



Amendment Report

Licence Number	L4611/1987/11
Licence Holder	Agnew Gold Mining Company Pty Ltd
ACN	098 385 883
File Number:	2012/006836-1
Premises	Agnew Gold Mine Mining tenements M36/27, M36/32, M36/53, M36/55, M36/65, M36/150, M36/174, M36/248, M36/314, M36/450 and L36/174 LEINSTER WA 6437 As defined in Schedule 1
Date of Report	23/12/2019
Decision	amend licence L4611/1987/11

1. Definitions and interpretation

Definitions

In this Amendment Report, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
AACR	Annual Audit Compliance Report
ACN	Australian Company Number
AER	Annual Environment Report
Amendment Report	refers to this document
Category/ Categories	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 33 Cloisters Square PERTH WA 6850 info@dwer.wa.gov.au
Delegated Officer	an officer under section 20 of the EP Act
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of and during this Review
Licence Holder	Agnew Gold Mining Company Pty Ltd
Minister	the Minister responsible for the EP Act and associated regulations
Occupier	has the same meaning given to that term under the EP Act.
Prescribed Premises	has the same meaning given to that term under the EP Act.

Term	Definition
Premises	refers to the premises to which this Amendment Report applies, as specified at the front of this Amendment Report.
Revised Licence	the amended Licence issued under Part V, Division 3 of the EP Act, with changes that correspond to the assessment outlined in this Amendment Report.
Risk Event	as described in <i>Guidance Statement: Risk Assessment</i>

1.1. Amendment Description

The following guidance statements have informed the assessment and decision outlined in this Amendment Report.

- *Guidance Statement: Regulatory Principles (July 2015)*
- *Guidance Statement: Setting Conditions (October 2015)*
- *Guideline: Decision Making (June 2019)*
- *Guidance Statement: Risk Assessment (February 2017)*
- *Guidance Statement: Environmental Siting (November 2016)*

1.2. Purpose and scope of assessment

The Licence Holder submitted an application on 15 October 2019 to reduce the required freeboard on the Redeemer in-pit TSF (TSF3) (Category 5) and add a new landfill location (Category 89). There is no proposed change to the throughput of any Category.

1.3. Consolidation of Licence

As part of this amendment package DWER has consolidated the licence by incorporating changes made under the following Amendment Notice:

- Amendment Notice 1, granted 8 September 2017 – authorising:
 - construction and operation of In-pit Tailings Storage Facility (TSF) at the Songvang open pit (Category 5)
 - installation and operation of a cyanide detoxification unit to treat tailings prior to discharge (Category 5)
 - An increase to dewatering discharge (Category 6).

Note however that Conditions 1.2.8 to 1.2.11 relating to the construction of the Songvang In-Pit TSF have been satisfied (DWER 2017a and DWER 2017b) and so have been removed. Condition 1.2.12 (to operate Songvang In-pit TSF in accordance with this licence once compliant) is now redundant and is also removed. The introduction has been updated to reflect the approved changes above.

The obligations of the Licence Holder have not changed in consolidating the licence. DWER has not undertaken any additional risk assessment of the Premises related to previous Amendment Notices.

In consolidating the licence, the CEO has:

- updated the format and appearance of the Licence;

- deleted the redundant AACR form set out in schedule 1 of the previous licence and advise the Licensee to obtain the form from the Department's website;
- corrected clerical mistakes and unintentional errors.

Previously issued Amendment Notices will remain on the DWER website for future reference and will act a record of DWER's decision making.

2. Amendment history

Table 4 provides the amendment history for L4611/1987/11.

Table 2: Licence amendments

Instrument	Issued	Amendment
L4611/1987/9	23/08/2004	Licence reissue for 5 years tenure.
L4611/1987/10	15/10/2009	Licence reissue for 4 years tenure.
L4611/1987/11	17/10/2013	Licence transfer and reissue with 5 year tenure.
L4611/1987	29/04/2016	Department initiated amendment in accordance with section 59(1)(k) of the <i>Environmental Protection Act 1986</i> to amend the duration of the licence date month year.
L4611/1987/11	26/05/2016	Licence amendment – Addition of mining tenements from L5110 and prescribed activity category 6. Abandoned monitoring bores and redundant licence conditions were removed plus alignment to most recent licence format.
L4611/1987/11	8/09/2017	Amendment Notice 1: to construct and operate an In-pit TSF at the Songvang open pit site and increase dewatering throughput.

3. Location and receptors

There are no sensitive land uses in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment. The nearest residence is 22km South East of the Prescribed Premises boundary.

There are no sensitive environmental receptors (in accordance with the *Guidance Statement: Environmental Siting*) in the vicinity of the Prescribed Premises. Environmental receptors may include

- native vegetation within and surrounding the Prescribed Premises
- fauna (including birds) who inhabit or visit the area and
- groundwater.

The shallowest groundwater measured in monitoring bores around the Redeemer TSF3 in the last two years is just over 6m below ground level (AGMC 2019a). The current approved facility extends from above to well below the water table. Groundwater is fresh to brackish, but of localised extent and currently not used for any beneficial purpose.

4. Risk assessment

Error! Not a valid bookmark self-reference. and **Table 4** below describe the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. Both tables identify whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

Table 3: Risk assessment for proposed amendments during construction

Risk Event				Consequence rating ¹	Likelihood rating ¹	Risk ¹	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
Construction of Waroonga North landfill	Dust	Air dispersion causing health impact to plants or respiratory impacts to animals	None proposed	Slight	Rare	Low	No human receptors present. Landfill will be within existing waste rock landform. General provisions of the EP Act apply.	None

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the Department's Guidance Statement: Risk Assessments (February 2017)

Table 4: Risk assessment for proposed amendments during operation

Risk Event				Consequence rating ¹	Likelihood rating ¹	Risk ¹	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/ Activities	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
Reduced freeboard in Redeemer In-pit TSF (TSF3)	Tailings or supernatant liquor	Overtopping of in-pit TSF, directly impacting on native vegetation causing death.	Normal operating pond level at least 1m below pit crest at all points	Moderate	Possible	Medium	Modelling provided by a tailings engineer (Hogg, 2019) supports the proposal of a 1m freeboard to normal operating pond level. Limit also needed for enforceability.	Existing condition 1.2.1 – added requirements ‘Minimum freeboard of 500mm maintained at all times. Normal operating pond level to be at least 1m below pit crest.’
	Increased seepage of supernatant liquor from TSF3	Direct seepage to groundwater	none	Slight	Unlikely	Low	Requested tailings level rise is small, and there is no significant change in geology expected to increase seepage rates (AGMC 2019b). Unlikely to significantly increase seepage from the TSF.	Groundwater monitoring – existing conditions 3.4.1, 3.4.2, 3.4.3, 3.4.4
Operation of Waroonga North landfill	Odour from putrescible waste	No human receptors present, and minimal putrescible waste will report to the facility. No anticipated impact.	None	Slight	Rare	Low	No human receptors present, and minimal putrescible waste will report to the facility. No anticipated impact.	None
	Contaminated leachate from landfill cells	Rainwater infiltration through landfill and waste rock to groundwater	<ul style="list-style-type: none"> Minimal putrescible waste in landfill. Located on waste rock landform, several metres above the natural ground surface so there will be no groundwater interaction will the landfill. 	Slight	Unlikely	Low	Minimal putrescibles in landfill; low rainfall area; no direct interaction of groundwater with the waste due to location.	None

Risk Event				Consequence rating ¹	Likelihood rating ¹	Risk ¹	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/ Activities	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
	Windblown rubbish	Wind dispersion into surrounding vegetation presenting a safety risk to fauna	<ul style="list-style-type: none"> • Waste covered as per condition 1.2.6 • No human receptors • Any windblown rubbish will be returned to the tipping area at least once per month. • The landfill facility will be fenced 	Minor	Possible	Medium	Controls are reasonable and in line with existing licence conditions for existing landfill facilities	<p>Existing conditions 1.2.6 and 1.2.7</p> <p>Waroonga North landfill will be added to the map of landfill locations in Schedule 1 of the Revised Licence.</p>
	Dust	Air dispersion causing health impact to plants or respiratory impacts to animals	None proposed	Slight	Rare	Low	No human receptors present. Landfill will be within existing waste rock landform. General provisions of the EP Act apply.	None

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the Department's Guidance Statement: Risk Assessments (February 2017)

5. Consultation

Table 9: Summary of consultation

Method	Comments received	DWER response
Applicant referred draft documents 20 December 2019	Refer to Appendix 2.	Refer to Appendix 2.

6. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a licence amendment will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

6.1. Summary of amendments

Table 10 provides a summary of the proposed amendments (excluding those previously authorised by Amendment Notice 1) and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

Table 10: Licence amendments

Condition No.	Proposed amendments
Introduction	Updated to include reference to the Songvang In-Pit TSF and the Waroonga North landfill.
1.2.1	Within requirements for Redeemer In-Pit TSF3, change from 'Operate to final height of 472 m RL (2 m below surrounding surface), to 'Minimum freeboard of 500mm maintained at all times. Normal operating pond level to be at least 1m below pit crest.'
Schedule 1	Map of landfill locations updated to include Waroonga North

Tim Gentle
MANAGER – RESOURCE INDUSTRIES
REGULATORY SERVICES

An officer delegated by the CEO under section 20 of the EP Act

Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L4611/1987/11 – Agnew Gold Mine	L4611/1987/11	accessed at www.dwer.wa.gov.au
2	Hogg, C (2019), <i>Assessment of risk of overtopping Redeemer TSF3 Freeboard – Licence amendment Agnew Gold Mine</i>	Hogg 2019	DWER record A1851997
3	Agnew Gold Mining Company Pty Ltd L4611/1987/11 Annual Environmental Report (27 February 2019)	AGMC 2019a	DWER record A1768762
4	DER, July 2015. <i>Guidance Statement: Regulatory principles.</i> Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
5	DER, October 2015. <i>Guidance Statement: Setting conditions.</i> Department of Environment Regulation, Perth.	DER 2015b	
6	DER, August 2016. <i>Guidance Statement: Licence duration.</i> Department of Environment Regulation, Perth.	DER 2016a	
7	DER, November 2016. <i>Guidance Statement: Risk Assessments.</i> Department of Environment Regulation, Perth.	DER 2016b	
8	DWER, November 2019. <i>Guideline: Decision Making.</i> Department of Environment Regulation, Perth.	DWER 2019	
9	DWER, 23 November 2017. <i>Receipt of Compliance Document – Songvang TSF 4 & pipelines – Licence 4611/1987/11</i>	DWER 2017a	DWER Record A1853300
10	DWER, 10 October 2017. <i>Applicant Notification - L4611/1987/11 – Receipt of compliance document</i>	DWER 2017b	DWER Record A1538177
11	(email) AGMC, 19 December 2019. <i>Additional information required for Agnew Licence Amendment.</i>	AGMC 2019b	DWER Record A1853435

Appendix 2: Summary of Licence Holder comments

The Licence Holder was provided with the draft Amendment Report on 20 December 2019 for review and comment. The Licence Holder responded on 22 December 2019 with comments, and 23 December waiving the remaining comment period. The following comments were received on the draft Licence and Amendment Report.

Condition	Summary of Licence Holder comment	DWER response
Introduction	In the premises description and licence summary (introduction), New Holland Waste Rock Landform is licenced only for inert waste (Type 1 and 2). Requested amendment to licence this facility as 'a combined putrescible and inert waste (Type 1 and 2) landfill'.	The New Holland landfill is constructed on a waste rock landform and estimated distance to groundwater is 40m. Management is the same as for the Waroonga North landfill assessed in this amendment report. There are no additional receptors to consider, and existing licence conditions are satisfactory to manage the risks. Therefore, the change is make describing the New Holland landfill as 'a combined putrescible and inert waste (Type 1 and 2) landfill'.
Condition 1.2.1	Do you think it is necessary to state that the Redeemer in-pit TSF should maintain a freeboard of 500mm? (is it varies from the 300mm stated in this condition).	Condition 1.2.2 is a standard condition, requiring a minimum of 300mm freeboard on all containment facilities. Greater freeboard can be required on specific facilities, if the risk warrants it. The 500mm freeboard required by condition 1.2.1 is considered suitable for a TSF, and consistent with DMIRS guidelines.
Schedule 1	Updated maps provided	Final versions used: <ul style="list-style-type: none"> • Premises map from A1854411 • Existing main monitoring locations map sufficient, will be retained and updated in a future amendment • Monitoring bore map for Songvang updated from A1854440. Title block corrected to say Songvang TSF4 not Redeemer TSF3 (licence holder verbally approved)