongoing monitoring and clean up response program to any remobilised coal from the 2022 incidents.

Requirements

Unless otherwise agreed in writing by the EPA:

1. By 1 June 2023, the licensee must submit a draft Ongoing Monitoring and Clean up Response Program methodology to the EPA. The program must include, but may not be limited to:

- The geographical extent to the monitoring;
- The monitoring locations in Camp Gully Creek and the Hacking River;
- Ecological oversight;
- The triggers which will prompt monitoring e.g. time period, rainfall quantity;
- The criteria which will prompt clean up e.g. scale of deposited material;
- The clean up response including size of clean up crew, clean up methods, site access, liaison with landowners, removal of material, management of collected coal; and
- Proposed program length and review steps

2. By 30 June 2023 the licensee must implement the program.

Due Date: 30 June 2023

U7 Coal Discharge Monitoring and Response Plan

U7.1 Background

The clean up response to discharges of coal from the premises in 2022 was slowed by the development of monitoring & clean up protocols, contractor & specialist acquisition, planning approvals, and on site resourcing.

Aim

Environment Protection Licence

Licence - 767

The aim of this condition is to develop and maintain a response plan to:

1. enable the detection of,
2. facilitate an immediate and structured response to, and
3. facilitate a prompt clean up of any incidents involving the discharge of coal from the premises.

Requirements

Unless otherwise agreed in writing by the EPA:

By 30 July 2023 the licensee must develop and maintain a Coal Discharge Response Plan.

The plan must:

- account for a range of pollution scenarios, scales of events, locations, extents (distance from the premises), and necessary responses.
- incorporate a monitoring program to immediately detect incidents involving coal discharges and an associated trigger action response.
- Prompt an immediate on ground assessment / identification process.
- Result in the activation of an incident management team at the premises.
- Maintain planning approval/s for access and clean up protocols / methodologies / activities on all relevant downstream properties. For example REFs with National Parks, Crown Lands, NSW Fisheries, Transport for NSW.
- Involve consultation, input, or approvals from other relevant stakeholders e.g. aboriginal or community groups.
- Include notification protocols to regulatory bodies, landowners and stakeholders.
- Maintain access to resources dedicated to incident response, coordination, and clean up. This must include on site personnel, specialists (technical and environmental), contractors, and equipment.
- Detail response, coordination, and clean up actions.
- Be incorporated into the Pollution Incidents Response and Management Plan.

Due Date: 30 July 2023

9 Special Conditions

E1 Air Monitoring Network Review

E1.1 Aim

To review the current Air Quality Management Plan (AQMP) and the associated air quality monitoring network to ensure the monitoring equipment, locations, and the data collected is accurate, representative, and suitable for the intended use (fit for purpose).

Background

The effectiveness of dust controls in coal mining is an important aspect of environmental performance. Dust generated from coal mining has the potential to cause impacts, including amenity impacts to surrounding residential areas. Ambient air monitoring is an important component of an overall air quality management system and should form an integral part of a licensee's environmental management strategy. Monitoring networks should be fit for purpose and suitably time-resolved to ensure the data collected can be used in an

Environment Protection Licence

Licence - 767

effective and timely manner. This condition requires the licensee to review the current the AQMP, specific site dust controls, past monitoring data and the current air quality monitoring network to ensure they remain fit for purpose.

Requirements

Unless otherwise agreed in writing by the EPA:

1. Undertake a comprehensive review of the existing AQMP, specific site air quality controls and the current air monitoring network. The review should include but may not be limited to:

- a) an assessment of the objectives and the adequacy of the plan to effectively monitor, detect and respond to ongoing emissions, day to day mine activities and potential environmental incidents.
- b) a review of historical air monitoring data collected over the past 10 years to assess trends.
- c) consideration of the existing monitoring equipment including a replacement of dated technology with contemporary real-time devices that are able to inform trigger action response plans (TARPS) .
- d) consideration of the monitor locations to ensure they effectively assess emissions from the premises and impacts to the surrounding residential areas.

2. By 15 December 2023 submit a revised AQMP and a proposal with suggested modifications to the current site air quality controls and air quality monitoring network based on the outcome of the review.

Note: The EPA proposes to add further conditions to implement the approved changes.

Due date: 15 December 2023

E2 Update Surface Water Management Plan

E2.1 Requirements

Unless otherwise agreed in writing by the EPA, by 30 November 2023 the licensee must update the Surface Facilities Water Management Plan (dated August 2019) by the due date below. The updated plan must reflect the current operation and include revised maps and/or photographs, facility description, storage capacity, monitoring program, management measures, and licence monitoring and discharge points.

Due Date: 30 November 2023

Environment Protection Licence

Licence - 767

Dictionary

General Dictionary

| | |
|--|--|
| 3DGM [in relation to a concentration limit] | Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples |
| Act | Means the Protection of the Environment Operations Act 1997 |
| activity | Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997 |
| actual load | Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009 |
| AM | Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> . |
| AMG | Australian Map Grid |
| anniversary date | The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act. |
| annual return | Is defined in R1.1 |
| Approved Methods Publication | Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009 |
| assessable pollutants | Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009 |
| BOD | Means biochemical oxygen demand |
| CEM | Together with a number, means a continuous emission monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> . |
| COD | Means chemical oxygen demand |
| composite sample | Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume. |
| cond. | Means conductivity |
| environment | Has the same meaning as in the Protection of the Environment Operations Act 1997 |
| environment protection legislation | Has the same meaning as in the Protection of the Environment Administration Act 1991 |
| EPA | Means Environment Protection Authority of New South Wales. |
| fee-based activity classification | Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009. |
| general solid waste (non-putrescible) | Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997 |

Environment Protection Licence

Licence - 767

| | |
|--|--|
| flow weighted composite sample | Means a sample whose composites are sized in proportion to the flow at each composites time of collection. |
| general solid waste (putrescible) | Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997 |
| grab sample | Means a single sample taken at a point at a single time |
| hazardous waste | Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997 |
| licensee | Means the licence holder described at the front of this licence |
| load calculation protocol | Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009 |
| local authority | Has the same meaning as in the Protection of the Environment Operations Act 1997 |
| material harm | Has the same meaning as in section 147 Protection of the Environment Operations Act 1997 |
| MBAS | Means methylene blue active substances |
| Minister | Means the Minister administering the Protection of the Environment Operations Act 1997 |
| mobile plant | Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997 |
| motor vehicle | Has the same meaning as in the Protection of the Environment Operations Act 1997 |
| O&G | Means oil and grease |
| percentile [in relation to a concentration limit of a sample] | Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence. |
| plant | Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles. |
| pollution of waters [or water pollution] | Has the same meaning as in the Protection of the Environment Operations Act 1997 |
| premises | Means the premises described in condition A2.1 |
| public authority | Has the same meaning as in the Protection of the Environment Operations Act 1997 |
| regional office | Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence |
| reporting period | For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act. |
| restricted solid waste | Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997 |
| scheduled activity | Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997 |
| special waste | Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997 |
| TM | Together with a number, means a test method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> . |

Environment Protection Licence

Licence - 767

| | |
|-------------------------|---|
| TSP | Means total suspended particles |
| TSS | Means total suspended solids |
| Type 1 substance | Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements |
| Type 2 substance | Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements |
| utilisation area | Means any area shown as a utilisation area on a map submitted with the application for this licence |
| waste | Has the same meaning as in the Protection of the Environment Operations Act 1997 |
| waste type | Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non-putrescible), special waste or hazardous waste |
| Wellhead | Has the same meaning as in Schedule 1 to the Protection of the Environment Operations (General) Regulation 2021. |

Ms Debbie Maddison

Environment Protection Authority

(By Delegation)

Date of this edition: 06-April-2000

Environment Protection Licence

Licence - 767

End Notes

- 1 Licence varied by notice V/M upgrade, issued on 07-Aug-2000, which came into effect on 07-Aug-2000.
- 2 Licence varied by notice 1002149, issued on 18-Oct-2000, which came into effect on 12-Nov-2000.
- 3 Licence varied by notice 1009721, issued on 18-Jul-2001, which came into effect on 07-Aug-2001.
- 4 Licence varied by notice 1012601, issued on 19-Nov-2001, which came into effect on 14-Dec-2001.
- 5 Licence varied by notice 1018036, issued on 21-Jun-2002, which came into effect on 27-Jun-2002.
- 6 Licence varied by notice 1025170, issued on 28-Feb-2003, which came into effect on 25-Mar-2003.
- 7 Licence varied by notice 1027944, issued on 21-Aug-2003, which came into effect on 15-Sep-2003.
- 8 Licence varied by notice 1036485, issued on 11-May-2004, which came into effect on 05-Jun-2004.
- 9 Licence varied by notice 1039412, issued on 09-Sep-2004, which came into effect on 04-Oct-2004.
- 10 Licence varied by notice 1042725, issued on 07-Jan-2005, which came into effect on 01-Feb-2005.
- 11 Licence varied by notice 1048913, issued on 28-Jun-2005, which came into effect on 23-Jul-2005.
- 12 Licence varied by notice 1052262, issued on 02-Dec-2005, which came into effect on 27-Dec-2005.
- 13 Licence varied by change to DEC Region allocation, issued on 16-Mar-2006, which came into effect on 16-Mar-2006.
- 14 Licence varied by notice 1060175, issued on 12-Dec-2006, which came into effect on 12-Dec-2006.
- 15 Licence varied by notice 1079812, issued on 05-Dec-2007, which came into effect on 05-Dec-2007.
- 16 Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
- 17 Licence varied by notice 1104121, issued on 02-Oct-2009, which came into effect on 02-Oct-2009.
- 18 Licence varied by notice 1501798 issued on 01-Nov-2011
- 19 Licence varied by notice 1502957 issued on 19-Dec-2011



Environment Protection Licence

Licence - 767

| | | |
|----|--------------------------|-------------------------------|
| 20 | Licence varied by notice | 1508753 issued on 11-Sep-2012 |
| 21 | Licence varied by notice | 1515088 issued on 11-Dec-2013 |
| 22 | Licence varied by notice | 1526235 issued on 21-Nov-2014 |
| 23 | Licence varied by notice | 1532622 issued on 04-Aug-2015 |
| 24 | Licence varied by notice | 1561733 issued on 12-Mar-2018 |
| 25 | Licence varied by notice | 1574620 issued on 11-Jan-2019 |
| 26 | Licence varied by notice | 1621831 issued on 19-Aug-2022 |
| 27 | Licence varied by notice | 1624411 issued on 08-Feb-2023 |