



## Application for Licence Amendment

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

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<b>Licence Number</b>	L8653/2012/2
<b>Licence Holder</b>	BHP Nickel West Pty Ltd
<b>ACN</b>	004 184 598
<b>File Number</b>	2012/003930-4~7
<b>Premises</b>	Kalgoorlie Nickel Smelter 100 Smelterman Drive, Feysville  Lot 100 on Deposited Plan 212288  Certificate of Title Volume 1670 Folio 313  As defined by the [Premises maps] attached to the Revised Licence
<b>Date of Report</b>	13 April 2023
<b>Decision</b>	Revised licence granted

**MANAGER, PROCESS INDUSTRIES  
REGULATORY SERVICES**

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

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## 1. Decision summary

The Delegated Officer has determined to make amendments to Licence L8653/2012/2. 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://dwer.wa.gov.au/regulatory-documents>.

### 2.2 Application summary

Licence L8653/2012/2 is held by BHP Nickel West Pty Ltd (Licence Holder) for the Kalgoorlie Nickel Smelter (the Premises), located at Lot 100 on Deposited Plan 212288.

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 L8653/2012/2.

On 7 December 2022, the Licence Holder submitted an application to the department to amend Licence L8653/2012/2 under section 59B of the *Environmental Protection Act 1986* (EP Act).

The application relates to two Oxygen Vacuum Pressure Swing Adsorption (VPSA) Plants within the Premises and proposes the following:

- Operation of Oxygen VPSA Plant 1 which was constructed under W6588/2021/1; and
- Construction and operation of proposed Oxygen VPSA Plant 2.

Construction of the Oxygen VPSA Plant 1 was completed on 30 September 2022, with additional works undertaken during October and November 2022. The Environmental Compliance Report required by works approval W6588/2021/1 was submitted to DWER and subsequently reviewed.

Noise modelling (Talis Consultants 2021) has been undertaken and under all scenarios modelled, compliance with the Environmental Protection (Noise) Regulations 1997 was maintained.

Prior to the installation of Oxygen VPSA Plant 1, the existing non-operational original Oxygen Plant drainage line was recommissioned and reconnected to the existing underground drainage network and a stormwater study (WML Consultants 2020) determined that recommissioning of the original pipework would be adequate to support any water discharge generated by the operation of the proposed Oxygen VPSA Plants.

The infrastructure and equipment relating to the application and any associated activities has been considered in line with Guideline: Risk Assessments (DWER 2020) and are outlined in the decision report for works approval W6588/2021/1 (DWER 2021).

### 2.3 Overview of oxygen plant process

The proposed oxygen VPSA plants are intended to supplement the existing oxygen plant.

Oxygen is added to the furnace to enable the nickel smelting process on the premises. The oxygen VPSA plant takes ambient air and removes nitrogen and other minor gases to produce low purity oxygen.

Oxygen VPSA Plant 2 air emissions are expected to be the same as Oxygen VPSA Plant 1 and include a 35,000Nm<sup>3</sup> of waste gas comprising 89% nitrogen, 10% oxygen and 1% minor gases.

Wastewater from the air feed compression and cooling tower blow down will be directed to the existing site wastewater system that is currently regulated by Licence L8653/2012/2

### 3. Consolidation of licence

As part of this amendment package DWER has consolidated the licence by incorporating changes made under Amendment Notice 1 (granted 14 August 2017) which include:

- Installation of an oil recycling plant and associated infrastructure;
- Authorisation to receive waste oil from other premises;
- Processing of waste oil to create a Dehydrated Fuel Oil (DFO); and
- During commissioning test the DFO waste and if suitable, dispose of it in the furnace (via combustion).

The smelter furnace at KNS uses DFO as a supplementary fuel source within the furnace to heat the nickel concentrate. DFO is created from the recycling and treatment of waste mineral oil. The DFO plant was installed to generate approximately 50% of DFO required for the smelter furnace from waste oil generated at the site and to operate as an oil recycling facility. Additional waste oil is sourced from external sources to meet the 100% of the sites DFO furnace requirements.

In approving the amendment for the DFO plant, the Delegated Officer has considered the appropriateness of existing regulatory controls within the licence and determined that the existing conditions are suitable for the management of key emissions during the risks associated operation of the DFO plant.

Despite the inclusion of provision for the combustion of sludge waste in Amendment Notice 1, it was later found to be unsuitable for that purpose due to high water content. All sludge waste is now removed from the site.

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 the previous Amendment Notice.

In consolidating the licence, the CEO has also:

- 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 licence holder to obtain the form from the Department's website;
- 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 DWER website for future reference and will act as a record of DWER's decision making.

### 4. Consultation

The Licence Holder was provided with the draft Amendment Report on 15 March 2023. Comments received from the Licence Holder on 6 April 2023 have been considered by the

Delegated Officer as detailed in Appendix 1.

## 5. 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.

The Delegated Officer considers that the proposed Oxygen VPSA Plant 2 is consistent with the construction and operation of the Oxygen VPSA Plant 1 (as assessed in a previous works approval application (DWER 2021)) and does not consider the infrastructure of the second plant will pose additional risk of impact to the environment. Expected emissions from the operation of both plants will not contribute significantly to noise overall at the Premises. No wastewater is expected to be directly discharged to the environment as it is managed using the existing site stormwater drainage system and DWER does not consider there to be a risk of impact to the environment.

### 5.1 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**

Amended licence	Existing licence	Proposed amendments
Cover page		Restructured to clearly indicate what prescribed activities have been risk assessed. Duration extended to 10/06/2034
Licence history		Added to licence
Interpretation		Added to licence based on departmental legal advice.
	Preamble	Removed as considered redundant and conditions considered to unnecessarily duplicate the legislation
Definitions		Moved to below licence conditions.
		Definitions updated: 'CEO'
		Definitions removed: 'approved policy', 'department request', 'DWER', 'environmental harm', 'implementation agreement or decision', 'inspector', 'material environmental harm', 'pollution', 'serious environmental harm', 'unreasonable emission', 'waste', 'works' – conditions which contained these references have been removed as part of this amendment
Definitions added: 'annual period', 'licence holder'		
Condition 1 and	Condition A1	Added infrastructure and equipment requirements

Amended licence	Existing licence	Proposed amendments
Table 1	Condition A2(a)	table, consistent with current licence format. Existing conditions relating to operational requirements of infrastructure and equipment moved to table. There is no change to the obligations of the licence holder.
	Condition A2(d)	
	Condition A2(e)	
	Condition A14	
	Condition W2	
	Condition W4(a)	
	Condition W4(b)	
	Condition W5	
	Condition W6	
	Condition W7(a)	
	Condition W7(b)	
	Condition W9(a)	
Condition 2 and Table 2		Condition transferred from Amendment Notice 1 as a result of the consolidation of the licence.
Condition 3 and Table 3	Condition W3	Updated format and wording of the condition, no change to the obligations of the licence holder.
Condition 4 and Table 4		Oxygen VPSA plant emission point A1 transferred to this licence from works approval W6588/2021/1 and emission point A2 added as part of this amendment application.
	Condition W7 (c)	Removed as adequately addressed by Section 72 of the EP Act.
Condition 5	Condition W8 (a)	Updated format and wording of the condition, no change to the obligations of the licence holder.
Condition 6	Condition W8 (b)	
Condition 7	Condition W8(c)	
Condition 8	Condition W8(d)	
Condition 9	Condition W8(e)	
Condition 10	Condition G1	
Condition 11 and Table 5	Condition A2(b)	New condition to update and consolidate sulfur dioxide emission monitoring conditions, no change to the obligations of the licence holder.
	Condition A2(c)	

Amended licence	Existing licence	Proposed amendments
	Condition A2(f)	
Condition 12	Condition A2(g)	Updated format and wording of the condition, no change to the obligations of the licence holder.
Condition 13 and Table 6	Condition A3	Condition moved to atmospheric monitoring table, no change to the obligations of the licence holder.
	Condition A5(a)	Updated format and wording of the condition, no change to the obligations of the licence holder.
	Condition A5(b)	
Condition 14	Condition A4(a)	New condition to update and consolidate atmospheric emission limits and targets conditions, no change to the obligations of the licence holder.
	Condition A4(b)	
Condition 15	Condition A7(a)	Updated format and wording of the condition, no change to the obligations of the licence holder.
Condition 16	Condition A7(b)	
Condition 17	Condition A7(c)	
Condition 18	Condition A7(d)	
Condition 19	Condition A8	
Condition 20	Condition A9	
Condition 21 and Table 7	Condition A10(a)	
Condition 22	Condition A10(b)	
Condition 23	Condition A10(c)	
Condition 24	Condition A10(d)	
Condition 25	Condition A11(a)	
Condition 26	Condition A11(b)	
Condition 27	Condition A11(c)	
Condition 28	Condition A11(d)	
Condition 29	Condition A11(e)	
Condition 30	Condition A12(a)	
Condition 31	Condition A12(b)	
Condition 32	Condition A12(c)	

<b>Amended licence</b>	<b>Existing licence</b>	<b>Proposed amendments</b>
Condition 33	Condition A12(d)	
Condition 34	Condition A13	
Condition 35 and Table 8	W1(a)	New condition to update and consolidate groundwater monitoring conditions, no change to the obligations of the licence holder.
	W1(b)	
Condition 36	W1(c)	Updated format and wording of the condition, no change to the obligations of the licence holder.
Condition 37	W1(d)	
Condition 38		New standard condition added, consistent with revised license format.
Condition 39	Condition G4	Condition updated to be consistent with revised licence format.
Condition 40	Condition G5	Updated format and wording of the condition, no change to the obligations of the licence holder.
Condition 41	Condition G2(a)	New standard condition added, consistent with revised license format.
		Consolidation of condition G2(a) with this condition, no change to the obligations of the licence holder.
Condition 42		New standard condition added, consistent with revised licence format.
Condition 43	Condition G2(b)	Updated format and wording of the condition, no change to the obligations of the licence holder.
Condition 44	Condition G3(a)	
Condition 45	Condition G3(b)	
Condition 46	Condition A6(a)	
Condition 47	Condition A6(b)	
Condition 48	Condition A6(c)	
Schedule 1: Maps	Attachment 4	
	Attachment 6	Updated to be consistent with revised licence format - Figure 2: Premises plan
	Attachment 5	Updated to be consistent with revised licence format - Figure 3: Groundwater monitoring bore locations
		Updated to be consistent with revised licence



Amended licence	Existing licence	Proposed amendments
		format - Figure 4: Oxygen VPSA Plant (Project Area) and discharge vents within the Premises Boundary
Schedule 2: Wind direction arcs	Schedule A	Updated to be consistent with revised licence format.
Schedule 3: Emissions monitoring data reporting format	Attachment 1	
Schedule 4: Reporting requirements	Attachment 2	
Schedule 5: Data format for monitoring data files	Attachment 3	
Schedule 6: SODAR and weather station positions	Attachment 7	
	Attachment 8	Removed the redundant AACR form as the form can be obtained from the Department's website.

## References

1. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
2. DWER 2021, *Works Approval (W6588/2021/1) and Decision Report for BHP Nickel West Pty Ltd*, issued 8/11/2021
3. Talis Consultants 2021, *Kalgoorlie Nickel Smelter NKS Project Environmental Noise Assessment*, submitted to DWER on 7 December 2022 (DWER reference: DWERDT697513)
4. WML Consultants 2020, *Kalgoorlie Nickel Smelter Site Stormwater Study*, submitted to DWER on 7 December 2022 (DWER reference: DWERDT697513)

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

Condition	Summary of Licence Holder's comment	Department's response
Various	The applicant has requested the correction of minor errors in wording throughout the licence.	The Delegated Officer accepts the changes, and the licence has been updated accordingly.
Conditions relating to the commissioning, monitoring, and reporting of DFO sludge combustion.	The applicant has requested the removal of all conditions relating to DFO sludge combustion as it was identified during commissioning that the DFO sludge waste has a high-water content, making it unsuitable for combustion and that all DFO sludge waste is removed from site by a controlled waste contractor and disposed of to an approved facility.	The Delegated Officer accepts the changes, and the licence has been updated accordingly. DFO Plant operational requirements regarding the removal and disposal of sludge waste have been updated to reflect this.
Annual Environmental Report (AER) and the Annual Audit Compliance Report (AACR) conditions	The applicant has requested that annual reporting periods for this licence, be aligned to the fiscal year (1 July to 30 June) with a report date of 30 September for the AER and the AACR. The applicant is intending to align all instrument annual licence reporting with this date through amendment applications.	The Delegated Officer accepts the changes, and the licence has been updated accordingly.
Spill of liquid chemicals condition	The applicant has requested that this condition be removed due as Section 72 of the EP Act adequately addresses the reporting of discharges.	The Delegated Officer accepts the changes, and the licence has been updated accordingly as this condition is addressed by Section 72 of the EP Act as well as the Environmental Protection (Unauthorised Discharges) Regulations 2004.
Atmospheric Monitoring, Emission Limits and Targets conditions	The applicant has requested that sampling of the matte drier be exempt when it is not operational as currently sampling is to occur each relevant period however the matte drier does not operate continuously and is often shut down for long periods when not required.	The Delegated Officer accepts the changes, and the licence has been updated accordingly, specifying that sampling is to be undertaken for 'equipment under operation'.