



Application for Licence Amendment

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

Licence Number	L5107/1988/13
Licence Holder	Northern Star (HBJ) Pty Ltd
ACN	127 026 519
File Number	2012/006867
Premises	Jubilee Gold Mine Legal description – Lot 15 on Plan 58833, Lot 50 on Plan 226299 and Lot 51 on Plan 226303, Feysville, Lot 103 on Plan 40395 Lot 105 on Plan 40396, Karamindie, and mining tenements M26/118, M26/143, M26/204 and M15/456
Date of Report	27/05/2020
Proposed Decision	Revised licence granted

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

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1. Decision summary

The Delegated Officer has determined to make amendments to Licence L5107/1988/13. The amendments are administrative in nature therefore they do not alter the risk profile of the Premises, providing that activities, emissions and receptors as stated in existing approvals remain unchanged.

This Amendment Report documents the amendments made pursuant to section 59 and 59(B) of the *Environmental Protection Act 1986* (EP Act).

2. Scope of assessment

2.1 Regulatory framework

In amending the licence, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://www.der.wa.gov.au>.

2.2 Application summary

Licence L5107/1988/13 is held by Northern Star (HBJ) Pty Ltd (Licence Holder) for the Jubilee Gold Mine (the Premises), located at Lot 15 on Plan 58833, Lot 50 on Plan 226299 and Lot 51 on Plan 226303, Feysville, Lot 103 on Plan 40395 Lot 105 on Plan 40396, Karamindie, and mining tenements M26/118, M26/143, M26/204 and M15/456.

The Premises relates to the categories and the assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in existing Licence L5107/1988/13.

On 4/03/2020, the Licence Holder submitted an application to the department to amend Licence L5107/1988/13 under section 59B of the *Environmental Protection Act 1986* (EP Act). The amendment is limited only to changing the Licence Holder name to reflect the company's name change, minor changes to the wording of the licence to ensure consistency with other licenses held by the Licence Holder, updating the maps in Schedule 1 to better reflect updated operations and removing an inactive bore from the licence.

Licence L5107/1988/13 (the Licence) was last amended in 2016. Since this time, the Licence Holder has undertaken a company name change and a number of operational changes have taken place. The proposed changes to the Licence assessed in this report are listed below with relevant justification:

1. Update the Licensee Name

On 19 April 2018, *HBJ Minerals Pty Ltd* registered a change of name to *Northern Star (HBJ) Pty Ltd*.

2. Update 'Premises Description and Licence summary' section

The Licence has been updated into a current format. As such, the 'Premises description and Licence summary' has been removed from the Licence.

3. Amend the annual period

The Licence Holder has requested that the annual period for the Licence be changed to align with other licenses held by the Licence Holder. The annual period is to be changed from *1 September to 31 August* to *1 January to 31 December*.

4. Amend the landfill cover requirement

The Licence currently requires the Licence Holder to cover waste at the class II landfill facility at least every two weeks. As the site is isolated and the volume of waste disposed of is minor (no more than 5000 tonnes per annual period), the risk of uncovered waste within the landfill cells causing pollution will be low. Table 7 of the Licence will be amended to require the Licence Holder to cover waste on a monthly basis. This also ensures the Licence is consistent with other licenses held by the Licence Holder.

5. Remove the requirement to collect wind-blown waste

The Licence currently requires the Licence Holder to “*take all reasonable and practical measures to ensure that no wind-blown waste escapes from the Premises and that wind-blown waste is collected on at least a fortnightly basis and returned to the tipping area*”. As the site is isolated and the volume of waste disposed of is minor, the risk of windblown waste causing pollution will be low. Condition 14 of the Licence will be amended to remove the following; “*and that wind-blown waste is collected on at least a fortnightly basis and returned to the tipping area*”. This also ensures the Licence is consistent with other licenses held by the Licence Holder.

6. Remove unnecessary monitoring

Table 10 of the Licence requires the Licence Holder to undertake monitoring at three open pit locations that receive abstracted groundwater produced during mining operations. As there is only one of the pits being used to dispose of groundwater, the Licence Holder has requested the Licence be amended to require monitoring only during times of discharge into each pit. Table 10 will therefore be amended to reflect this as there will be no risk posed from not monitoring pits that are not receiving water discharge.

7. Remove monitoring bore SMB12 from the Licence

The Licence Holder has requested that monitoring bore SMB12 be removed from the Licence. This bore is part of a number of groundwater bores to monitor ambient groundwater levels and quality. The Licence Holder commissioned RPS Group to write a ‘Groundwater Operating Strategy’ (GOS) for the management of groundwater resources within the groundwater areas affected by Northern Star (HBJ) Pty Ltd’s Kalgoorlie operations, including the Jundee mine.

A possible breach of licence occurred on 26 June 2017, where SMB12 recorded 3.6 metres below ground level (mbgl), against a licence limit of 4 mbgl. The exceedance was reported to DWER the following month (July 2017) and the following measures were taken:

- A catchment trench (60 metres long and 8 metres deep) was dug north of the Sapphire In-Pit TSF to capture any seepage;
- RPS was engaged to assess the hydrogeological conditions around bore SMB12; and
- Four additional monitoring shallow bores (6 m depth) were drilled: SMB12-S, SMB01-S, SMB16-S and SMB17-S.

The following was determined:

- The trench was dry and showed no indication of wetting up;
- The shear zone in the basement is a confined aquifer;
- The basement shear zone is the sole conduit for seepage;
- The bore water levels reflect the confined head in the basement aquifer (potentiometric surface) and not the water table;
- The confined head in the basement aquifer has risen in response to seepage but the water table itself remains below 8 mbgl;
- The trigger (shallow water table) has not actually been exceeded.

The three new shallow bores close to the pit have been “dry” or deeper than 4 mbgl since February 2018, confirming that the deeper aquifer (basement) is confined and that the bore water levels in SMB12 reflect a “mound” in the potentiometric surface due to confined pressure in the deeper aquifer. (RPS Group, 2020)

Due to SMB12 not being an accurate representation of the water table, it will no longer required to be monitored and be removed from the Licence. Table 12 will be amended to remove reference of SMB12.

8. Update the maps in Schedule 1

The Licence Holder has provided a number of maps that replace the current maps on the Licence. The new maps better reflect the operations at Jundee and merge a number of maps into one. The new maps also contain the current Licence Holder’s name.

3. Consultation

The Licence Holder was provided with the draft Amendment Report on 26 May 2020. On 27 May 2020 the Licence Holder waived the comment period.

4. Conclusion

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

4.1 Summary of amendments

Table 1 below provides a summary of the proposed amendments and will act as a record of implemented changes. All proposed changes have been incorporated into the revised licence as part of the amendment process.

Table 1: Summary of licence amendments

Condition no.	Proposed amendments
Cover page	Restructured to clearly indicate what prescribed activities have been risk assessed
Premises Description and Licence summary	Deleted. This guidance is available in the department’s Guideline: Industry Regulation Guide to Licensing (June 2019)
Annual Period	Amended to <i>1 January to 31 December.</i>
Table 7	Amended column 2: Replace “ <i>fortnightly</i> ” with “ <i>monthly</i> ”
Condition 14	Deleted the wording “ <i>and that wind-blown waste is collected on at least a fortnightly basis and returned to the tipping area.</i> ”
Table 10	Included a note on column 5 that states: “ <i>monitoring to be undertaken only during active pit transfers</i> ”
Table 12	Amended to remove SMB12 from monitoring requirements.

Condition no.	Proposed amendments
Premises map	Updated to more recent map
Map of storage locations	Replaced with map of storage locations and groundwater monitoring bores
Landfill area map	Updated to more recent map
Maps of emission points to groundwater (3 maps)	Replaced with more recent map
Maps of monitoring locations (5 maps)	Replaced with map of storage locations and groundwater monitoring bores
Annual Audit Compliance Report	Deleted. This guidance is available in the department's Guideline: Industry Regulation Guide to Licensing (June 2019)
Form ET1	Removed as considered redundant

References

1. RPS Group 2020, GROUNDWATER OPERATING STRATEGY, South Kalgoorlie Operations Northern Star Resources Limited, Rev. 1, 14 February 2020 - RPS Australia West Pty Ltd (RPS), West Perth, WA.

Appendix 1: Summary of Licence Holder's comments on draft amendment

Condition	Summary of Licence Holder's comment	Department's response
N/A	N/A	N/A