Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L5366/1972/14
Licence holder	Electricity Generation and Retail Corporation T/A Synergy
Registered business address	Forrest Centre 219 St Georges Terrace PERTH WA 6000
Duration	20/08/2012 to 19/08/2027
Date of amendment:	21/08/2025
Premises details	Kwinana Power Station 22 Leath Rd NAVAL BASE WA 6165 Legal description - Part of Lot 22 on Diagram 72310, Part of Lot 218 on Plan 215932; Part Lot 230 on Plan 240259, Part Lot 229 on Plan 240259, and Part Lot 4552 on Plan 220690 As defined by the Premises boundary coordinates in Schedule 1

Prescribed premises category description (Schedule 1, Environmental Protection Regulations 1987)	Assessed design capacity
Category 52: Electric power generation	230 MW
Category 61: Liquid waste facility	300,000 tonnes per annum
Category 73: Bulk storage of chemicals	35,500 m^3

This amended licence is granted to the licence holder, subject to the attached conditions, on 21 August 2025, by:

Daniel Hartnup

Digitally signed by Daniel Hartnup
Date: 2025.08.21 11:51:11 +08'00'

MANAGER, PROCESS INDUSTRIES
STATE-WIDE DELIVERY (ENVIRONMENTAL REGULATION)
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Ref number	Summary of changes
16/08/2012	L5366/1972/14	Reissue of licence.
27/03/2013	L5366/1972/14	Licence amendment to include operation of two LMS100s.
18/12/2014	L5366/1972/14	Licence amendment to REFIRE format
16/04/2015	L5366/1972/14	Licence amendments to implement PEMS Monitoring for NO_X on LMS100s
29/04/2016	L5366/1972/14	Department initiated amendment to amend the duration of the licence date month year.
22/07/2016	L5366/1972/14	Amendment Notice 1: Amendment Notice 1 Licence amendment to change annual environment report submission date.
04/08/2017	L5366/1972/14	Amendment Notice 2 Removal of conditions relating to the use of coal as a fuel and redundant improvement conditions.
31/01/2018	L5366/1972/14	Amendment Notice 3 Approval for works to replace the existing Water Treatment Plant that supplies boiler water to Cockburn 1 Power Station and the Kwinana Power Station.
28/02/2018	L5366/1972/14	Amendment Notice 4 Correction of error in Infrastructure Table in Amendment Notice 3.
14/12/2018	L5366/1972/14	Amendment Notice 5 Removed a potential ambiguity in stack testing requirements and amended the sampling point and requirements for monitoring of discharges to water.
16/07/2019	L5366/1972/14	Amendment Notice 6: initiated by the licence holder to amend certain conditions in licence and premises boundary.
29/08/2019	L5366/1972/14	Amendment to remove Section 6 from Licence L5366/1972/14 Amendment was granted in the form of a revised licence, including consolidation of amendment notices issues since 16 April 2015
21/09/2021	L5366/1972/14	Amendment to change management requirements for NOx water injection failures and cooling water discharge monitoring requirements.
09/01/2023	L5366/1972/14	Various amendments requested by licence holder related to the BESS, including prescribed premises boundary and stormwater/wastewater management changes and 30 MW increase to assessed design capacity
05/01/2024	L5366/1972/14	Amendment to authorise acceptance of potentially contaminated stormwater and fire wastewater management from the Kwinana Big Battery BESS.
21/08/2025	L5366/1972/14	Amendment to change the boundary to include production bores.

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 that table.

Table 1: Infrastructure and equipment requirements

	Site infrastructure and equipment	Operational requirement	Infrastructure location
1	2 x 115 MWe HEGT	(a) must be operated with water injection for NOx control (b) must be fired with natural gas or low sulphur diesel (c) must use low NOx burners	A4 and A5 on premises map in schedule 1
2	Reverse Osmosis WTP	reject water to be discharged at W1, W2 or tankered off-site by licensed controlled waste contractor.	Reverse osmosis plant
3	OWS	must be maintained so that output water is not more than 15mg/litre total recoverable hydrocarbons (TRH).	Oily water separator
4	OWS overflow pond	must have intact HDPE liner except during planned repair or maintenance	OWS overflow pond
5	2 x Storage Dams	(a) must store process wastewater from Cockburn Power Station (b) must have an intact HDPE liner except during planned repair or maintenance (c) must have geofabric liner	Storage dams
6	High voltage transformers for BESS	(a) Located within a concrete floor and bunded containment area with bunding maintained in state free or damage that may impact on containment. (b) Potentially contaminated water from within the concrete containment area to be directed to the OWS.	High voltage transformers on the premises map in Schedule 1
7	KPS fire water tanks	In the event of an incident at the BESS that creates firewater runoff, wastewater may be directed to the KPS Fire Water Storage Tanks for storage prior to being transported off site.	Existing Fire Water Tanks on premises map in schedule 1
8	Fuel oil bulk storage tank 6	In the event of an incident at the BESS that creates firewater runoff, wastewater may be directed to FOBS tank 5 and/or 6 or another storage receptable located within **the** FOB bund for storage prior to being transported	FOBS tank 5 and 6, and associated bund on premises map in schedule 1

	Site infrastructure and equipment	Operational requirement	Infrastructure location
		off site	

2. The licence holder must ensure that all wastewater that may be contaminated with hydrocarbons is directed to the oily water separator as depicted in Schedule 1.

3. The licence holder must only accept onto the premises waste of a waste type, which does not exceed the corresponding rate at which waste is received, and which meets the corresponding acceptance specification set out in Table 2.

Table 2: Types of waste authorised to be accepted onto the premises

	Waste type	Rate at which waste is received	Process
1	Process wastewater generated at Cockburn Power Station	None Specified	To be stored in the storage dams specified in Table 1 prior to re-use
2	Contaminated stormwater generated at Cockburn Power Station	None Specified	To be directed to the oil water separator for final disposal or reuse in the storage dams specified in Table 1.
3	Contaminated firewater generated at the BESS	None Specified	To be stored in FOBS tank 5 or 6 or another storage receptable, overflow pond or fire water tanks prior to off site disposal
4	Stormwater generated at the BESS site	None Specified	To be directed to the oil water separator for final disposal or reuse in the storage dams specified in Table 1

Emissions and discharges

4. The licence holder must record and investigate the exceedance of any descriptive or numerical limit specified in any part of this licence.

Discharges to Air

5. The licence holder must ensure that the emissions specified in Table 3, are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

Table 3: Authorised discharge points

Emission	Discharge point	Discharge point location
KWGT Units 2 and 3 Gas Turbine fired	A4 and A5	Schedule 1, figure 1

6. Subject to condition 7, the licence holder must ensure that emissions from the discharge point listed in Table 4 for the corresponding parameter do not exceed the corresponding limit when monitored in accordance with condition 16.

Table 4: Emission and discharge limits

Discharge point	Parameter	Fuel type	Limit (mg/m^3 one hour average)
A4 and A5	NOx	Natural gas	70
		Low sulphur distillate	150

7. In the case of an event in Table 5, the licence holder is exempt from the limits in condition 6 provided the licence holder take the specified management action in Table 5

Table 5: Management actions emissions to air

Emission point reference	Event/ action reference	Event	Management action
A4 - A5	EA2	Start up and shutdown	The licence holder must take all practical measures to minimise emissions.
A4 - A5	EA4	Running without NOx water injection for the purpose of developing the PEMS model which may result in an exceedance of the NOx emission limits	The licence holder must notify the CEO in writing a minimum of 24 hours prior to commencement of testing without NOx water injection.
A4 – A5	EA5	While using natural gas, a failure of the NOx water injection causing NOx emissions to exceed the limit in condition 6.	Within 2 hours of the NOx water injection failure, the licence holder must: (a) troubleshoot and recommence normal operation of the NOx water injection; or (b) reduce turbine load to ensure that NOx emissions comply with the limits specified in condition 6.

Discharges to water

8. The licence holder must ensure that where waste is emitted to surface water from the emission points in Table 6 are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

Table 6: Emission points to surface water

Emission point reference and location on Map of emission points	Emission point reference on Map of emission points	Description	Source
W1	Stage C cooling water canal	Discharge canal to Cockburn Sound	Cooling water and RO wastewater discharged to Cockburn Sound
W2	Stage AB cooling water canal		

9. The licence holder must ensure that emissions from the discharge point listed in Table 6 for the corresponding parameter listed in Table 7 do not exceed the corresponding limits in Table 7 when monitored in accordance with condition 20

Table 7: Emission to surface water limits

Emission point reference	Monitoring point reference	Parameter	Limit (including units)	Averaging period
W2	KPI1, KPI2	Temperature variation between seawater intake (KPI1) and discharge (KPI2)	90 Celsius	Continuous (60 minutes average)
	KPI2	Total Residual Chlorine	0.5 ppm	Continuous (60 minutes average)

10. In the case of an event in Table 8, the licence holder is exempt from the limits in condition 9 provided the licence holder take the specified management action in Table 8.

Table 8: Management Actions

Emission point reference	Event/ action reference	Event	Management action
W2	EA5	Any time the monitoring indicates that temperature variation between intake and discharge water in Stage AB cooling water canal exceeds the limit specified in Table 7	The Licence Holder must investigate the cause of exceedance of the Limit and rectify the cause as soon as practicable such that the temperature variation returns below the Limit specified in Table 7 within 6 hours of the start of the event.

Monitoring

11. The licence holder must ensure that:

(a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
(b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
(c) all surface water sampling is conducted in accordance with AS/NZS 5667.4, AS/NZS 5667.6 or AS/NZS 5667.9 as relevant; and
(d) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.

12. The licence holder must ensure that annual monitoring is undertaken at least 9 months apart.

13. The licence holder must record production or throughput data and any other process parameters relevant to any non-continuous, CEMS or PEMS monitoring undertaken.

14. The licence holder must 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.

15. The licence holder must, 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.

Monitoring of emissions to air

16. The licence holder must undertake the monitoring in Table 9 according to the specifications in that table.

Table 9: Monitoring of point source emissions to air

Emission point reference	Parameter[3]	Units[1,2]	Averaging period	Frequency	Method
A4, A5	NOx	mg/m^3	30 minutes	Continuous	USEPA PS-16

Note 1: All units are referenced to STP dry.
Note 2: Units for A4-A5 are referenced to 15% O_2.
Note 3: The monitoring requirement shall not apply if a gas turbine is operated less than 100 hours per year.

17. The licence holder must ensure that sampling required under Condition 16 of the Licence is undertaken at sampling locations in accordance with the AS 4323.1.

18. The licence holder must ensure that all non-continuous sampling and analysis undertaken pursuant to condition 16 is undertaken by a holder of NATA accreditation for the relevant methods of sampling and analysis.

19. For any parameter in Table 9 requiring continuous monitoring, the licence holder must ensure that the continuous monitoring equipment is available for at least 90% of

operational time in a calendar month and available 95% of the operational time in the preceding 12 months.

Monitoring of discharges to surface water

20. The licence holder must undertake the monitoring in Table 10 according to the specifications in that table.

Table 10: Monitoring of point source emissions to surface water

Emission point reference	Monitoring point reference	Parameter	Units	Averaging period	Frequency
W1, W2	W1 – W2	pH range	-	-	Twice per month
		Total phosphorus	µg/L gm/day	Instantaneous	
		Reactive Phosphorus			
		Total Nitrogen			
		Nitrate Nitrogen (NO_3) – as N			
		Ammonium ion Nitrogen (NH_4^+)			
		Total Residual Chlorine			
		Metals including: Aluminium, Arsenic, Total Chromium, Copper, Iron, Lead, Manganese, Nickel and Zinc			
		Volume of combined cooling water and wastewater discharged	m^3/day	-	Daily
W2	KPI2	Total Residual Chlorine	ppm	Instantaneous	Continuous for the duration of cooling water sodium hypochlorite dosing[1,2]
		Temperature	^{0}C	Instantaneous	Continuous for the duration of cooling water discharge[1]

Note 1: Monitoring must be undertaken at intervals less than or equal to 60 seconds.
Note 2: Monitoring shall be continuous for one hour following cessation of sodium hypochlorite dosing.

21. For any parameter in Table 10 requiring continuous monitoring, the licence holder must ensure that the continuous monitoring equipment is available for at least 90% of operational time in a calendar month and 95% of the operational time in the preceding 12 months.

22. The licence holder must undertake the monitoring in Table 11 according to the specifications in that table.

Table 11: Monitoring of Cooling Water

Input/ Output	Parameter	Units	Averaging period	Frequency
KPI1 Stage AB Cooling water inlet	Temperature	˚C	Instantaneous	Continuous for the duration of the discharge[1]
KPI1, KPI2 Stage AB cooling water inlet and outlet	Temperature variation between inlet and outlet	°C	60 minutes	Continuous

Input/ Output	Parameter	Units	Averaging period	Frequency
Dosing of cooling water with sodium hypochlorite	Operation of sodium hypochlorite dosage system	On/off	instantaneous	Continuous for duration of discharge[1]

Note 1: Monitoring must be undertaken at intervals less than or equal to 60 seconds

Records and reporting

23. 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.

24. 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 1 October each year an Annual Audit Compliance Report in the approved form.

25. 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 16 and 20 of this licence; and
(d) complaints received under condition 23 of this licence.

26. The books specified under condition 26 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.

27. The licence holder must submit to the CEO by 1 October each year an Annual Environmental Report for that annual period for the conditions listed in Table 12, and which provides information in accordance with the corresponding requirement set out in that table.

Table 12: 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
4	Summary of limit exceedances
19 and 21	• CEMS or PEMS data required by any condition of this licence in electronic form • Tabular and graphical representation of CEMS or PEMS data comparison with licence

Condition	Requirement
	limits • CEMS and PEMS availability
20	• Monitoring data for discharges to Cockburn Sound including: (a) Weekly combined average of cooling water and wastewater discharged to Cockburn Sound in m^3/day; (b) Weekly average daily concentration of and load of N, Cu and Zn in µg/L and gm/day; (c) Weekly average temperature difference; and (d) Daily average concentration and load of substances listed in Table 10 • Cumulative load (kg) of the substances monitored as listed in Table 10 and presentation of the data in graphical form.
23	Complaints Summary

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

(a) any relevant process, production or operational data recorded under condition 13;
(b) an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets.

29. The licence holder must submit the information in Table 13 to the CEO according to the specifications in that table.

Table 13: Non-annual reporting

Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form[1]
Copies of original monitoring reports submitted to the Licence Holder by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the Licence Holder from third parties

30. The licence holder must submit to the CEO by 31 July 2023, a report that

(a) details the process and results of re-configuring the PEMS model under a new maximum output range to 230MW; and
(b) demonstrates the re-configured PEMS model provides predictive NOx emission data that is accurate and reliable.

31. The Licence Holder shall ensure that results from CEMS and PEMS are made available on request as tabulated data and time series graphs including:

(a) times and dates;
(b) unavailability of abatement;
(c) target or limit exceedances; and
(d) an assessment of the information contained within the report against previous submissions and licence limits and/or targets.

32. The licence holder must, within 7 days of becoming aware of any non-compliance with condition 6 and 9 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 14 have the meanings defined.

Table 14: Definitions

Term	Definition
AB Cooling Water Canal	means canal where cooling from Kwinana Power Station KWGT2 and KWGT3 is discharged;
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 found on the Department's website).
annual period	a 12 month period commencing from 1 July until 30 June of the immediately 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 5667.4	means the Australian Standard AS/NZS 5667.4 *Water Quality – Sampling – Guidance on sampling from lakes, natural and man-made*
AS/NZS 5667.6	means the Australian Standard AS/NZS 5667.6 *Water Quality – Sampling – Guidance on sampling of rivers and streams*
AS/NZS 5667.9	means the Australian Standard AS/NZS 5667.9 *Water Quality – Sampling – Guidance on sampling from marine waters*
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters*
Averaging period	means the time over which a limit or target is measured or a monitoring result is obtained.
BESS	means the Kwinana Big Battery battery energy storage system
CEMS	means continuous emissions monitoring system
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
Cockburn Power Station	means the prescribed premises which holds current version of Licence L7860/2003 issued under the Act
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.
EP Act	means the *Environmental Protection Act 1986*
FOBS 6	means Fuel Oil Bulk Storage tank 6
HDPE	means high-density polyethylene
HEGT	means high efficiency gas turbine
KWGT	means Kwinana Gas Turbine

Term	Definition
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.
LMS100	a type of High Efficiency Gas Turbine constructed and commissioned under works approval W4593/2009/1
Low sulphur distillate	means distillate with a sulfur concentration of less than 10ppm
MWe	means power output (electricity generated) in megawatts
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 emission sampling or monitoring
NOx	means oxides of nitrogen, calculated as the sum of nitric oxide and nitrogen dioxide and expressed as nitrogen dioxide
OWS	refers to oily water separator and is the waste water treatment system which separates oil from water as depicted in Schedule 1
PEMS	means predictive emissions monitoring system
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 maps Figure 1 and 2 in Schedule 1 to this licence.
shut-down	means the period when plant or equipment is brought from normal operating conditions to inactivity
STP dry	means standard temperature and pressure (0^{o} Celsius and 101.325 kilopascals respectively), dry
start-up	means the period when plant or equipment is brought from inactivity to normal operating conditions
USEPA	means United States (of America) Environmental Protection Agency
USEPA PS 16	means the *Performance Specification 16 – Predictive Emissions Monitoring Systems*
WTP	Water Treatment Plant

END OF CONDITIONS

Schedule 1: Maps

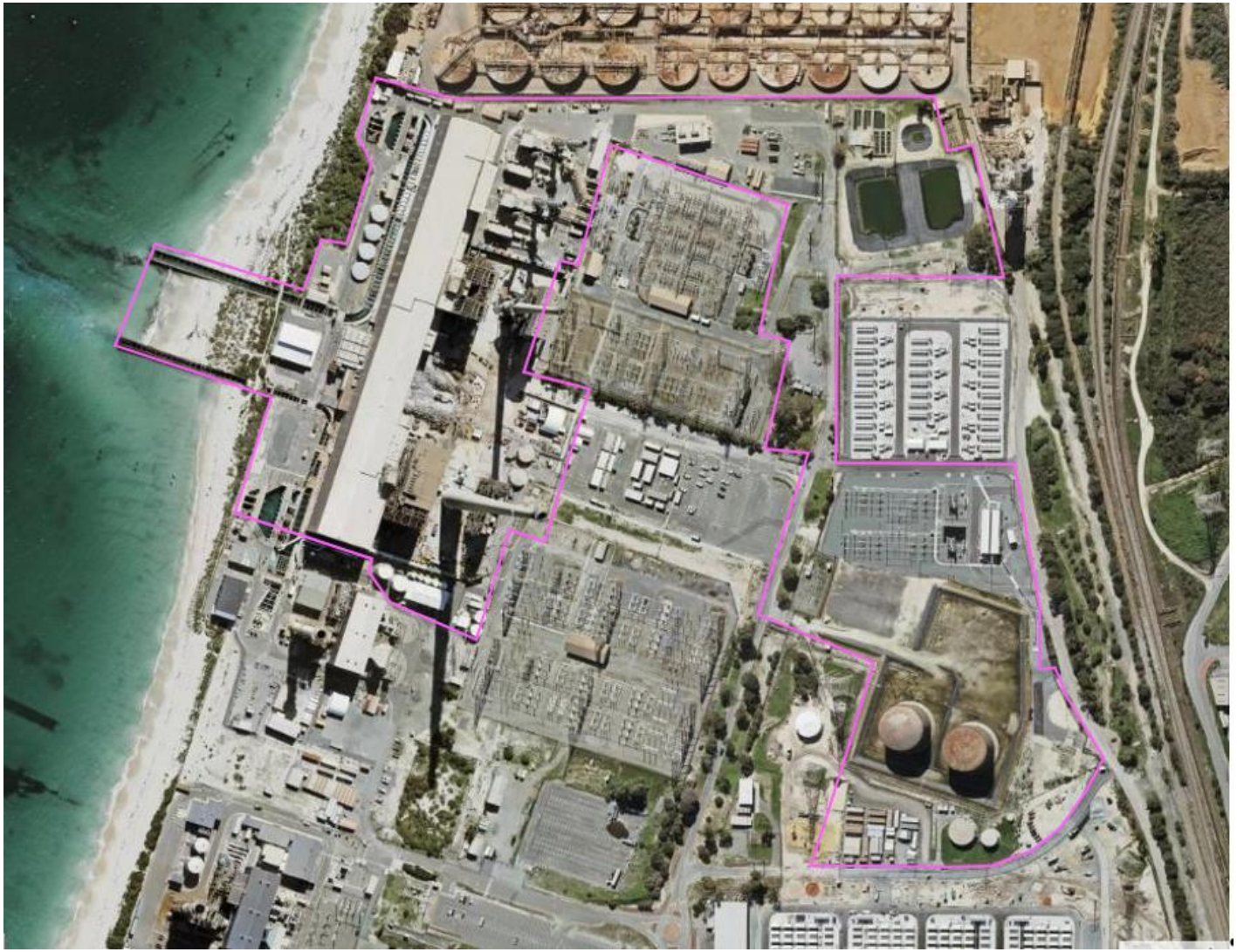

Figure 1: The pink line depicts the Premises boundary.

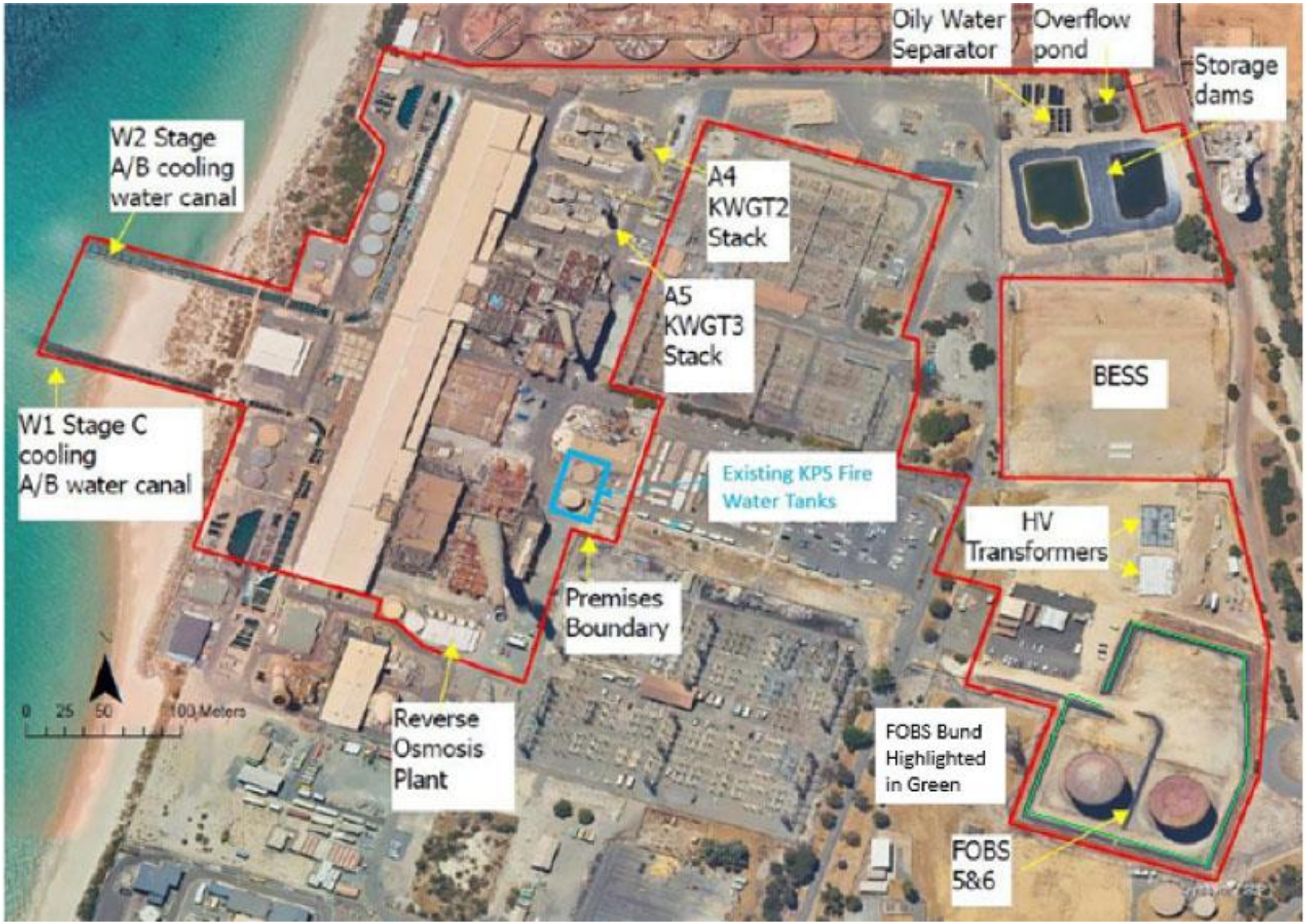

Figure 2: Premises Map Refer to Figure 1 for premises boundary

Premises boundary coordinates

The Premises boundary is defined by the coordinates set out below.

Table 15: Boundary Co-ordinates

ID *	Longitude	Latitude
1	115.7737	-32.1979
2	115.7738	-32.1976
3	115.774	-32.1976
4	115.7742	-32.1971
5	115.7741	-32.1969
6	115.7743	-32.1965
7	115.7749	-32.1967
8	115.7786	-32.1967
9	115.7787	-32.197
10	115.7789	-32.197
11	115.7791	-32.1978
12	115.7778	-32.1978
13	115.7778	-32.1991
14	115.7792	-32.1991
15	115.7794	-32.2
16	115.7794	-32.2004
17	115.7795	-32.2004
18	115.7796	-32.2006
19	115.7797	-32.2008
20	115.7799	-32.201
21	115.7797	-32.2012
22	115.7795	-32.2014
23	115.7793	-32.2016
24	115.779	-32.2017
25	115.7787	-32.2017
26	115.7782	-32.2017

ID *	Longitude	Latitude
27	115.7776	-32.2017
28	115.7779	-32.201
29	115.7781	-32.2003
30	115.7772	-32.2
31	115.7776	-32.199
32	115.7773	-32.199
33	115.7775	-32.1983
34	115.7772	-32.1982
35	115.7774	-32.1974
36	115.7761	-32.197
37	115.7758	-32.1978
38	115.7757	-32.1977
39	115.7754	-32.1985
40	115.7759	-32.1986
41	115.7756	-32.1996
42	115.7753	-32.1995
43	115.775	-32.2002
44	115.7744	-32.2
45	115.7742	-32.1998
46	115.7742	-32.1997
47	115.7732	-32.1994
48	115.7735	-32.1986
49	115.7723	-32.1983
50	115.7726	-32.1976
51	115.7737	-32.1979

Map of monitoring points

The locations of the monitoring points defined in Table 3.6.1 are shown below.

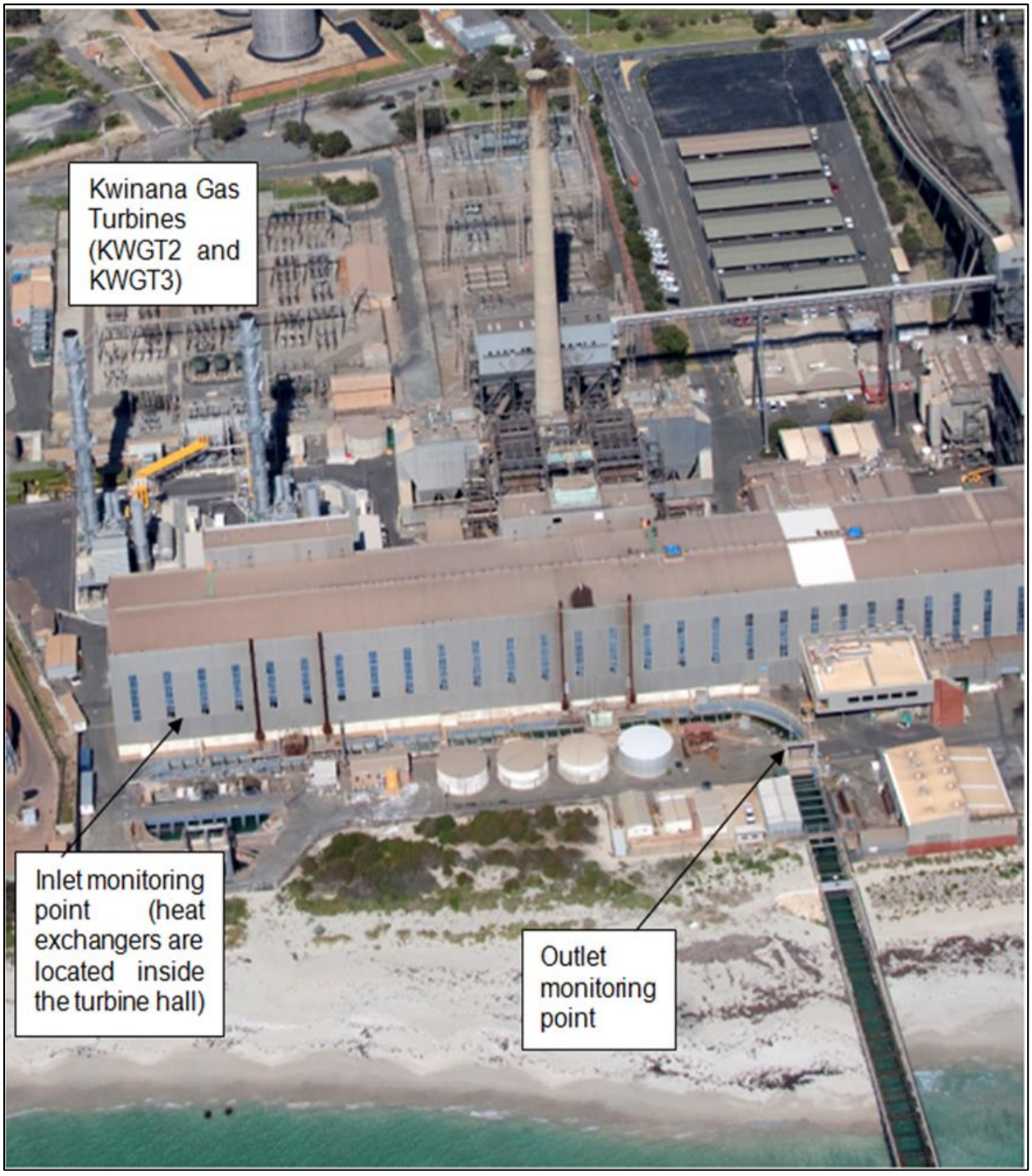

Figure 3: Water discharge points