



Application for Licence Amendment

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

Licence Number	L8558/2011/1
Licence Holder	Sandfire Resources NL
ACN	105 154 185
File Number	2011/004602
Premises	DeGrussa Copper-Gold Project Mining Tenement 52/1046 MEEKATHARRA WA 6642
Date of Report	7 October 2020
Decision	Revised licence granted

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an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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1. Decision summary

Environmental Protection Act 1986 (EP Act) Licence L8558/2011/1 is held by Sandfire Resources NL (Licence Holder) for the DeGrussa Copper-Gold Project (the Premises), located at Mining Tenement 52/1046, Meekatharra.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the Premises. As a result of this assessment, Revised Licence L8558/2011/1 has been granted.'

The Revised Licence issued as a result of this amendment consolidates and supersedes the Existing Licence previously granted in relation to the Premises. The Revised Licence has been granted in a new format with existing conditions being transferred, but not reassessed, to the new format.

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 14 July 2020, the Licence Holder applied to the department to amend Licence L8558/2011/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendment is being sought:

- Increase the capacity of the Class II landfill from the current 1,300 tonnes per annum (tpa) to 5,000 tpa.

The purpose for an increase in capacity at the current landfill is for the burial of drill cuttings generated from the Licence Holder undertaking a recent exploration drilling program. The cuttings will be delivered to the landfill in either calico or plastic bags and will be disposed in accordance with existing regulatory controls in the Licence.

The Licence Holder conducted an internal assessment of potential disposal options for the drill cuttings. The outcomes from this assessment was the disposal of the drill cuttings to the existing Class II landfill was the most environmentally acceptable and cost effective.

The Licence Holder has also undertaken laboratory analysis on representative drill cutting samples, and has compared the results from that analysis with the leachable concentration and concentration limits set out in the *Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)*, DWER December 2019. The results indicate the drill cuttings are suitable for burial at a Class II landfill.

This amendment is limited only to changes to Category 64 activities from the Existing Licence. No changes to the aspects of the Existing Licence relating to Category 5, 6, 52, and 54 have been requested by the Licence Holder.

Table 1 outlines the proposed changes to the Existing Licence

Table 1: Proposed design or throughput capacity changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
64	1,300 tonnes per annual period	5,000 tonnes per annual period	The Licence Holder is proposing to increase the rate of disposal of Class II wastes at the landfill facility.

2.3 Consolidation of Licence

As part of this amendment package the department has consolidated the Licence by incorporating changes made under the Amendment Notices as summarised in Table 2.

Table 2: Licences consolidated in this amendment

Instrument	Issued	Summary of approval
L8558/2011/1	23/06/2011	Licence granted. Last amendment to Licence dated 3/12/2015
	18/09/2017	Amendment Notice 1 to install and operate two 2-Megawatt (MW) power generation units in addition to the existing power station infrastructure. These additions increased the power generation capacity from 19 MW to 23 MW.
	9/05/2018	Amendment Notice 2 to install a new thickener and filter at the existing ore processing plant, install deeper monitoring bores at the tailings storage facility, and include operational conditions for a new dewatering discharge location installed under Works Approval W5866/2015/1.
	30/01/2019	Amendment Notice 3 to construct and then operate Stage 4 and 5 lifts at the tailings storage facility.

The obligations of the Licence Holder have not changed in consolidating the Licence. The department 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;
- revised licence condition's numbers, and removed any redundant conditions and realigned condition numbers for numerical consistency; and
- corrected clerical mistakes and unintentional errors.

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

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 *Guidance Statement: Risk Assessments* (DER 2017).

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.

3.1 Source-pathways and receptors

3.1.1 Receptors

In accordance with the *Guidance Statement: Risk Assessment* (DER 2017), the Delegated Officer has excluded employees, visitors and contractors of the Licence Holder's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 3 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guidance Statement: Environmental Siting* (DER 2016)).

Table 3: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Doolgunna station homestead	Located approximately 18 km away. Screened out as a receptor.
Environmental receptors	Distance from prescribed activity
Groundwater	10 – 17 metres below ground level. <i>The Environmental Protection (Rural Landfill) Regulations 2002</i> requires a minimum separation distance of 3 metres between waste and the highest level of the water table aquifer at the site. Screened out as a receptor.
Surrounding native vegetation	Approximately 300 metres from landfill area.

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guidance Statement: Risk Assessments* (DER 2017) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the Licence Holder has proposed mitigation measures/controls, these have been considered when determining the final risk rating. Where the Delegated Officer considers the Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the Licence as regulatory controls.

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

The Revised Licence L8558/2011/1 that accompanies this Amendment Report, authorises emissions associated with the operation of the Premises.

The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 4. Risk assessment of potential emissions and discharges from the Premises during operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions ² of Licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
Construction								
Construction of trenches for the disposal of waste	Dust from vehicle movement and excavation activities	Air/windborne pathway. Smothering of vegetation causing impacts to vegetation health.	Native vegetation approximately 300 metres away	Water cart when required	C = Slight Only minimal onsite impacts L = Rare Impacts to vegetation health may only occur in exceptional circumstances Low Risk	Yes	No regulatory controls are required to mitigate this risk.	Not Applicable
Operation								
Unloading of wastes into landfill trenches Covering of waste Vehicle movements	Dust from vehicle movements	Air/windborne pathway. Smothering of vegetation causing impacts to vegetation health.	Native vegetation approximately 300 metres away	Water cart when required	C = Slight Only minimal onsite impacts L = Rare Impacts to vegetation health may only occur in exceptional circumstances Low Risk	Yes	No regulatory controls are required to mitigate this risk.	Not Applicable
	Windblown	Air/windborne	Surrounding native	Existing landfill	C = Slight	Yes	Existing conditions	Not Applicable

Licence: L8558/2011/1

Risk Event					Risk rating ¹	Licence Holder's controls sufficient?	Conditions ² of Licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood			
	waste	pathway. Visual amenity impacts.	vegetation and landscape.	fencing. Earthen bunds around trenches assist in deflecting the effects from the wind. Routine (at least once per month) collection of windblown waste. Waste covered fortnightly	Minimal local impacts on amenity L = Rare Impacts on local amenity may only occur in exceptional circumstances Low Risk		adequate. No additional regulatory controls are required to mitigate this risk.	

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guidance Statement: Risk Assessments* (DER 2017).

Note 2: Proposed Licence Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Licence Holder was provided with draft amendment on 25 September 2020	Response received 30 September 2020 requesting the remaining comment period is waived, and the amended licence is issued.	Licence amended

5. Conclusion

Decision

The Delegated Officer has determined the key emissions associated with increasing the throughput at the Class II landfill.

Based on the application supporting documentation, the Delegated Officer has determined that increasing the throughput at the Class II landfill from the current 1,300 tpa, up to 5,000 tpa, presents a low risk to the environment as a result of dust emissions to air and wind blown waste. However, these risks are adequately managed by existing regulatory controls in the Existing Licence.

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.

5.1 Summary of amendments

Table 6 provides a summary of the 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. These amendments relates to matters covered by sections 59(1)(e) and 59(1)(f), of the EP Act, therefore in accordance with section 105(b) of the EP Act, those decisions are not appealable changes.

Table 6: Summary of licence amendments

Condition no.	Proposed amendments
Not applicable Front of Licence	Duration expiry date: 23 December 2026. In accordance with the Notice of Amendment of Licence Expiry Dates (29/04/2016)
Not applicable Front of Licence	Prescribed premises category description table amended by increasing the assessed production/design capacity for category 64.
Not applicable Definitions section	This condition is updated to include additional definitions for new terms used in the Licence and the new address for the department.
Interpretation section	This condition is updated into the latest licence template wording.
Previous conditions 1.1.1, 1.1.2, 1.1.3 and 1.1.4	Redundant conditions. Revised to current licensing format.

1.1.5	This provision is not a condition and is an explanatory statement and therefore has been removed from the licence.
Previous subheading '1.2 General conditions'	This subheading has been removed as all general conditions have been deleted from the licence.
New subheading '1.1 Premises operation'	Previous subheading 1.3 is now 1.1 to continue numbering consistency.
Previous 1.2.1	Redundant condition. Adequately covered by alternative existing conditions. Deleted from licence.
Previous 1.2.2	Redundant condition. Adequately covered by EP (Unauthorised Discharges) Regulations 2004. Deleted from licence.
Previous 1.2.3	Redundant condition. Adequately covered by EP (Unauthorised Discharges) Regulations 2004. Deleted from licence.
Previous conditions 1.3.1 to 1.3.9 and Table 1.3.1 to 1.3.6	These conditions and tables have been updated to 1.1.1 to 1.1.9 and 1.1.1 to 1.1.6 respectively to maintain numbering consistency.
New conditions 1.1.1	This condition has been updated by increasing the limit of waste accepted for burial at the landfill to 5,000 tonnes per annual period.
New conditions 1.1.8	Construction requirements for the thickener and filter described in Table 1.1.5 have been deleted as this infrastructure has now been completed and compliance documentation submitted.
Table 4.3.1	Updated to reflect changes in condition numbering.
Schedule 1 Map of emission points and storage locations & landfill area map	Updated to reflect changes in condition numbering.
Schedule 2 Reporting & notifications	Form N1 Notification. Redundant attachment. Deleted from Licence Forms accessed at www.dwer.wa.gov.au

References

1. Department of Environment Regulation (DER) 2016, *Guidance Statement: Environmental Siting*, Perth, Western Australia.
2. DER 2017, *Guidance Statement: Risk Assessments*, Perth, Western Australia.
3. DWER, August 2016. *Guidance Statement: Licence duration*. Department of Regulation, Perth.
4. DWER, June 2019. *Guideline: Decision making*. Department of Water and Environmental Regulation, Perth.
5. DWER May 2016, *Operational Procedure IR-OP-02, Redundant Conditions*. Department of Water and Environmental Regulation, Perth.
6. DWER December 2019, *Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)*.

Appendix 1: Summary of Licence Holder's comments on risk assessment and draft conditions

Condition	Summary of Licence Holder's comment	Department's response
N/A	Licence Holder waived comment period and requested amended licence is issued.	Licence amended.

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY				
Application type				
Works approval	<input type="checkbox"/>			
Licence	<input type="checkbox"/>	Relevant works approval number:		None <input type="checkbox"/>
		Has the works approval been complied with?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
		Environmental Compliance Report submitted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date Report received:		
Renewal	<input type="checkbox"/>	Current licence number:		
Amendment to works approval	<input type="checkbox"/>	Current works approval number:		
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L8558/2011/1	
		Relevant works approval number:	N/A	<input checked="" type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:	None	<input type="checkbox"/>
Date application received	14 July 2020			
Applicant and Premises details				
Applicant name/s (full legal name/s)	Sandfire Resources Limited			
Premises name	DeGrussa Copper-Gold Project			
Premises location	Mining Lease M52/1046			
Local Government Authority	Shire of Meekatharra			
Application documents				
HPCM file reference number:	2011/004602			
Key application documents (additional to application form):	N/A. Supporting information provided within Application form.			
Scope of application/assessment				
Summary of proposed activities or changes to existing operations.	<p>Amendment to the Licence to increase the throughput of the landfill from the current capacity of 1,300 tpa to 5,000 tpa. The increase is to allow disposal of drill cuttings. No changes to waste category will occur.</p> <p>The Licence will also be amended (DWER initiated) to amalgamate the three previous Amendment Notices.</p>			

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
Category 5: Processing or beneficiation of metallic or non-metallic ore	2,050,000 tonnes or more per year	No changes
Category 6: Mine dewatering	2,000,000 tonnes or more per year	No changes
Category 52: Electric power generation	23 megawatts or more in aggregate (using a fuel other than natural gas)	No changes
Category 54: Sewage facility	240 cubic metres or more per day	No changes
Category 64: Class II putrescible landfill	1,300 tonnes or more per year	5,000 tonnes per year

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 checked="" type="checkbox"/>	Ministerial statement No: 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 type="checkbox"/> No <input checked="" type="checkbox"/>	Certificate of title <input 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?
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CPS No: 4132/7 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

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: GWL 169997(9) Licence/permit No: Licence / permit not required.
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: Type: Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Regional office:
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: Priority: P1 / P2 / P3 / Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
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 type="checkbox"/> No <input checked="" type="checkbox"/>	Not applicable for this application.
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"/>	
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Classification: N/A Date of classification: N/A
Direct interest stakeholders		
Shire of Meekatharra	Letter to be sent	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
DMIRS	Letter to be sent	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>