



Environment Legislation Amendment (Safe Air) Bill 2026

CAHA Submission

September 2026

Introduction

The Environment Legislation Amendment (Safe Air) Bill 2026 (the **Safe Air Bill**) was tabled in the Legislative Assembly on 26 August 2026 and referred to the Legislative Scrutiny Committee (the **Committee**). The Committee is conducting an inquiry into the Safe Air Bill and has called for public submissions in consideration of the Committee's Terms of Reference.

The Climate and Health Alliance (**CAHA**) is Australia's peak body on climate and health. CAHA represents a coalition of health and medical groups, academic and research institutions, health care service providers, Indigenous health organisations and unions in every part of Australia. Together, we pursue fair and equal access to health by tackling environmental and social determinants of health. We have individual and organisational members in the Northern Territory who we have supported to provide health evidence to Territory and Federal Governments in regard to addressing health risks for Territorians.

All humans have a right to live in a clean, healthy and sustainable environment, however, communities across Australia are breathing in dangerous air pollution. Clean air is one of CAHA's 2026 priorities and we are currently working to advocate for a federal Clean Air Act

capable of protecting people from air pollution, a healthy and equitable transition to renewable energy and a healthier, cleaner and greener transport system.¹

Advocating for clean air is clearly within the CAHA's mandate because hotter temperatures caused by climate change influence air pollution in many ways. One is by making bushfires more frequent and intense, which is already a major factor placing Darwin's health at risk. Hotter temperatures also facilitate the formation of harmful secondary air pollutants from pollutants emitted by industry. This includes ground level ozone and formaldehyde, within the atmosphere from volatile organic compounds, nitrogen oxides and other chemicals emitted by the LNG industry and during flaring. Furthermore, there is evidence that hotter temperatures stress the human body and amplify the harmful impacts of hazardous air pollutants. This is clearly of paramount importance when considering the extremely hot temperatures in tropical Darwin.

Clean air legislation, if accompanied by adequate accountability, transparency and enforcement mechanisms, that prioritise public health and limit industrial emissions would improve air quality, public health and the quality of life for all Australians.²

At the outset, CAHA submits that the Safe Air Bill should be significantly amended. We argue that additional expertise is required to ensure that the Bill meets its objectives of protecting health within real world practice.

Due to the public importance of this Bill, given the known and rapidly emerging understandings of public health risks posed by emissions of industrial pollutants, most particularly volatile organic compounds (**VOCs**), oxides of nitrogen and specific air toxics (including carcinogenic benzene and N-hexane), CAHA submits the Committee should **hold a public hearing** before making any decisions on the levels of permitted air pollution into Darwin's airshed and finalising their report to the Legislative Assembly.

¹ Climate and Health Alliance, '[Our Focus in 2026](#)' (web page); Climate and Health Alliance, '[CAHA The right to clean air- full video](#)' (8 August 2025).

² Dr Louise Woodward, '[A suffocating health crisis: the gas industry permitted to pollute with impunity](#)' (media release, 1 September 2025).

About CAHA

CAHA is a national charity and the peak body on climate change and health in Australia. CAHA is an alliance of organisations within the health sector working together to raise awareness about the health risks of climate change and the health benefits of emissions reductions. The membership of CAHA includes a broad cross-section of health sector stakeholders, representing healthcare professionals from a range of disciplines, as well as healthcare service providers, institutions, academics, researchers, and consumers.

Acknowledgement

CAHA acknowledges the Traditional Custodians of the lands and waters across the region, including Aboriginal and Torres Strait Islander Peoples in Australia, Māori in Aotearoa, and the Indigenous peoples of the Pacific. We recognise their enduring sovereignty, deep cultural knowledge, and continuing connection to the place. We commit to listening, learning, and working in ways that honour and reflect Indigenous ways of being and knowing in our shared pursuit of health equity.

Background

Unlike other capital cities in Australia, Darwin is home to significant industrial development within close proximity to people including residences, schools and hospitals.

LNG facilities are located in close proximity to communities

The Ichthys facility operated by Inpex Operations Pty Ltd (**Inpex**) and the Darwin LNG facility operated by Santos NA Darwin Pipeline Pty Ltd (**Santos**) are liquified natural gas (**LNG**) processing facilities located on the Middle Arm Peninsula between 4-10km from the closest residences in Palmerston and Darwin City.³ The NT Government is proposing to further develop the Middle Arm Peninsula through the Middle Arm Sustainable Development Precinct which will include LNG export petrochemical manufacturing facilities, approximately 3km from residences in Palmerston.⁴

Known health impacts from these industries

From a health perspective, CAHA is particularly concerned with, what one could argue is essentially the **co-location** of LNG facilities with local communities in the Darwin-Palmerston region. As stated in the Department of Lands, Planning and Environment's own review of Darwin airshed LNG licenses, LNG processing facilities in particular, emit volatile organic compounds (**VOCs**) including benzene, toluene, ethylbenzene and xylene (**BTEX**) which present significant risks to public health.⁵ Based on continually emerging research evidence, CAHA member the Public Health Association of Australia has identified that living near shale gas wells, pipeline compressor stations and near petrochemical facilities and fossil fuel refineries has serious implications on a range of health issues. These implications include adverse birth outcomes (babies born lighter, earlier, with more complications and a higher risk of birth defects), associated with exposure to petrochemical air pollutants. They also include increased incidence of respiratory conditions and cancer rates in both children and adults from residences in close proximity to gas and petrochemical facilities; and increased risk of cardiovascular disease, due to air pollution containing heavy metals such as mercury, arsenic and chromium.⁶ Additionally, a 2020 systemic review found that populations living within 5km of petrochemical facilities had a 30% higher risk of developing leukaemia due to exposure to toxic and hazardous emissions.⁷

³ The [Ichthys facility](#) is located 4km east of residences in Palmerston and 10 km south east of the Darwin CBD. The [Darwin LNG facility](#) is located approximately 10km from Palmerston and 6km from Darwin CBD.

⁴ The Middle Arm Sustainable Development precinct has been [referred](#) to the NT Environment Protection Authority for environmental assessment.

⁵ Department of Lands, Planning and Environment, '[Darwin Airshed LNG Licence Review](#)' (July 2026) p 12.

⁶ Environment and Communications References Committee, '[Middle Arm Industrial Precinct](#)' (August 2024), p71.

⁷ Jephcote, C, et al, '[A systematic review and meta-analysis of haematological malignancies in residents living near petrochemical facilities](#)' (9 July 2020).

It is therefore imperative that public health is the primary consideration at each decision point regarding industries that emit VOCs and other air pollutants should be a consideration for the Committee in its inquiry into the Safe Air Bill. We ask the Committee to consider: will the Safe Air Bill make our air safe?

VOCs are not adequately monitored or regulated

The Northern Territory Environment Protection Authority (**NT EPA**) regulates the emission of VOCs through conditions in environment protection licenses granted under the *Waste Management and Pollution Control Act 1998 (NT)* (**WMPC Act**). Both the Ichthys LNG facility and the Darwin LNG facility have been granted environmental protection licences under this regime. These licenses include clear conditions on the monitoring and reporting of emissions.⁸ However, these licenses do not include conditions limiting the release of VOCs to a particular level. In relation to emissions, the license holders are required to apply best practice to the management of emissions and reduce emissions “as far as reasonable and practicable.”⁹ In relation to the Ichthys facility, minimising emissions of benzene to the maximum extent practicable;¹⁰ and in relation to both facilities: minimising the release of VOCs during flaring using all reasonable and practicable measures.¹¹

The current licensing regime is failing. In September 2025, the NT EPA acknowledged that despite being aware of a design fault at the Darwin LNG facility since 2006 that caused methane to leak into the atmosphere, the regulator approved use of the LNG tank for the following 18 years and approved continued use, and resulting fugitive emissions of methane, of the facility until 2050.¹² Furthermore, in October 2025, Inpex announced that they had significantly under reported emissions of total VOCs from the Ichthys facility (contrary to their license conditions), located just 4km from residences in Palmerston, by up to 2,000 tonnes.¹³ In August 2026, the NTEPA commenced prosecution of Inpex for this under-reporting. It is important to note that INPEX are being prosecuted for under-reporting their emissions; they are not being prosecuted for emitting a high volume of VOCs.

This distinction is important

The Department’s Darwin Airshed LNG License Review unsurprisingly found the environment protection licenses issued to both INPEX and Santos should be strengthened including to:¹⁴

- introduce concentration and mass emission limits for pollutants;
- require continuous emissions monitoring on major emission sources;
- manage cumulative impacts from concurrent facility activities; and

⁸ [EPL 228-05](#) grants environmental approval of the Ichthys facility and [EPL 217-07](#) grants environmental approval of the Darwin LNG facility.

⁹ Ichthys Facility, EPL 228-05, condition 27.3 and Darwin LNG, EPL 217-07, condition 23.3.

¹⁰ Ichthys Facility, EPL 228-05, condition 41.

¹¹ Ichthys Facility, EPL 228-05, condition 46.1 and Darwin LNG, EPL 217-07, condition 40.1.

¹² Northern Territory Environment Protection Authority, ‘[NT EPA Chair – Methane Emissions at Darwin LNG facility](#)’ (media release 2 September 2025).

¹³ INPEX, ‘[INPEX LNG emissions reporting](#)’ (media release 23 October 2025).

¹⁴ Department of Lands, Planning and Environment, ‘[Darwin Airshed LNG Licence Review](#)’ (July 2026) p 8-9.

- improve monitoring, reporting and publication of environmental information.

The NTEPA have endorsed all recommendations and, CAHA understands, is currently in negotiation with the license holders to amend their license conditions.

In CAHA's submission, the Safe Air Bill should be amended to reflect the findings of the Departmental review, incorporating the recommendations into a regulatory framework; rather than relying on the regulator's discretion to include this level of detail in conditions.

A human health risk assessment of the whole of Darwin airshed is needed

CAHA remains concerned that the true health risks from this industry on surrounding communities has not been comprehensively considered. The recently released Preliminary Human Health Risk Assessment of Emissions from Ichthys LNG Acid Gas Removal Unit Hot Venting (**HHRA**), commissioned by the Chief Health Officer ultimately found current levels of benzene and toluene (two of the BTEX pollutants) are acceptable and below health-based guideline values.¹⁵ It is important to consider this conclusion in light of the following limitations with the report.

The HHRA cannot fully characterise the public health risk because it fails to consider the cumulative impacts of all VOCs/air toxics emitted into the Darwin airshed – by design, the HHRA only considered:

- emissions of benzene and toluene (excluding co-pollutants, such as, at the very least, ethylbenzene and xylenes and secondary pollutants, such as ozone);
- from the Acid Gas Removal Unit (excluding other emission sources, including ship loading docks); and
- at the Ichthys LNG facility (excluding the Darwin LNG facility).

Globally, regulatory agencies differ with respect to what is deemed an acceptable level of a pollutant concentration and an acceptable cancer risk (for example, the US EPA has used a guide to determine acceptable level of risk based on the [1989 Benzene National Emission Standard for Hazardous Air Pollutants \(NESHAP\)](#) rule. The rule sets an upper limit of acceptable risk at about a 1-in-10,000 (or 100-in-1 million) lifetime cancer risk for the most exposed person). The HHRA must be critically evaluated bearing in mind that choices were made as to which health-based standards would be used to assess the risk, which accordingly influences the risk conveyed to the public.

The HHRA itself recommended:

- "Future assessments be based on further air quality dispersion modelling that considers Facility-wide, rather than just hot venting AGRU emissions and that emissions for ethylbenzene and xylene also be included at a minimum;"

¹⁵ SLR Consulting, '[Independent Preliminary Human Health Risk Assessment of Emissions from Ichthys Liquefied Natural Gas Acid Gas Removal Hot Venting.](#)' (26 February 2026) p 30 (**HHRA Report**).

- “An independent long term monitoring program for BTEX in the Darwin airshed would be useful, especially to evaluate cumulative exposures from all current and future developments at Middle Arm;” and
- “A screening-level, Darwin airshed-wide HHRA be undertaken that considers all significant BTEX sources across facilities, including (but not limited to) hot venting, acid gas incinerators, ship loading, tank venting and other relevant point and area sources” to “enable assessment of cumulative exposures and scenarios where multiple sources operate concurrently.”¹⁶

A whole of Darwin airshed monitoring program, independent from industry, is required

CAHA has concerns regarding the integrity of the data upon which recent assessments were conducted. The HHRA was conducted by SLR Consulting Australia (SLR) who used air quality dispersion modelling undertaken by Environmental Resources Management Australia (ERM) at face value.¹⁷ ERM were engaged by Ichthys LNG Pty Ltd to complete atmospheric dispersion modelling of AGRU hot venting emissions at the Ichthys LNG facility.¹⁸ Alongside the HHRA, the NT EPA commissioned Air Environment to conduct an independent technical review of the Ichthys LNG emissions data, ERM air quality modelling and Ichthys LNG monitoring program. Air Environment relied on these datasets as the NTEPA does not independently monitor air toxics.

Air Environment found:

- ERM’s air quality modelling “assessment scope is limited to Acid Gas Removal Unit (AGRU) hot venting scenarios only, rather than providing a comprehensive facility-wide air quality impact assessment of BTEX emissions”;¹⁹
- “limitations include incomplete BTEX compound coverage (addressing only benzene and toluene while omitting ethylbenzene and xylenes), insufficient methodological detail regarding emission estimation procedures, and a five-year modelling period rather than covering the specified 2018-2025 operational period;” and
- “[t]he health risk assessment relies on this incomplete modelling”.²⁰

In light of these clear deficiencies, Air Environment recommended that:

- “The NT EPA should require a complete air quality impact assessment encompassing all BTEX emission sources, cumulative impacts, and worst-case operational scenarios.
- The air quality impact assessment should cover the entire period of operation of the ILNG plant rather than just the most recent five-year period.
- The health risk assessment should be revised to account for the updated air quality impact assessment.

¹⁶ HHRA Report, p 30.

¹⁷ HHRA Report, p.7.

¹⁸ HHRA Report, p.6.

¹⁹ Air Environment Consulting, [‘Technical review prepared for Department of Lands, Planning and Environment – Ichthys LNG Emissions Review.’](#) (20 February 2026), p.12 (**Air Environment Report**).

²⁰ Air Environment Report, p. 12.

- The NT EPA should establish a short-term independent background monitoring campaign (as a minimum) for BTEX compounds.”²¹

Air Environment also analysed a BTEX ambient air quality monitored dataset, collected across three locations in Darwin (Ben's Hill, Frances Bay and Palmerston) by Inpex from July to October 2025. While Air Environment notes that there were no exceedances of the one-hour average guideline value for benzene (9 ppb) nor the one-hour average guideline value for toluene (90 ppb), there were exceedances of the one-hour average guideline value for xylene (40 ppb) at Ben's Hill and Frances Bay.²² With respect to twenty four-hour average concentrations, Air Environment notes “all 24-hour average concentrations were well below the relevant health-based guideline values.”²³ However, when evaluating a xylene exceedance on 11 September 2025,²⁴ Air Environment notes “Direct flows from ILNG, however the plant was in shutdown during this period meaning that it cannot be attributed to ILNG. Exceedances three days in a row” (emphasis added).²⁵ It appears that the Ichthys LNG facility was in a planned maintenance shutdown from August to October 2025 and may have been in an unplanned shutdown prior to that.²⁶

CAHA is concerned that Air Environment's headline findings in relation to the ambient monitoring program (for example, “monitoring data from July to October 2025 shows compliance with applicable air quality guidelines, with benzene concentrations remaining well below relevant criteria and only brief, non-persistent increases in other BTEX compounds”) misconstrues the reality that for at least some of the time during which the ambient air monitoring was carried out, the Ichthys LNG facility was in shutdown and so the monitored data could not accurately represent a BAU situation (let alone a scenario where one or both of the AGRUs are offline).

A legislated whole of airshed monitoring program, independent from industry, and managed by the NT EPA, is needed to address these issues.

²¹ Air Environment Report, p 13.

²² While not specified in the Air Environment Report, we assume that these guideline values are referencing the following: NSW EPA, “Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales” (Table 12: *Impact assessment criteria (mg/m³ and ppm) for principal toxic air pollutants (Victorian Government Gazette 2001, p.29).*

²³ Air Environment Report, p.40.

²⁴ There were five exceedances at Ben's Hill: 13th and 15th of August and 9th to 11th September and four exceedances at Frances Bay: 8th July, 6th September (two exceedances) and 16th October.

²⁵ Air Environment Report, p.39.

²⁶ Territory Q, “[INPEX: Transitioning with the Territory](#),” (4 July 2025); Petroleum Australia, “[Inpex Bladin Point Plant Temporarily Halted](#),” (22 August 2025).

Concerns with the Safe Air Bill

CAHA has heard from medical professionals in Darwin who are concerned that harmful air toxics are being emitted into the Darwin airshed, within 5km and 10km from the communities of Palmerston and Darwin (their residences, childcare centres and schools, workplaces and recreational areas) and are not appropriately regulated by the NT EPA. The public has become privy to the reality of the scale of the emissions of these VOCs/air toxics by industry – in October 2025, Inpex publicly disclosed that they had been significantly underreporting emissions of VOCs from their Ichthys facility,²⁷ and in particular by almost 2,000 tonnes in 2023-2024.²⁸ The public now needs the government to introduce reforms to protect them and ensure that the “air they share” is safe.

The Safe Air Bill fails to do this.

We address below the specific failings of the Safe Air Bill in accordance with the Committee's Terms of Reference.

Insufficient regard to the institution of Parliament

The Committee's Terms of Reference require it to consider whether the Safe Air Bill has sufficient regard to the institution of Parliament.²⁹ This includes considering whether the Safe Air Bill creates law that operates in accordance with the separation of powers between the Legislature and the Executive.

The Safe Air Bill only creates a power which gives rise to a discretion, not a requirement, to establish an environmental monitoring scheme, which could include an air quality monitoring scheme. The establishment of an air quality monitoring scheme is not mandated and none of the critical details about how an air quality monitoring scheme would operate, nor any prescriptive protective measures, are in the Bill.

For example, the bill does not specify:

- what specific pollutants will be monitored;
- how the pollutants will be monitored (i.e. in the ambient air or at the 'point source'/stack);
- whether the monitoring data will be publicly disclosed;
- whether there will be public health standards / pollutant concentration thresholds implemented by which the monitored data will be evaluated to ensure that the air populations are exposed to is safe to breathe;
- any notification, investigation or enforcement measures in relation to an exceedance of such standards / thresholds;
- any new duties or requirements on industry with respect to safeguarding air quality.

²⁷ Northern Territory Environment Protection Authority, '[Emissions reporting from Ichthys LNG facility](#)' (Media Release, 23 October 2025).

²⁸ INPEX, [INPEX LNG emissions reporting](#) (Media Release, 23 October 2025).

²⁹ Legislative Assembly of the Northern Territory, Legislative Scrutiny Committee, Terms of Reference, cl 3(b)(iv).

The Safe Air Bill stipulates that the regulations may provide for some of these details, including “the actions and the region/area to which a scheme applies”; “the establishment, operation and administration of the scheme”; “compliance, enforcement and reporting requirements in relation to the scheme”; as well as “any other matter necessary or convenient for the establishment, operation or administration of the scheme”.³⁰

As regulations are created by the Executive, the power to establish an environmental monitoring scheme, including all of the operative and technical details, under the Safe Air Bill are not subjected to the checks and balances of the Legislative Assembly. Many important decisions under the Safe Air Bill are not being made by the Legislative Assembly but instead are being unacceptably deferred. The bill goes beyond delegating technical matters necessary to administer legislation – it unacceptably delegates the substantive content of a regulatory protection regime.

Insufficient regard to the rights and liberties of individuals

The Committee is required to inquire into and report on whether the Safe Air Bill has sufficient regard to the rights and liberties of individuals. All people have the right to live in a clean, healthy and sustainable environment as well as the right to information, participation and access to justice.³¹ The principles of natural justice are synonymous with the requirements of procedural fairness which dictate that persons affected by administrative decisions must be given a meaningful opportunity to participate in decision-making processes, which can include through public consultation.

While we thank the Committee for this opportunity to make a submission in response to the Safe Air Bill, there have been no other opportunities for members of the public, including health professionals, to be consulted in the drafting of the Safe Air Bill. The Minister for Lands, Planning and Environment stated in Parliament that the environmental monitoring scheme was being devised in consultation with industry experts, health authorities and community stakeholders, yet none of our members have been consulted on the scheme.³² The Safe Air Bill is the Territory’s first attempt to legislate an air quality monitoring scheme that upholds the rights of individuals in the Territory to live in a clean and healthy environment as well as the right to information. It is therefore critical that the scheme is established correctly and in consultation with members of the public.

We understand that development of Regulations is not often subject to public scrutiny. We therefore encourage the Minister to conduct public consultation during the development of the Regulations in order to ensure the environmental monitoring scheme is developed consistently with the principles of natural justice.

³⁰ Environment Legislation Amendment (Safe Air) Bill 2026, cl 4 (insert proposed section 126B).

³¹ United Nations Human Rights Office of the High Commissioner, ‘[What is the Right to a Healthy Environment?](#)’ (undated) p 5.

³² Northern Territory, [Parliamentary Debates](#), Legislative Assembly, 26 August 2026, 19 (Joshua Burgoyne, Minister for Lands, Planning and Environment).

Access to information

Despite acknowledging the harms caused by BTEX and other VOC's to human health, the NT EPA does not currently monitor nor report on VOCs present in the atmosphere.³³ Even though the Minister for Lands, Planning and Environment proposes that the environmental monitoring scheme will support publicly available air quality data, the Safe Air Bill fails to mandate a requirement that any environmental monitoring data be made publicly available.³⁴ In order to promote a transparent government and uphold the individual right to access information, the Safe Air Bill should include a mechanism which ensures monitoring data generated through an environmental monitoring scheme is made publicly available by the NT EPA in an accessible form that is easy to use and understand. CAHA are of the view that the public should be informed about what a normal VOC concentration limit is and what constitutes an exceedance of the normal limit. Noting the serious public health implications of BTEX and other VOCs released in close proximity to residences, the public should also be provided with assurance that the regulator will act to prevent any exceedance of the normal VOC limit from occurring.

Recommendations

The Safe Air Bill is a missed opportunity to introduce genuine protections for air quality in Darwin. It should be amended significantly as outlined in our recommendations below.

1. Hold a public hearing and, in particular, invite public health, medical / healthcare professionals, scientists and occupational hygienists to give evidence on:
 - a. current scientific knowledge on the health impacts of VOCs/air toxics, including BTEX, and the pollutant concentration threshold limits that trigger these impacts (including the risk of developing cancer due to exposure of benzene) for populations living within 5km and 10km of LNG facilities;
 - b. best practice risk management guidelines for hazards and health impact of VOCs/air toxics, including BTEX;
 - i. for example, air pollution mitigation strategies for operators to implement if an exceedance of the threshold concentration limit is breached;
 - c. best practice evidence based public health standards for emissions of VOCs/air toxics, including BTEX;

³³ Department of Lands, Planning and Environment, '[Darwin Airshed LNG Licence Review](#)', (July 2023) p23.

³⁴ Northern Territory, [Parliamentary Debates](#), Legislative Assembly, 26 August 2026, 19 (Joshua Burgoyne, Minister for Lands, Planning and Environment).

2. Recommend the Legislative Assembly:

- a. Conduct genuine community consultation for the development of environmental monitoring schemes;
- b. Amend the Safe Air Bill as follows to legislate:
 - i. parameters for an environmental air-monitoring scheme, including:
 1. which industrial pollutants must be monitored (as a minimum, BTEX, with further air toxics determined by reference to the Air Toxics NEPM Tier 2 Prioritisation Methodology – Table 1³⁵);
 - ii. public health evidence-based threshold levels for ambient air and point source concentration levels of those pollutants;
 - iii. notification, investigation and enforcement requirements where those threshold levels are exceeded;
 - iv. guaranteed publication of monitoring data in an accessible form (including disclosure of the public health standards against which the monitored data is assessed to determine whether or not there have been any exceedances triggering notification, investigation and enforcement;
 - v. mandatory recovery of the full costs of monitoring by industrial operators that create environmental or public health risks, strengthening the polluter-pays principle; and
 - vi. independent review mechanism for environmental monitoring schemes.

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³⁵ National Environment Protection Council, 'National Environment Protection (Air Toxics) Measure, Air Toxics Tier 2 Prioritisation Methodology' (June 2006), Table 1, p.16.