



Application for Licence

Part V Division 3 of the *Environmental Protection Act 1986*

Licence Number	L7847/2003/8
Applicant	AWE Perth Pty Ltd
ACN	009 204 031
File number	DER2013/000333
Premises	Waitsia Gas Project Stage 1 Pye Road MOUNT ADAMS WA Legal description – Part of Lots 3 and 4 on Plan 13178 and part of Lot 537 on Plan 2993, within Production Licence L1
Date of report	18 March 2022
Decision	Licence granted

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1. Decision summary

The delegated officer has determined to renew licence L7847/2003/8 to AWE Perth Pty Ltd (the licence holder) for oil or gas production from wells at the Waitsia Gas Project Stage 1 situated on Pye Road, Mount Adams (the premises) for a period of 10 years. This licence replaces L7847/2003/7 issued for the premises which expires on 29 March 2022.

In determining to grant this licence, the delegated officer notes that the licence was recently amended in August 2021 to include the Stage 1 expansion works which were assessed under works approval W6320/2020/1 and amended licence L7847/2003/7 (amendment issued 14 April 2021). The delegated officer considers that the regulatory controls that have been applied are adequate for mitigating emissions and discharges from the premises at this time, noting that operations have not changed since the licence was amended in 2021, and therefore environmental risks will not be further assessed under this application.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) has considered and given due regard to its regulatory framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Background

The licence holder currently operates the Waitsia gas field, a free-flowing conventional natural gas reservoir in the onshore North Perth basin, about 20 km southeast of Dongara.

The operations were initially commissioned in 2016 and have been producing from existing gas wells through the refurbished Xyris Production Facility (XPF). The premises was initially developed for an extended production test of the Waitsia gas reservoir and included upgrades to existing assets that connected the Waitsia-01 and Senecio-03 gas wells to the XPF, which had been in care and maintenance since 2010.

The Waitsia operations are supported by infrastructure from the nearby Hovea gas field, which has been in care and maintenance since 2012 and is no longer producing. Supporting infrastructure at the Hovea site (equipment laydown storage, evaporation ponds and turkeys nest) are still in use.

The initial production capacity of the XPF was about 11.5 terajoules per day (TJ/d), with the processed gas delivered through the Parmelia Gas Pipeline. In 2020, works approval W6320/2010/1 was issued for the Stage 1 expansion project which increased capacity to about 30 TJ/d, with delivery via a new gas pipeline through the Dampier to Bunbury Natural Gas Pipeline (DBNGP) for both domestic and industrial consumption. The Stage 1 expansion became operational under the existing licence (L7847/2007/3) in August 2021.

The premises relates to Stage 1 operations only and does not include Stage 2 expansions.

2.3 Application summary

On 23 November 2021, the licence holder applied to renew the licence under section 57 of the *Environmental Protection Act 1986* (EP Act). The premises (being Stage 1) relates to the Category 10 – Oil or gas production from wells and assessed production capacity of 500,000 tonnes of natural gas per year (30 TJ/d) under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in licence L7847/2003/8. The infrastructure and equipment relating to the premises category and any associated activities

which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in licence L7847/2003/8.

The delegated officer notes that there have been no changes to the premises operation since the licence was amended in 2021 that would alter the premises risk profile and therefore the delegated officer has determined that no further assessment of risk is required at this time.

3. Legislative context

3.1 Part IV of the EP Act

The premises (Stage 1) has not been assessed under Part IV of the EP Act. The Stage 1 expansion was not assessed by the Environmental Protection Authority (EPA) as the impacts were not considered so significant that they warranted referral to the EPA.

3.1.1 Greenhouse gas emissions

The State Government's *Greenhouse Gas Emissions Policy for Major Projects* (State GHG Policy) was published in August 2019. The State GHG Policy guides Government decision making for proposals with significant potential for GHG emissions and endorses the assessment and management of proposals with emissions over 100,000 tonnes of carbon dioxide equivalent (CO₂-e) under Part IV of the EP Act.

Neither the State GHG Policy nor EPA Guideline are binding on the CEO, nor should they be 'applied' by the CEO, but both provide some context as local examples where consideration was given to a threshold of when it may be appropriate to consider conditions for GHG emissions as part of Part IV EIA. The EPA Guideline might be considered to be based on environmental considerations, given the nature of the EPA and its functions.

Reporting of GHG emissions from the premises is undertaken by the applicant each year in accordance with the *National Greenhouse and Energy Reporting Act 2007* (NGER Act). Under this reporting scheme, GHG emissions from the premises were reported to be 2,300 tonnes (CO₂-e) for the 2021 reporting period (July 2020 to June 2021). This equates to 2.3% of the threshold for significant proposals described by the State GHG Policy and therefore was not subject to assessment under Part IV of the EP Act.

The Waitsia Gas Project (Stage 2), which aims to further develop the Waitsia Gas Field, is outside the scope of this application. The Waitsia Gas Project (Stage 2) was assessed under Part IV of the EP Act and approved subject to conditions (refer to Ministerial Statement 1164 published 1 February 2021).

3.2 Department of Mines, Industry Regulation and Safety

Gas processing activities relating to the premises are regulated by the department under Part V of the EP Act (this licence), whilst gas gathering (extraction), gas export activities and pipeline activities are regulated by the Department of Mines, Industry Regulation and Safety (DMIRS) under the following legislation:

- *Petroleum and Geothermal Energy Resource Act 1967*;
- *Petroleum and Geothermal Energy Resources (Environment) Regulations 2012* (PGERE Regulations)
- *Petroleum Pipelines Act 1969* (PP Act); and
- *Petroleum Pipelines (Environment) Regulations 2012*.

In accordance with this legislation, oil and gas operators must submit an Environment Plan to DMIRS for approval. An Environment Plan is a management document designed to demonstrate that all environmental risks and impacts associated with a petroleum activity are

reduced to As Low As Reasonably Practicable (ALARP), and at all times carried out in a manner consistent with the principles of ecologically sustainable development.

The delegated officer considers that the transfer of produced formation water (PFW) via pipelines is adequately regulated under the above legislation and therefore, regulatory controls relating to these activities have been removed from the licence.

3.3 Part V operational compliance

A review of the department's Incident and Complaints Management System (ICMS) did not identify any complaints or incidents occurring in relation to the premises.

4. Consultation

Table 1 provides a summary of the consultation undertaken by the department.

Table 1: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 20 December 2021	1 submission received – refer to Appendix 1	Refer to Appendix 1
Local Government Authority advised of proposal on 17 December 2021	No comment was received	N/A
Advice was sought from the Department of Biodiversity, Conservation and Attractions (DBCA) on 3 February 2022 in relation to the presence of significant fauna at Ejarno Spring.	<p>DBCA commented that intact remnant vegetations surrounding Ejarno Spring is of value and likely to provide habitat to a range of species either on a permanent or seasonal basis. No particular species of significance was identified and no particular issues regarding impacts on any particular species of significance were raised.</p> <p>It was noted that limited information is available in relation to the invertebrate community of the spring.</p> <p>DBCA also noted that comment had previously been provided in relation to the assessment of the Waitsia Gas Project Stage 2 [outside of the scope of this application] under Part IV of the EP Act and that MS 1164 contains conditions relating to the protection of Ejarno Spring and implementation of the <i>Waitsia Gas Project Stage 2: Water Management Plan</i> (WMP). DBCA recommended a consistent regulatory approach be applied to the current licence.</p>	<p>The delegated officer notes that commitments in the WMP primarily relate to monitoring native vegetation, surface water and groundwater within Ejarno Spring to detect, and respond to, impacts on the wetland.</p> <p>The licence (Condition 1, Table 1) includes controls for the purpose of preventing emissions and discharges impacting Ejarno Spring by containing these emissions at source. This includes infrastructure requirements for ponds and turkey nests to ensure infrastructure is suitably maintained to contain hydrocarbon contaminated water and prevent overflows. Table 1 also includes containment requirements for equipment used for the storage of hazardous materials.</p> <p>The delegated officer considers these conditions, which apply infrastructure controls at source, are appropriate for managing potential impacts to Ejarno Spring from discharge of hazardous material and that additional controls are not required at this time.</p>

Consultation method	Comments received	Department response
Applicant was provided with draft documents on 11 March 2022	The applicant noted that high evaporation rates have not necessitated disposal of PFW via reinjection at the DPF for some time.	Noted

5. Decision

Based on the information contained in this decision report, the delegated officer has determined that the application to renew licence L7847/2003/7 will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

The renewing the licence, the delegated officer has determined to make the following changes to the licence conditions:

- Remove condition 2 relating to the operation of PFW flowlines.
Grounds: The delegated officer considers that the operation of PFW flowlines is adequately regulated under the PP Act administered by DMIRS (refer to section 3.2) and as such considers it appropriate to remove conditions regulating flowlines from the licence to avoid regulatory duplication.
- Remove condition 3, part of condition 4 and condition 14 relating to the reinjection wells for disposing of produced formation Water (PFW).
Grounds: No reinjection of PFW occurs at the premises. PFW generated at the Premises is transferred to the Hovea and Waitsia containment ponds for storage and, if required, subsequent disposal via reinjection at the Dongara Production Facility. The Dongara Production Facility is subject to a separate Part V licence (L5765/1994/11).

The licence has been issued for a period of 10 years noting that the premises is expected to operate for an additional 10 years and that the current petroleum lease has been renewed for an indefinite time (i.e. no expiry).

6. Summary of changes

The below table provides a summary of changes to the previous licence and will act as a record of implemented changes. All changes have been incorporated into the replacement licence.

Condition / table	Description
Cover page	Licence version updated. Issue and expiry dates updated.
Conditions 2 and 3	Removed (refer to section 5)
Condition 4	Amended to remove requirements relating to PFW flowlines (refer to section 5)
Condition 14	Removed (refer to section 5)
Definitions	Removed "Schedule 2", "averaging period", "NATA", "NATA accredited", "normal operating conditions", "shut-down", "spot sample", "start-up" and "triennial" as not referenced in the amended licence.
General	Updated condition numbers to reflect changes above.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. Environmental Protection Authority (EPA) 2020, *Environmental Factor Guideline: Greenhouse Gas Emissions*, EPA, Western Australia.
5. EPA 2021a, *Report and recommendations of the Environmental Protection Authority, Waitsia Gas Project Stage 2, AWE Perth Pty Ltd*, EPA, Western Australia.
6. EPA 2021b, *Ministerial Statement 1164, Waitsia Gas Project Stage 2, AWE Perth Pty Ltd*, EPA, Perth, WA.
7. Mitsui E&P Australia (Mitsui E&P) 2020, *Waitsia Gas Project Stage 2: Water Management Plan (Rev 1)*, Mitsui E&P Australia

Appendix 1: Summary of public submissions

Summary of comment	Department's response
<p>The submitter indicated that the cumulative risks to the environment from greenhouse gas (GHG) emissions for the premises have not been assessed and requested that cumulative GHG emissions should be considered.</p>	<p>The State Government's Greenhouse Gas Emissions Policy for Major Projects (Major Projects GHG Policy) was published in August 2019. The Major Projects GHG Policy guides Government decision making under Part IV of the EP Act for new significant proposals that are designated large facilities under the Australian Government's Safeguard Mechanism (i.e. facilities with annual emissions of more than 100,000 tonnes of carbon dioxide equivalent (CO₂-e)). The State Major Projects Policy endorses the application of a condition that sets out the requirements for a plan detailing the proponent's contribution towards achieving the Government's aspiration of net zero emissions by 2050.</p> <p>The EPA has developed the <i>Environmental Guideline Factor: Greenhouse Gas Emissions</i> (EPA 2020), for the purposes of assessment of GHG emissions associated with proposals referred to the EPA. This EPA Guideline also identifies emissions exceeding 100,000 tonnes of CO₂-e as generally warranting assessment.</p> <p>Reporting of GHG emissions from the premises is undertaken by the applicant each year in accordance with the <i>National Greenhouse and Energy Reporting Act 2007</i> (NGER Act). Under this reporting scheme, GHG emissions from the premises were reported to be 2,267 tonnes (CO₂-e) for the 2021 reporting period (July 2020 to June 2021). This equates to approximately 2.3% of the threshold described in the above Policy and Guideline.</p> <p>Commissioning of the Stage 1 expansion works commenced in July 2020 and was completed in September 2020. Therefore, the delegated officer considers the GHG emission estimates reported to the Commonwealth provide an indication that the likely total GHG emissions from the premises during future reporting periods will not be substantially greater as the premises was either commissioning or operational for the majority of the time.</p> <p>Based on the above estimate, and information provided in the application which suggests the premises will remain operational for about 10 years, GHG emissions generated over the remaining life of the premises are expected to be in the order of 23,000 tonnes (CO₂-e) or perhaps slightly higher. This is also the quantum of emissions expected over the term of this licence.</p>

Summary of comment	Department's response
	<p>The delegated officer has considered the above information and determined that GHG emissions from the premises are not so significant to warrant the imposition of conditions under Part V of the EP Act.</p> <p>The Waitsia Gas Project (Stage 2), which aims to further develop the Waitsia Gas Field, is outside the scope of this application. The Waitsia Gas Project (Stage 2) was assessed under Part IV of the EP Act and approved subject to conditions (refer to Ministerial Statement 1164 published 1 February 2021) and is not the subject of this licence.</p>
<p>The submitter raised that the risks to groundwater and surface waters have not been satisfactorily assessed or regulated. In particular, the submitter suggested that impacts on the environmental and cultural values of Ejarno Spring have not been adequately considered and that design requirements and operating conditions to manage these impacts are required.</p> <p>The submitter also indicated that the application does not consider whether there is</p>	<p>Ejarno Spring has been considered as a sensitive receptor in previous risk assessments associated with the Stage 1 works approval (W6320/2019/1) and subsequent licence amendment (L7847/2003/7).</p> <p>The operation of the Waitsia Stage 1 expansion was assessed as having a Low to Medium level of risk in relation to air emissions (excluding GHG emissions) and impacts to surface and groundwater. Infrastructure controls were applied to</p>

Summary of comment	Department's response
<p>adequate separation to Ejarno Spring noting that vegetation surrounding Ejarno Spring abuts the XPF boundary.</p> <p>The submitter requested:</p> <ul style="list-style-type: none"> • Ejarno Spring be more clearly identified as an environmental receptor to support its environmental and cultural heritage protection; • An assessment of the impact to wildlife at Ejarno Spring from the operations of the premises (visual amenity, noise, light, pollution and groundwater changes) should be required; and • The assessment and ongoing monitoring of fauna (including invertebrates) at Ejarno Spring be included as a condition of the licence with trigger actions required to be taken by the Licence Holder should monitoring identify adverse impacts. <p>The submitter also suggested that in the absence of detailed fauna studies for biodiverse and environmentally significant areas adjacent to the Premises, the precautionary principle must apply and that polluting activities cannot proceed until there is a better understanding of the protections required to safeguard these areas.</p>	<p>evaporation ponds, turkey nests, containers for storing hazardous materials, etc. to prevent hazardous material from entering the environment and impacting Ejarno Spring. The delegated officer considers that appropriate regulatory controls have been implemented on the works approval (W6320/2019/1) and licence (L7847/2003/7) to mitigate the level of risk from the Stage 1 expansion.</p> <p>Additional regulatory controls were also included on the licence (Amend Licence issued 14 April 2021) to address potential contamination risks from existing infrastructure at the Premises not assessed under the Stage 1 works approval (W6320/2019/1). Containment requirements were applied to existing infrastructure at the Premises including evaporation ponds, turkey nests, containers for storing hazardous materials, etc. and included requirements for bunding, pond lining and monitoring (visual assessments) as per conditions 1 and 2 of the Licence. These controls are consistent with controls applied to similar infrastructure assessed under W6320/2019/1 and aim to prevent hazardous material from entering the environment and impacting groundwater and Ejarno Spring.</p> <p>The delegated officer notes advice from DBCA (refer to section 4) which did not identify any significant concern relating to impacts of noise or light on fauna present at Ejarno Spring and therefore does not consider it necessary to impose further controls relating to these emissions on the licence at this stage.</p>
<p>The submitter raised that the project should be referred for assessment under s38 of the EP Act to fully assess the cumulative GHGe of the broader Waitsia gasfield activities, and the risks to groundwater, surface waters and, specifically, Ejarno Spring.</p>	<p>Under s38(1) of the EP Act, any person may refer a significant proposal to the Environmental Protection Authority. Instructions for referring a proposal can be found at https://www.epa.wa.gov.au/forms-templates/s38-referral-instructions-and-form</p> <p>The Premises is an existing facility that has been operational since 2016. The Stage 1 expansion was not referred to the EPA as the impacts were not considered so significant that they warranted referral.</p> <p>It should be noted that the scope of this licence is limited to oil and gas processing at the Xyris Production Facility as well as produced formation water storage at the Hovea and Waitsia sites. Operation of other infrastructure associated with the broader Waitsia gasfield such as injection wells, flowlines and production wells is outside the scope of this licence and is regulated under the PGRS Regulations and PP Act. The delegated officer considers that regulatory controls contained in the licence are adequate for managing emissions from the licensed activities at this time.</p>