LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY

No. 253

WRITTEN QUESTION

J Davis to the Minister for Lands, Planning and Environment, Hon Joshua Burgoyne MLA:

LNG Facility Monitoring and Compliance

These questions concern the regulation of the two LNG facilities at Bladin Point under Environment Protection Licences EPL217 and EPL228, and the Northern Territory Environment Protection Authority's review of the environment protection licences for those facilities.

1. **The Darwin Airshed LNG Licence Review records that additional continuous monitoring of benzene, toluene, ethylbenzene and xylenes by INPEX commenced in July 2025 at three Northern Territory Government air quality monitoring stations and has recently been extended to three more locations in 2026.**

    a. **Is the data collected publicly available and, if not, why not?**

    The current INPEX-owned monitoring data is not publicly available.

    b. **Has the Authority recommended that the data be published? If so, in which document and on what date?**

    Recommendation 11 provides: “Require licensees to provide continuous ambient air quality monitoring data required under the licence to the public in real time, unless provided through other legislative mechanisms.” https://ntepa.nt.gov.au/__data/assets/pdf_file/0009/1625382/darwin-airshed-lng-licence-review.pdf.

    The Safe Air Bill will fund improvements to the government air quality monitoring network, including monitoring for BTEX. This will displace the need for facility-level ambient air quality monitoring.

    c. **Will the data be published and, if so, on what date, and will publication include all data collected since July 2025?**

    All monitoring data that INPEX must report under the licence is published in annual monitoring reports here: https://ntepa.nt.gov.au/your-business/public-registers/licences-and-

approvals-register/environment-protection-licences/hydrocarbons-gas/ichthys-lng-inpex-operations.

The proposed government BTEX monitoring data will be made publicly available here from when the equipment is procured and installed, with timeframes subject to passage of the Safe Air Bill: http://ntepa.webhop.net/NTEPA/Default.ltr.aspx.

2. **Is ambient monitoring of pollution impacts from each of the two Darwin airshed LNG facilities a mandatory condition of its environment protection licence, or conducted on a voluntary basis?**

The licences are published on the NT EPA register at: Environment protection licences.

Information on monitoring requirements in each licence is available in the licence review at: Darwin airshed emissions management.

a. **Where monitoring is provided by the licensee, is it independently verified and, if so, by whom and how often?**

Licensees use accredited laboratories and trained technicians to collect data and have processes for validating data.

The Department commissioned Air Environment to review, among other things, INPEX's monitoring data. The Review is available at: Darwin airshed emissions management.

b. **Has the Authority ever required additional monitoring because of concerns about the adequacy of licensee-supplied data? If so, on what dates and in respect of which facility?**

The Authority has not required additional monitoring on the basis of concerns about the adequacy of licensee-supplied data.

INPEX is already undertaking continuous ambient BTEX monitoring. That monitoring data was reviewed as part of the independent Air Environment review commissioned by the Department. The review did not identify the existing licensee-supplied data as inadequate, nor did it recommend further INPEX monitoring on that basis.

Separately, the NT EPA has supported the Department's broader review of the government air quality monitoring network, including options to improve government monitoring capability and transparency. That work is directed to strengthening the public monitoring framework, not to a finding that licensee-supplied data is unreliable.

c. **Has the Authority advised the Minister on whether monitoring around LNG facilities should be made mandatory and**

independent? If so, on what date and can that advice be provided?

NT EPA has supported the Department's broader review of the government air quality monitoring network, including options to improve government monitoring capability and transparency.

NT EPA has provided formal strategic advice to the Minister about the findings of the Licence Review at: Advice to Minister | NTEPA.

d. At which locations is that monitoring conducted, including whether it is conducted at the facility site boundary and at Frances Bay?

Monitoring sites are specified in the Annual Environmental Monitoring Reports on the NT EPA website at:
Environment protection licences | NTEPA.

3. For what period following commissioning of each of the two Darwin airshed LNG facilities was air toxics monitoring conducted, and on what date did it cease?

All monitoring required under licence conditions is reported on in Annual Environmental Monitoring Reports (AEMRs) published on the NT EPA website:

Ichthys https://ntepa.nt.gov.au/your-business/public-registers/licences-and-approvals-register/environment-protection-licences/hydrocarbons-gas/ichthys-lng-inpex-operations.

DLNG https://ntepa.nt.gov.au/your-business/public-registers/licences-and-approvals-register/environment-protection-licences/hydrocarbons-gas/santos-na-darwin-pipeline-pty-ltd.

a. On what basis was the period of monitoring determined to be sufficient, and in which document is that basis recorded?

Both INPEX and Santos have always undertaken air toxics monitoring under their licence.

For Ichthys, the information is available in Annual Environmental Monitoring Reports (AEMRs) published on the NT EPA website: https://ntepa.nt.gov.au/your-business/public-registers/licences-and-approvals-register/environment-protection-licences/hydrocarbons-gas/ichthys-lng-inpex-operations.

From 2019 to 2021, additional ambient air monitoring was required to verify the modelling outputs provided by INPEX during the Environmental Impact Assessment (EIA) process consistent with Assessment Report 65. This program ceased in October 2021 following 24 months of steady-state operations. INPEX then

recommenced this monitoring in 2023 which became continuous in June 2025.
https://ntepa.nt.gov.au/_resources/documents/eia/inpex/assessment_report_nretas.pdf.

For DLNG, the information is available in Annual Environmental Monitoring Reports (AEMRs) published on the NT EPA website: Santos NA Darwin Pipeline Pty Ltd | NTEPA.

b. Has restarting air toxics monitoring been considered in light of proposed industrial expansion at Middle Arm and, if so, on what date and with what outcome?

The Government monitoring in accordance with the Air Toxics National Environment Protection Measure (NEPM) is ongoing.

The Department reports annually on NT implementation of the Air Toxics NEPM. Reports are available at: NEPC annual reports - DCCEEW.

c. Which air toxics are not routinely monitored in the Darwin region?

INPEX monitors benzene, toluene, ethylbenzene and xylenes.

The Government network monitors nitrous oxides, sulfur oxides, ozone, carbon monoxide and particulate matter. Subject to passage of the Safe Air Bill it will be expanded to include at least BTEX.

The Department reports annually on NT implementation of the Air Toxics, Ambient Air Quality and National Pollutant Inventory NEPMs, which are available at: NEPC annual reports - DCCEEW.

4. Where ai quality modelling is provided by a licence applicant rather than commissioned independently, how many major proposals have undergone independent review of that modelling in the five financial years to 2025-26?

All air quality modelling submitted by proponents as part of an EIA under the *Environment Protection Act 2019* or former *Environmental Assessment Act 1982* is assessed by the Department and considered by the independent NT EPA as part of the statutory assessment process. The process includes review by officers and members with relevant scientific and technical expertise, including air quality expertise where required.

Separate external peer review or independent verification may be commissioned where the regulator considers it necessary, for example due to the complexity, significance or uncertainty of the modelling. It is not a standard requirement for all proposals in the Northern Territory (NT), nor is it understood to be standard practice across most Australian regulatory jurisdictions.

a. **Please list each, with the reviewer and the date.**

Santos Darwin LNG (DLNG) Life Extension Project, Air Environment, 16 August 2024.

Middle Arm Precinct - Department of Logistics and Infrastructure – Independent Peer Review of draft EIS air quality impact assessment. Reviewer - Zephyr Environmental. Date: 24 September 2024.

INPEX LNG independent emissions review – Air Environment, January 2026 at Darwin airshed emissions management | NTEPA.

b. **Has independent review ever identified material flaws in an applicant's assumptions or modelling? If so, in respect of which proposal and with what consequence?**

DLNG Life Extension Project
No.

Middle Arm Precinct
The Review was provided to the proponent to assist in further development of the Air Quality Impact Assessment to address the Terms of Reference for the EIS.

INPEX AGRU vent modelling review is available at:
Darwin airshed emissions management | NTEPA.

c. **Does the Authority have sufficient in-house expertise to critically assess complex atmospheric modelling?**

The NT EPA members have air quality expertise, the Department has air quality expertise in-house and consultants are engaged where in-house expertise or capacity is not sufficient.

d. **What was the Authority's expenditure on external air quality modelling advice in each of the five financial years to 2025-26?**

Approximately $83,000 total.

e. **Has the Authority advised the Minister of any limitation in its capacity to assess atmospheric dispersion modelling supplied by an applicant? If so, on what date, and can that advice be provided?**

No.

5. **The ground level measurement obligation in Environment Protection Licence EPL228 was reduced across two amendments. In versions 01 and 02 it was condition 57, requiring that "The licensee must verify by ground level measurements, during the first 24 months of**

commencement of operations, when both LNG trains and the CCPP are operating at steady state, that the licensed activity does not cause ground level concentrations of contaminants to contribute to more than 27% of the standards for pollutants specified in National Environment Protection (Ambient Air Quality) Measure" and the investigation levels in the Air Toxics Measure. Version 03 carried it in the same terms as condition 55. In version 04 condition 55 required only that the licensee "undertake ground level measurements" for the same pollutants over the same period, the verification against 27 per cent having been removed. Version 05 contains no such condition. The Darwin Airshed LNG Licence Review records at section 5.3.1.6 that a requirement for licensees to demonstrate what percentage of the airshed capacity their emissions constitute "should be reintroduced".

a. **Was the verification against the 27 per cent figure carried out while the condition was in force? On what dates, and what percentage of each relevant standard was measured?**

   The verification was not carried out as INPEX advised it is not possible to determine what proportion of air shed results are attributable to the Ichthys LNG facility. The requirement was removed from the licence before the verification was required.

b. **In which document is the result of any ground level measurement taken under condition 57 or condition 55 reported, and is it published?**

   The results are available in the Annual Environmental Monitoring Report 2021-2022 on the NT EPA licence register at: Ichthys LNG Pty Ltd / INPEX Operations Australia Pty Ltd | NTEPA.

c. **The licence revision history records the version 04 amendment as requiring the licensee to "undertake ground level measurements … during the first 24 months of commencement of operations when both LNG trains and the combine cycle power plant are operating at steady state (future modelling of emissions should not exceed 27% of ambient standards)". Does the 27 per cent figure now apply to modelling rather than to measurement, and in which condition of the current licence does it appear?**

   It does not appear in the current licence. The comment in the end notes was for officer records.

d. **The revision history records the version 05 change as "Renewal of licence". Was the removal of the ground level measurement condition considered as part of that renewal, and in which document is that consideration recorded?**

   Yes. The matter was considered as part of the licence renewal process. The consideration is recorded in the internal licensing

decision record in NT EPA Online, which is the approved system for recording licensing decisions and issuing environment protection licences.

e. Given the licensee's upward revision of its emissions estimates in October 2025, does any verification carried out under those conditions remain valid?

Yes. Monitoring results taken in the ambient air are not impacted by revised emissions estimates.

f. Has the Authority accepted the finding at section 5.3.1.6, and by what date will the requirement be reintroduced?

NT EPA has endorsed all recommendations of the licence review, with implementation subject to amendment processes under the *Waste Management and Pollution Control Act 1998*.

6. Is hot venting used to release emissions at height at either Darwin airshed LNG facility when acid gas incinerators are unavailable?

Yes

a. How frequently has hot venting occurred at each facility in each of the five financial years to 2025-26?

In relation to Ichthys LNG, this relates to matters before the Court.

For DLNG, the information is available in Annual Environmental Monitoring Reports (AEMRs) published on the NT EPA website: Santos NA Darwin Pipeline Pty Ltd | NTEPA.

b. What pollutants are released during hot venting events, and in what quantities compared with normal operations?

During hot venting events, volatile organic compounds such as BTEX are released in higher quantities than during normal operations. The quantity of pollutants emitted will depend on the concentrations of pollutants in the off-gas and the volumetric flow rate from the acid gas vent.

c. Has any restriction or limit on hot venting been considered and, if so, on what date and with what outcome?

The DLNG licence has limits on hot venting. That licence is available on the public register: https://ntepa.nt.gov.au/your-business/public-registers/licences-and-approvals-register/environment-protection-licences/hydrocarbons-gas/santos-na-darwin-pipeline-pty-ltd.

The review of Darwin airshed LNG licences recommended incorporating clearer hot venting duration limits (Recommendation 2):

https://ntepa.nt.gov.au/__data/assets/pdf_file/0009/1625382/darwin-airshed-lng-licence-review.pdf.

7. **By letter of 5 June 2026 the Northern Territory Environment Protection Authority recorded that, following a request of 4 March 2026, a delegate authorised three additional hot venting days on 27 May 2026 under condition 43 of EPL217-07, and the Authority authorised a further 23 days on 4 June 2026, bringing the total to 26 additional days in the 2026 calendar year. The letter records that the licence permits 36 days of hot venting, intended to apply to steady-state operations, and authorises the additional days for commissioning, process upsets, and repairs and maintenance.**

   a. **How many hot venting days were actually used at that facility in the 2026 calendar year to date, and how many under each of commissioning, process upsets, and repairs and maintenance?**

      As of early September 2026, a total of 41 days has been expended by Santos. Santos has approval for 62 days of hot venting for the 2026 calendar year. Refer: https://ntepa.nt.gov.au/your-business/public-registers/licences-and-approvals-register/environment-protection-licences/hydrocarbons-gas/santos-na-darwin-pipeline-pty-ltd.

      At least 13 days of hot venting were associated with commissioning of the thermal oxidiser.

   b. **What quantity of each pollutant of concern was emitted during those additional 26 days, and how was it estimated?**

      The quantity of emissions estimated is reported in the Annual Environmental Monitoring Report (AEMR). The 2026 calendar year AEMR is due for submission in March 2027.

      The quantity of emissions are estimated using data from an in-line analyser. The analyser continuously monitors the concentration of pollutants in the waste gas stream.

   c. **On what basis was the 36-day limit set, and has the Authority assessed whether a limit framed for steady-state operations remains appropriate for a facility that has sought authorisation to exceed it?**

      36 days represent a 90% availability requirement of pollution reduction equipment. The Darwin LNG facility is undergoing commissioning and thus not operating under steady state conditions. The current limit is considered sufficient for steady state operations. Hot venting limits in licences are under review as part of the LNG licence review implementation.

d. In each of 2022, 2023, 2024 and 2025, how many additional hot venting days were requested and how many authorised, at each Darwin airshed LNG facility?

Ichthys LNG has no hot venting limit in its current licence.

Santos requested additional hot venting during the end of its previous operations, when gas supply diminished, because AGIs cannot operate effectively below a minimum flow threshold.

e. The letter of 5 June 2026 records that a copy of it will be published on the Authority's website. Are all authorisations permitting exceedance of a licence limit published, and where?

Since DLNG recommenced, all authorisations have been published.

f. Recommendation 2 of the Darwin Airshed LNG Licence Review is to include clearer hot venting duration limits in EPL228 and specify expected incineration equipment availability in both licences with a view to reaching 99 per cent. Has it been accepted, and by what date will the licences be amended?

The NT EPA has endorsed all recommendations of the licence review, with implementation subject to amendment processes under the *Waste Management and Pollution Control Act 1998*. Anticipated timeframes and updates are published here: https://ntepa.nt.gov.au/your-environment/air-quality/darwin-airshed-emissions-management.

g. Recommendation 3 is to include provisions in both licences to avoid cumulative impacts from concurrent hot venting at both facilities. Has any assessment been made of concurrent hot venting to date?

Yes.

8. How many breaches of Environment Protection Licences have been identified at the two Darwin airshed LNG facilities in the five financial years to 2025-26?

All non-compliances must be submitted to the Department in an annual return and outlined in the Annual Environmental Monitoring Report. These reports are posted on the public register. https://ntepa.nt.gov.au/your-business/public-registers/licences-and-approvals-register/environment-protection-licences

a. How many resulted in enforcement action, and of what kind?

Non-compliances with licences attract enforcement action including advice, warnings and infringement notices. Enforcement action is determined in accordance with the Environmental Regulation

Division's PACTT (proportionate, accountable, consistent, transparent and targeted) principles and the Compliance and Enforcement Policy and Guideline. https://ntepa.nt.gov.au/your-business/compliance-enforcement.

Compliance and enforcement action is published in:

- NT EPA annual reports: https://ntepa.nt.gov.au/publications-and-advice/annual-reports
- Departmental annual report cards: https://ntepa.nt.gov.au/your-business/compliance-enforcement
- newsletter articles: https://environment.nt.gov.au/consultations-decisions-policies/finding-the-balance
- media releases: https://ntepa.nt.gov.au/news.

b. How many resulted in a financial penalty, and what was the total value?

Two penalty infringement notices have been issued of a total value of $16,280, as published in the NT EPA annual reports and Departmental report card.

c. How many related to air emissions exceeding licence limits?

Compliance reports are posted on the public register: https://ntepa.nt.gov.au/your-business/public-registers/licences-and-approvals-register/environment-protection-licences.

9. Are hydrocarbon processing facilities identified as a priority compliance area in the Authority's compliance planning?

Yes.

a. If so, in which compliance plan or published document, and what compliance concerns led to that designation?

The Environmental Regulation Division publishes an annual Compliance Plan which records compliance priorities and rationale. https://ntepa.nt.gov.au/your-business/compliance-enforcement

b. How many inspections were conducted at each of the two Darwin airshed LNG facilities in each of the five financial years to 2025-26? Please provide as a table by facility and year.

	Number of inspections	
FY	**Darwin LNG**	**Ichthys LNG**
2025-26	1	3
2024-25	1	1
2023-24	1	1
2022-23	1	4
2021-22	1	1

c. **How many non-compliances were identified, and how many inspections were unannounced?**

Inspections are used to inspect physical requirements able to be verified by visual inspection. Inspections to date have indicated compliance with such conditions.

No unannounced inspections were undertaken.

10. **How many complaints relating to LNG operations, industrial emissions or air quality were received through the Pollution Hotline in the five financial years to 2025-26?**

Approximately ~570 related to air quality, of which approximately ~20 related to LNG operations.

a. **What were the most common issues raised?**

Dust from construction sites, smoke, odour emissions.

b. **How many complaints resulted in an investigation, and how many were substantiated?**

All complaints are triaged and investigated in accordance with the Environmental Regulation Division's Triage Guideline. https://ntepa.nt.gov.au/_resources/documents/compliance-and-regulation/triage-guideline-pollution-reports.pdf

c. **If complaints are not categorised by subject in that form, in which system are they recorded and in what format?**

Until May 2026, reports were recorded in the Pollution Response Line Database, a Microsoft Access database.

From May 2026, reports are recorded in the Pollution Case Management system, a Microsoft Power App.

11. **The Darwin Airshed LNG Licence Review (NT EPA, version 1.0, approved 14 July 2026) records at section 7.3 that the recent under-reporting of emissions by INPEX highlighted that quality assurance and quality control of emissions calculation and estimation methodology was insufficient to detect the errors that occurred over several years of reporting, and that the licences do not require licensees to maintain documentation of emission calculation methodology.**

Section 7.3 concludes that "Existing conditions are considered sufficient, as they allow the NT EPA to request any document relevant to the licence. No changes are recommended." On what basis were existing conditions considered sufficient, given the same section records that quality assurance and quality control were insufficient to detect errors occurring over several years of reporting?

Existing conditions were considered sufficient to enable the regulator to request relevant documents and assess compliance with the licence. However, the review identified that additional clarity is needed about licensee obligations to document and quality assure emissions calculation methodologies. Amendments are being prepared to strengthen those requirements and improve regulatory oversight.

a. Over how many years of reporting did those errors occur, and what was the difference between the reported and revised figures for each year?

Since operations started in 2019. INPEX are in the process of revising estimates provided to the NPI. Revised estimates for all years will be published on the NPI and NT EPA websites in due course.

b. The Review records at section 7.3.1.2 that licence audits have been completed as required, but that the under-reporting indicates the audits were not undertaken to the level of depth necessary to verify the quantities of pollutant emissions reported.

c. Has Recommendation 20 - aligning audit requirements and strengthening the Authority's ability to define audit scope - been accepted and implemented?

All recommendations have been endorsed by the NT EPA. Implementation is subject to amendment processes under the *Waste Management and Pollution Control Act 1998*. Timeframes and updates on the review are published: https://ntepa.nt.gov.au/your-environment/air-quality/darwin-airshed-emissions-management.

d. For each audit conducted under either licence since 1 January 2022, who approved the scope, and did the Authority add any scope item?

The audit scope includes the full condition suite.

The current licences do not provide a separate formal approval process for audit scopes. Strengthening the regulator's ability to specify audit scope is being considered through implementation of the licence review. In 2024, the Department requested that additional matters be addressed in the Darwin LNG audit.

12. Environment Protection Licence EPL217-07, held by Santos NA Darwin Pipeline Pty Ltd and commencing 19 September 2025, requires the licensee to establish a Community Consultative Committee. EPL228 contains no equivalent condition. Recommendation 14 of the Darwin Airshed LNG Licence Review is to align the licence conditions so that both licensees convene community consultative committees, and to review their performance and efficacy every two years.

a. Has Recommendation 14 been accepted? If so, by what date will EPL228 be amended; if not, what reason was recorded?

The NT EPA has endorsed all recommendations, with implementation subject to amendment processes under the *Waste Management and Pollution Control Act 1998*. Anticipated timeframes and updates are published here: https://ntepa.nt.gov.au/your-environment/air-quality/darwin-airshed-emissions-management.

EPL228-05 expires on 12 December 2027. Will the amendment be made before that date, or at renewal?

Amendments are being considered through the licence amendment process, separate from renewal. Anticipated timeframes and updates are published here: https://ntepa.nt.gov.au/your-environment/air-quality/darwin-airshed-emissions-management.

b. How many times has the committee convened under EPL217 since the condition was inserted, and are its minutes published?

The Committee has its first meeting on 23 September 2026. Santos has advised the NT EPA it intends to publish minutes.

13. The Darwin Airshed LNG Licence Review, approved 14 July 2026, records that "The versions of the licences current during this review were EPL228-05 (Ichthys LNG) and EPL217-05", and that "EPL217-05 was a renewal issued on 19 September 2025 for a period of 5 years". The licence now in force is EPL217-07, on the same licence period.

a. On what dates were EPL217-06 and EPL217-07 issued, and what did each change?

EPL217-06 was issued on 26 May 2026. This amendment comprised:

1. A change to Condition 41.3 to include a reference to Condition 42; and
2. Changes to Condition 43 to clarify that hot venting limits apply each calendar year and allow the NT EPA to authorise additional days of hot venting.

EPL217-07 was issued on 3 June 2026. This amendment was an administrative amendment to the Condition 43 of EPL217-06, made pursuant to s 46AA of the *Waste Management and Pollution Control Act 1998*, to clarify the meaning of the condition.

b. EPL217-07 is dated 3 June 2026, before the Review was approved on 14 July 2026. Were the Review's findings and recommendations assessed against the licence as then amended, and in which document is that assessment recorded?

Amendments to EPL217-05 and EPL217-06 were minor and did not affect the review.

c. **Did either amendment address any matter later the subject of a recommendation in the Review?**

No.

14. **The Darwin Airshed LNG Licence Review makes 23 recommendations. Please provide, in table form, for each of the 23: whether it is accepted, accepted in principle, not accepted or under consideration; the date of that decision; its implementation status; and, where not yet implemented, the expected date.**

The NT EPA has endorsed all recommendations, with implementation subject to amendment processes under the *Waste Management and Pollution Control Act 1998*. Anticipated timeframes and updates are published here: https://ntepa.nt.gov.au/your-environment/air-quality/darwin-airshed-emissions-management.

Recommendations 10-11 are being implemented through the Environment Protection Act Amendment (Safe Air Bill) 2026, with updates to the regulations expected to follow in H1 2027.

a. **Which recommendations require amendment of an Environment Protection Licence, and for each, has the amendment process under section 38 of the *Waste Management and Pollution Control Act 1998* been commenced?**

Licence amendments are currently being prepared.

b. **Which recommendations have been assessed as requiring additional funding, and what amount has been allocated to each?**

None. Noting expansion of the government monitoring network (recommendations 10-11) will be funded through cost recovery from emitters.

c. **Recommendation 11 is to "Require licensees to provide continuous ambient air quality monitoring data required under the licence to the public in real time, unless provided through other legislative mechanisms." Has it been accepted; which other legislative mechanisms does the Authority consider apply; and from what date will the data be publicly available?**

The Safe Air Bill was introduced in August and will allow establishment of an air quality monitoring scheme to expand the government owned and operated network, funded by industry.