

WESTERN AUSTRALIA

DEPARTMENT OF ENVIRONMENT REGULATION

*Environmental Protection Act 1986*

**WORKS APPROVAL NUMBER: W5097/2011/1**

**FILE NUMBER: 2011/010776**

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**WORKS APPROVAL HOLDER:**

Chevron Australia Pty Ltd  
250 St Georges Tce  
PERTH WA 6000  
ACN: 086 197 757

**NAME AND LOCATION OF PREMISES:**

Gorgon Gas Permanent Wastewater Treatment Plant  
Within coordinates:  
339 251.03E 7 700 279.78N  
339 272.89E 7 700 279.78N  
339 272.89E 7 700 225.50N  
339 251.03E 7 700 225.50N  
BARROW ISLAND WA 6712  
(As depicted in Attachment 1)

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***Environmental Protection Regulations 1987***

**CLASSIFICATION(S) OF PREMISES:**

Category 54 – Sewage facility

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**COMMENCEMENT DATE OF WORKS APPROVAL:** Monday, 23 April 2012

**EXPIRY DATE OF WORKS APPROVAL:** Wednesday, 28 February 2018

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**CONDITIONS OF WORKS APPROVAL:**

As described and attached:

DEFINITIONS (11)  
GENERAL CONSTRUCTION AND OPERATIONAL DESCRIPTION (1)  
SUBMISSION OF COMPLIANCE DOCUMENT (1)  
DISCHARGE TO LAND REQUIREMENTS (9)  
LIGHT EMISSIONS REQUIREMENTS (2)

Date signed: 5 November 2015

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Jonathan Bailes  
Manager Licensing (Process Industries)  
Officer delegated under section 20  
of the *Environmental Protection Act 1986*

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**CONDITIONS OF WORKS APPROVAL**

**DEFINITIONS**

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

“Australian Standard 5667” means the most recent version and relevant parts of AS/NZS 5667;

“commissioning” means the process of bringing plant, machinery or equipment into operation and establishing normal operating conditions;

“commissioning period” means a period not to exceed three months and is to start from the submission of the compliance document required in condition 2 of this works approval for the commissioning of the Gorgon Gas Development Permanent Wastewater Treatment Plant;

“deep wells” means injection wells completed in the Barrow Group as per Ministerial Statement No. 800;

“CEO” means Chief Executive Officer of the Department of Environment Regulation;

“CEO” for the purpose of correspondence means-

Chief Executive Officer  
The Department administering the *Environmental Protection Act 1986*  
Locked Bag 33  
CLOISTERS SQUARE WA 6850  
Email: info@der.wa.gov.au;

“lease” means the area for gas processing purposes as defined by the *Barrow Island Act 2003*;

“NATA” means the Australian National Association of Testing Authorities;

“treated effluent” means liquid produced as a result of sewage treatment.

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**GENERAL CONDITIONS**

**GENERAL CONSTRUCTION AND OPERATIONAL DESCRIPTION**

- 1 The works approval holder shall construct the works in accordance with the works approval application form dated 3 November 2011 and the following documentation:
- (i) Chevron Australia Pty Ltd, Permanent Wastewater Treatment Plant Works Approval Application under the *Environmental Protection Act 1986* for the Gorgon Project Barrow Island LNG Plant, Revision 0, 17 October 2011; and
  - (ii) Chevron Australia Pty Ltd, Gorgon Development Permanent Wastewater Treatment Plant Works Approval Amendment Application, dated 6 September 2013.

*Where the details and commitments of the documents listed in condition 1 above are inconsistent with any other condition of this works approval, the latter shall prevail.*

**SUBMISSION OF COMPLIANCE DOCUMENT**

- 2 Subject to condition 1, the works approval holder shall submit a compliance document to the CEO following the construction of the works outlined in the works approval application and supporting documentation, and prior to commissioning of the same. The compliance document shall certify that the works were constructed in accordance with the conditions of works approval and documentation supporting the application to construct the works, and shall be signed by an authorised officer of Chevron Australia Pty Ltd, with the printed name and position of that person within the company, and preferably will contain the Company seal.

**DISCHARGES TO LAND**

- 3 The works approval holder shall undertake commissioning of the Gorgon Gas Development Permanent Wastewater Treatment Plant for up to three months.
- 4 The works approval holder shall notify the CEO in writing one week prior to the commencement of the commissioning of the Gorgon Gas Development Permanent Wastewater Treatment Plant.
- 5 During the commissioning period the treated effluent shall only be discharged:
- (a) above ground within the lease area and used for construction activities; or
  - (a) into the deep wells.
- 6 The works approval holder shall ensure that during the commissioning period required by condition 3, the treated effluent discharged:
- (a) above ground, in accordance with Condition 5(a), is analysed to determine the concentration of all parameters listed in Column A of Table 1, on a weekly basis; and/or
  - (b) into the deep wells, in accordance with Condition 5(b), is analysed to determine the concentration of all parameters listed in Column A of Table 2, on a weekly basis.
- 7 The works approval holder shall ensure that treated effluent discharged above ground within the lease area, in accordance with Condition 5(a), shall not exceed any parameter limit specified in Column C of Table 1.

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**Table 1: Treated effluent limits for discharge above ground.**

<b>Column A</b>	<b>Column B</b>	<b>Column C</b>
<b>Parameter</b>	<b>Units</b>	<b>Limit</b>
Total Nitrogen	mg/L	20
Total Phosphorus	mg/L	6
<i>E. Coli</i>	organisms/100mL	10
Biochemical Oxygen Demand	mg/L	20
Total Suspended Solids	mg/L	30
pH	pH units	6.5-8.5
Turbidity	NTU	5 (95%ile) prior to disinfection
Disinfection-chlorine residual	mg/L	2.0

**Table 2: Treated Effluent monitoring requirements for discharge into Deep Wells.**

<b>Column A</b>	<b>Column B</b>
<b>Parameter</b>	<b>Units</b>
Biochemical Oxygen Demand	mg/L
Total Suspended Solids	mg/L
Total Nitrogen	mg/L
Total Phosphorus	mg/L
<i>E. Coli</i>	organisms/100mL
Anionic Surfactants	mg/L
Oil and Grease	mg/L

- 8 The works approval holder shall ensure that all treated effluent samples required by Condition 6 are collected, handled and preserved in accordance with Australian Standard 5667 and are analysed by an organisation with current NATA accreditation.
  
- 9 The works approval holder shall, within one month following the commissioning period, provide to the CEO a Gorgon Gas Development Permanent Wastewater Treatment Plant Commissioning Report.
  
- 10 The works approval holder shall ensure that the Gorgon Gas Development Permanent Wastewater Treatment Plant Commissioning Report required by Condition 9 includes, but is not limited to, the results from the monitoring required by Condition 6.

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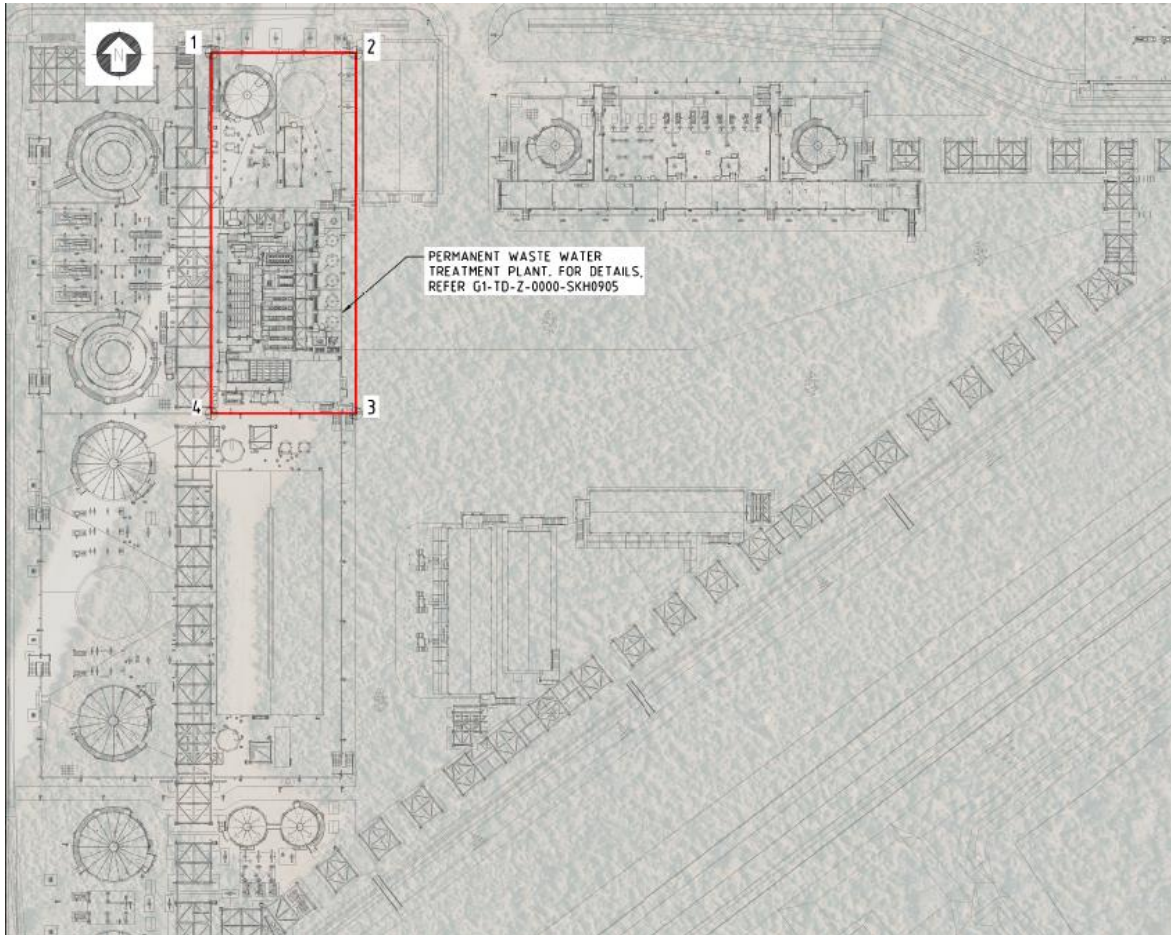
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Attachment 1 – PLAN OF PREMISES



**BOUNDARY COORDINATES**

SETOUT POINT	EASTING (m)	NORTHING (m)
1	339 251.03	7 700 279.78
2	339 272.89	7 700 279.78
3	339 272.89	7 700 225.50
4	339 251.03	7 700 225.50



# Decision Document

## *Environmental Protection Act 1986, Part V*

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**Proponent:** Chevron (Australia) Pty Ltd

**Works Approval:** W5097/2011/1

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**Registered office:** 250 St Georges Terrace  
PERTH WA 6000

**ACN:** 086 197 757

**Premises address:** Gorgon Gas Permanent Wastewater Treatment Plant  
Within coordinates:  
339 251.03E 7 700 279.78N  
339 272.89E 7 700 279.78N  
339 272.89E 7 700 225.50N  
339 251.03E 7 700 225.50N  
BARROW ISLAND WA 6712

**Issue date:** Thursday, 19 April 2012

**Commencement date:** Monday, 23 April 2012

**Expiry date:** Wednesday, 28 February 2018

### **Decision**

Based on the assessment detailed in this document the Department of Environment Regulation (DER) has decided to issue an amended works approval. DER considers that in reaching this decision it has taken into account all relevant considerations.

Decision Document prepared by: Fiona Roser  
Licensing Officer

Decision Document authorised by: Jonathan Bailes  
Delegated Officer



## Contents

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## 1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.



## 2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/>	New Licence <input type="checkbox"/>
	Licence amendment <input type="checkbox"/>	Works Approval amendment <input checked="" type="checkbox"/>
Activities that cause the premises to become prescribed premises	<b>Category number(s)</b>	<b>Assessed design capacity</b>
	54	383 m <sup>3</sup> /day
Application verified	Date: N/A	
Application fee paid	Date: N/A	
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome	N/A.	
Is the proposal a Major Resource Project?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Part of Gorgon Project	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input checked="" type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 800 (previously 748) EPA Report No: 1323 (previously 1221)
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i> )?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		





### **3 Executive summary of proposal and assessment**

Chevron Australia Pty Ltd (Chevron) has applied to amend the Works Approval for their Permanent Wastewater Treatment Plant to extend the expiry date. Although the facility has been constructed, commissioning has been deferred as resources have been reallocated to priority elements of the Gas Treatment Plant commissioning. The Works Approval is due to expire on 29 February 2016 and has been extended for a period of 2 years. In the interim, until commissioning commences, wastewater treatment needs will be met by existing on-island facilities.



## 4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L = Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Emissions to land including monitoring</b>	Conditions 8 and 11	In accordance with administrative changes implemented within the Department of Environment Regulation, conditions that contain targets or trigger levels will not be applied or continued in licences or works approvals. Accordingly, condition 8 has been removed and condition 11 updated. The disposal of wastewater down well under commissioning will be in accordance with the Solid and Liquid Waste Management Plan developed under condition 30 of Ministerial Statement 800. Monitoring requirements in the Works Approval remain unchanged with results of monitoring required to be submitted following commissioning to verify plant performance. The targets previously stated in the licence are replicated in Appendix A so DER can benchmark the performance of the treatment plant on submission of the commissioning report and data.	<a href="http://www.der.wa.gov.au">www.der.wa.gov.au</a>
<b>Fugitive emissions</b>	Conditions 12 and 13	Light glow generated from artificial light sources on or near nesting beaches can result in disorientation, exhaustion and disturbance of marine turtle nesting patterns. Design and operational control of lighting can minimise light glow. Conditions relating to lighting have been removed from the Works Approval as the impacts are appropriately regulated under the requirements of Ministerial Statement 800. The design of lighting at the premises was assessed under the Works Approval and compliance documentation confirming compliance with management commitments is required to be submitted.  Monitoring to determine impacts on marine turtles from light glow is conducted in accordance with the Long-Term Marine Turtle Management Plan, which is a requirement of condition 16-1 of Ministerial Statement 800.	Long Term Marine Turtle Management Plan



<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Licence Duration</b>	N/A	The Works Approval has been extended for 2 years expiring on 28 February 2018. The facility has been constructed; however commissioning has been deferred as resources have been reallocated to priority elements of the Gas Treatment Plant commissioning. The extension will allow time for the commissioning to be carried out.	N/A



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
08/10/2015	Proponent sent a copy of draft instrument	No comments.	N/A

## 6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

**Table 1: Emissions Risk Matrix**

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High

## Appendix A

Treated effluent targets for discharge into Deep Wells.

Parameter	Units	Target
Biochemical Oxygen Demand	mg/L	30
Total Suspended Solids	mg/L	40
Total Nitrogen	mg/L	50
Total Phosphorus	mg/L	12
<i>E. Coli</i>	organisms/100mL	10 <sup>6</sup>
Anionic Surfactants	mg/L	5
Oil and Grease	mg/L	10