



**Licence Number** L5271/1983/14

**Licence Holder** Alcoa of Australia Limited

**ACN** 004 879 298

**File Number** DEC643/4

**Premises** Pinjarra Refinery

Lot 19 on Diagram 44739, Part of Lot 109 on Diagram 60089, Part of Lot 151 on Plan 10914, Lot 221 on Plan 302632, Lot 222 on Plan 302638, Part of Lot 251 on Plan 35963 and Lot 252 on Plan 35963

**Date of Amendment** 28 August 2018

## Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Licence in accordance with section 59 of the *Environmental Protection Act 1986* (EP Act), as set out in this Amendment Notice. This Amendment Notice constitutes written notice of the amendment in accordance with section 59B(9) of the EP Act.

## Acting Senior Manager Process Industries

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

## Amendment Notice

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the licence issued under the EP Act for a prescribed premises as set out below. This notice of amendment is given under section 59B(9) of the EP Act.

The following guidance statements have informed the decision made on this amendment:

- *Guidance Statement: Regulatory Principles* (July 2015)
- *Guidance Statement: Setting Conditions* (October 2015)
- *Guidance Statement: Decision Making* (February 2017)
- *Guidance Statement: Risk Assessment* (February 2017)

## Amendment description

Licence L5271/1983/14 is held by Alcoa of Australia Limited (Licence Holder) for the Pinjarra Refinery. The licence was amended on 28 July 2017 to include the construction and operation of a residue mud filtration facility (Amendment Notice 3).

On 17 June 2018, the Licence Holder lodged an application to amend the licence to remove references to an emergency containment pond and associated spillway that formed part of the proposed secondary containment infrastructure for the residue mud filtration facility. The Licence Holder intends to meet secondary containment requirements through incorporation into a single concrete-lined secondary containment structure.

The Licence Holder considered the requested amendments to be administrative on the basis that:

- Removing the emergency containment pond does not impact the risk of emissions, compliance with the requirements of the licence, or relevant legislation;
- The use of a single secondary containment structure does not materially change or affect the infrastructure;
- The design change improves the functionality, maintenance and operability of the facility; and
- The alteration will not increase the risk to public health, amenity or the environment.

The application included a table of specific amendments proposed by the Licence Holder which are summarised as follows:

- Delete definitions related to the emergency containment pond;
- Delete Schedule 4: Liner installation Validation Requirements and related references;
- Delete all requirements for the emergency containment pond in the Works Infrastructure Requirements Table;
- Delete requirements for the filtration facility relating to the emergency containment pond in the Operation of Infrastructure Requirements Table; and
- Delete all requirements for the emergency containment pond in the Operation of Infrastructure Requirements Table.

## Amendment history

Table 2 provides the amendment history for L5271/1983/14.

**Table 1: Licence amendments**

Instrument	Issued	Amendment
L5271/1983/14	28/08/2018	Amendment Notice 4 Alteration of the scope of works for the residue filtration facility – delete emergency containment pond requirements
L5271/1983/14	28/07/2017	Amendment Notice 3 Construction and operation of a residue filtration facility
L5271/1983/14	28/07/2016	Amendment Notice 2 Amendments to conditions S1(a) and S1(b)
L5271/1983/14	29/04/2016	Amendment by Notice Extension of licence expiry date to 16 June 2025

## Licence Holder comments

The Licence Holder was provided with the draft Amendment Notice on 17 August 2018. The Licence Holder advised DWER in writing on 22 August 2018 that it did not object to the amendments.

## Decision

The emergency containment pond was proposed as part of the secondary containment infrastructure of the residue filtration facility, designed to capture and contain any spills of residue mud or filtrate. By not constructing the emergency containment pond, the Licence Holder can achieve the same secondary containment requirements by incorporating them into a single concrete-lined secondary containment structure within the footprint of the residue filtration facility.

The Delegated Officer considers that the change does not increase the assessed risk of discharges to surface water and land and that the same level of control can be achieved by the simplified design of the secondary containment infrastructure.

Condition R4 of the licence does allow the Licence Holder to depart from the specified infrastructure requirements (Works Infrastructure Requirements Table) where such a departure is minor in nature and does not materially change or affect the infrastructure or where it improves the functionality of the infrastructure and does not increase risks to public health, public amenity or the environment. However, in this case, the emergency containment pond is listed in the Schedule 1 of the licence and therefore, to provide clarity, the licence has been amended to change or remove the specifications requested by the Licence Holder.

## Amendment

- The licence is amended by the deletion of the following definitions:

*“ASTM D5641” means the American Society for Testing and Materials method D5641 /D5641M – 16: Standard Practice for Geomembrane Seam Evaluation by Vacuum Chamber.*

*“ASTM D6392” means the American Society for Testing and Materials method D6392 - 12: Standard Test Method for Determining the Integrity of Nonreinforced Geomembrane Seams Produced Using Thermo-Fusion Methods.*

*“ft” means foot “FTB” means film tearing bond.*

*“GRI-GM6” means GRI Test Method GM6. Standard Practice for Pressurized Air Channel Test of Dual Seamed Geomembranes, Geosynthetic Research Institute, Folsom, Pennsylvania, USA.*

*“HDPE” means high-density polyethylene.*

*“kN” means kilonewtons*

*“lbs” means pounds.*

- The Works Infrastructure Requirements Table of the licence is amended by the deletion of the text shown in strikethrough below:

<b>Works Infrastructure Requirements Table</b>	
<b>Column 1</b>	<b>Column 2</b>
<b>Infrastructure</b>	<b>Requirements (design and construction)</b>
<i>Emergency containment pond</i>	<p><del>(a) The pond must be adjoined to the filtration building by a minimum 1.5 mm thickness HDPE lined spillway to form part of secondary containment for the filtration building.</del></p> <p><del>(b) The pond must have embankments designed and constructed to prevent erosion as a result of stormwater runoff and divert stormwater away from the pond.</del></p> <p><del>(c) The pond must be constructed with a minimum single layer of HDPE liner and must ensure no detectable leakage from the pond.</del></p> <p><del>(d) The HDPE liner must meet the following specification:</del></p> <p><del>(i) Be a minimum of 1.5 mm thickness;</del></p> <p><del>(ii) Have a permeability of less than <math>1 \times 10^{-9}</math> m/s; and</del></p> <p><del>(iii) Be durable to maintain permeability for the working life of the pond.</del></p> <p><del>(e) The pond and spillway HDPE liner installations must be tested and validation in accordance with the requirements specified in Schedule 4.</del></p> <p><del>(f) The pond and spillway HDPE liners must be certified by a suitably qualified professional engineer.</del></p>

3. The Operation of Infrastructure Requirements Table of the licence is amended by the deletion of the text shown in strikethrough below:

<b>Operation of Infrastructure Requirements Table</b>		
<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>
<b>Infrastructure</b>	<b>Description</b>	<b>Operational requirements</b>
<i>Filtration facility</i>	<p><i>Tanks fitted with high-level alarm systems.</i></p> <p><i>Secondary containment.</i></p> <p><del><i>incorporation a HDPE-lined emergency containment pond adjoined to the building by a HDPE-lined spill way</i></del></p>	<p><i>Runoff, drainage or spillage is contained and directed into process water systems for reuse.</i></p> <p><del><i>The emergency containment pond is used for the purpose of emergency secondary containment of residue mud or filtrate from the filtration building.</i></del></p> <p><i>A minimum capacity of 110% of the largest tank or vessel within the filtration facility is maintained except where the pond is providing emergency containment.</i></p>

4. Schedule 1 of the licence is amended by the deletion of the text shown in strikethrough below:

<b>Item</b>	<b>Works</b>	<b>Specifications/Drawings</b>
<i>2</i>	<del><i>Emergency containment pond</i></del>	<del><i>Lined emergency containment pond that forms part of the secondary containment for the filtration facility and is connected by a lined spill way.</i></del>

5. The licence is amended by the deletion of *Schedule 4: Liner Installation Validation Requirements*.

## Appendix 1: Key documents

	Document title	In text ref	Availability
1	Application for Licence Amendment lodged 17 June 2018	-	DWER records (A1694587)
2	L5271/1983/14 – Amendment Notice 3	-	Accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
3	DER, July 2015. <i>Guidance Statement: Regulatory Principles</i> . Department of Water and Environmental Regulation, Perth.	-	Accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
4	DER, October 2015. <i>Guidance Statement: Setting Conditions</i> . Department of Water Environmental Regulation, Perth.		
5	DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Water Environmental Regulation, Perth.		
6	DER, November 2016. <i>Guidance Statement: Decision Making</i> . Department of Water and Environmental Regulation, Perth.		