



Application to renew a licence

Part V Division 3 of the *Environmental Protection Act 1986*

Licence Number	L8308/2008/3
Licence Holder	CITIC Pacific Mining Management Pty Ltd
ACN	119 578 371
File Number	DER2014/000430-2~13
Premises	Sino Iron Project Mine Site Mining Tenements M08/123, M08/124, M08/125, M08/264, M08/265, M08/266, G08/54 and L08/126 MARDIE WA 6714
Date of Report	30/5/2024
Decision	To grant a licence

Neville Welsh
SENIOR INDUSTRY REGULATION OFFICER
REGULATORY SERVICES
Officer delegated by the CEO under section 20 of the *Environmental Protection Act 1986*

1. Decision summary

Under the regulatory framework the Delegated Officer decided to process the application to renew licence L8308/2008/2 without conducting any additional risk assessment.

The licence can be issued for 20 years, which is consistent with the *Guidance Statement on Licence Duration 2016*. In renewing the licence the Delegated Officer has determined to

- update the format and appearance of the licence;
- include conditions considered necessary for the effective administration of the licence (i.e. record keeping and reporting requirements);
- revise licence conditions and consolidate existing pollution control conditions;
- correct clerical mistakes and unintentional errors; and
- transfer all relevant regulatory controls and conditions to the new licence.

As a result of the above, the Delegated Officer decided to grant Licence L8308/2008/3, subject to conditions set out in the attached licence.

2. Scope of assessment

2.1 Application summary

On 24 October 2023 CITIC Pacific Mining Management Pty Ltd (CPM) (licence holder) applied to renew licence L8308/2008/2, as the licence is due to expire on 31 May 2024. The licence was granted to the licence holder for the premises located at Sino Iron Project Mine Site (Premises).

The licence relates to prescribed premises categories as described in Table 1.

Table 1: Premises category description and production design capacity

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Production / design capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	<ul style="list-style-type: none"> • Primary Crushers (1, 2, 3 and 4) 95,000,000 tonnes per annual period • Concentrators (Mill Lines 1, 2, 3, 4, 5 and 6) 95,000,000 tonnes per annual period (producing 27,600,000 tonnes per annual period) • Tailings Storage Facility (Stage 2) 67,400,000 tonnes per annual period
Category 6: Mine dewatering discharge	12,000,000 tonnes per annual period (12 gigalitres per annual period)
Category 12: Screening, etc. of material	2,700,000 tonnes per annual period
Category 52: Electric power generation	480 megawatts
Category 54: Sewage facility	160 cubic metres per day
Category 57: Used tyre storage (general)	No more than 500 tyres
Category 64: Class II putrescible landfill site	Landfill Facilities and Waste Rock Landforms 25,000 tonnes per annual period (excluding Clean Fill and Uncontaminated Fill used for cover material)

The Sino Iron mine consists of a 2.6 square kilometer open pit which is expected to triple in size over the life of the project. The site extracts magnetite ore using traditional open pit mining techniques including drilling and blasting, the ore is then loaded onto haul trucks, which take the rock to the four in-pit crushers.

2.2 Requested amendments.

2.2.1 Surface Water Emission Point – EC4

The construction of the TSF2 Raise 4 and the associated buttress is currently underway and will require the seepage collection pond to be relocated to the outer buttress toe-line.

The construction of the buttress has necessitated the relocation of emission point EC4 120m west of its approved location. The new location is within the collection pond rock armoured overflow. The risk of relocating the emission point EC4 is considered by the Delegated Officer to be of low risk to the receiving environment.

To accommodate ongoing construction of the TSF buttress, the location of the seepage collection pond and EC4 emission point will require relocation in the future. The licence holder will submit compliance documentation each time the emission point EC4 is relocated.

2.2.2 TSF2 Western Buttress Extension

A revised western buttress design was submitted to The Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) on the 17 August 2023 to raise the embankment up to 50mRL. The additional waste rock buttress would increase the stability of TSF2 whilst not increasing the disturbance footprint of the mine.

The licence holder has requested that L8308/2008/2 Table 6 be updated to reference the western buttress extension. This will ensure compliance documentation prepared in response to L8308/2008/2 condition 31 will include details associated with the construction of the buttress and the final relocation of seepage infrastructure. The Delegated Officer considers the extensions to be of low risk to the receiving environment.

2.2.3 Mine Dewater Discharge Pipelines – Leak Detection System

The original pipeline pressure monitoring system installed in 2016 is no longer fit for purpose. The licence holder is installing a flow meter leak detection system. Each dewatering pipeline will now be equipped with a flow meter located at the beginning of the pipeline. Additional flow meters equipped with live telemetry are to be installed at the Fortescue River end of the pipeline. A drop in flow outside of pre-determined operating parameters may indicate a leak or rupture and will trigger a process alarm. If a leak or rupture is verified the pipeline will be immediately isolated.

2.2.4 Surface Water Emission Point – DC1

Surface water emission point DC1 is located within the future mine pit footprint and is proposed to be decommissioned in 2024. The licence holder requests that all reference to DC1 removed from the licence.

2.2.5 Landfill Groundwater Bores Decommissioning

The Department was advised on 28 October 2022 of the licence holders' intention to decommission monitoring bores 09NC564, 09NC595 and 09NC596. Monitoring bore 10NC585 has not been decommissioned however, the licence holder has ceased monitoring this bore for compliance purposes. It is requested that these bores be removed from the licence.

3. Regulatory framework

The Delegated Officer has not conducted a full review and risk assessment of emissions and discharges from the Premises in line with the Department of Water and Environmental Regulation's (department) *Work Instruction: Industry Regulation, Licensing position - COVID-19 response* October 2022.

In granting the licence, the Delegated Officer has considered and given due regard to the department's regulatory framework and relevant policy documents which are available at **Error! Hyperlink reference not valid.**

4. Considerations for issuing a new licence

4.1 Compliance and enforcement actions

There have been four reported incidents and complaints identified at the Premises by the department in the last five years. The outcomes have been reported in Table 2 below.

Table 2: Reported incidents and complaints

Incident	Date	Outcome
<p><u>ICMS Number: 56012</u></p> <p>Saline water leak from pipeline which was damaged during maintenance works. Approx 30-40,000 L of hypersaline water discharged into highly degraded area and along pipeline corridor and access tracks.</p>	09/01/2020	Due to immediate remedial actions being undertaken by the licence holder and low potential for adverse environmental impact, the incident has been recorded and closed.
<p><u>ICMS Number: 58167</u></p> <p>Approximately 50,000L, based on an estimated flow rate of ~170L/s for 10 minutes and assumed approximately 50% of flow lost to leakage.</p> <p>During the visual inspection of the pipeline the cut was identified and discharges immediately ceased.</p>	21/07/2020	<p>Licence holder responded with immediate cleanup and recovery of small volume of discharge.</p> <p>No environmental impact observed or reported. The incident was closed.</p>
<p><u>ICMS Number 61467</u></p> <p>In the tails thickening area of site, hot sparks from the oxy cutting splashed into a nearby open rubber lined pipe. The rubber liner caught fire inside the pipe. The fire ascended in a vertical pipe which terminated at the top of the sample tower. The fire spread to sampling equipment and pipework. The fire burned for approximately 90 minutes until it was extinguished using water.</p> <p>All water used to extinguish the fire was captured on site, no discharge beyond the premise boundary.</p>	04/05/2021	<p>An incident investigation was completed and was the subject of a Department Energy, Mining, Industry Regulation and Safety (DEMIRS) investigation.</p> <p>Incident notarized by a Section 72 report to the Department. Report investigated and determined that the incident be managed via the outcomes of the DEMIRS investigation.</p>

<p><u>ICMS Number 65282</u></p> <p>Unauthorised discharge - report received regarding burning of solid waste.</p> <p>Single event where fire has been contained and controlled. Offender has investigated, cause and identified actions to address issue were confirmed.</p>	07/04/2022	<p>Section 72 report received that indicated the incident was low environmental and amenity impact.</p> <p>Company contacted and remediation actions undertaken a satisfactory outcome and incident closed.</p>
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4.2 Legal occupancy

The licence holder has demonstrated legal occupancy of the Premises.

4.3 Categories of the licence

The requested categories and the corresponding maximum production capacities for the renewal of the licence are consistent with the categories for which the licence holder currently holds a licence and which was previously assessed.

4.4 Previous relevant decision reports

As the renewal of this licence is deemed an administrative licence renewal and there is no additional risk assessment conducted, the delegated officer likes to note that for the purpose of transparency and ease of access the previous relevant decision reports shown in Table 3 will be viewable when published.

Table 3: Previous relevant decision reports

Description of decision report	Grant Date	Document number
Amendment Notice 1 Licence amendment to change the date of completion for Improvement program IR1 from 31 December 2016 to 30 June 2018.	16/12/2016	FA182607 A1344488
Amendment Notice 2 Licence amendment to include controlled surface water discharge points, TSF1B lift and modifications to groundwater monitoring bores BH08-08 and BH08-16.	9/06/2017	FA199554 A1447869
Amendment Notice 3 Licence amendment to include the MBBR WWTP and transfer TSF Stage 2 construction conditions across from W4447/2008/1 onto the licence.	11/08/2017	FA212806 A1573874
Amendment Notice 4 Licence amendment to increase the category 6 design capacity from 2 GL/a to 8 GL/a	12/01/2018	CER2824/17 A1573835
Amendment Notice 5 Licence amendment to change the date of completion for Improvement program IR1 from 30 June 2018 to 31 December 2018 and to allow for the disposal of other Inert Waste Type 2 (besides tyres) to be disposed of	19/06/2018	FA232952 A1644317

within sites landfill facility and waste rock landforms.		
Amendment Notice 6 Licence amendment to include a secondary emission point (AP1), to the current FR2 discharge point to the Fortescue River, on the existing dewatering pipelines to enable diversion of up to 6 GL/a of excess mine dewatering water to Pastoral Management Pty Ltd's algae ponds trial. Relocation of current discharge location EC4 approximately 600 m upstream within the same remnant tributary of Edwards Creek, as the current discharge location is within the footprint for future TSF development. Removal of Improvement program IR1 from the licence as point source air emissions have been confirmed. Removal of Improvement program IR2 from the licence as replacement bore TSF_017 (17NC764) has been installed to replace BH08-16.	6/11/2018	DER2014/000430-2~1 A1736307
Amendment Notice 7 Licence amendment to include TSF Stage 2, Raise 3 up to 61 mRL. Replacement of the pit dewatering staging ponds by constructing a HDPE lined dewatering staging facility to accommodate increased dewatering rates of up to 12GL/a permitted via Ministerial Statement 1066. A request to provide completion reports, for mine dewatering water discharges to the Fortescue River, in the Annual Environmental Report is also included	18/04/2019	DER2014/000430-2~3 A1783035
Amendment Notice 8 Licence amendment to: • replace the third stage magnetic separator drums on ML6 with magnetic separation elutriation columns as a trial; • relocate the laydown facility to the eastern side of the mine pit adjacent to the new mining operations/administration hub. This is outside of the future mine pit footprint; and • include an interim landfill, which is proposed in the South East Waste Rock Landform.	15/11/2019	DER2014/000430-2~4 A1841976
Inclusion of tailings bypass pipeline, removal of Camp 123 WWTP and disposal of inert waste to the TSF.	28/01/2020	DER2014/000430-2~5 A1862225
Amendment Report Licence amendment to increase the discharge of TSF decant and seepage waters from 1 GL/a to 2 GL/a via emission point DC2. During this amendment the licence was also updated to the current licensing format.	01/02/2021	DER2014/000430-2~8 A1976446
Licence amendment to include TSF2 Raise 4 up to 66 mRL (western embankment) and 70 mRL (eastern embankment); include bore 16NC750 for	23/03/2021	DER2014/000430-2~7

the TSF ambient groundwater monitoring; extension of the expiry date; and administrative updates.		A1990967
Licence amendment to increase the mine dewatering discharge to the Fortescue River from 8 GL/a up to 12 GL/a, approved under Part IV.	29/09/2021	DER2014/000430-2~11 A2048987
Licence amendment for: <ul style="list-style-type: none"> • Extension of expiry date; • Reduced frequency CEMS RATA; • Decommissioning of the bulk fuel facility; • Disposal of waste within the North East Waste Rock Landform; and • Minor administrative changes. 	24/02/2022	DER2014/000430-2~12 A2086130

5. Summary of changes to the licence conditions

Section 62 of the *Environmental Protection Act 1986* (EP Act) provides the legal power to attach conditions to licences. Most licences are issued with conditions as per *Guidance Statement – Setting Conditions* (October 2015) to prevent, control, abate or mitigate pollution or environmental harm as a result of the emissions and/or discharges from the premises in question.

Table 4 summarises the changes from the expiring licence into the new licence including changes made to licence conditions where required and the rationale for changes made.

Table 4: Licence conditions changes, description and rationale

Current condition / table	Summary of current condition	New condition / table (if relevant)	Description and rationale
Category 12 Assessed production capacity	-	-	Throughput decreased at the licence holders request The original works approval (2014) calculated the approved design capacity of 2.7 mtpa. This was calculated based on crushing units operating 16 hrs/day, 85% of the year. To date, the maximum throughput from mobile crushing operations in FY2018/19 period was 670,724 tonnes (~25% of the authorised extent). Moving forward, the TSF construction team intermittently operated the mobile scalping screener, supplying filter rock, road base/fines and rip rap, to support construction activities. Monthly throughout ranges from 5,000 to 8,000 tonne per month, with a maximum total throughput of 96,000 tonnes per annum.

Current condition / table	Summary of current condition	New condition / table (if relevant)	Description and rationale
1 and Table 1	Production and design capacity limits		As per the new DWER licence format, the production capacity has been moved to the front page of the licence making this condition redundant.
Table 3	Cover requirements	Table 2	Delegated Officer request more practical timeframe
8 and Table 4	Infrastructure and Equipment	Condition 1 and Table 1	Moved to condition 1 to conform with new licence requirements.
			Removal of all reference to Surface Water emission point DC1 as it has been decommissioned.
20	Monitoring equipment calibration	-	Condition is redundant as it is not enforceable and therefore removed from the licence.
21			
27 34 09NC564, 09NC595 and 09NC596. 10NC585 (control)	Decommissioning of landfill monitoring bores	-	Removed any reference to listed bores. The licence holder advised the Department in October 2022 (DWERDT678698) of its intention to decommission groundwater monitoring bores 09NC564, 09NC595 and 09NC596. Monitoring bore 10NC585 (control) was not decommissioned, the licence holder has ceased monitoring this groundwater bore for compliance purposes.
16 and Table 8		15 and Table 7	Condition updated to include new flow metre with telemetry for each dewatering pipeline.

6. Consultation

The Delegated Officer undertook the consultation for the application to renew the licence as per Table 5.

Table 5: Consultation

Consultation method	Comments received	Delegated Officer's response
Application advertised on the department's website on 20 November 2023.	No submissions received when the advertising period closed on 11 December 2023.	N/A

Consultation method	Comments received	Delegated Officer's response
<p>Local Government Authority advised of application on 17 November 2023</p>	<ul style="list-style-type: none"> • It was noted that the proposal is only seeking a renewal of the current licence [L8308/2008/2] and that no additional or new works are being sought. • The City advises that no planning/development approval is required to be issued by the City in this instance. Whilst no further approvals from the City are required the following comments in relation to the application are noted: <ul style="list-style-type: none"> ○ The tenement holders have an ILUA over the subject tenements (WI2015/003) which was registered 6 November 2015; ○ The tenements contain multiple registered Aboriginal Cultural Heritage sites and multiple lodged Aboriginal Cultural Heritage sites; ○ The tenements are located within a State Agreement Area (Iron Ore Processing [Mineralogy Pty. Ltd.] Agreement Act 2002). Given the tenements location within a State Agreement Area, this also negates the need for any planning/development approval for any works components within the tenement areas. 	<p>Noted by the Delegated Officer.</p> <p>No further action required.</p>
<p>Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) advised of the application 17 November 2023.</p>	<p>No response received from DEMIRS</p>	<p>N/A</p>
<p>Applicant was provided with draft documents on 11 April 2024 and asked to provide a reply before 6 May 2024.</p>	<p>Licence holder provided new buttress designs but proposed that DWER excludes the drawings from the operating license for the following reasons:</p> <ul style="list-style-type: none"> • They are for geotechnical purposes and have been assessed by DEMIRS. • Excluding them will reduce the potential for miscommunication of information already assessed by DEMIRS. • The drawings are technically required for a lift to RL 76m, which is not currently approved by DWER. Their inclusion in the licence renewal was for informational purposes only. • In the interim, CPM is using the buttress as a stockpile of construction material, which may or may not be utilized for future lifts. Therefore, the RL may change, but it will not adversely impact the geotechnical stability of the TSF. 	<p>The Delegated Officer considered the information provided by the licence holder and confirms the licence will not duplicate another decision makers approval therefore, the use of the drawing in this licence renewal are for demonstration purposes and not for approval purposes.</p> <p>The drawing will be marked as "Information Purpose Only" in the licence schedules.</p>