Government of Western Australia
Department of Water and Environmental Regulation

Amended Licence

Licence Number	L5271/1983/14
Licence Holder	Alcoa of Australia Limited
ACN	004 879 298
Registered business address	181-205 Davy Street BOORAGOON WA 6154
File Number	INS-0001193
Duration	17/06/2014 to 16/06/2027
Date of amendment	5 March 2026
Prescribed details	Pinjarra Alumina Refinery South West Hwy PINJARRA WA 6208 Legal description – Part of Lot 109 on Diagram 60089, Part of Lot 151 on Plan 10914, Lot 301 on Plan 35411, Lot 302 on Plan 35411, Lot 221 on Plan 302638, Lot 222 on Plan 302638, Lot 501 on Plan 417051 and Lot 252 on Plan 35963 As depicted in Schedule 1

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)
Category 46: Bauxite refining
Category 52: Electric power generation
Category 61: Liquid waste facility
Category 64: Class II and III putrescible landfill site
Category 67: Fuel burning

This Amended Licence is granted to the Licence Holder, subject to the following conditions, on 5 March 2026, by:

Justin Ritchie

Justin Ritchie
2026.03.06
10:07:47 +08'00'

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

DEFINITIONS

'Annual Audit Compliance Report (AACR)' means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website);

'Act' means the *Environmental Protection Act 1986;*

'Annual Exceedance Probability' (AEP) means the probability that a particular flood value will be exceeded in any one year;

'Annual Period' means a 12 month period commencing from 1 January until 31 December in that year;

'AS 1940:2004' means the storage and handling of flammable and combustible liquids;

'Australian Standard 5667' means the most recent version and relevant part of *AS/NZ 5667*;

'Availability' means (relative to calciner dust concentration CEMS), the time the CEMS is connected to the calciner stack and producing dust concentration data;

'BMS trip' means the operation of the Burner Management System (BMS) to trip and cut gas when it detects an explosion risk;

'CEMS' means continuous emissions monitoring system;

'CEMS Code' means the code of practice that details design, installation, performance, maintenance & verification for CEMS, as well as QA upon acquired data. The Code is titled *Department of Environment and Conservation Continuous Emission Monitoring System (CEMS) Code for Stationary Source Air Emissions*, October 2006;

'CO' means carbon monoxide;

'Controlled Waste' means, as defined by *Environmental Protection (Controlled Waste) Regulations 2004*;

'Dangerous Goods' means, as defined by the *Dangerous Goods Safety (General) Regulations 2007*;

'CEO' means Chief Executive Officer of the Department of Water and Environmental Regulation

'CEO' for the purposes of notifications and submissions means:

Director General
Department administering the *Environmental Protection Act 1986*
Locked Bag 10
Joondalup DC WA 6919
or:
info@dwer.wa.gov.au

'Department' means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.

'Engineer' means a person who:

(a) holds a Civil Engineering tertiary qualification; and

(b) has a minimum of ten years of experience working in the area of civil engineering; and

(c) holds a membership of the Institute of Engineers Australia.

'EP Act' means the *Environmental Protection Act 1986;*

'ESP' means Electrostatic Precipitator;

'Licence' refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.

'Licence Holder' refers to the occupier of the premises being the person to whom this Licence has been granted, as specified at the front of this Licence;

'mg/m^3' means milligrams per cubic metre;

'mg/L" means milligrams per litre;

'mS/cm' means millisiemens per centimetre;

'NATA' means National Association of Testing Authorities;

'normal operating conditions' (relative to stack emissions) means operation of a particular process excluding startup, shutdown or upset conditions;

'NOx' means oxides of nitrogen;

'Oxalate Kiln RTO bed recovery' means a process where an individual RTO bed is periodically isolated and heated to higher than normal operating temperatures in order to remove accumulated deposits to maintain efficient function of the bed;

'Oxalate storage area' means an area specifically designed for the temporary storage of oxalate waste;

'ppm' means parts per million;

'Premises' refers to the premises to which this Licence applies, as specified at the front of this Licence and as shown on the premises map Figure 1 in Schedule 1 to this Licence.

'RSA' means Residue Storage Area;

'RTO' means Regenerative Thermal Oxidiser;

'start-up and shutdown conditions' means the period of time immediately after commencing operation and immediately after stopping operation, during which time the plant is not running at steady state condition;

'Spillway' a structure to provide the controlled discharge from a dam or Residue Storage Area.

'Waste' has the same meaning given to that term under the EP Act.

'Waste code' means the waste code assigned to the type of controlled waste for purposes of tracking and reporting as specified in the Department of Water and Environmental Regulation's 'Controlled Waste Category List' (May 2018), as amended from time to time.

'Wet winter' means rainfall from 1 May to 30 September in each calendar year that is greater than or equal to 814mm as measured by the Alcoa Pinjarra Meteorological Station located at Oakley South;

'µg/m^3' means micrograms per cubic metre, expressed as dry at 0 degrees Celsius and 1.0 atmosphere pressure (101.325 kilopascals);

'USEPA' means United States Environmental Protection Agency; and

Other terms take their meaning preferentially from the *Environmental Protection Act.*

END OF DEFINITIONS

Licence history

Instrument	Date	Summary of changes
L5271/1983/14	13/06/2014	Licence re-issue
L5271/1983/14	29/04/2016	Department initiated amendment in accordance with section 59(1)(k) of the *Environmental Protection Act 1986* to amend the duration of the licence date month year.
L5271/1983/14	28/07/2016	Amendment Notice 2: on 28 March 2016 an application for amendment was received to amend waste management conditions S1(a) and S1(b).
L5271/1983/14	28/07/2017	Amendment Notice 3: on 22 November 2016 an application for licence amendment received for works associated with a residue filtration project that will alter the way the residue mud component of residue slurry is processed, handled and deposited.
L5271/1983/14	28/08/2018	Amendment Notice 4: on 17 June 2018 the Licence Holder requested 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.
L5271/1983/14	06/01/2021	Installation and operation of a spillway on the RSA5 perimeter drain. Consolidation of previous amendments to this licence granted through amendment notices.
L5271/1983/14	9 June 2025	Amendment to extend the expiry date of the licence to 16 June 2027 to allow for completion of the Part IV assessment and decision making for the Pinjarra Alumina Refinery Revised Proposal and the licence review.
L5271/1983/14	5 March 2026	Licence holder-initiated amendments: • Amendment to include prescribed premises category 61 liquid waste facility on the licence to provide authorisation to accept liquid waste generated from other sites onto the premises, update premises description and boundary, remove redundant construction conditions WKS1, WSK2 and WSK3, changes to the wording of condition R1. CEO-initiated amendment: • Extension of expiry by one year.

Interpretation

In this licence:

(a) the words ‘including’, ‘includes’ and ‘include’ in conditions mean “including but not limited to”, and similar, as appropriate;

(b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(c) where tables are used in a condition, each row in a table constitutes a separate condition;

(d) any reference to an Australian or other standard, guideline, or code of practice in this licence:

(i) if dated, refers to that particular version; and

(ii) if not dated, refers to the latest version and therefore may be subject to change over time;

(e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

Licence conditions

General Conditions

Licence limit exceedance reporting

G1(a) The Licence Holder shall advise the CEO in writing within seven (7) working days of becoming aware of a monitoring result that either numerically exceeds the applicable limit specified in condition A3 or the applicable limits specified in conditions A9(b) or A9(c) for more than 60 consecutive minutes or numerically drops below the applicable limit specified in A9(a) for more than 60 consecutive minutes.

G1(b) The Licence Holder shall ensure that the written advice required by condition G1(a) includes:
(i) the date, time and probable reason for the exceedance;
(ii) an estimate of the period over which the limit was or is likely to be exceeded; and
(iii) an estimate of the extent of the discharge over that period and indication of known or potential environmental impacts.

G1(c) The Licence Holder shall provide a full report (unless otherwise approved by the CEO) on its investigations into any exceedance reported under condition G1(a) within 7 working days of becoming aware of the exceedance, and it shall include, but not be limited to:
(i) the date, time and reason for the exceedance;
(ii) the period over which the exceedance occurred;
(iii) the extent of the discharge over that period and potential or known environmental consequences; and
(iv) corrective action taken or planned to prevent a recurrence of the exceedance.

Target exceedance reporting

G2 The Licence Holder shall advise the CEO in writing within seven (7) working days of becoming aware of a monitoring result that numerically exceeds the applicable targets specified in condition A7(a), A7(b), A7(c) and A14.

Spillway discharge reporting

G3 The Licence Holder shall advise the CEO in writing within one (1) working day of there being a discharge of process water from the spillway, and within one (1) working day of the discharge ceasing.

Annual environmental report

G4 The Licence Holder shall provide to the CEO, by 31 March in each year, a report containing the data and monitoring information required under monitoring and reporting conditions of this licence for the period 1 January to 31 December of the preceding year:

(i) the report shall contain an assessment of the data against any limits set in this licence. It shall identify any data exceeding those limits;
(ii) the Licence Holder shall list any monitoring methods used to collect and analyse data required by any condition of this licence to demonstrate they comply with the methods specified in this licence; and
(iii) the report shall include an analysis of any complaints received.

Annual audit compliance report

G5 The Licence Holder must:

(g) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and

(h) prepare and submit to the CEO by 31 March in each year, after the end of that annual period an Annual Audit Compliance Report in the approved form.

Air pollution control conditions

Ambient dust monitoring

A1(a) The Licence Holder shall monitor ambient dust levels using high volume samplers at stations at the Pinjarra Race Track, Fairbridge Airstrip and Oakley South.

A1(b) The Licence Holder shall provide a report to the CEO within 2 working days of becoming aware of a 24 hour average ambient dust level above 260 μg/m^3, when monitored at any of the locations specified in condition A1(a).

Dust control

A2 The Licence Holder shall implement dust control measures, routine maintenance and housekeeping to minimise the generation of airborne dust from the refinery, bauxite stockpiles and residue storage area.

Air emission limits

A3 Subject to Condition A4, the Licence Holder shall not exceed any limit for an emission source specified in Table 1.

Table 1: Licence Limits

Emission Source(s)	Parameter	Licence Limit
Calciners 1, 2, and 3 as individual emission points	Particulates	250 mg/ m^{3*x}
Calciners 4, 5, 6 and 7 as individual emission points	Particulates	150 mg/ m^{3*x}

* expressed dry at 0 degrees Celsius and 1.0 atmosphere (101.325 kilopascals)

X the addition of diluting gases shall not be used to achieve compliance with emissions limits.

Calciners – start-up/shutdown and ESP failure

A4 The Licence Holder is exempt from compliance with the calciner particulate limit specified in Table 2 in the events specified in Table 14 of Schedule 2, if the Licence Holder's response is in accordance with the corresponding actions to be taken in each case described in Table 14 of Schedule 2.

Calciners – requirement to shut down

A5(a) The Licence Holder shall, subject to conditions A4 and A6, shut-down feed to any calciner if the dust concentration meter for that calciner records a dust concentration that exceeds the relevant particulate limit specified in Table 1 for more than 60 consecutive minutes.

A5(b) The Licence Holder shall, subject to conditions A4 and A6, immediately shut off the feed to the affected calciner in the event of a complete failure of a calciner ESP continuing for more than 10 consecutive minutes.

A6 Where feed has ceased to a calciner in accordance with conditions A5(a) or A5(b) and Table 14 of Schedule 2, the Licence Holder shall not recommence feed to the calciner until:

(i) the identified cause of any cease of feed has been rectified; or
(ii) a plan is submitted to the CEO outlining the troubleshooting actions to be undertaken that require recommencement of feed.

Calciners – air emission targets

A7(a) The Licence Holder shall target particulates emission levels of less than 150 mg/m^3 for 95% of the time of each calendar month other than for those events specified in Table 14 of Schedule 2 from each of calciner stacks 1, 2 and 3.

A7(b) The Licence Holder shall target particulates emission levels of less than 80 mg/m^3 for 95% of the time of each calendar month excluding those events specified in Table 14 of Schedule 2 from each of calciner stacks 4, 5 and 6.

A7(c) The Licence Holder shall target particulates emission levels of less than 50 mg/m^3 for 95% of the time of each calendar month excluding those events specified in Table 14 of Schedule 2 from calciner stack 7.

Stack emission testing and reporting

A8 The Licence Holder shall monitor the emission sources in Column 1 of Table 2, for the parameters in Column 2 of Table 2, at the frequency listed in Column 3 of Table 2, using the methods in Column 5 of Table 2.

Table 2: Monitoring Program - Stacks

Column 1	Column 2	Column 3	Column 4	Column 5
Emissions Source(s)	**Parameter**	**Frequency**	**Units**	**Method**
Oxalate Kiln	Particulates	Quarterly	mg/m^3	USEPA Method 5 or 17
Calciner 1,2,3,4,5,6,7	Particulates	Half-yearly	mg/m^3	USEPA Method 5 or 17
	NOx	Quarterly	mg/m^3	USEPA Method 7E or approved modification of USEPA Method 7E
	CO	Quarterly	mg/m^3	USEPA Method 10 or approved modification of USEPA Method 10
Powerhouse Boilers 2,3,4,5,6,7	NOx	Quarterly	mg/m^3	USEPA Method 7E or approved modification of USEPA Method 7E
	CO	Quarterly	mg/m^3	USEPA Method 10 or approved modification of USEPA Method 10

Air quality – oxalate kiln stack

A9(a) The Licence Holder shall, subject to Conditions A10 and A13, cease feed to the oxalate kiln when the temperature inside the Oxalate Kiln RTO combustion zone drops below the minimum temperature limit of 750°C for more than 60 consecutive minutes.

A9(b) The Licence Holder shall, subject to Conditions A10 and A13, cease feed to the oxalate kiln when the CO concentration from the Oxalate Kiln RTO Outlet Ducting has exceeded the limit of 100ppm for more than 60 consecutive minutes, other than during periods when Oxalate Kiln RTO bed recovery is taking place.

A9(c) The Licence Holder shall, subject to Conditions A10 and A13, cease feed to the oxalate kiln when the CO concentration from the Oxalate Kiln RTO Outlet Ducting has exceeded the limit of 240ppm for more than 60 consecutive minutes during periods when Oxalate Kiln RTO bed recovery is taking place.

Oxalate kiln – start-up/shut down and wet scrubber failure

A10 The Licence Holder is exempt from compliance with the Oxalate Kiln Emission Limits specified in conditions A9(a), A9(b) and A9(c) in the events set forth in Table 3, if the Licence Holder response is in accordance with the corresponding actions to be taken described in Table 3 for each event.

Table 3: Oxalate Kiln Exemption Events

Section	Event Title	Action to be taken
(i)	Oxalate Kiln start up	CO All practicable measures to minimise the discharge of particulate matter and CO into the environment
(ii)	Oxalate Kiln shut down	CO All practicable measures to minimise the discharge of particulate matter and CO into the environment

Oxalate kiln – management of RTO bypass

A11 The Licence Holder shall immediately cease feed to the Oxalate Kiln if the RTO has been bypassed for more than 10 consecutive minutes.

Oxalate kiln – management of wet scrubber failure

A12 The Licence Holder shall immediately cease feed to the Oxalate Kiln if the Wet Scrubber has completely failed for more than 10 consecutive minutes.

Oxalate kiln – recommencement of feed after shutdown

A13 Where feed has ceased to the Oxalate Kiln in accordance with conditions A9(a), A9(b), A9(c), A11, or A12, the Licence Holder shall not recommence feed to the Oxalate Kiln until:

(i) the identified cause of any cease of feed has been rectified; or

(ii) a plan is submitted to the CEO outlining the troubleshooting actions to be undertaken that require recommencement of feed.

Air quality target – oxalate kiln

A14 The Licence Holder shall report to the CEO any exceedance of the target specified in Table 4, as determined pursuant to condition A8 in accordance with condition G2.

Table 4: Licence air emission Targets

Emission Source	Parameter	Emission Target
Oxalate Kiln Stack	Particulates	30mg/m^{3*x}

* expressed dry at 0 degrees Celsius and 1.0 atmosphere (101.325 kilopascals)
x the addition of diluting gases shall not be used to achieve compliance with emission targets

Continuous monitoring program – calciners and oxalate kiln

A15(a) The Licence Holder shall monitor particulates from the calciners and CO levels from the Oxalate Kiln with a monitoring system that is regularly maintained and calibrated in accordance with Section 2 Quality Assurance / Quality Control of the CEMS Code.

A15(b) The Licence Holder shall ensure that the monitoring systems required by Condition A15(a) are operated to achieve at least a 90% availability on a monthly basis, excluding for the calciners, periods when the main calciner blower is not operational or, for the Oxalate Kiln, while the Oxalate Kiln is not in operation.

WATER POLLUTION CONTROL CONDITIONS

Management of residue disposal areas

W1 The Licence Holder shall ensure bauxite residue and associated liquor are contained in the RSA's and facilities in a manner that prevents discharge to surface waters (except in accordance with conditions W5 and W6), prevents damage to native vegetation, and minimises seepage and potential discharge to underground waters.

Maintenance of drainage below residue dam

W2 The Licence Holder shall maintain embankment seals, perimeter interception drains, and gravity base drainage systems on residue areas to minimise seepage and collect drainage.

Water quality monitoring and criteria

W3(a) The Licence Holder shall monitor surface and groundwater at the locations specified in Table 5 Column 1 at the frequency detailed in Table 6 Column 2, for each of the parameters listed in Table 6 Column 3.

Table 5: Surface and Groundwater Monitoring Program

Column 1	Column 2	Column 3	Column 4
Location	**Frequency**	**Parameter**	**Target**
Surface water stations: R1E R1F, and R2A,	Monthly (when flowing).*	pH	pH 5.0-9.5,
		Electrical Conductivity or Total Dissolved Solids	Less than 5000µS/cm (or equivalent TDS)
Groundwater bores: ML051A, ML052A, ML002A, ML003A, ML004A, ES097A, ES065A, ES066A, ES067A, ES067B, ES070A, ES080A ML055A, ML075A, ML079A, ML103A, ML103B, ML117A	Twice yearly at 6 monthly intervals, at similar times each year*.	pH Electric Conductivity or Total Dissolved Solids Alkalinity Sodium-Chloride Ratio Standing Water Level	N/A

*CEO approval shall be obtained to depart from the frequency stated for groundwater bores and surface water stations.

W3(b) The Licence Holder shall ensure that all water samples are collected in accordance with the AS/NZS 5667.

W3(c) The Licence Holder shall ensure that all water samples are submitted to a laboratory with current NATA accreditation for the analysis specified, and analysed in accordance with the current “Standard Methods for Examination of Water and Wastewater-APHA-AWWA-WEF”.

W3(d) The Licence Holder shall conduct the following monitoring program at surface water stations R1E, R1F and R2A if the target values outlined in Table 6 Column 4 are not met:

(i) measure sodium: chloride ratio;
(ii) measure Alkalinity; and
(iii) undertake verification measurement of pH and Electrical Conductivity or Total Dissolved Solids at upstream and downstream locations.

W3(e) The Licence Holder shall provide a report to the CEO within 3 weeks of completion of the monitoring program containing the results together with explanation of the cause of the excursion from the target values referred to in Condition W3(d), and a description of any impact to the environment and identifying appropriate remedial measures.

Liquid Chemical Storage

W4(a) The Licence Holder shall store environmentally hazardous chemicals including but not limited to fuel, oil or other hydrocarbons (where the total volume of each substance stored on the premises exceeds 250 litres) within low permeability (10^{-9} metres per second or less) compound(s) designed to contain not less than 110% of the volume of the largest storage vessel or inter-connected system, and at least 25% of the total volume of substances stored in the compound, except:

(i) those storage areas constructed prior to 2003; and

(ii) double-walled tanks pursuant to condition W4(d).

W4(b) The Licence Holder shall ensure that the compound(s) described in Part (a) to this condition will:

(i) be graded or include a sump to allow recovery of liquid;

(ii) be chemically resistant to the substances stored;

(iii) include valves, pumps and meters associated with transfer operations wherever practical. Otherwise, the equipment shall be adequately protected (e.g. bollards) and contained in an area designed to permit recovery of spilled chemicals;

(iv) be designed such that jetting from any storage vessel or fitting will be captured within the bunded area in accordance Australian Standard 1940-2004;

(v) be designed such that chemicals which may react dangerously if they come into contact, are in separate bunds in the same compound or in different compounds; and

(vi) be controlled such that the capacity of the bund is properly maintained (e.g. regular inspection and pumping of trapped uncontaminated rainwater).

W4(c) The Licence Holder shall immediately recover, or remove and dispose of, liquid resulting from spills or leaks of chemicals including but not limited to fuel, oil or other hydrocarbons, whether inside or outside the low permeability compound(s).

W4(d) Where environmentally hazardous chemicals including but not limited to fuel, oil or other hydrocarbons on the premises are stored in double-walled tanks, the Licence Holder shall ensure the double-walled tanks comply with Australian Standard AS 1940:2004.

Spillway

W5 The Licensee Holder must ensure that all emissions specified in Table 6 are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

Table 6: Authorised discharge points

Emission	Discharge point	Discharge point location
Process water	RSA5 perimeter drain spillway	As shown in Schedule 1: Figure 1

W6 The Licensee Holder must ensure that the spillway listed in Table 7 and located at the corresponding spillway location is maintained and operated in accordance with the corresponding operational requirements set out in Table 7.

Table 7: Infrastructure and equipment requirements

Site infrastructure and equipment	Operational requirement	Infrastructure location
RSA5 perimeter drain spillway	(a) The Licence Holder must manage the Runoff Collection Pond such that it does not activate the Spillway other than as a result of a Wet Winter. (b) The Spillway shall not be activated after 15 December in each calendar year.	As shown in Schedule 1: Figure 1

Waste management

Waste acceptance

S1(a) The Licence Holder is permitted to dispose of wastes generated at the premises by the Licence Holder and wastes from the Alcoa Booragoon Office, Alcoa Peel Regional Office, Alcoa Perth Office, Huntly and Willowdale Mine sites, Kwinana and Wagerup Refineries, Alcoa Farmlands Operations, and Alcoa Bunbury Port Facility of the types listed in Column 1 of Table 8 at the locations detailed in Column 2 of Table 8.

Table 8: Waste Permitted for Disposal

Column 1	Column 2
Waste Type	Location
Bayer process waste	RSA
Waste meeting acceptance criteria specified for Class II landfills in the document produced by the Department, and titled "*Landfill Waste Classifications and Waste Definitions 1996* (as amended from time to time)" and hydrocarbon contaminated wastes	Landfill area within RSA
Asbestos waste	Landfill area within RSA
Hydrocarbon waste oil	RSA

S1(b) The Licence Holder shall ensure the hydrocarbon waste oil referred to in Table 8 of condition S1(a) is used in accordance with the following requirements:

(i) waste oil must only be applied to limestone, sand or gravel roads within the confines of the Residue Storage Area;

(ii) it is only applied at the minimum required rate for effective dust suppression; and

(iii) it is only applied such that any run-off from an applied surface is contained by the closed-circuit internal drainage collection system.

S1(c) The Licence Holder must only accept onto the premises waste of a type that:

(i) does not exceed the rate at which that waste is received; and

(ii) meets the relevant acceptance specification, as set out in Table 9.

Table 9: Waste authorised to be accepted onto the premises

Waste Type	Controlled waste codes	Rate at which waste is received	Acceptance specification	Location
Industrial wash water	L150	25 000 kL per annual period	Limited to wash waters containing flocculant and/or class 8 alkaline washings, accepted from companies engaged by Alcoa for chemical product supply.	RSA Cooling Pond

S1(d) The Licence Holder must undertake monitoring and data recording for the monitoring in Table 11 to the specifications in that table.

Table 10: Liquid waste input monitoring

Waste Type	Units	Frequency
Industrial wash water	tonnes	Each load of liquid waste arriving at the premises

S1(e) The Licence Holder is not permitted to dispose of wastes listed in Table 11 at the premises.

Table 11: Waste Not Permitted for Disposal

Wastes Not Permitted for Disposal
Waste from other premises and the public unless otherwise approved by the CEO.
Elemental mercury collected as a waste stream

Storage of oxalate

S2(a) The Licence Holder shall store oxalate separated from the process stream either within a tank or tanks at the refinery, within the storage area located in the RSA, or in other areas as approved by the CEO.

S2(b) The Licence Holder shall ensure that oxalate is in a moist state when discharged into the oxalate storage area located in the RSA.

S2(c) The Licence Holder shall, within 12 hours of oxalate being discharged into the approved oxalate storage ponds, ensure the oxalate is kept moist or maintained under water or beneath a full surface cover that ensures dust is not generated from oxalate storage and does not impinge on the ability to fully recover oxalate.

Filtration facility

R1 The Licence Holder shall ensure the infrastructure specified in column 1 of Table 12 is maintained and operated in accordance with the requirements in columns 2 and 3 of that table.

Table 12: Operation of Infrastructure Requirements

Column 1	Column 2	Column 3
Infrastructure	**Description**	**Operational requirements**
Filtration facility	Tanks fitted with high-level alarm systems. Secondary containment	Runoff, drainage and spillage within the filtration facility must be immediately recovered or directed into process water systems for reuse. Secondary containment must be maintained and in a fit for purpose condition for containing liquids, and free of damage which may impact its ability to contain fluids. Secondary containment capacity of at least 110% of the largest tank or vessel within the filtration facility must be maintained.

Schedule 1: Maps

Premises map

The prescribed premises is the area of land shown in Figure 1 below and described in Table 13.

Table 13: Premises infrastructure location

Description	Lot	Plan/Diagram	Locality
Paddock West of RSA	Part of Lot 109	60089	Pinjarra
RSA and Refinery	Part of Lot 151	10914	Oakley
Area West of RSA	221	302638	Pinjarra
Southwest Corner of RSA	222	302638	Oakley
Paddock West of RSA	301	35411	Oakley
RSA	302	35411	Oakley
RSA and Refinery	501	417051	Oakley
Pinjarra Cogeneration Plant	Lot 252	35963	Oakley

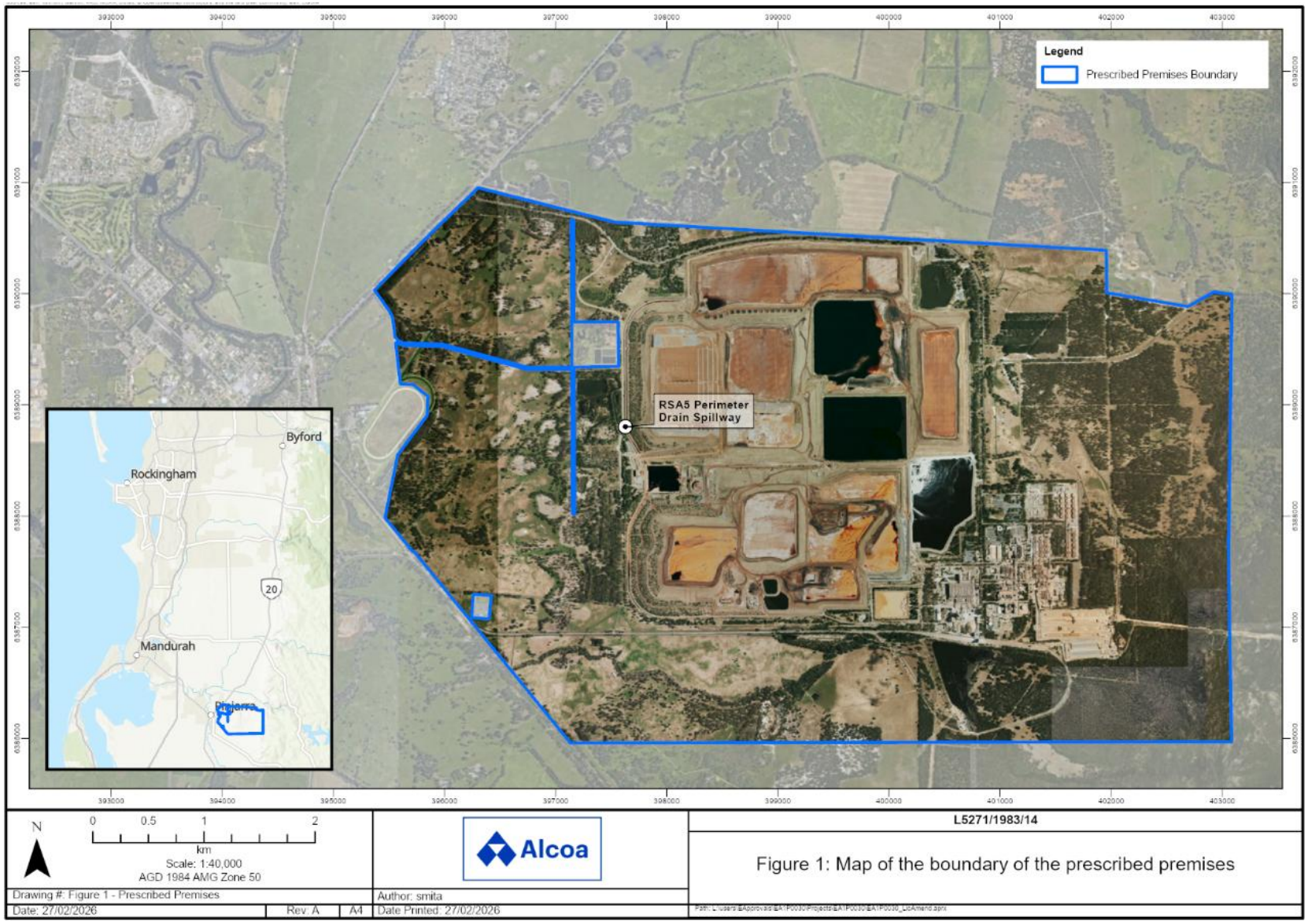

Figure 1: Map of the boundary of the prescribed premises

Table 15: Premises boundary coordinates

	Latitude	Longitude
1	-32.6147900497	115.9052796112
2	-32.6156934508	115.9093412311
3	-32.6159845957	115.9144287813
4	-32.616275532	115.91951636
5	-32.61656626	115.924604
6	-32.61685679	115.9296916
7	-32.61714711	115.9347793
8	-32.6173234	115.9378662
9	-32.6174996	115.9409532
10	-32.61750875	115.941114
11	-32.6175133	115.9411944
12	-32.61763203	115.9432897
13	-32.61771297	115.9447175
14	-32.61771506	115.9447542
15	-32.6177484	115.9453425
16	-32.61775047	115.9453791
17	-32.61795926	115.9490637
18	-32.61816793	115.9527484
19	-32.61837649	115.956433
20	-32.62182387	115.956459
21	-32.62185669	115.9566736
22	-32.62243269	115.9604389
23	-32.62300858	115.9642043
24	-32.62183656	115.9666839
25	-32.62202972	115.9684374
26	-32.64178813	115.9679273
27	-32.64178867	115.9678714
28	-32.64581778	115.9679013
29	-32.64984689	115.9679311
30	-32.65319396	115.967956
31	-32.65348929	115.9679582
32	-32.65649643	115.9679805
33	-32.65759709	115.9679901
34	-32.6583466	115.9679966
35	-32.65790107	115.904544
36	-32.65574083	115.9025009
37	-32.6525643	115.8994969
38	-32.64938768	115.8964931
39	-32.64929967	115.8964098
40	-32.6471522	115.8943794
41	-32.64656664	115.8938258
42	-32.64581988	115.8931198
43	-32.64535997	115.8926849
44	-32.64535471	115.89268
45	-32.64483575	115.8921893
46	-32.64466139	115.8920244
47	-32.64439981	115.8917771
48	-32.64222004	115.8897163
49	-32.64222079	115.8895797
50	-32.63946914	115.8869784
51	-32.63693228	115.8876175
52	-32.63439543	115.8882566
53	-32.6311833	115.8911391
54	-32.62967501	115.8912271
55	-32.62869843	115.8898381
56	-32.6286305	115.8885922
57	-32.62803698	115.8885183
58	-32.62531435	115.8881772
59	-32.62526894	115.8882502
60	-32.62549476	115.8888678
61	-32.62563339	115.8926911
62	-32.62665317	115.8969487
63	-32.62672691	115.8972566
64	-32.62677607	115.8974619
65	-32.6275786	115.9008131
66	-32.62760187	115.9050606
67	-32.63150324	115.9050293
68	-32.63540461	115.904998
69	-32.639306	115.9049666
70	-32.63930548	115.9050738

	Latitude	Longitude
71	-32.63930498	115.905181
72	-32.63540552	115.9052109
73	-32.63150606	115.9052408
74	-32.62760661	115.9052707
75	-32.62742163	115.9052764
76	-32.62739985	115.9095646
77	-32.62547408	115.9095511
78	-32.62377154	115.9095393
79	-32.62374835	115.9053045
80	-32.61960762	115.9053363
81	-32.61546689	115.905368
82	-32.61546077	115.9052608
83	-32.61545466	115.9051537
84	-32.61944326	115.9051231
85	-32.62343186	115.9050926
86	-32.62742046	115.905062
87	-32.62739738	115.9008435
88	-32.62659942	115.8975115
89	-32.62655026	115.8973063
90	-32.62647652	115.8969984
91	-32.62545306	115.8927253
92	-32.62531498	115.8889163
93	-32.62513418	115.8884219
94	-32.62478902	115.8881126
95	-32.62328866	115.8879248
96	-32.62272961	115.8876222
97	-32.62100301	115.8862071
98	-32.61829827	115.8894148
99	-32.61821262	115.8895164

	Latitude	Longitude
100	-32.61584141	115.8924178
101	-32.61497427	115.8934975
102	-32.61480157	115.8937143
103	-32.61342161	115.8954467
104	-32.612964	115.8960211
105	-32.61278127	115.8962505
106	-32.61377186	115.9007027
107	-32.61384066	115.9010119
108	-32.61388652	115.9012181
109	-32.61479005	115.9052796
110	-32.64764424	115.8951945
111	-32.64777193	115.8968774
112	-32.64755197	115.8969017
113	-32.64701331	115.8969615
114	-32.64587713	115.8970875
115	-32.64574845	115.8953917
116	-32.64667897	115.8952949
117	-32.64721791	115.8952388
118	-32.64764424	115.8951945

Schedule 2: Calciner exemption events

Table 14: Exemption Events - Calciners

Section	Event Title	Action to be Taken	Comments
(i)	Calciner start up	All practicable measures to minimise the discharge of particulate matter into the environment	AS3814-2018: Industrial and commercial gas-fired appliances, requires that ESP's and associated vessels be purged with at least 5 air changes before starting any combustion process associated with an ESP as a safety requirement to avoid potential explosion caused by sparking within the ESP.
(ii)	Calciner shut down and/or cessation of feed to calciners	All practicable measures to minimise the discharge of particulate matter into the environment	When shutting calciners down and/or ceasing aluminium hydrate feed to the calciners, the efficiency of the ESP is reduced due to unstable operating conditions caused by the reduction of the gas/products and air flows.
(iii)	Dust concentration meter correlation	All practicable measures to minimise the discharge of particulate matter into the environment	
(iv)	Dust concentration meter calibration and maintenance	All practicable measures to minimise the discharge of particulate matter into the environment	
(v)	Calciner BMS trip	All practicable measures to minimise the discharge of particulate matter into the environment	