



## Application for Licence Amendment

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

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<b>Licence Number</b>	L4557/1986/19
<b>Licence Holder</b>	Iluka Resources Limited
<b>ACN</b>	008 675 018
<b>File Number</b>	DER2014/000051
<b>Premises</b>	North Capel Operations  Yearly Road CAPEL WA 6271  Legal description –  all of mining tenements M70/257, M70/651, M70/959, M70/962, M70/970, M70/978, M70/990, M70/1083 and M70/1128, and part of mining tenements M70/279, M70/386 & M70/1082.  As defined by the Premises map attached to the Revised Licence
<b>Date of Report</b>	02/08/2023
<b>Decision</b>	Revised licence granted

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## 1. Decision summary

Licence L4557/1967/19 is held by Iluka Resources Limited (Licence Holder) for the North Capel Operations (the Premises), located at Yearly Road, Capel which is a mineral sands processing facility.

The Licence Holder was granted Works Approval W5835/2015/1 in 2015 for the construction and commissioning of a new stack for air emissions from the Synthetic Rutile Plant (SR1). The works approval underwent several amendments, including expiry extensions due to project completion delays. The Licence Holder completed works, commissioning activities and provided relevant reports as required by the works approval. This amendment report relates to an application for licence amendment from the Licence Holder requesting to include the new stack on the existing licence.

The construction, commissioning and operation of the new stack were previously assessed by the department through the works approval application process. This Amendment Report documents the assessment of reporting under the works approval and the licence amendment application to identify any changes to the previously assessed risk profile.

## 2. Scope of assessment

### 2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

### 2.2 Application summary

On 11 April 2023 the Licence Holder submitted an application to the department to amend Licence L4557/1986/19 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- include SR1 110 metre stack as an emission point;
- remove SR1 kiln thermal oxidiser and wet scrubber as a source for emission point A1;
- remove A2 emission point (the redundant SR1 dryer stack);
- correct emission point heights to 9.25 metres for AX and AY emission points, and;
- update maps of emission points.

Works Approval W5835/2015/1 was granted on 24 August 2015 for the construction of new 110 metre stack for synthetic rutile plant 1 (SR1). This amendment is to include the new stack on the licence and remove a 35-metre redundant stack for the thermal oxidiser and wet scrubber for SR1. Commissioning commenced on 8 November 2022 and was completed on 6 February 2023.

The history of the works approval is listed below:

- Works Approval granted 24 August 2015
- Amend to extend the time period 14 March 2018
- Amend to stack specifications 15 January 2020
- Amend to extend the time period 6 July 2021
- Amend to include time limited operations 20 December 2022

The objective of the proposal is to improve operational control of the two SR plants, reduce the safety risks associated with SR1 and SR2 exhaust gases through the same stack, and to reduce odour impacts on the surrounding environment. No new emission streams were created through installation of the new stack and no change in process throughput have occurred as a result of this amendment. Modelling was submitted and assessed at the time of the works approval assessment in 2015 modelling was reviewed at the time of the works approval amendment in 2018.

The delegated officer has also amended a condition regarding the permeability of liquid effluent storage dams.

## 2.3 Commissioning

Commissioning commenced on the 8 November 2022 and a final commissioning report was submitted on 11 April 2023.

Product quality requirements were met on 9 December 2022 and optimum through put capacity was achieved on 22 December 2022.

Continuous emission monitoring systems (CEMS) were installed for SO<sub>2</sub>, CO, O<sub>2</sub>, temperature and flow rate. The CEMS were subject to a relative accuracy test audit (RATA) on 23 December 2022 and the system failed to comply for SO<sub>2</sub> and CO. However, problems with the reference method probably was the cause of the non-compliance and it was likely not under performance of the CEMS. An additional RATA was conducted on 14 February 2023 and all CEMS were found to be compliant.

## 2.4 Compliance

There were 5 complaints about smoke emissions during the commissioning period. Two of these related to steam which is a visible emission from SR1 because of the wet scrubber used instead of the electrostatic precipitator on SR2. A complaint on 1 February included photos of black smoke emissions taken over the previous month. It is difficult to place a date on these emissions however the stack cap was open for 23.1 hours total during January or 3.1% of the month. A complaint of the 9 May was related to plant process stability problems with SR2. During this time the licence holder was compliant with the licence with respect to permitted by-pass events. There was one non-compliance with the particulate limits set for SR2 by SR1 documented on 23 December 2022 which was due to stability problems with the kiln.

## 3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2020).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

The environmental risk was assessed in previous assessments and there has been no change of risk. No further assessment has been undertaken. Previous assessments can be found in the attachment.

## 4. Consultation

Table 1 provides a summary of the consultation undertaken by the department.

**Table 1: Consultation**

Consultation method	Comments received	Department response
Application advertised on the department's website (7/6/2023)	None received	N/A
Local Government Authority advised of proposal (7/6/2023)	None received	N/A
Other Stakeholders (7/6/2023)	None received	N/A
Draft amended licence and draft amendment report provided to licence holder for comment on 14/07/2023	Reply received 20/07/23 with: <ul style="list-style-type: none"><li>• 3 updated maps;</li><li>• corrections to numbering;</li><li>• addition of separate section for SR1 in infrastructure table</li><li>• typographical errors</li></ul>	Suggested changes incorporated in licence and updated maps included.

## 5. Decision

The Delegated Officer determined that there were no identified changes to the emissions and risk profile from previous works approval assessments. It is noted:

- operational aspects of the new stack have been preciously assessed under the works approval;
- there is no new information suggesting a change to emissions profile or previously assessed risk;
- previously determined conditions for SR2 have been added to SR1 including conditions 2.2.1, 2.2.3, 2.2.4, 2.2.6 and 4.2.1;
- air emissions have been modelled and predicted ground level concentrations are below guideline values, and;
- monitoring during commissioning has shown that modelling in-puts were conservative for particulates, SO<sub>2</sub> and SO<sub>3</sub>.

The Delegated Officer has determined to amend the licence consistent with outcomes of the previous works approval assessments, and changed the wording of condition 1.3.1 to correct an error in the existing licence and to bring the wording into line with the intent of the condition.

## 6. Conclusion

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

## 6.1 Summary of amendments

Table 2 provides a summary of the proposed amendments 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 2: Summary of licence amendments**

Condition no.	Proposed amendments
1.3.1	Adjust wording to correct an error
2.2.1	Change source of emissions for A1 Add emission point SR1 Remove emission point A2 Change the height of emissions points AX and AY.
2.2.3	Add SR1 as having particulate limits
2.2.4	Add SR1 to startup condition
2.2.6	Add SR1 to stack cap condition
3.1	Amend height for AX and AY in infrastructure table Add SR1 to infrastructure table
4.2.1	Add SR1 to monitoring table
5.3.1	Delete restart notification condition as now redundant
Schedule 1	Change map of emission points
Schedule 2	Add SR1 to notification form AR1. Delete A2 from notification form AR1 Add SR1 to form RATA1

## References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. Iluka Resources Limited 2023, *Application for amendment*, Perth, Western Australia
5. Iluka Resources Limited 2023, *Commissioning Report North Capel Operations – Synthetic Rutile 1 Stack* Capel Western Australia

## Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY					
<b>Application type</b>					
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L4557/1986/19		
		Relevant works approval number:	W5835/2015/1	N/A	<input type="checkbox"/>
Date application received		11 April 2023			
<b>Applicant and Premises details</b>					
Applicant name/s (full legal name/s)		Iluka Resources Limited			
Premises name		North Capel Operations			
Premises location		Being all of mining tenements M70/257, M70/651 , M70/959, M70/962, M70/970, M70/978, M70/990, M70/1083 and M70/1128, and part of mining tenements M70/279, M70/386 & M70/1082.			
Local Government Authority		Shire of Capel			
<b>Application documents</b>					
HPCM file reference number:		A2169379			
Key application documents (additional to application form):		Application form and attachments only			
<b>Scope of application/assessment</b>					
Summary of proposed activities or changes to existing operations.		Licence amendment Operation of synthetic rutile plant number 1. 110m stack to be inserted in licence and maps and current reference to A2 SR! dryer stack to be removed as this has been de-commissioned.			



**Category number/s (activities that cause the premises to become prescribed premises)**

**Table 1: Prescribed premises categories**

Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 31: Chemical manufacturing	380,000 tonnes per annual period.	NA
Category 8: Minerals sands production	730,000 tonnes per annual period	NA
Category 37: Char manufacture	30,000 tonnes per annual period	NA

**Legislative context and other approvals**

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 768 EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input checked="" type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Approval: Expiry date: If N/A explain why this amendment is to implement changes already approved for works approval.
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	CPS No: N/A No clearing is proposed.

Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Application reference No: Licence/permit No: GWL161847
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Name: Busselton Groundwater Area Type: Proclaimed Groundwater Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Regional office: South West
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i> )	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Existing licence previously assessed.
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Classification: Contaminated – restricted use Date of classification: 31 January 2018</p>
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