Government of Western Australia
Department of Water and Environmental Regulation

Amended Licence

Licence number	L5109/1990/13
Licence holder	Coogee Chemicals Pty Ltd
ACN	008 747 500
Registered business address	4 Kwinana Beach Road KWINANA BEACH WA 6167
DWER file number	DEC5802/3
Duration	05/12/2014 to 04/12/2034
Date of issue	04/12/2014
Date of amendment	24/04/2024
Premises details	Coogee Chemicals 4 Kwinana Beach Rd KWINANA BEACH WA 6167 Legal description - Lot 1 on Deposited Plan 402573, Lot 2 on Deposited Plan 402573, Lot 3 on Diagram 79782, Lot 12 on Plan 21876, Lot 506 on Diagram 61889, Lot 801 on Plan 68876 and Part of Lot 9002 on Plan 68876 As defined in Schedule 1

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed design capacity**
Category 31: Chemical manufacturing	100 000 tonnes per annual period
Category 33: Chemical blending or mixing	18,250 tonnes per annual period
Category 73: Bulk storage of chemicals	376,000 m^3

This licence is granted to the licence holder, subject to the attached conditions, on 24 April 2024, by:

Amine Fisher

Digitally signed by Amine Fisher
Date: 2024.04.24 17:07:20 +08'00'

MANAGER, PROCESS INDUSTRIES

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

Licence history

Date	Reference number	Summary of changes
22/11/2007	W4379/2007/1	Tank Terminal expansion
29/11/2012	W5272/2012/1	NaHS Plant
13/03/2014	W5555/2013/1	1300m^3 storage tank inside earth bund
03/10/2014	W5478/2013/1	Upgrade to VRUs
31/10/2008	L5109/1990/11	Licence re-issue
01/12/2012	L5109/1990/12	Licence re-issue
27/11/2014	L5109/1990/13	Licence re-issue and changes to the licence format.
29/04/2016	L5109/1990/13	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.
13/10/2016	L5109/1990/13	Amendment Notice 1: licence amendment to allow for the construction of a sodium hypochlorite Filling Station on their prescribed premises in Kwinana Beach.
3/08/2018	L5109/1990/13	Amendment Notice 2: a licence amendment application with the Department on 27 March 2018. The application was in part revised on 7 June 2018. The consolidated and revised application (the Application) requests approval to: 1. construct and operate a TiRO^{tm} Plant inside an existing building; 2. discharge non-process water with a Total Recoverable Hydrocarbon (TRH) content up to 9 ppm to onsite discharge areas; and correct the description of the lot definitions of the premises due to recent changes.
5/02/2019	L5109/1990/13	Amendment Notice 3: a licence amendment application was made on 19 December 2018 to allow construction of a new tank within the premises on an already existing foundation within the tank farm located on Lot 12 on Plan 21876. The tank will be used for the storage of caustic, the same product as is stored in the existing 6 tanks nearby and within the same secondary containment compound.
04/02/2020	L5109/1991/13	Amendment application received by the department on 12 September 2019 for the construction and operation of a ferric sulfate plant. The Amended Licence includes approval to construct and operate a ferric sulfate plant inside an existing building and includes all previous amendments.
24/04/2024	L5109/1991/13	Amendment to include four new tanks for diesel storage and correct administrative matters.

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

The licence holder must ensure that the following conditions are complied with:

Infrastructure and equipment

1. The licence holder must ensure that the site infrastructure and equipment listed in Table 1 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.

Table 1: Infrastructure and equipment requirements

	Site infrastructure and equipment	Operational requirement	Infrastructure location
1	Aluminium sulfate plant comprising: – Reactor – Aqueous scrubber – Cooling tower	a) Vapours from the reactor must be directed to the aqueous scrubber prior to discharge via a discharge stack. b) A cooling tower must be operated on the aqueous scrubber to keep the scrubber water below 40^{o}C.	Schedule 1 Figure 2
2	Sulphuric acid storage comprising: – 3 x sulfuric acid storage tanks – Concrete containment bunding	a) A mist eliminator must operated on the sulfuric acid surge tank.	Schedule 1 Figure 2
3	Tank Terminal South 4 comprising: – 4 x 30,000 m^3 steel fuel storage tanks – Concrete containment bunding	a) Concrete containment bunding must be maintained in a fit for purpose condition for containing liquids with capacity to contain not less than 110% of the volume of the largest storage vessel or 25% of the total storage volume. b) The tank vapour recovery lines must be connected to the premises vapour recovery unit if tanks are used for storage of flammable liquids	Schedule 1 Figure 2
4	Concrete bunded storage area for titanium tetrachloride and vanadium tetrachloride	a) Concrete containment bunding must be maintained in a fit for purpose condition for containing liquids with capacity to contain not less than 110% of the volume of the largest storage vessel or 25% of the total storage volume.	Schedule 1 Figure 2
5	Titanium alloy manufacturing plant comprising: – Fluidised bed reactor – Multistage argon gas cleaning and recycling system	a) Vapours from the fluidised bed reactor must be directed to the argon gas cleaning and recycling system and the caustic scrubber system for treatment prior to discharge via a discharge stack.	Schedule 1 Figure 2

	Site infrastructure and equipment	Operational requirement	Infrastructure location
	– Two stage caustic scrubber system – Continuous vacuum distillation unit – Plasma Speroidiser	b) The caustic scrubber must be operated with a HCl monitor on the discharge stack	
6	Ferric sulphate plant comprising: – Ferric sulfphate reactor – Wet scrubber system – Effluent water tank	a) Vapours from the ferric sulphate reactor must be directed to the wet scrubber system which must be operated during transfers and the reaction phase of the process to treat vapours prior to discharge via a discharge stack. b) The wet scrubber system must be operated with a flow sensor with an alarm and a pH analyser with an alarm c) Wastewater from the scrubber must be collected in an effluent tank and redirected through the process.	Schedule 1 Figure 2

2. The licence holder shall use all reasonable and practicable measures to prevent the generation of dust at the premises.

Emissions and discharges

3. The licence holder must not discharge any process water to land.

4. The licence holder must ensure that the emissions specified in Table 2, are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

Table 2: Authorised discharge points

Emission	Discharge Point	Emission point height (magl)	Discharge point location As depicted in Schedule 1: Figure 3
Sulfuric acid mist (H_2SO_4)	Aluminium sulfate plant stack	≥14.5	A1
Sulfuric acid mist (H_2SO_4)	Sulfuric acid storage surge tank vent	≥1.0	A3
Argon gas HCl	Titanium alloy manufacturing plant scrubber stack	≥17.5	T1
Argon gas	Titanium alloy manufacturing plant argon gas cleaning and recycling system stack	≥16.5	T2

Emission	Discharge Point	Emission point height (magl)	Discharge point location As depicted in Schedule 1: Figure 3
Sulfuric acid mist (H_2SO_4)	Ferric sulfate scrubber stack	≥7.5	F1

Monitoring

5. The licence holder shall not cause or allow point source emissions to air greater than the limits listed in Table 3.

Table 3: Point source emission limits to air

Discharge point	Emission	Limit (including units)[1]	Averaging period
A1	Sulfuric acid mist expressed as SO_3	100 mg/m^3	Stack test (60 minute minimum)

Note 1: All units are referenced to STP dry.

6. The licence holder may discharge collected non-process water to land within the premises if this water is tested prior to discharge and deemed compliant with the discharge criteria in Table 4.

Table 4: Discharge criteria of collected non-process water when discharged to land

Parameter	Non-Process water discharge limits
Conductivity	< 3000 µS/cm
pH	>4 and <10
TRH	< 15 ppm

7. The licence holder shall ensure that all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.

8. The licence holder shall ensure that annual monitoring is undertaken at least 9 months apart.

9. The licence holder shall record production or throughput data and any other process parameters relevant to any monitoring undertaken.

10. The licence holder shall undertake the monitoring in Table 5 according to the specifications in that table.

Table 5:Monitoring of point source emissions to air

Discharge point and monitoring location	Parameter	Units[1]	Averaging period	Frequency [2]	Method
A1	Sulfuric acid mist expressed as SO_3	mg/m^3	>60 minutes	Annually	USEPA Method 8
F1	Sulfuric acid mist expressed as H_2SO_4	mg/m^3	>60 minutes	Annually	USEPA Method 8

Note 1: All units are referenced to STP dry.

11. The licence holder shall ensure that all non-continuous sampling and analysis undertaken pursuant to condition 10 is undertaken by a holder of NATA accreditation for the relevant methods of sampling and analysis.

Records and reporting

12. The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

(a) the name and contact details of the complainant, (if provided);

(b) the time and date of the complaint;

(c) the complete details of the complaint and any other concerns or other issues raised; and

(d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.

13. 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 60 days after the end of that annual period an Annual Audit Compliance Report in the approved form.

14. The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:

(a) the calculation of fees payable in respect of this licence;

(b) any maintenance of infrastructure that is performed in the course of complying with condition 1 of this licence;

(c) monitoring programmes undertaken in accordance with conditions 6 and 10 of this licence; and

(d) complaints received under condition 12 of this licence.

15. The books specified under condition 14 must:

(a) be legible;

(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;

(c) be retained by the licence holder for the duration of the licence; and

(d) be available to be produced to an inspector or the CEO as required.

16. The licence holder must submit to the CEO by no later than 60 days after the end of each annual period, an Annual Environmental Report for that annual period for the conditions listed in Table 6, and which provides information in accordance with the corresponding requirement set out in Table 6.

Table 6: Annual Environmental Report

Condition	Requirement
	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
	Throughput of each chemical produced or manufactured in tonnes per annual period
5	Limit exceedances
10	Emissions to air monitoring results for the annual period.
14	Summary of complaints received during the annual period, including the number and nature of complaints.

17. The licence holder must ensure that the Annual Environmental Report also contains:

(a) any relevant process, production or operational data recorded under condition 9;

(b) an assessment of the information contained within the report against previous monitoring results and licence limits and targets; and

(c) copies of original monitoring reports submitted to the licence holder by third parties.

Notification

18. The licence holder must, within 7 days of becoming aware of any non-compliance with condition 5 or 6 of this licence, notify the CEO in writing of that non-compliance and include in that notification the following information:

(a) which condition was not complied with;

(b) the time and date when the non-compliance occurred;

(c) if any environmental impact occurred as a result of the non-compliance and if so what that impact is and where the impact occurred;

(d) the details and result of any investigation undertaken into the cause of the non-compliance;

(e) what action has been taken and the date on which it was taken to prevent the non-compliance occurring again; and

(f) what action will be taken and the date by which it will be taken to prevent the non-compliance occurring again.

Definitions

In this licence, the terms in Table 7 have the meanings defined.

Table 7: Definitions

Term	Definition
ACN	Australian Company Number
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).
annual period	a 12 month period commencing from 1 January until 31 December of the same year.
averaging period	means the time over which a limit or target is measured or a monitoring result is obtained;
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: 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.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
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 specified on the front of the licence as the person to whom this licence has been granted.
magl	means metres above ground level

Term	Definition
mg/L	means milligrams per litre
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;
normal operating conditions	means any operation of a particular process (including abatement equipment) excluding start-up, shut-down and upset conditions, in relation to stack sampling or monitoring;
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.
SCADA system	means supervisory control and data acquisition system
shut-down	means the period when plant or equipment is brought from normal operating conditions to inactivity;
stack test	means a discrete set of samples taken over a representative period at normal operating conditions;
start-up	means the period when plant or equipment is brought from inactivity to normal operating conditions;
STP-dry	means standard temperature and pressure (0^{o}Celsius and 101.325 kilopascals respectively), dry;
TRH	means Total Recoverable Hydrocarbons;
µg/L	means micro grams per litre;
µS/cm	means micro Siemens per centimetre
USEPA	means United States (of America) Environmental Protection Agency;
USEPA Method 8	means the promulgated Test Method 8 – Determination of Sulfuric Acid and Sulfur Dioxide Emissions from Stationary Sources.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in pink in the map below (Figure 1).

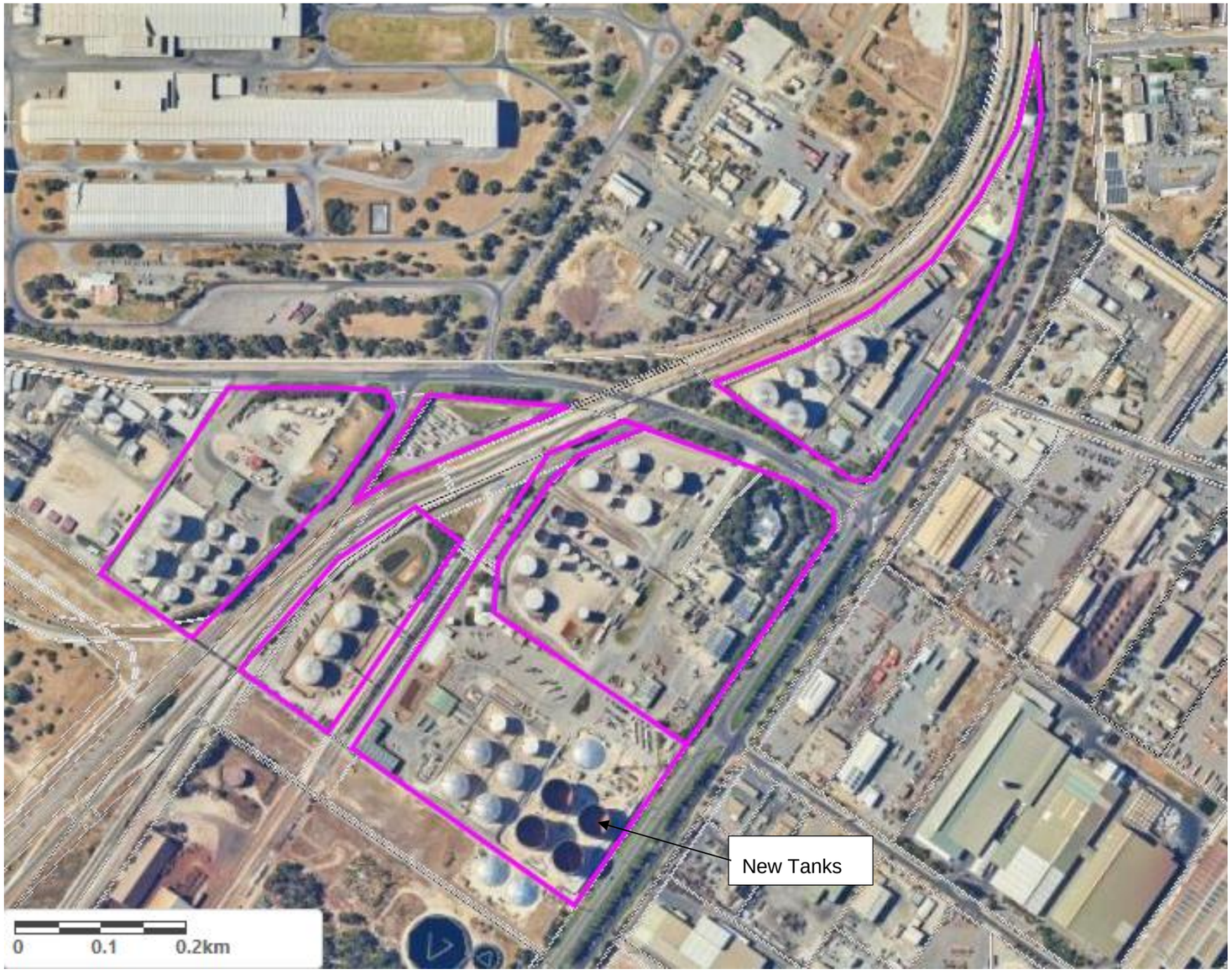

Figure 1: Map of the boundary of the prescribed premises

	Aluminium sulphate plant
	Sulphuric acid storage
	Tank Terminal South 4
	Concrete bunded storage area for Titanium tetrachloride and vanadium tetrachloride
	Titanium alloy manufacturing plant
	Ferric sulphate plant

Figure 2: Map of infrastructure locations / premises layout

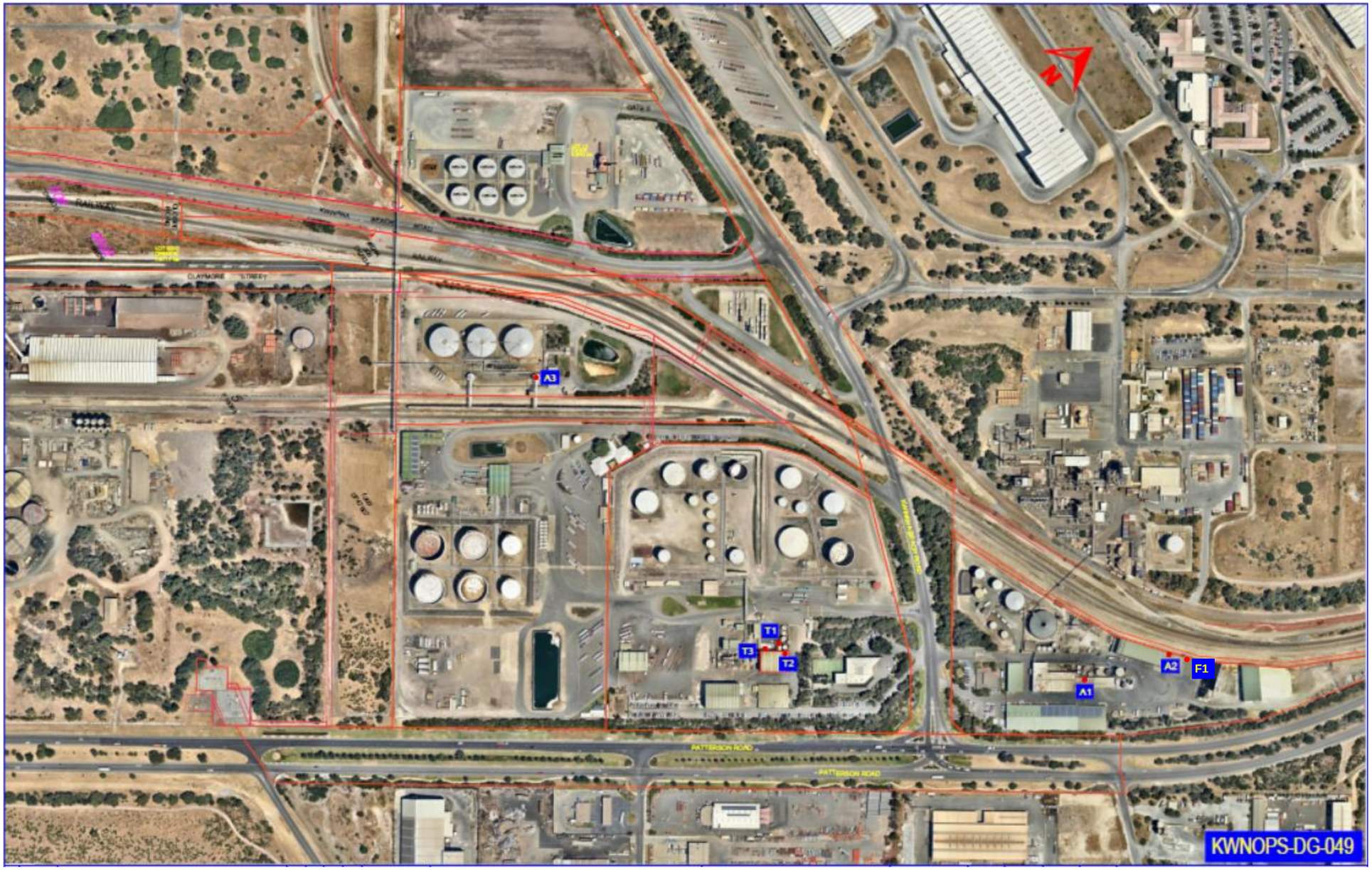

Figure 3: Map of authorised discharge point locations