



Works approval number	W6563/2021/1
Works approval holder	BP Refinery (Kwinana) Pty Ltd
ACN	008 689 763
Registered business address	717 Bourke Street DOCKLANDS VICTORIA 3008
DWER file number	DER2021/000345
Duration	10/09/2021 to 09/09/2024
Date of issue	10/09/2021
Premises details	BP Refinery Kwinana Lot 18 Mason Road KWINANA Legal description: Lot 18 on Deposited Plan 17311 Volume 2058, Folio 310 As defined by the premises map in Schedule 1

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed design or production capacity
Category 87: Fuel burning	948 kilograms per hour in aggregate

This works approval is granted to the works approval holder, subject to the attached conditions, on 10/09/2021, by:

Manager, Process Industries

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

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:
 - (a) construct and install the infrastructure;
 - (b) in accordance with the corresponding design and construction requirements; and
 - (c) at the corresponding infrastructure location.
 as set out in Table 1.

Table 1: Design and construction requirements

	Infrastructure	Design and construction requirements	Infrastructure location
1.	7 MW natural gas fired steam boiler	(a) Fitted with Low NOx burners.	B1103 in Schedule 1 Figure 2
2.	5 MW natural gas fired steam boiler	(b) Includes a Burner Management system consisting of integrated electronic fuel air controller and digital combustion manager.	
		(c) Fitted with continuous O ₂ monitoring in stack.	B1104 in Schedule 1 Figure 2
		(d) automatic damper control.	
		(e) Stack exhaust to be at a minimum effective emission height of 12 metres above ground level with stack monitoring ports that meet the requirements of AS 4323.1.	
		(f) Only to be fuelled by natural gas	
		(g) Designed to have maximum NOx emission of 103 mg/m ³ .	

Compliance reporting

2. The works approval holder must within 21 calendar days of an item of infrastructure or equipment required by condition 1 being constructed:
 - (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) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1; and
 - (b) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Environmental commissioning phase

Environmental commissioning requirements and emission limits

4. The works approval holder may only commence environmental commissioning of an item of infrastructure listed in condition 1, once the Environmental Compliance Report has been submitted for that item of infrastructure in accordance with condition 2 of this works approval.
5. During environmental commissioning, the works approval holder must ensure that the emission(s) specified in Table 2, are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

Table 2: Authorised discharge points during commissioning

	Emission	Discharge point	Discharge point location
1	Combustion gas from heating of boilers with natural gas	B1103 Stack	B1103 stack in Schedule 1, Figure 2
2		B1104 Stack	B1104 stack in Schedule 1, Figure 2

Monitoring during environmental commissioning

6. The works approval holder must monitor emissions during environmental commissioning in accordance with Table 3.

Table 3: Emissions and discharge monitoring during environmental commissioning

Discharge point	Parameter	Frequency	Averaging Period	Reporting Unit ¹	Method ²
B1103 Stack and B1104 Stack	NOx	Once during commissioning period	Minimum of 30 mins	mg/m ³ and g/s	USEPA Method 7E

Note 1: All units are referenced to STP dry.

Note 2: Where any USEPA method refers to USEPA Method 1 for the sampling plane, this must be read as referral to AS 4323.1.

7. The works approval holder must record the results of all monitoring activity required by condition 6.
8. The works approval holder must ensure the sampling required by condition 6 is undertaken at sampling locations in accordance with the current version of AS 4323.1.
9. The works approval holder must submit to the CEO an Environmental Commissioning Report within 28 calendar days of the completion date of environmental commissioning for each item of infrastructure specified in Table 1.
10. The works approval holder must ensure the Environmental Commissioning Report required by condition 9 of this works approval includes the following:
 - (a) a summary of the environmental commissioning activities undertaken;
 - (b) the point-source emissions monitoring recorded in accordance with condition 7;
 - (c) a summary of the environmental performance of each item of infrastructure or equipment as constructed or installed (as applicable), which at minimum includes records detailing:

- (i) environmental commissioning of the boilers;
- (ii) testing the boilers; and
- (iii) commissioning of the boiler control system;
- (d) a review of the works approval holder's performance and compliance against the conditions of this works approval; and
- (e) where they have not been met, measures proposed to meet the manufacturer's design specifications and the conditions of this works approval, together with timeframes for implementing the proposed measures.

Time limited operations phase

Commencement and duration

11. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1, after the Environmental Commissioning Report for that item of infrastructure as required by condition 9 has been submitted by the works approval holder.
12. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 1:
 - (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of conditions 9 and 10; or
 - (b) until such time as a licence for that item of infrastructure is amended in accordance with Part V of the *Environmental Protection Act 1986*, if an amendment is granted before the end of the period specified in condition 12(a)
13. During time limited operations, the works approval holder must ensure that the emission(s) specified in Table 2, are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

Table 4: Authorised discharge points during time limited operations

	Emission	Discharge point	Discharge point location
1	Combustion gas from heating of boilers with natural gas	B1103 Stack	B1103 stack in Schedule 1, Figure 2
2		B1104 Stack	B1104 stack in Schedule 1, Figure 2

Compliance reporting

14. The works approval holder must submit to the CEO a report on the time limited operations within 28 calendar days of the completion date of time limited operation.
15. The works approval holder must ensure the report required by condition 14 includes the following:
 - (a) a summary of the time limited operations, including timeframes;
 - (b) a summary of the environmental performance of all infrastructure as constructed or installed;
 - (c) a review of performance and compliance against the conditions of the works approval and the Environmental Commissioning Report; 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)

- 16.** 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.
- 17.** 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) complaints received under condition 16.
- 18.** The books specified under condition 17 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 5 have the meanings defined.

Table 5: Definitions

Term	Definition
AS 4323.1	means the Australian Standard AS4323.1 Stationary Source Emissions Method 1: Selection of sampling positions
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 equipment has been constructed and 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).
NOx	Oxides of nitrogen.
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
USEPA	United States (of America) Environmental Protection Agency
USEPA Method 7E means	means USEPA Method 7E Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure)
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 prescribed premises is shown in the map below (Figure 1).



Figure 1: Map of the boundary of the prescribed premises



Figure 2: Detail showing boiler stacks