Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L6110/1990/13
Licence holder	Australian Gold Reagents Pty Ltd
ACN	009 140 121
Registered business address	Level 14, Tower 2 Brookfield Place 123 St Georges Terrace PERTH WA 6000
DWER file number	DEC4869/1
Duration	20/03/2014 to 27/03/2034
Date of amendment	27 March 2025
Premises details	Australian Gold Reagents Part Lot 20 on Diagram 78086 Kwinana Beach Road KWINANA BEACH WA 6167 Legal description - Certificate of Title Volume 1918 Folio 244

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	Assessed production
Category 31: Chemical manufacturing	136,000 tonnes per annual period

This Amended Licence is granted to the licence holder, subject to the attached conditions, on 27 March 2025, by:

Michael Greenslade
Digitally signed by Michael Greenslade
Date: 2025.03.27 09:44:25 +08'00'

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

CONDITIONS OF LICENCE

DEFINITIONS

In these conditions of licence, unless inconsistent with the text or subject matter:

"annually" means once each calendar year;

“annual period’ means 1 January to 31 December

“approved form” means the AACR Form template approved by the CEO for use and available via DWER’s external website;

"AS" means Australian Standard;

“CEO” means the Chief Executive Officer of the Department of Water and Environmental Regulation;

“CEO” for the purposes of notifications and correspondence means:

Director General
Department Administering the *Environmental Protection Act 1986*
Locked Bag 10
JOONDALUP DC WA 6919
Telephone: (08) 6364 7000
Email: info@dwer.wa.gov.au

"CN^-" means cyanide ion;

"CEMS" means continuous emissions monitoring system;

“DWER” means Department of Water and Environmental Regulation;

“Environmental Compliance Report” means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the licence;

"Licence Holder" means Australian Gold Reagents Pty. Ltd. (ACN: 009 140 121);

"g/s" means grams per second;

"mg/L" means milligrams per litre;

"mg/m^3" means milligrams per cubic metre expressed dry at zero degrees Celsius and one atmosphere pressure (101.325 kilopascals);

"NATA" means National Association of Testing Authorities;

"NOx" means oxides of nitrogen including the combination of nitric oxide and nitrogen dioxide, and expressed as nitrogen dioxide;

"SCP1 and SCP2" means the sodium cyanide plants 1 and 2 respectively;

"total cyanide" in terms of atmospheric emissions means the combined measurement of HCN (hydrogen cyanide) and NaCN (sodium cyanide);

"usual working day" means Monday to Friday not including public holidays; and

"USEPA" means United States (of America) Environmental Protection Agency.

All other terms take their meaning from the *Environmental Protection Act 1986*.

AIR POLLUTION CONTROL CONDITIONS

ATMOSPHERIC DISCHARGE POINTS

1 The Licence Holder must only discharge process gaseous wastes from the discharge points detailed below:

(a) under normal operation, through one or more of the following:

(i) the John Zink incinerator stack as depicted in Attachment 2, No. 6 (SCP1 Incinerator stack);

(ii) the Maxitherm incinerator stack as depicted in Attachment 2, No. 5 (SCP2 Incinerator stack); and

(iii) Sodium Cyanide Solids stack as depicted in Attachment 2, No. 7 (Solids Plant Stack);

(b) during start-up, through the start-up and shut down stacks as depicted in Attachment 2, No. 1, No. 2, No. 3 and No. 4;

(c) during a shut-down, through the shut down stack as depicted in Attachment 2, No. 2 and No. 4; and

(d) during an incinerator shutdown or trip when the plant is producing sodium cyanide, to ensure that efficient destruction of gaseous waste from SCP1 and/or SCP2 is maintained, discharge must occur through:

i. an operating incinerator stack, or;

ii. where this is not possible , discharge through the associated shutdown stack as depicted in Attachment 2 number 2 and number 4.

2 The Licence Holder must monitor the atmospheric discharge gases from the stacks specified, for measurement of the parameters listed, at the frequencies stated in accordance with the methods specified in Table 1 to determine all required emissions in mg/m^3 and g/sec.

3 The Licence Holder must only conduct the manual tests required by condition 2 when the plant is operating at steady state balance.

Table 1: Stack Monitoring Requirements

Monitoring Method	Discharge Gases to be Tested and Required Testing Method	
	SCP1 & SCP2 Incinerator stacks	**Solids Plant stack**
CEMS	NOx	No CEMS requirement
Quarterly Manual Stack Test	Ammonia, HCN, (using the relevant USEPA or other NATA accredited method)	Ammonia, Total Cyanide (using the relevant USEPA or other NATA accredited method)

RELIABILITY REQUIREMENT

4 The Licence Holder must maintain the continuous emissions monitoring systems for the SCP1 and SCP2 incinerator stacks, as required by condition 2, to provide reliable and accurate data for:

(a) greater than 90 percent of the operating time of each sodium cyanide solution plant in every calendar month period; and

(b) greater than 95 percent of the operating time of each sodium cyanide solution plant in the accumulated twelve calendar month period.

STACK EMISSION LIMITS

5 The Licence Holder must, while the SCP1 and SCP2 and the Solids Plant are operating in steady state balance, ensure that the emitted wastes do not exceed the parameters specified in Table 2.

Table 2: Atmospheric Emission Limits

Parameter	Licensed Emissions g/s			
	SCP1 & SCP2 Incinerators		Solids Plant	
	Limit	Target	Limit	Target
NOx equal to or more than 95% operating time over the previous 12 months	5.0	n/a	n/a	n/a
NOx equal to or less than 5% of operating time over the previous 12 months	12.0	n/a	n/a	n/a
Ammonia	n/a	0.60	n/a	1.5
Total Cyanide	n/a	n/a	0.58	0.35
Hydrogen Cyanide	0.58	0.35	n/a	n/a

CYANIDE LIQUID PLANTS START-UP RESTRICTIONS

6 The Licence Holder must ensure that start-ups of SCP1 and SCP2 shall only be initiated subject to the following conditions:

(a) When the wind direction originates within the true compass arc between 57º and 80º, the Licence Holder must not initiate a start-up of SCP1 or SCP2;

(b) when wind speed is less than one (1) metre per second, the Licence Holder must not initiate a start-up of SCP1 or SCP2;

(c) when wind speed is between one (1) and two (2) metres per second, start-up of SCP1 or SCP2 can only be initiated when the wind direction originates within the true compass arc between 90º and 120º;

(d) when wind speed is greater than two (2) metres per second, start-up of SCP1 or SCP2 can only be initiated when the wind direction originates within the true compass arc between 80º and 215º; and

(e) when the wind speed is greater than four and a half (4.5) metres per second, start-up of SCP1 or SCP2 can be initiated for any wind direction other than that described in (a).

7 The Licence Holder must ensure that the decision to commence with any Sodium Cyanide Plant (SCP1 and SCP2) start-up shall be subject to an assessment of meteorological information, available from the Bureau of Meteorology (BOM) or secondary sources that utilise BOM data for the BOM Garden Island weather station (ID: 95607). The assessment shall provide assurance that meteorological conditions, required by condition 6, are likely to prevail for the duration of the start-up.

8 The Licence Holder must ensure that SCP1 and SCP2 start-ups, subject to conditions 6 and 7, shall be conducted in accordance with the current AGR Start-up Management Plan.

9 The Licence Holder must record the date, time, duration and the action taken in accordance with the approved management plan for each shut-down and start-up for the reporting period.

SOLID SODIUM CYANIDE DISSOLVING PLANT

WET SCRUBBER DUST COLLECTION SYSTEM

10 The Licence Holder must maintain and operate a wet-scrubber dust-collection system to collect all fugitive dust particles or fumes from the dissolving tank.

WATER POLLUTION CONTROL CONDITIONS

TESTING AND CONCENTRATION TARGETS FOR THE RELEASE OF WASTEWATER

11 The Licence Holder must manage wastewater released from the site so that the following target is met:

(a) Cyanide concentration less than 1 mg/L.

12 The Licence Holder must maintain a log of all cyanide determinations conducted in compliance with condition 11.

SECONDARY CONTAINMENT OF ENVIRONMENTALLY HAZARDOUS LIQUIDS

13 The Licence Holder must immediately recover, or remove and dispose of, liquid resulting from spills or leaks of chemicals including fuel, oil or other hydrocarbons, whether inside or outside a low permeability compound.

REPORTING CONDITIONS

EXCEEDANCE REPORTS

14 The Licence Holder must notify the CEO before 5 p.m. on the next usual business day after becoming aware that any monitoring result has exceeded a licence discharge limit or target value for a waste discharge specified in any condition of this licence.

15 The Licence Holder must provide an exceedance report to the CEO where any monitoring result(s) is/are in excess of the limits specified in any condition of this licence within seven usual working days of that exceedance becoming known. The exceedance report shall contain:

(a) the amount by which the limit was exceeded, supported by relevant monitoring data;

(b) reasons for the emission levels being in excess of the limit; and

(c) an outline of corrective action taken by the Licence Holder to ensure that emission levels are maintained below the limit, where applicable.

REPORTING FORMAT

16 Any continuous atmospheric discharge data submitted by the Licence Holder in accordance with the conditions of this licence shall be in computer readable format and shall be:

(a) in time-series half-hourly averaged listings;

(b) the time mark in half-hourly averaged listings shall refer to the data collected in the period prior to the time mark; and

(c) each submitted data set should be accompanied by a graphic representation and compliance status of the submitted data.

17 The Licence Holder must include with submitted data, relevant limits and/or target values associated with each substance that is required to be monitored by a condition of this licence.

ANNUAL REPORTING

18 The Licence Holder must:

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

(b) prepare and submit to the CEO by no later than 31 March following preceding annual period an Annual Audit Compliance Report in the approved form.

19 The Licence Holder must provide to the CEO a biennial report by 31 March 2026 and then biennially thereafter. The report is to cover data collected during the previous two annual periods in addition to the information required by condition 17, the monitoring results required by:

(a) condition 14 and 15 for a summary of exceedances;

(b) condition 2 for:

(i) quarterly manual stack testing of the SCP1 and SCP2 Incinerator Stacks (as depicted in Attachment 2) for ammonia and HCN

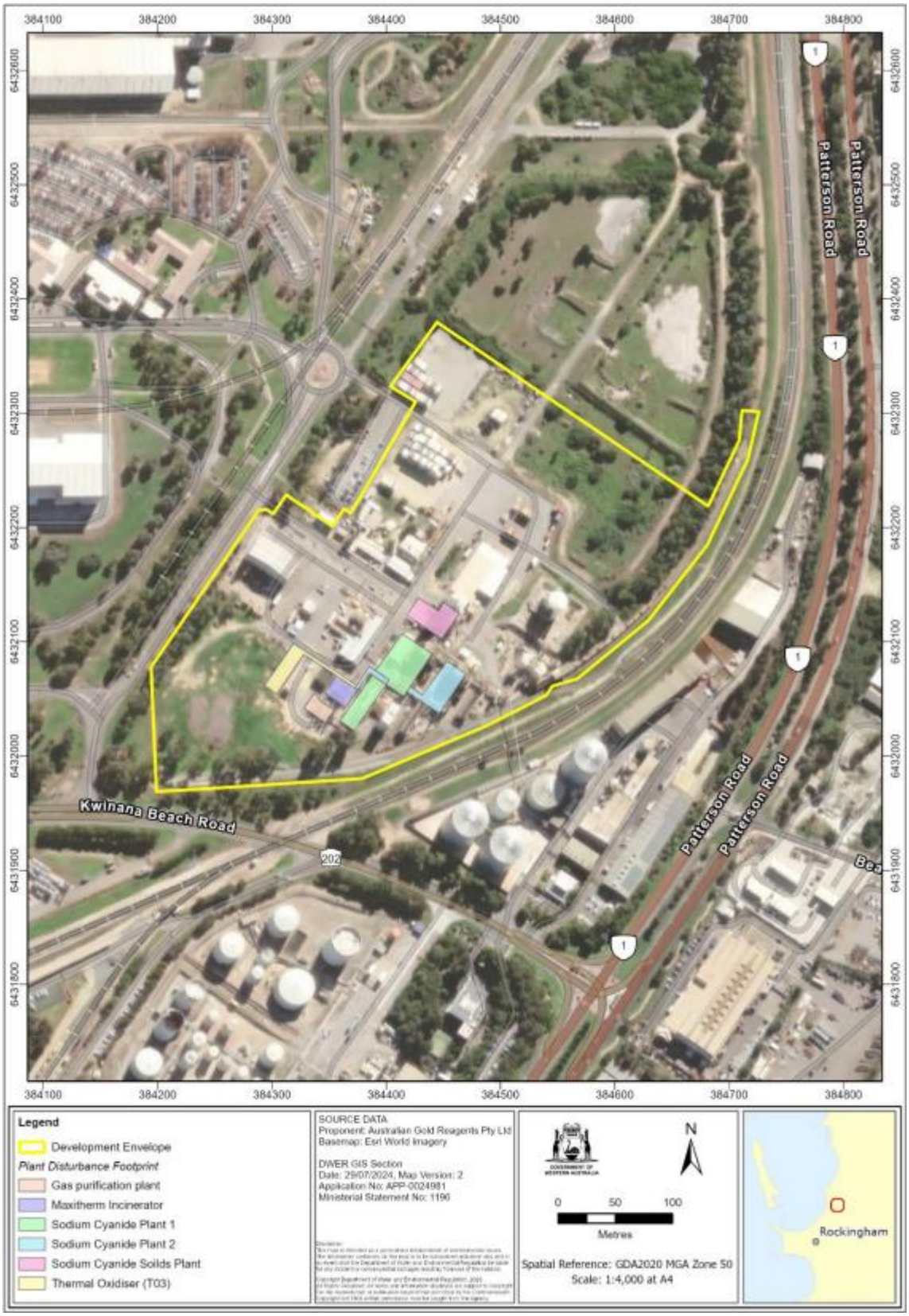
(ii) CEMS NOx data for SCP1 and SCP2 Incinerator Stacks (as depicted in Attachment 2);

(iii) quarterly ammonia and total cyanide discharges from the Solids Plant Stack (as depicted in Attachment 2); and

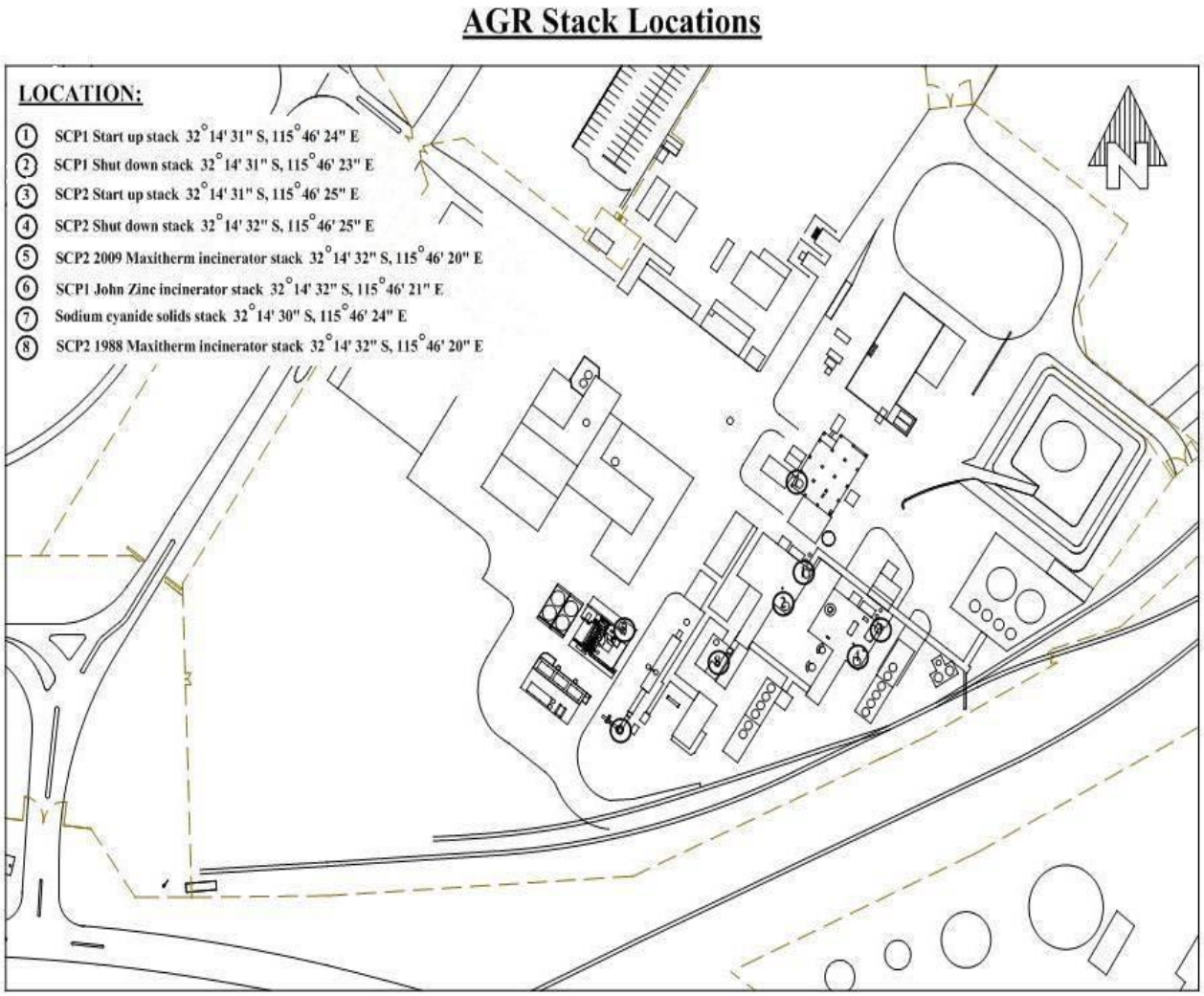
(c) condition 9.

END OF CONDITIONS

Attachment 1: Premises boundary map



Attachment 2: Map of emission and monitoring points



Attachment 3: Drawing of incinerator interconnection