



Environmental Protection Act 1986

Hon Stephen Dawson MLC
Minister for Environment

MINISTER'S APPEAL DETERMINATION

APPEALS AGAINST CONDITIONS APPLIED TO AND AMENDMENT OF LICENCE L9102/2017/1

GORGON LNG PROJECT, BARROW ISLAND

Purpose of this document

This document sets out the Minister's decision on an appeals lodged under sections 102(3)(a) and 102(3)(b) of the *Environmental Protection Act 1986* in objection to the conditions and amendment of licence L9102/2017/1. This document is produced by the Office of the Appeals Convenor for the Minister but is not the Appeals Convenor's own report, which can be downloaded from the Appeals Convenor's website at www.appealsconvenor.wa.gov.au.

Appellants:	Conservation Council of Western Australia
Proponent:	Chevron Australia Pty Ltd
Proposal description:	Gorgon LNG Project, Barrow Island
Minister's Decision:	The Minister allowed the appeals in part.
Date of Decision:	6 November 2020

REASONS FOR MINISTER'S DECISION

Pursuant to section 106 of the *Environmental Protection Act 1986* (the EP Act), the Minister obtained reports from the Department of Water and Environmental Regulation (DWER) on the matters raised in the appeals. The Minister also received a report from the Appeals Convenor. The Appeals Convenor's report sets out the background and other matters relevant to the appeals.

The Gorgon Gas Development was subject to assessment under Part IV of the *Environmental Protection Act 1986* (EP Act) in 2006, with a revised and expanded proposal being assessed and subsequently approved through Ministerial Statement (MS) 800 in 2009. The fourth train (approved under MS 1002) is yet to be implemented.

By the appeals, the appellant raised concern that the licence does not adequately regulate greenhouse gas emissions or the reservoir carbon dioxide (CO₂) injection system. The appellant requested that the licence be amended to require continuous monitoring of all air emissions, public reporting of emissions data, and for the 20-year licence duration to be reduced.

Given the overlap between the two appeals, they are combined in this decision.

Decision

Taking into account the matters raised by the appellant, as well as the advice of the Appeals Convenor, Department of Water and Environmental Regulation (DWER) and Chevron, the Minister considered the conditions applied to the licence are generally appropriate. However, the Minister allowed the appeals to the extent that:

- condition 7 (Table 4) is amended to include CO₂ and all incidental substances of the reservoir CO₂ injection stream (as described in the *Barrow Island Act 2003* approval) as authorised discharges to land only through injection wells at drill centres A, B and C; and
- the duration of the licence is amended to be 10 years.

Before coming to the full reasons for the decision, the Minister noted that the premises is subject to implementation agreements made under section 45 of the EP Act. Those agreements were preceded by extensive environmental impact assessment and appeal investigations, before being agreed by relevant decision-making authorities under section 45(1) of the EP Act. Noting the content of section 57(4) of the EP Act, the Minister did not view an appeal against the conditions or amendment of a licence as an opportunity to revisit the outcome of those agreements.

Greenhouse gas emissions to air

The appellant submitted that the licence does not appropriately prevent, control, abate or mitigate pollution or environmental harm from greenhouse gas emissions to air. As a specific outcome of the appeal, the appellant submitted that greenhouse gas emissions should be the subject of enforceable limits, or at the very least, monitoring requirements.

Greenhouse gas emissions were considered under Part IV of the EP Act, where MS 800 includes a number of conditions, including requirements for a reservoir CO₂ injection system, greenhouse gas abatement program, best practice pollution control design and air quality management. As noted by the Appeals Convenor, this includes requirements for an annual Environmental Performance Report, which is to include details of annual greenhouse gas emission intensity (defined as greenhouse gas emissions per tonne of liquefied natural gas (LNG) produced) and trends of annual emission intensity and reasons for any change.

On the information available to him, the Minister considered that greenhouse gas emissions to air from the premises were considered through the assessment of the proposal under Part IV of the EP Act, and that the conditions applied to these emissions in MS 800 are adequate to address this emission type. For these reasons, the Minister did not consider it is necessary for conditions to be applied under Part V.

Reservoir CO₂ injection system

The reservoir CO₂ injection system was included in the amended licence in July 2019, and became operational in August 2019. The appellant sought for this inclusion but also sought for the licence to manage the risks and to limit the rate, composition and volume of reservoir CO₂ allowed to be injected.

The Minister understood that reservoir CO₂ is composed predominately of CO₂, with minor amounts of incidental substances, being hydrocarbons (including benzene, toluene, ethylbenzene and xylene (BTEX)), hydrogen sulphide (H₂S), nitrogen, water, corrosion inhibitor and carryover monoethylene glycol (MEG). MS 800 requires Chevron to inject no less than 80 per cent of reservoir CO₂ underground calculated on a five year rolling average.

In relation to the assessment of the risks of the reservoir CO₂ injection system, the Minister agreed with DWER that there is a comprehensive and specific regulatory framework to manage and monitor the system in the long term, which includes MS 800, Pipeline Licence 93 and the *Barrow Island Act* approval. On the latter, the Minister understood that the approval sets limits on the injection rate of the reservoir CO₂ injection system as a whole, as well as the constituent parts of that waste stream. DWER considered that these overall injection limits should be duplicated in the licence to avoid the risk that the EP Act may unintentionally authorise discharges to land above those authorised under the *Barrow Island Act*. The Minister accepted this rationale.

Nonetheless, the Minister agreed that condition 7 (Table 4) of the licence should be amended to include all incidental substances of the reservoir CO₂ injection system, not only hydrocarbons and H₂S. This should align with the incidental substances required to be set out in the approval in the *Barrow Island Act*.

DWER considered that emission limits for CO₂ discharges to land are not required as the licence already includes a limit on the total daily injection rate and annual average daily injection rate in condition 8 (Table 5). The Minister agreed with DWER's advice in this regard.

In relation to venting of reservoir CO₂, the appellant considered that limits should be applied and venting should be restricted to less than 20 per cent. DWER advised that the risk associated with hydrocarbon (including BTEX) and H₂S emissions to air as a result of venting was low and there was sufficient regulatory control applied through MS 800 to limit the volume of reservoir CO₂ which may be vented and verify impacts to ambient air quality.

Air emissions monitoring

The appellant requested that the licence should be amended to require continuous monitoring of all discharges to air and ambient air quality.

Broadly DWER's assessment found the risks from emissions to air to be low or medium and acceptable subject to regulatory controls under the licence, taking into account the ambient air quality monitoring required by the Air Quality Monitoring Plan under MS 800.

The licence requires the quarterly monitoring of nitrogen oxides (NO_x) and carbon monoxide (CO) emissions to air, which the appellant contended should be on a continuous basis. DWER advised that continuous monitoring of fuel consumption and volumes of vented/flared gas can be interpreted with NO_x and CO data to determine if the plant is operating according to its design. The Minister understood that any deviations from normal operating conditions will be investigated and appropriately monitored and controlled to verify impacts to ambient air quality.

Public availability of data

The appellant submitted that the reports and monitoring data required by the licence should be made publicly available. The Minister was advised that Annual Audit Compliance Reports are published on DWER's website, however other reports required by the licence are not routinely published. DWER advised that requests for these documents can be made through its Freedom of Information (FOI) webpage, and through that process, it can determine whether the requested information can be released directly, or whether a formal FOI process is required to ensure any potentially exempt information is properly assessed.

More broadly regarding monitoring data, Chevron has advised that it has a range of reports available on its website, including annual Compliance Assessment Reports, and annual and five-year Environmental Performance Reports required under MS 800 (which includes air quality data). Also annual emission data are available on the Department of Agriculture, Water and the Environment's National Pollutant Inventory website.

In relation to the request for real-time monitoring to be required by the licence and made available to the public, DWER has advised that real-time monitoring is not suitable for inclusion in the licence.

Taking the above into account, the Minister was satisfied that there is sufficient disclosure of information relating to emissions from the premises to ensure the public is aware of Chevron's compliance with conditions.

Licence duration

The appellant considered that the 20-year licence duration was inappropriate for the scale and location of the facility and recommended that the duration be reduced to three years or in the alternative, a formal review be included in the licence to incorporate contemporary practices.

DWER has advised that the licence duration is in accordance with its risk-based approach, where licences are reviewed and amended as appropriate according to risk.

The Appeals Convenor recommended that the licence duration should be reduced from 20 years to 10 years, primarily for consistency with the duration applying to the Wheatstone LNG Project (Stage 1). However, since the Appeals Convenor finalised her report, a new licence has been issued for that facility which included a duration of 20 years. Notwithstanding that change, the Minister acknowledged the Appeals Convenor's advice that a shorter duration for the Gorgon licence provides an opportunity to review all the conditions within a reasonable time after the reservoir CO₂ injection system has been operational. For this reason, the Minister considered it appropriate for the duration of the licence the subject of the appeal to be reduced from 20 years to 10 years.

Note: this decision is published pursuant to the terms of section 110 of the *Environmental Protection Act 1986* and regulation 8 of the *Environmental Protection Regulations 1987*.

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