



Licence

Environmental Protection Act 1986, Part V

Licensee: **Coogee Chlor Alkali Pty Limited**

Licence: **L6036/1988/13**

Registered office: Lot 501 Mason Road
KWINANA BEACH WA 6167

ACN: 009 276 635

Premises address: Coogee Chlor Alkali Kemerton Plant
Marriott Road
KEMERTON WA 6233
Being Part of Lot 1 on Diagram 73196 and Part of Lot 510 on Plan 50377 as depicted in Schedule 1.

Issue date: Thursday, 25 September 2014

Commencement date: Wednesday, 01 October 2014

Expiry date: Monday, 30 September 2019

Prescribed premises category

Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
31	Chemical manufacturing: premises (other than premises within category 32) on which chemical products are manufactured by a chemical process	100 tonnes or more per year	39,500 tonnes per annual period

Conditions

This Licence is subject to the conditions set out in the attached pages.

Date signed: 2 November 2015

.....
Lauren Trott

A/Manager Licensing (Process Industries)
Officer delegated under section 20
of the *Environmental Protection Act 1986*



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Introduction

This Introduction is not part of the Licence conditions.

DER's industry licensing role

The Department of Environment Regulation (DER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements

This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link:

<http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.



Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

Ministerial conditions

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary

The Coogee Chlor Alkali Pty Ltd (Coogee) Kemerton plant (the Plant) is located approximately 15 km north-east of Bunbury within the Kemerton Industrial Park, a strategic industrial area for heavy industry covering over 7,500 ha of land. The Plant was established in 1987 to service the adjacent Cristal Global (Cristal) titanium dioxide manufacturing plant. The closest sensitive receptor is a rural residence located approximately 2 km to the south-east of the Plant.

The Plant manufactures chlorine on demand for use by Cristal's adjacent titanium dioxide manufacturing plant. Chlorine is produced by the electrolysis of purified sodium chloride brine solution in ion exchange membrane electrolysis cells. The product chlorine is cooled, dried, compressed and then liquefied for storage in a designated building. Stored chlorine is then vaporised and transferred by an export pipeline to the Cristal site according to Cristal's operational requirements. Caustic soda (sodium hydroxide), sodium hypochlorite, hydrochloric acid and hydrogen are also produced on site as necessary for the operation of the Plant, or for sale to other parties. The site is considered a major hazard facility under Dangerous Goods legislation due to the industrial use of chlorine, which is highly toxic and a strong oxidiser in gaseous form.

The main emissions from the Plant are point source air emissions (chlorine gas) and potential impacts on groundwater due to salt (sodium chloride) contamination. Air emissions are abated by directing all exhaust and ventilation gases through the chlorine absorption tower vent, HCl gas scrubber, steam boiler chimney, or hydrogen safety seal vent. Limits are included in the licence with regard to chlorine discharged to the atmosphere. Historic salt contamination of groundwater at the premises has previously been addressed through an Environmental Improvement Plan. The Licence now includes ongoing monitoring of groundwater to continue to monitor recovery from the contamination and ensure any future impacts on groundwater are promptly identified.

This Licence is the result of an amendment sought by the Licensee to change groundwater monitoring and recovery bore names. The licence has also been updated to the current template.



The licences and works approvals issued for the Premises since 26/09/1995 are:

Instrument log		
Instrument	Issued	Description
L6036	26/09/1995	Licence issue
L6036/2	29/12/1997	Licence reissue
L6036/3	27/10/1998	Licence reissue
L6036/4	14/09/1999	Licence reissue
L6036/5	18/09/2000	Licence reissue
L6036/6	12/09/2001	Licence reissue
L6036/7	30/08/2002	Licence reissue
L6036/8	25/08/2003	Licence reissue
L6036/9	24/09/2004	Licence reissue, increased nominal rated throughput for sodium hydroxide and chlorine
L6036/10	16/08/2005	Licence reissue, licence term extended to three years
L6036/1988/11	25/09/2008	Licence reissue
L6036/1988/12	22/09/2011	Licence reissue
L6036/1988/13	25/09/2014	Licence reissue and update to current template
L6036/1988/13	04/06/2015	Licence amendment
L6036/1988/13	29/10/2015	Licence amendment and update to current template

Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION



Licence conditions

1 General

1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

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

'annual period' means the inclusive period from 1 July until 30 June in the following year;

'AS 4323.1' means the Australian Standard AS4323.1 *Stationary Source Emissions Method 1: Selection of sampling positions*;

'AS/NZS 5667.1' means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples*;

'AS/NZS 5667.11' means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of groundwaters*;

'averaging period' means the time over which a limit is measured or a monitoring result is obtained;

'CEMS' means continuous emissions monitoring system;

'CEMS Code' means the current version of the Continuous Emission Monitoring System (CEMS) Code for Stationary Source Air Emissions, Department of Environment & Conservation, Government of Western Australia;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;

Chief Executive Officer
Department Administering the Environmental Protection Act 1986
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au

'controlled waste' has the definition in *Environmental Protection (Controlled Waste) Regulations 2004*;

'Licence' means this Licence numbered L6036/1988/13 and issued under the Act;

'Licensee' means the person or organisation named as Licensee on page 1 of the Licence;

'NATA' means the National Association of Testing Authorities, Australia;

'NATA accredited' means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;



'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

'Schedule 1' means Schedule 1 of this Licence unless otherwise stated;

'Schedule 2' means Schedule 2 of this Licence unless otherwise stated;

'spot sample' means a discrete sample representative at the time and place at which the sample is taken;

'STP dry' means standard temperature and pressure (0°Celsius and 101.325 kilopascals respectively), dry;

'USEPA' means United States (of America) Environmental Protection Agency; and

'usual working day' means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia;

'µS/cm' means microsiemens per centimetre.

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.

1.1.4 Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.1.5 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:

- (a) pollution;
- (b) unreasonable emission;
- (c) discharge of waste in circumstances likely to cause pollution; or
- (d) being contrary to any written law.

1.2 General conditions

1.2.1 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.

1.2.2 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.

1.2.3 The Licensee shall:

- (a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises; and
- (b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises.¹

Note1: *The Environmental Protection (Unauthorised Discharges) Regulations 2004* make it an offence to discharge certain materials into the environment.

1.2.4 The Licensee shall maintain permanent markers along the boundary of the Premises so it can be identified on the ground.



2 Emissions

2.1 General

2.1.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit specified in any part of section 2 of this Licence.

2.2 Point source emissions to air

2.2.1 The Licensee shall ensure that where waste is emitted to air from the emission points in Table 2.2.1 it is done so in accordance with the conditions of this Licence.

Table 2.2.1: Emission points to air	
Emission point reference and location on Map of emission points in Schedule 1	Emission Point and source
A1	Chlorine adsorption tower vent
A2	HCl gas scrubber
A3	Steam boiler chimney
A4	Hydrogen safety seal vent

2.2.2 The Licensee shall not cause or allow point source emissions to air greater than the limits listed in Table 2.2.2.

Table 2.2.2: Point source emission limits to air			
Emission point reference	Parameter	Limit (including units) ¹	Averaging period
A1	Chlorine	5ppm	CEMS (60 minute average)

Note 1: All units are referenced to STP dry

3 Monitoring

3.1 General monitoring

3.1.1 The licensee shall ensure that:

- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
- (b) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
- (c) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table.

3.1.2 The Licensee shall ensure that monthly monitoring is undertaken at least 15 days apart.

3.1.3 The Licensee shall record production or throughput data and any other process parameters relevant to any non-continuous or CEMS monitoring undertaken.

3.1.4 The Licensee shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications.

3.1.5 The Licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.



3.2 Monitoring of point source emissions to air

3.2.1 The Licensee shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of point source emissions to air				
Emission point reference	Parameter	Units ¹	Frequency ²	Method
A1	Chlorine	ppm	Continuous	CEMS (60 minute average)

Note 1: All units are referenced to STP dry

Note 2: Monitoring shall be undertaken to reflect normal operating conditions and any limits or conditions on inputs or production.

3.2.2 The Licensee shall ensure that sampling required under Condition 3.2.1 of the Licence is undertaken at sampling locations in accordance with the AS 4323.1 or relevant part of the CEMS Code.

3.2.3 For any parameter in Table 3.2.1 requiring continuous monitoring the Licensee shall ensure that the CEMS is regularly operated, maintained and calibrated in accordance with the CEMS Code.

3.3 Process monitoring

3.3.1 The Licensee shall undertake the monitoring in Table 3.3.1 according to the specifications in that table.

Table 3.3.1: Process monitoring					
Monitoring point reference	Process description	Parameter	Units	Frequency	Method ¹
PM1	Chlorine gas absorber	Caustic flow rate	L/s m ³ /day	Continuous	None specified
PM2	Gas absorption tower	Caustic flow rate	L/s m ³ /day	Continuous	None specified
PM3	Hydrochloric acid scrubber	Water flow rate	L/s m ³ /day	Continuous (when in operation)	None specified
PM4	Caustic soda / hypochlorite tank	Free hydroxide	g/L	12 hourly	None specified

Note 1: The Licensee shall ensure that continuous monitoring equipment is operating correctly for at least 90% of the measurement intervals in every calendar month and for at least 95% of the measurement intervals in every twelve (12) consecutive calendar months.

3.4 Ambient environmental quality monitoring

3.4.1 The Licensee shall undertake the monitoring in Table 3.4.1 according to the specifications in that table.

Table 3.4.1: Monitoring of ambient groundwater quality				
Monitoring point reference and location on maps in Schedule 1	Parameter	Units	Averaging period	Frequency
Recovery bores MB10, NRBO3R, KMS10R, MB12, KMS16R Monitoring bores NRB01, NRB02	pH ¹	-	Spot sample	Monthly



KMS10R, MB10 KMS03, KMS12 KMS16R, MB01 MB02, MB03 MB04, MB05 MB06, MB07 MB08, MB09 MB11, MB16	Electrical conductivity ¹	µS/cm		
Recovery bores MB10, NRBO3R, KMS10R, MB12, KMS16R	Volume	kL	Continuous	Monthly

Note 1: In-house non-NATA accredited analysis permitted.

4 Information

4.1 Records

- 4.1.1 All information and records required by the Licence shall:
- be legible;
 - if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
 - except for records listed in 4.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
 - for those following records, be retained until the expiry of the Licence and any subsequent licence:
 - off-site environmental effects; or
 - matters which affect the condition of the land or waters.
- 4.1.2 The Licensee shall ensure that:
- any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
 - any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.
- 4.1.3 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.
- 4.1.4 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

4.2 Reporting

- 4.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 28 calendar days after the end of the annual period. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form ¹
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified



Table 3.2.1	Chlorine	As condition 4.2.3
Table 3.4.1	pH, Electrical conductivity, Volume	None specified
4.1.3	Compliance	Annual Audit Compliance Report (AACR)
4.1.4	Complaints summary	None specified
-	Table showing the quantities of raw materials used and the quantity of products produced.	None specified
-	An assessment by a suitably qualified professional of the environmental effects of the activities on this premises on groundwater resources and the groundwater recovery program, including recommended changes.	None specified.

Note 1: Forms are in Schedule 2

- 4.2.2 The Licensee shall ensure that the Annual Environmental Report also contains:
- (a) any relevant process, production or operational data recorded under Condition 3.1.3; and
 - (b) an assessment of the information contained within the report against previous monitoring results and Licence limits.

- 4.2.3 The Licensee shall ensure that results from CEMS are reported in the Annual Environmental Report as tabulated data and time series graphs including:
- (a) times and dates;
 - (b) unavailability of abatement;
 - (c) limit exceedances; and
 - (d) an assessment of the information contained within the report against previous submissions and Licence limits.

4.3 Notification

- 4.3.1 The Licensee shall ensure that the parameters listed in Table 4.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 4.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement¹	Format or form²
2.1.1	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
3.1.5	Calibration report	As soon as practicable.	None specified

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act

Note 2: Forms are in Schedule 2



Schedule 1: Maps

Premises map

The Premises is shown in the map below. The red line depicts the Premises boundary.





Map of recovery bore locations

The locations of the recovery bores defined in Table 3.4.1 is shown below.





Map of monitoring bore locations

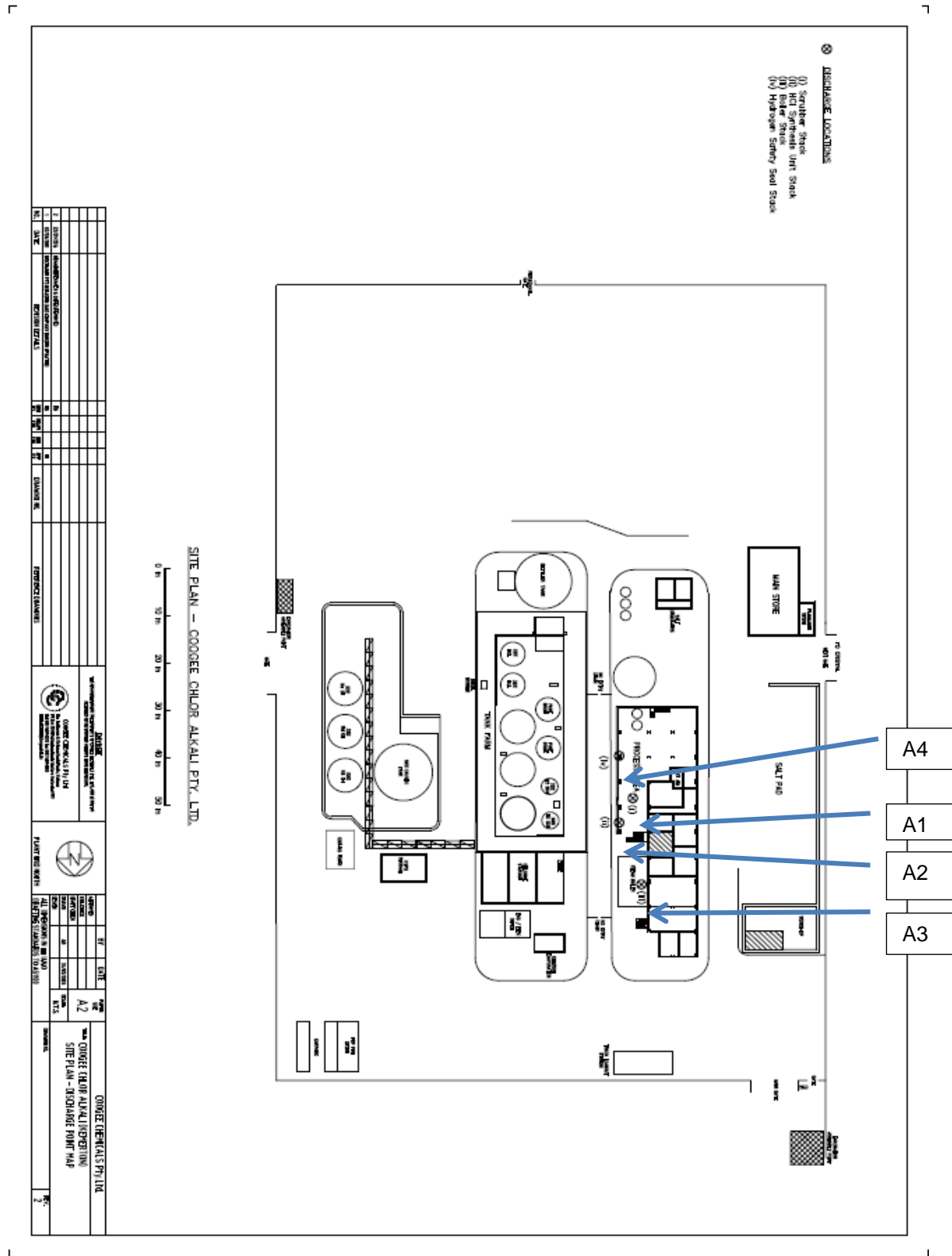
The locations of the monitoring bores defined in Table 3.4.1 is shown below.





Map of emission points

The location of emission points shown in table 2.2.1 is shown in the map below.





Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name: Trading as:	ABN:
Reporting period: _____ to _____	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the Licence complied with within the reporting period? (please tick the appropriate box)

Yes Please proceed to Section C

No Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:



SECTION B

DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each Licence condition that was not complied with.

a) Licence condition not complied with:	
b) Date(s) when the non compliance occurred, if applicable:	
c) Was this non compliance reported to DER?:	
<input type="checkbox"/> Yes <input type="checkbox"/> Reported to DER verbally Date _____ <input type="checkbox"/> Reported to DER in writing Date _____	<input type="checkbox"/> No
d) Has DER taken, or finalised any action in relation to the non compliance?:	
e) Summary of particulars of the non compliance, and what was the environmental impact:	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram):	
g) Cause of non compliance:	
h) Action taken, or that will be taken to mitigate any adverse effects of the non compliance:	
i) Action taken or that will be taken to prevent recurrence of the non compliance:	

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:



SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) may only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
An individual	<input type="checkbox"/> <input type="checkbox"/>	by the individual licence holder, or by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other unincorporated company	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A corporation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	by affixing the common seal of the licensee in accordance with the <i>Corporations Act 2001</i> ; or by two directors of the licensee; or by a director and a company secretary of the licensee, or if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A public authority (other than a local government)	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
a local government	<input type="checkbox"/> <input type="checkbox"/>	by the chief executive officer of the licensee; or by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____

SIGNATURE: _____

NAME:
(printed) _____

NAME:
(printed) _____

POSITION: _____

POSITION: _____

DATE: ____/____/____

DATE: ____/____/____

SEAL (if signing under seal)



Licence: L6036/1988/13
Form: N1

Licensee: Coogee Chlor Alkali Pty Limited
Date of breach:

Notification of detection of the breach of a limit

These pages outline the information that the operator must provide.
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	



Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of Coogee Chlor Alkali Pty Limited	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Coogee Chlor Alkali Pty Limited

Licence: L6036/1988/13

Registered office: Lot 501 Mason Road
KWINANA BEACH WA 6167

ACN: 009 276 635

Premises address: Coogee Chlor Alkali Kemerton Plant
Marriott Road
KEMERTON WA 6233
Being Part of Lot 1 on Diagram 73196 and Part of Lot 510 on
Plan 50377

Issue date: Thursday, 25 September 2014

Commencement date: Wednesday, 1 October 2014

Expiry date: Monday, 30 September 2019

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER) has decided to issue a licence. DER considers that in reaching this decision it has taken into account all relevant considerations and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Clint Joseph
Licensing Officer

Decision Document authorised by: Jonathan Bailes
Delegated Officer



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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.



2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/> New Licence <input type="checkbox"/> Licence amendment <input checked="" type="checkbox"/> Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	31: Chemical manufacturing	39 500 tonnes per annual period
Application verified	Date: N/A	
Application fee paid	Date: N/A	
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome		
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Referral decision No: 176 Managed under Part V <input type="checkbox"/> Assessed under Part IV <input checked="" type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 066 EPA Report No: NA
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises within an Environmental Protection Policy (EPP) Area	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	



3 Executive summary of proposal and assessment

The Coogee Chlor Alkali Pty Ltd (Coogee) Kemerton plant (the Plant) is located approximately 15 km north-east of Bunbury within the Kemerton Industrial Park, a strategic industrial area for heavy industry covering over 7,500 ha of land. The Plant was established in 1987 to service the adjacent Cristal Global (Cristal) titanium dioxide manufacturing plant. The closest sensitive receptor is a rural residence located approximately 2 km to the south-east of the Plant.

The Plant manufactures chlorine on demand for use by Cristal's adjacent titanium dioxide manufacturing plant. Chlorine is produced by the electrolysis of purified sodium chloride brine solution in ion exchange membrane electrolysis cells. The produced chlorine is cooled, dried, compressed and then liquefied for storage in a designated building. Stored chlorine is then vaporised and transferred by an export pipeline to the Cristal site according to Cristal's operational requirements. Caustic soda (sodium hydroxide), sodium hypochlorite, hydrochloric acid and hydrogen are also produced on site as necessary for the operation of the Plant, or for sale to other parties. The site is considered a major hazard facility under Dangerous Goods legislation due to the industrial use of chlorine, which is highly toxic and a strong oxidiser in gaseous form.

The main emissions from the Plant are point source air emissions (chlorine gas) and potential impacts on groundwater due to salt (sodium chloride) contamination. Air emissions are abated by directing all exhaust and ventilation gases through the chlorine absorption tower vent, HCl gas scrubber, steam boiler chimney, or hydrogen safety seal vent. Limits are included in the licence with regard to chlorine discharged to the atmosphere. Historic salt contamination of groundwater at the premises has previously been addressed through an Environmental Improvement Plan. The Licence now includes ongoing monitoring of groundwater to continue to monitor recovery from the contamination and ensure any future impacts on groundwater are promptly identified.

This amendment is sought by the Licensee to rename groundwater monitoring and recovery bores. The licence has also been updated to the current template, resulting in the removal of fugitive dust conditions, as fugitive dust emissions have been assessed as low risk and can be sufficiently regulated by provisions of the the *Environmental Protection Act 1986*. DER has considered whether the risk profile of emissions and discharges from the premises has significantly changed as a result of the proposed amendment. No significant changes have occurred therefore DER has not amended any other conditions relating to emissions and discharges.



4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987*, DEC's Policy Statement - Limits and targets for prescribed premises (2006), and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Fugitive emissions	N/A	<p>Emission Description <i>Emission:</i> Dust from vehicular movement on the premises and the unloading of bulk granular material for processing. <i>Impact:</i> Potential nuisance impacts to off-site receptors. <i>Controls:</i> All vehicular tracks are tarred. The only bulk granular material that gets unloaded is salt which does not contribute to any dust emissions.</p> <p>Risk Assessment <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p> <p>Regulatory Controls DER is satisfied that appropriate controls are in place to prevent and minimise fugitive emissions and therefore deems it appropriate to remove conditions L2.6.1 and L2.6.2 relating to fugitive dust emissions from the operating licence. Provisions of the <i>Environmental Protection Act 1986</i> are sufficient to regulate this impact.</p> <p>Risk Assessment <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i></p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Ambient environmental quality monitoring	L3.4.1	The monitoring bore references have been updated to ensure consistent naming convention between DER, the Licensee, and other regulatory agencies. The maps in Schedule 1 have also been updated.	Application supporting documentation.

5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
30/09/2015	Proponent sent a copy of draft amended instrument	19/10/2015 Licensee advised they had no comments to make.	N/A



6. Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High