



Application for Licence Amendment

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

Licence Number	L6306/1989/11
Licence Holder	Wesfarmers LPG Pty Ltd
ACN	009 214 831
File Number	DEC5731/1
Premises	Donaldson Road KWINANA BEACH WA 6167 Legal description – Part of Lot 102 on Plan 73740 As defined by the coordinates in Schedule 1 of the Licence
Date of Report	15/12/2020
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

Licence L6306/1989/11 is held by Wesfarmers LPG Pty Ltd (Licence Holder) for the liquefied petroleum gas (LPG) and liquefied natural gas (LNG) production facility (the Premises), located on Donaldson Road, Kwinana Beach.

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 L6306/1989/11 has been granted.

The Revised Licence issued as a result of this amendment 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.

In amending the Existing Licence, the Delegated Officer has also:

- updated the format and appearance of the Licence;
- revised licence condition's to current licensing format, and removed any redundant conditions and realigned condition numbers for numerical consistency; and
- corrected clerical mistakes and unintentional errors.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the Delegated Officer has considered and given due regard to the Department of Water and Environmental Regulation's (Department) Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Amendment summary

On 20 August 2020, the Licence Holder submitted an application to the Department to amend Licence L6306/1989/11 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought for:

- the construction and installation of spray painting booths and the addition of prescribed premises Category 81 – metal coating; and
- the removal of condition 1.2.3 which regulates environmentally hazardous materials and condition 1.3.1 which regulates the storage of reverse osmosis reject water.

Table 1 below outlines the Requested changes to the categories on the Existing Licence.

Table 1: Requested changes in relation to the categories

Prescribed premises category and description	Assessed & Proposed production or design capacity	Proposed amendment
34 – Oil or gas refining	<u>Assessed</u> 420,000 tonnes per annual period	Remove condition 1.2.2 – as the storage of hazardous materials is managed under the <i>Dangerous Goods Safety Act 2004</i> . Remove condition 1.3.1 – as reverse osmosis (RO) water is to be used to supplement lawn irrigation.

Prescribed premises category and description	Assessed & Proposed production or design capacity	Proposed amendment
81 – Metal coating	<u>Proposed</u> Automatic paint booth: up to 23,000 L of paint per year Manual paint booth: up to 23,000 L of paint per year Total design capacity; 46,000 L or more per year (paint)	Add new category (81).

2.3 Description of proposed activity (metal coating)

The Premises is located within the Kwinana Industrial Area and operates under licence L6306/1989/11. The Premises produces both LPG and Liquefied Natural Gas LNG with the plant designed to run on a continuous basis.

Wesfarmers Kleenheat Gas (Kleenheat Gas) Pty Ltd holds a registration (R2202/2010/) for the Kleenheat Gas Kwinana Distribution facility located on Beach Street, Kwinana. The registration for that site relates to a storage, refill and distribution facility including gas cylinder painting (Category 81 – metal coating). Kleenheat Gas proposes to cease operating at this location and relocate to the Licence Holders premises and operate under Licence L6306/1989/11.

The Distribution facility will be constructed and operated on a currently unused portion of the Licence Holder's premises, south of the existing LPG and LNG plants (refer to Schedule 1 – Figure 1). This amendment report only considers the emissions associated with metal coating and does not consider emissions from other activities such as storage, refill and distribution carried out at the Distribution Facility.

Following the relocation of the facility, metal coating activities at Beach Street, Kwinana will cease and Wesfarmers Kleenheat Gas (Kleenheat Gas) Pty Ltd intend to surrender the registration.

The metal coating activity will include the spray painting of gas cylinders with a capacity range of 4.5 kg to 45 kg using automated and manual spraying techniques. The automated system will involve the transfer of cylinders via conveyor belt to the painting booth. Cylinders are manually connected to an overhead chain conveyor which automatically passes thorough the paint booth in which spray paint guns paint each cylinder which are then hung to dry.

The manual system involves personnel using paint spray guns to manually paint each cylinder. All paint overspray is captured by a paint booth filter.

Abrasive blasting will not be carried out at the facility as preparation of the cylinder surface prior to spray painting is not required.

The *Environmental Protection (Metal Coating) Regulations 2001* (Metal Coating Regulations) outline installation requirements for spray painting booths. Regulation 6 of the Metal Coating Regulations states that the design, construction, installation and maintenance for spray painting booths is to be carried out in accordance with AS/NZS 4114:2020 - Spray painting booths. The Metal Coating Regulations also make it a requirement for booths to be fitted with the appropriate mechanical ventilation and dust extraction systems as required.

Given this, the revised licence will only include conditions relating to construction/installation requirements and construction compliance reporting to validate the works completed.

The operational aspect of spray painting (gas cylinders) will be carried out in accordance with the Metal Coating Regulations, therefore no conditions relating to metal coating are required in the revised licence.

Table 2 outlines the infrastructure for the spray painting facility.

Table 2: Spray painting facility infrastructure

Proposed infrastructure	Specifications/description
<p>Automated and manual spray booth to be constructed/installed within the Kwik gas shed and test area (approximately 24m x 37 m) and clad with non-combustible wall panelling</p>	<p><u>Automated spray painting booth</u></p> <p>Spray painting booth compliant with AS 4114:2020 – Spray painting booths and <i>Environmental Protection (Metal Coating) Regulations 2001</i>;</p> <p>1 x Water curtain booth (Model WWSB10EX);</p> <p>1 x Exhaust stack – stack 3 m higher than the roof height with weatherproof vertical discharge cowls;</p> <p>Exhaust volume is approximately 4.15 m^{3/s};</p> <p>Booth cabin size is 10.2 m²;</p> <p>Nominal spray height is 900 mm;</p>
	<p><u>Manual spray painting booth</u></p> <p>Spray painting booth compliant with AS 4114:2020 – Spray painting booths and <i>Environmental Protection (Metal Coating) Regulations 2001</i>;</p> <p>Filtration system compliant with AS 2381.1:2005 – Electrical equipment for explosive gas atmospheres.</p> <p>1x Dry media booth (Spraymaster model)</p> <p>1 x Exhaust - stack 3 m higher than the roof height with weatherproof vertical discharge cowls;</p> <p>Exhaust volume is approximately 3 m^{3/s};</p> <p>Booth cabin size is 3.78 m²;</p> <p>Nominal spray height 500 mm;</p>

3. Risk assessment

The Delegated Officer 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 Emissions and controls

The key emissions and associated actual or likely pathway during the operation of the metal coating booths which have been considered in this Amendment Report are detailed in Table 3 below. Table 3 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 3: Licence Holder controls

Emission	Potential pathways	Proposed controls
Paint overspray from the metal coating activities	Air/windborne pathway causing impacts to health and amenity	<u>Automated paint booth</u> . <ul style="list-style-type: none"> Filtration system - paint overspray to be captured by a self-contained water curtain. Water curtain maintenance and cleaning schedule to be implemented on a regular basis; Water curtain wastewater to be collected by a licensed controlled waste operator and in accordance with 'KHO (Kleenheat Gas Overspray) Waste Disposal Guidelines'.
Paint odour - Volatile organic compounds (VOC's)		<u>Manual paint booth</u> <ul style="list-style-type: none"> Manometers will be installed to monitor the effectiveness of the filtration and a maintenance procedure for the inspection and replacement of filters. Solid and liquid wastes to be stored in drums and within a bunded area in accordance with AS 1940:2017 – The storage and handling of flammable and combustible liquids; Extraction through filters and vented via 3m stack. Two layers of paint booth filters to be used at all times (first layer captures 80% of paint overspray and second layer captures remaining 20%); All paint waste and filters to be collected by a licensed controlled waste operator and in accordance with 'KHO (Kleenheat Gas Overspray) Waste Disposal Guidelines'.
Noise		<ul style="list-style-type: none"> Facility located within Kwinana Industrial area; Hours of operation for the facility: 6am – 11pm, 7 days a week; and Painting activities to occur approximately 8am – 2pm.

3.1.2 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 4 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 4: Sensitive human and environmental receptors and distance from prescribed activity

Receptors	Distance from prescribed activity
Workers within other industrial premises in the Kwinana Industrial Area	Adjacent
Residential Premises - Medina suburb	2.1 km south-east
Environmental receptors	Distance from prescribed activity
Bush Forever Site	900 m south-east
Cockburn Sound	1.5 km west

3.1.3 Removal of conditions

The Licence Holder has requested the removal of conditions 1.2.2 and 1.3.1 from the existing licence L6306/1989/11 for the reasons outlined in Table 5.

Table 5: Removal of conditions 1.2.2 and 1.3.1 from L6306/1989/11

Condition	Licence Holder controls and rationale for removal of condition
<p><u>Condition 1.2.2</u></p> <p>States that <i>'The Licensee shall ensure that environmentally hazardous materials are stored in accordance with the code practice for the storage and handling of dangerous goods'</i>.</p>	<p>The Licence Holder currently holds a Dangerous Goods Storage Licence (Licence number: DGS011155) therefore, environmentally hazardous materials are regulated under the <i>Dangerous Goods Safety Act 2004</i> ;</p> <p>The following controls are also in place to ensure the safe storage of environmentally hazardous materials:</p> <ol style="list-style-type: none"> 1. Annual internal audit against the requirements of the Australian Dangerous Goods Code, and the <i>Dangerous Goods Safety (Storage and Handling of Non – explosives) Regulations 2007</i>; 2. Internal quarterly environmental hazard and housekeeping audit is undertaken to ensure that appropriate spill prevention and hydrocarbon/chemical/waste storage measures are established and being used.
<p><u>Condition 1.3.1</u></p> <p>States that <i>'The Licensee shall ensure the materials specified in Table 1.3.1 are only stored within vessels or compounds provided within the infrastructure detailed in Table 1.3.1'</i>.</p> <p>This refers to reverse osmosis reject water stored in a containment pond. The Reverse Osmosis (RO) Plant generates purified water for use in the Continuous De-Ionisation (CDI) plant, which is part of the wet scrubber system.</p>	<p>The containment pond is primarily maintained using groundwater. Approximately 6 megalitres of reject water is discharged from the RO plant to the pond annually which is used for firefighting and dust suppression purposes. The Licence Holder proposes to use the reverse osmosis reject water stored in the containment pond to supplement lawn irrigation. This may contribute to an overall reduction in the volume of groundwater extracted for the purpose of irrigation under Licence to Take Water - GWL59069. The following controls are currently in place to ensure a consistent water supply and that the reject water quality is suitable for irrigation:</p> <ol style="list-style-type: none"> 1. Sampling and analysis of RO reject water is undertaken on a six monthly basis. RO reject water testing has been undertaken since 2017 and was reviewed by the Delegated Officer and found to demonstrate that results are consistently below the health based Australian Drinking Water Guidelines (ADWG) 2011; 2. RO plant is routinely maintained and serviced every two months; 3. CDI plant, fed by the RO plant has an online monitor for the quality of water produced with automatic shutdown capability; and 4. RO and CDI plant performance readings are checked daily and inconsistencies actioned as soon as practicable.

3.1.4 Decision

Condition 1.2.2

The Delegated Officer notes this is a redundant condition as environmentally hazardous materials are regulated under the *Dangerous Goods Safety Act 2004* therefore it will be removed from the revised licence. The controls currently in place are deemed sufficient.

Condition 1.3.1

With reference to licence holder comments on the draft amendment report and draft licence (refer to Appendix 1) the licence holder additionally requested removal of condition 1.3.1. The Delegated Officer took into account the information provided by the licence holder as summarised in section 3.1.3 of this report.

Delegated Officer does not object to the removal of condition 1.3.1 as the licence holder has demonstrated the RO reject water quality to be consistently below *Australian Drinking Water Guidelines* (ADWG) standards with robust operational control and maintenance of equipment.

The Delegated Officer agreed that the discharge of the RO reject water is of sufficiently low risk that it does not require specific ongoing monitoring and emission limit controls. The licence controls will be limited to recording the discharge point location (L1) as an authorised discharge of RO reject water to land.

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 (as detailed in Section 3.1), 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.

The Revised Licence L6306/1989/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. metal coating activities.

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

Table 6. Risk assessment of potential emissions and discharges from the Premises during construction and operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Reasoning	Regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
Construction								
Construction /installation of spray painting booths	Noise	Air/windborne pathway causing impacts to health and amenity	Kwinana Industrial Area	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	Separation distance to sensitive receptors is sufficient	<i>Environmental Protection (Noise) Regulations 1997</i> <i>Environmental Protection (Metal coating) Regulations 2001</i>
Operation								
Operation of spray painting premises	Paint overspray	Air/windborne pathway causing impacts to health and amenity	Kwinana Industrial Area	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	Design and operation carried out in accordance with relevant Regulations and Australian Standards	<i>Environmental Protection (Metal coating) Regulations 2001</i>

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Reasoning	Regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
	Paint odour – VOC's			Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	Design and operation carried out in accordance with relevant Regulations and Australian Standards Separation distance to sensitive receptors is sufficient	<i>Environmental Protection (Metal coating) Regulations 2001</i>
	Noise			Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	Premises located within an industrial area	<i>Environmental Protection (Noise) Regulations 1997</i>

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 7 provides a summary of the consultation undertaken by the department.

Table 7: Consultation

Consultation method	Comments received	Department response
Licence Holder was provided with draft amendment on 27 November 2020	Refer to Appendix 1	Refer to Appendix 1

5. 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.

5.1 Summary of amendments

Tables 8 and 9 provide 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 8: Summary of licence amendments

Condition no. removed in Existing Licence	New condition no. in revised licence	Proposed amendments
N/A	N/A	Inclusion of new category – page 1 of licence
1.2.2	N/A	Deleted from licence. Adequately regulated by the Dangerous Goods Safety Act 2004.
1.3.1	1	1.3.1 deleted from licence. Discharge point location L1 included in revised licence.
N/A	11	New condition: Infrastructure and equipment (construction)
N/A	12	New condition: Construction Compliance Report

Table 9: Summary of changes from Existing Licence to Revised Licence

Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A – Front page	Expiry Date: 08 November 2019	Expiry Date: 08 November 2027	In accordance with the Notice of Amendment of Licence Expiry Dates (29/04/2016)
<u>General</u>			
1.1.1	Interpretation and definitions	Table 5: Definitions	Redundant condition. Revised to current licensing format.
1.1.2			
1.1.3	Australian or other standard		
1.1.4	Reference to code of practice		
1.2.1	Pollution control and monitoring equipment	N/A	Redundant condition - deleted from licence.
1.2.3	Recovery and removal of spills	N/A	Redundant condition. Adequately covered by EP (Unauthorised Discharges) Regulations 2004. Deleted from licence.
<u>Emissions</u>			
2.1.1	Point source emissions to air	Condition 1	Revised to current licensing format.
<u>Monitoring</u>			
3.1.1	Monitoring frequency	Conditions 2 and 4	Revised to current licensing format.
3.1.2	Recording of production/throughput data	N/A	Redundant condition removed from licence
3.2.1	Monitoring of point source emissions to air	Condition 2	Revised to current licensing format. Condition 3 included to record results of monitoring.
3.2.2	Sampling locations		
3.2.3	NATA accreditation	Condition 5	Revised to current licensing format.
<u>Information</u>			
4.1.1	Records	Conditions 8 and 9	Revised to current licensing format.

Existing condition	Condition summary	Revised licence condition	Conversion notes
4.1.2	Personnel aware of conditions	N/A	Redundant condition. Deleted from licence.
4.1.3	Annual Audit Compliance Report	Condition 7	Revised to current licensing format. Forms accessed at www.dwer.wa.gov.au
4.1.4	Complaints	Condition 6	Revised to current licensing format.
4.2.1	Reporting Annual Environmental Report (AER)	Condition 10	Revised to current licensing format.
Schedule 1: Maps	Premises map	Schedule 1: Maps	New naming convention. Maps updated to include Figure 1.
Schedule 2: Reporting & notifications	AACR form	N/A	Redundant attachment. Deleted from licence.

References

1. L6306/1989/11 Wesfarmers LPG Pty Ltd, August 2020 – Application to Amend Licence – Application form.
2. L6306/1989/11 Wesfarmers LPG Pty Ltd, August 2020 – Application to Amend Licence – Supporting information.
3. DER 2017, *Guidance Statement: Risk Assessments*, Perth, Western Australia.
4. DER 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
5. NHMRC, NRMCC (2011) *Australian Drinking Water Guidelines Paper 6 National Water Quality Management Strategy*. National Health and Medical Research Council, National Resource Management Ministerial Council, Commonwealth of Australia, Canberra.

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

Condition	Summary of Licence Holder's comment	Department's response
Condition 1	Ambiguity of the term 'waste gases' referenced in Table 1, suggest wording is adjusted to specify the relevant discharge point.	Noted and suggested wording included.
Condition 2	Suggest removal of this condition as the quality of water discharged from RO plant is consistently below the health based ADWG and ongoing controls measures in place ensure a consistent water supply and reject water supply.	<p>Condition removed. Rationale for removal is provided in updates to Section 3.1.3 and 3.1.4.</p> <p>Discharge point (L1) has been included in Table 1: Authorised discharge points of the revised licence as RO reject water used for the purpose of irrigation is considered a discharge to land.</p> <p>Monitoring of RO reject water is not required as the Licence Holder has provided historical water test results demonstrating water quality is consistently below the health based ADWG as well as the controls and measures currently in place to ensure consistent water quality – refer to Section 3.1.3.</p> <p>The Licence Holder has also advised that the RO reject water will be discharged directly from the RO plant (not stored in the containment pond) and intends to undertake RO reject water testing on an annual basis as of 2021.</p>
Condition 9(c)	Reference to condition number to be corrected.	Noted and corrected.
Condition 10	Reference to condition number to be corrected	Noted and corrected.
Condition 11	Table number to be corrected and references to be updated.	Noted and corrected.
Condition 12	Table number to be corrected and references to be updated.	Noted and corrected.
Condition 13 and 13 (a)	Reference to condition number to be corrected.	Noted and corrected.
Schedule 1: Maps	Discharge points and monitoring locations are the same therefore suggest merging Figure 1 and Figure 2.	Noted and map updated.