



Works approval number	W6516/2021/1
Works approval holder	Pilbara Energy (Generation) Pty Ltd
ACN	631 303 305
Registered business address	Fortescue Metals Group Level 2, 87 Adelaide Terrace EAST PERTH WA 6892
DWER file number	DER2020/000219
Duration	26/03/2021 to 25/03/2024
Date of amendment	7 September 2023
Premises details	PEG Power Station Legal description - Part of Lease L47/901 as granted under the <i>Mining Act 1978</i> as defined by coordinates in Schedule 2 Shire of Ashburton

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production capacity
Category 52: Electric Power Generation	165 MWe per year

This revised works approval is granted to the works approval holder, subject to the attached conditions, on 7 September 2023, by:

**A/MANAGER PROCESS INDUSTRIES
INDUSTRY REGULATION**

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

Works approval history

Date	Reference number	Summary of changes
26/03/2021	W6516/2021/1	Works approval granted.
12/07/2022	W6516/2021/1	Works approval amended to add authorised wastewater discharge point.
07/09/2023	W6516/2021/1	Works approval amended to extend time limited operations.

Interpretation

In this works approval:

- (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 works approval:
 - (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 works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

Works approval conditions

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

Construction phase

Infrastructure and equipment

1. The works approval holder must construct and/or install the infrastructure listed in Table 1:
 - (a) in accordance with the corresponding design and construction / installation requirements; and
 - (b) at the corresponding infrastructure location;
 as set out in Table 1.

Table 1: Design and construction / installation requirements

	Infrastructure	Design / construction / installation requirements	Site Plan Reference Schedule 1, Figure 2
1	14 x gas fired reciprocating engines	Combined installed production capacity not to exceed 165 MWe. Each engine to be attached to an exhaust stack which is to be at least 26 m above finished floor level with an internal diameter of 1.2m. Each stack to be fitted with an emission sampling port in accordance with AS4323.1	In engine hall A1 to A14
2	Emergency 2 x 1000 KVA diesel generator sets and associated diesel storage tanks	Diesel storage tanks to be self-bunded in accordance AS 1940	Not shown
3	Electricity transformers – oil storage tanks - 1, 500L capacity	Storage tanks to be self-bunded in accordance with AS 1940.	
4	Engine oil storage tanks – 2 x 70,000L capacity	Engine oil storage tanks to be fitted with a leak monitoring and alarm shutdown system.	
5	Waste oil storage tank – 35,000L capacity	Waste oil storage tank to be fitted with a high-level alarm.	
6	Wastewater treatment system consisting of impervious collection sumps draining to a Coalescing Oily Water Separator or Cyclonic Oily Water Separator.	Coalescing Oily Water Separator to be fitted with Automatic Closure Device (ACD).	Not Shown

Compliance reporting

2. The works approval holder must within 60 calendar days of an item, or all items, of infrastructure or equipment required by condition 1 being constructed and/or installed:
 - (a) undertake an audit of their compliance with the requirements of condition 1; and
 - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
3. The Environmental Compliance Report required by condition 2, must include as a minimum the following:
 - (a) certification by a Chartered Engineer that the infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;
 - (b) as constructed site plan showing each item of infrastructure or component of infrastructure specified in condition 1; and
 - (c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Time limited operations phase

Commencement and duration

4. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 after the Environmental Compliance Report as required by condition 2 has been submitted by the works approval holder for that item of infrastructure.
5. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 1 (as applicable) from the day the works approval meets the requirements of condition 4 for that item of infrastructure:
 - (a) until such time as the works approval expires; or
 - (b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*;whichever occurs first.

Time limited operations requirements and emission limits

6. During time limited operations, the works approval holder must ensure that the emissions specified in Table 2, are discharged only from the corresponding discharge points and only at the corresponding discharge point locations.

Table 2: Authorised discharge points during time limited operation

Emission	Discharge infrastructure	Discharge point location - Schedule 1, Figure 2
Waste gasses from 14 gas fired reciprocating engines	14 x gas fired reciprocating engine stacks	A1 to A14
Waste gasses from the emergency 2 x 1,000 KVA diesel generator sets	Exhaust of the emergency diesel generator sets	Not shown
Potentially hydrocarbon contaminated wastewater treated via an oil water separator	Class 1 Puraceptor and Cyclonic oil water separator (COWS)	W2

7. During time limited operations, the works approval holder must ensure that the emissions from the discharge point listed in Table 3 do not exceed the corresponding limits when monitored in accordance with corresponding monitoring condition.

Table 3: Emission and discharge limits during time limited operation

Discharge points	Parameter	Limit
A1 to A14	NO _x as NO ₂ ^a	< 3.8 g/s
W2	TRH	< 15 mg/L

Note a: All units are referenced to STP dry and 15% O₂

Infrastructure and equipment

8. During time limited operations, the works approval holder must ensure the premises infrastructure listed in Table 4 is maintained and operated in accordance with the corresponding operational requirement set out in Table 4.

Table 4: Infrastructure requirements during time limited operations

	Site infrastructure	Operational requirement
1	Wastewater treatment system consisting of impervious collection sumps draining to a Coalescing Oily Water Separator or Cyclonic Oily Water Separator.	All sumps that collect oily water from the tanker load/unload pad to drain to the coalescing oily water separator. Treated wastewater can only be discharged to the environment via discharge point W2 and in accordance with condition 7.

Monitoring during time limited operations (emissions to air)

9. The works approval holder must monitor emissions during time limited operations in accordance with Table 5.

Table 5: Emissions and discharge monitoring during time limited operations

Discharge point	Frequency	Parameter	Averaging Period	Reporting Unit	Method
A1 to A14	Once during time limited operations	NO _x as NO ₂	Minimum 30 minutes	g/s and mg/m ³ ^a	USEPA Method 7E
		SO ₂	Minimum 30 minutes		USEPA Method 6 or 6C
		PM	Minimum 60 minutes		USEPA Method 5 or 17
		CO	Minimum 60 minutes		USEPA Method 10
		Formaldehyde	Minimum 30 minutes or as per method		USEPA Method TO-15 or USEPA Method 18
		Benzene			
		Toluene			
		Ethylbenzene			
		Xylene			
		Total VOCs			USEPA Method 18 or USEPA Method 25A

Note a: All units are referenced to STP dry and 15% O₂

10. The licence holder must ensure that all non-continuous sampling and analysis undertaken pursuant to condition 9 is undertaken by a holder of a current accreditation from the NATA for the methods of sampling and analysis relevant to the corresponding relevant parameter.

Monitoring during time limited operations (emissions to land)

11. The works approval holder must monitor emissions during time limited operations in accordance with Table 6.

Table 6: Emissions and discharge monitoring during time limited operations

Discharge point (as shown in Schedule 1, Figure 2)	Frequency	Parameter	Averaging Period	Reporting Unit	Method	
					Sampling	Analysis
W2	Once during time limited operations	TRH	Spot sample	mg/L	AS/NZS 5667.1 and AS/NZS 5667.10	NATA accredited for the parameters specified

12. The works approval holder must record the results of all monitoring activity required by conditions 9 and 11.

Compliance reporting

13. The works approval holder must submit to the CEO a compliance report within 60 calendar days of the start date of time limited operations.
14. The works approval holder must ensure the report required by condition 13 includes the following:
- a summary of the time limited operations, including timeframes and amount of electricity generated;

- (b) a summary of emission monitoring results obtained during time limited operations under conditions 9 and 11.
- (c) a review of performance and compliance against the conditions of the works approval; and
- (d) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

Records and reporting (general)

15. The works approval holder must record the following information in relation to complaints received by the works approval 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 works approval holder to investigate or respond to any complaint.
16. The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:
 - (a) the works conducted in accordance with condition 1;
 - (b) any maintenance of infrastructure that is performed in the course of complying with condition 1;
 - (c) monitoring programmes undertaken in accordance with conditions 9 and 11; and
 - (d) complaints received under condition 15.
17. The books specified under condition 16 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 works approval holder for the duration of the works approval; and
 - (d) be available to be produced to an inspector or the CEO as required.

Definitions

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

Table 7: Definitions

Term	Definition
AS 1940	means Australian Standard AS 1940 <i>The storage and handling of flammable and combustible liquids</i>
AS 4323.1	means Australian Standard AS 4323.1 <i>Stationary source emissions: selection of sampling positions.</i>
AS 5667.1	means Australian Standard 5667.1: <i>Water quality - Sampling - Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples</i>
AS 5667.10	means Australian Standard 5667.10: <i>Water quality — Sampling — Part 10: Guidance on sampling of waste water</i>
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V Division 3 of the EP Act.
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 works approval.
EP Act	<i>Environmental Protection Act 1986</i> (WA).
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA).
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
NO ₂	means nitrogen dioxide
NO _x	means oxides of nitrogen, calculated as the sum of nitric oxide and nitrogen dioxide and expressed as nitrogen dioxide;
Premises	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 works approval.
STP dry	means standard temperature and pressure (0°Celsius and 101.325 kilopascals respectively), dry

Term	Definition
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
TRH	Total Recoverable Hydrocarbons
USEPA Method 5	means United States (of America) Environmental Protection Agency Method 5 – Determination of Particulate Matter from Stationary Sources
USEPA Method 6	means United States (of America) Environmental Protection Agency Method 6 – Determination of sulfur dioxide emissions from stationary sources
USEPA Method 6C	means United States (of America) Environmental Protection Agency Method 6C – Determination of sulfur dioxide emissions from stationary sources (Instrumental Analyzer Procedure)
USEPA Method 7E	means United States (of America) Environmental Protection Agency Method 7E - Determination of nitrogen oxides emissions from stationary sources (instrumental analyzer procedure)
USEPA Method 10	means United States (of America) Environmental Protection Agency Method 10 - Determination of carbon monoxide emissions from stationary sources (instrumental analyzer procedure)
USEPA Method 17	means United States (of America) Environmental Protection Agency Method 17 - Determination of particulate matter emissions from stationary sources
USEPA Method 18	means United States (of America) Environmental Protection Agency Method 18 - Measurement of gaseous organic compound emissions by gas chromatography
USEPA Method 25A	means United States (of America) Environmental Protection Agency Method 25A - Determination of total gaseous organic concentration using a flame ionization analyzer
USEPA Method TO-15	means United States (of America) Environmental Protection Agency Method TO-15 - Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially Prepared Canisters and Analyzed by Gas Chromatography–Mass Spectrometry (GC-MS)
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the Premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the Premises is shown in grey hatch in the map below.

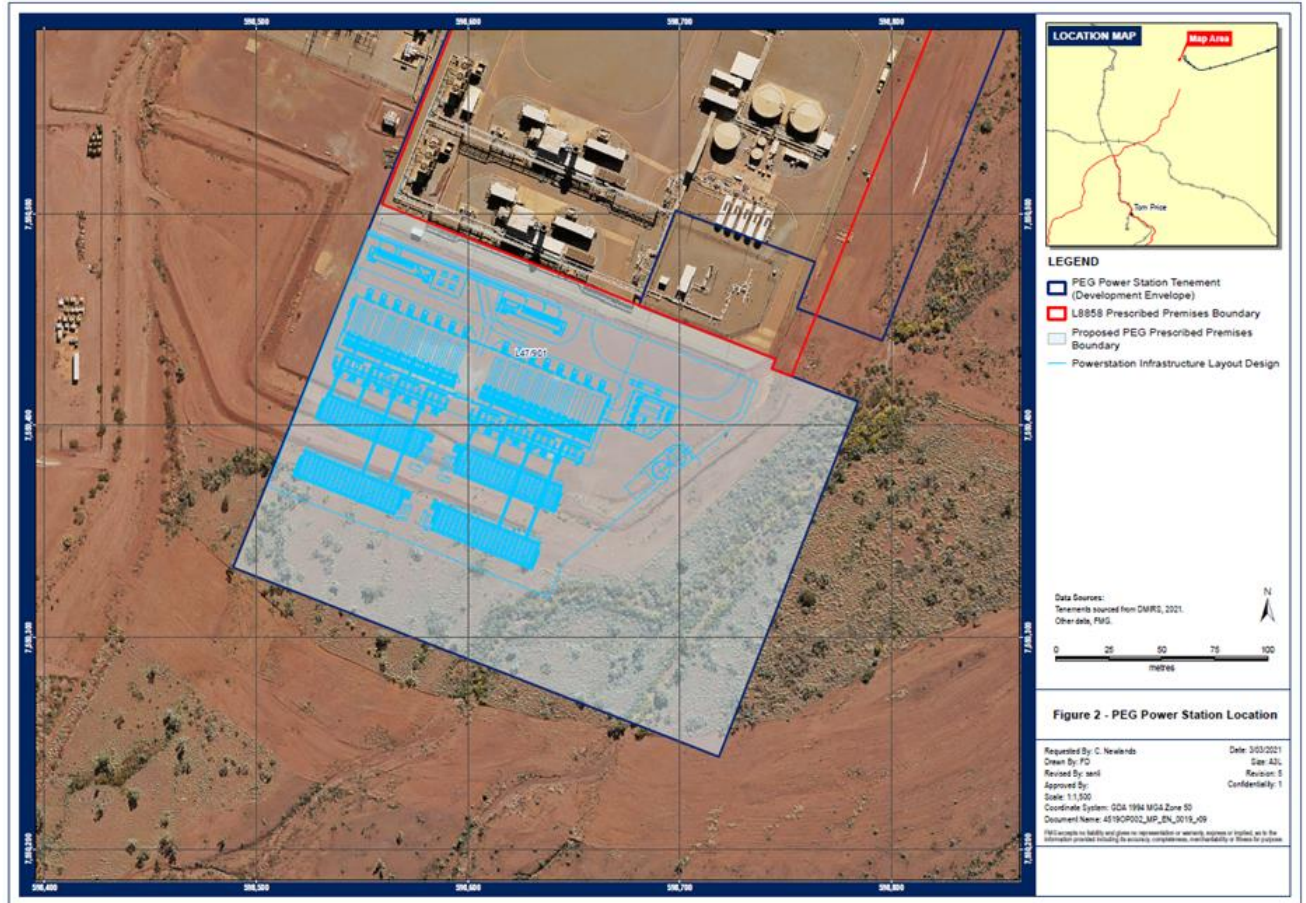


Figure 1: Map of the boundary of the Premises

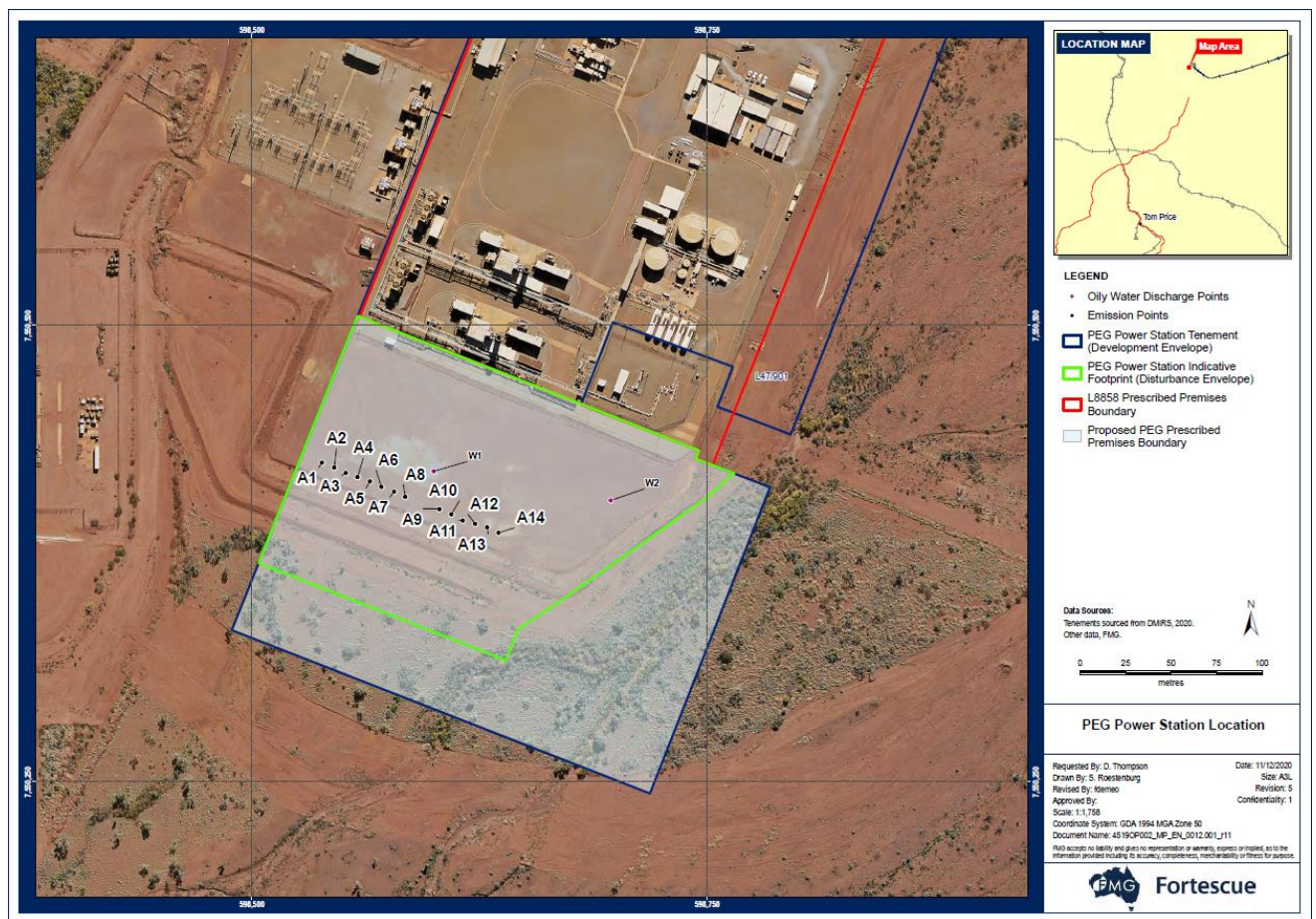


Figure 2: PEG Power Station Emission Points

Schedule 2: Premises boundary

The Premises boundary is defined by the coordinates in Table 8.

Table 8: Premises boundary coordinates (GDA 1994 Zone 50)

Easting	Northing
598558.1	7550505.0
598745.4	7550431.4
598743.7	7550426.8
598784.5	7550411.3
598718.6	7550243.5
598489.1	7550333.0