

Further Information Received

Chevron received a Request for Further Information from DWER on our Works Approval Application for the Wheatstone Nitrogen Rejection Unit Thermal Oxidisers Project (APP-0028874).

Please see responses below.

1. Air Emissions

The two Nitrogen Rejection Unit (NRU) vent streams (one per LNG train) at the Wheatstone LNG Project are the facility's largest source of methane (CH₄) emissions. To reduce CH₄ emissions from these sources and associated CO₂-e, Chevron Australia plans to install Recuperative Thermal Oxidisers (TOX) for both NRU vents. These units will combust the trace amounts of CH₄ entrained in the vent streams prior to discharge.

Historical Air Quality Modelling and Monitoring

Air quality modelling undertaken for the Wheatstone LNG Foundation Project in 2013 (WS0-0000-HES-RPT-CPM-000-00002-000) demonstrated that across a wide modelled range of NO_x emission rates from the LNG Plant (51.7g/s to 88.9 g/s), there is little variation in predicted concentrations.

Since LNG commissioning (Q1 2021), continuously monitored ambient NO₂ levels in Onslow have remained below the NEPM criteria, with a 95 percentile of 1-hour sample results less than 4.24ppb NO₂. Exceedances of the predicted local concentration at Onslow have occurred in fewer than 1% of samples.

Table 1: Air quality NO_x emission modelling from the Wheatstone LNG Plant and ambient sampling results from January 2021 at Onslow townsite

Pollutant	Period	Maximum Concentration Standard (NEPM)	Units	Back-ground	Modelling		Sampling	
					Plant Emissions Modelled	Predicted local concentrations at Onslow	Actual ambient sample results at Onslow	
					g/s	ppb	ppb	95% ile value
NO ₂	1-hour	80	ppb	2	51.7 - 88.9	11.5	0 - 33.4	4.24
	1-year	15	ppb	1		1.5	0.9 - 1.2	NA

Ambient sample results from January 2021 to June 2025

Anticipated Impact of NRU TOX Installation

The two NRU vent streams do not contain NO_x; however small amounts of NO_x may be created as part of the combustion process within the TOX:

- As a byproduct of the destruction of the N₂ vent streams; and
- From the combustion of LP fuel gas.

The NRU TOX design is anticipated to result in an increase of approximately **2.5 g/s** NO_x (approximately 1.25 g/s NO_x per unit) during normal operations - an approximate 4% increase to total NO_x emissions for the Wheatstone LNG Project. While this is greater than the NO_x emissions modelled for normal operations of the Wheatstone LNG Project, NO_x emissions during normal operations (inclusive of the NRU TOX) are anticipated to remain within the range of cases modelled for total NO_x emissions from the plant.

Justification for Negligible Ambient Impact

It is not anticipated that an approximate 4% increase in NO_x emissions from the NRU TOXs will lead to an ambient air quality increase given:

- The range of NO_x emissions previously modelled (~70% range), coupled with the fact that there is little variation in modelled ambient NO₂ concentrations.

- Actual ambient air samples at Onslow have been within that modelled over 99% of the time and have had no exceedances of either the original or amended NEPM standard.

2. Part IV Approval (MS 873) Consistency

For the original Works Approval, Chevron prepared an Air Emissions Design Report to meet the requirements of Condition 18 of MS 873. Chevron intends to prepare an Addendum to the Air Emissions Design Report which will specifically address the NRU TOX infrastructure. Chevron met with Dave Abdo from EPA Services last week to inform him of our approach to ensure consistency with MS 873.

Please reach out if you would like further information

Regards

Daley



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