



Legislative Council Economy and Infrastructure Committee

Inquiry: Inquiry into the development and expansion of waste-to-energy (WtE) infrastructure in Victoria

Hearing Date: 26 May 2026

Question[s] taken on notice

Directed to: Dr Peter Tait

Received Date: 2 July 2026

Additional questions on notice from David ETTERSHANK

In 2024 the Public Health Association Australia produced a policy statement highlighting some suggested policy and regulation for the development of WtE. These included:

- A precautionary approach to licensing and monitoring
- For third party baseline population studies and long-term surveillance
- Strict health and safety standards for workers
- Incinerators designed to meet the Stockholm Convention guidelines
- Strict upgrades and maintenance schedules
- Locating WtE plants away from food production

1. Question Asked:

Are you satisfied that the Victorian government is implementing any of these policies or regulations?

Response: I haven't investigated what measures the Victorian government is planning to monitor or regulate any of the proposed WtE facilities so can't say.

2. Question Asked:

What do you see as the dangers if these policies and regulations are not followed?

Response: There would be risk to health from exposure to WtE emissions and, if monitoring not undertaken to make sure regulations are being followed then no way for anyone, public health departments and the general public to know what exposures are occurring.

3. Question Asked:

Can any of these procedures or regulations be adopted later, if plant operators are found to be operating in an unsafe manner?

Response: They can, but unless before and after start up monitoring of emissions and exposures is being undertaken, then we won't know if "operating in an unsafe manner" is occurring before adoption. This fails to assure the community that the government is serious about their wellbeing. It may be that exposures are occurring without any recognition of that occurring.

Additional questions on notice from Rachel PAYNE

Overview of Submission:

PHAA did not make a submission. The following is from their [WtE Policy Position paper](#). As well as their 2020 paper, "[The health impacts of waste incineration: a systematic review](#)"

4. Question Asked:

In your WtE policy position paper, you identify incinerator workers as a potential at risk population group. What additional workplace health and safety measures or monitoring if any should apply to protect WtE facility workers?

Response: I don't know the precise Victorian legislation or situation but assume that standard work health and safety regulations are being followed. If not already happening, as public health practitioner I would want to know if workers are being exposed to toxins by monitoring of the workplace and perhaps by bio-monitoring of workers themselves.

5. Question Asked:

In your WtE policy position paper, you suggest adopting systemic approach to address the drivers of waste. What are the political and economic drivers of waste and what policies should be adopted to ensure these factors are being addressed?

Response: The current socioeconomic system drives consumption of material across all sectors of society that both draws down on environmental reserves and produces waste that needs to be managed. We value and measure throughput by GDP.

A more recent paper, Tait, P.W.; Salmona, J.; Sandhu, M.; Guscott, T.; King, J.; Williamson, V. Economic, Environmental, and Sociopolitical Aspects of Waste Incineration: A Scoping Review. Sustainability **2025**, 17, 5528. <https://doi.org/10.3390/su17125528>, concluded with the recommendations:

1. WtE-I should not be relied upon as a significant and enduring component of the energy supply and waste management in the Australian context.

Instead, Australian governments need to **pursue waste minimisation and diversion policies aggressively**;

2. Australian state/territory and local governments should more proactively involve communities in waste management planning across the spectrum from reducing to disposal;

3. **More progressive waste management strategies should be adopted to facilitate the move towards renewable energy and waste** (emphasis added).

In other words, strengthening and implementing existing National Waste Management Strategy and Plan, bring on the Circular Economy advocated for in that Strategy and strengthen the Strategy by clearer targets and incentives for industry and businesses to change. A focus on reduction as the primary action, with the redesign for better reuse, repurposing, repairing and finally recycling supporting that.

6. Question Asked:

You highlight that ingestion is considered the primary exposure route for the public and suggest that incinerators should be located away from food production and food grown near incinerators should be avoided. What would you consider a safe distance?

- a. Should consumers know if their food has been produced near a WtE facility? If so, what measures should be implemented to inform consumers e.g., labelling?
- b. Is there any way to measure ingestion pathways? What does best practice look like? Who should be measuring and monitoring this?

Response: a. In an ideal situation consumers should know a lot more about the provenance of their food. So this could include if the produce they are eating has been grown near an incinerator. However, in reality, how to work out what “near” means is very difficult. Possible contamination of food depends on several weather variables such as wind direction and speed, rain, interacting with other factors such as chimney height, local topography, and other factors. The food safety division within VicHealth who do the monitoring and testing of food quality for Victoria would be the people to ask for their opinion on how to do this. FSANZ can ask for testing to happen if the federal minister were to request it.

b. In the 'real world' situation, looking for ingestion pathways would be very complicated. Monitoring for toxins can be done by sampling soil and produce in the vicinity of incinerators (as above, *vicinity* is an elastic distance), and by blood and possibly urine testing of people (and animals). I

haven't the expertise to advise on the exact methods to do this. Again VicHealth may be the people who can advise.

7. Question Asked:

Do you see a risk that WtE infrastructure could concentrate environmental and health impacts in lower income, industrial, or regional areas? If so, what implications does this have on public health? How should governments consider equity within decision-making?

Response: Experience shows that there is always the 'danger' that lower socioeconomic areas have unsafe or dangerous industries sited in their neighbourhoods. However in Australia it seems that it is regional and rural communities that are facing this hosting of WtE infrastructure. Siting such facilities in industrial areas may be more defensible.

8. Question Asked:

In the six years since your 2020 paper "The health impacts of waste incineration: a systematic review" was published, has any significant evidence emerged to suggest that newer incinerator technologies may reduce exposure?

- a. In absence of evidence, you suggest that a precautionary approach should be adopted. In your opinion, is the Victorian Government's approach in line with this principle? What should they do to ensure they are?

Response: We would expect that being able to detect health effects from newer incinerator technology and newer regulations would depend on the health effects being looked for. We would expect impacts such as pregnancy effects or birth defects to be apparent relatively soon (years) as opposed to other effects such as cancers which might take decades to emerge. Further, for a trend to be noticed large numbers of people need to be studied over these periods.

In a more recent review of the literature between 2018 and 2024, which was not accepted for publication, there were only a small number of studies, not of particularly high quality, which showed roughly equal numbers of studies showing ill effects, equivocal effects and some adverse effects.

So it is not possible to say if there is a change in the incidence, either worsening or improvement, of adverse health effects in more recent years. That is, there is lack of evidence either way.

Therefore a precautionary approach is essential. Observing the way the Victorian government is going ahead with WtE proposals, it would seem a precautionary approach is not being taken.

9. Question Asked:

You discuss some of the potential physical health impacts of WtE. Is there any research investigating the social and emotional impacts on communities, what are the potential outcomes?

Response: I haven't looked at this formally. It is obvious from media reports and listening to submissions to the UN Special Rapporteur on Toxics and Human Rights, Marcos A. Orellana, on his visit to Australia, 28 August to 8 September 2023, that there is distress in communities who are being asked to host facilities. Personal interactions with some groups also gives evidence of this distress. While distress isn't a full diagnosis of a mental health issue, it nonetheless adversely affects people's well-being.

(see Marcos A. Orellana, 2023, End of Mission Statement by the UN Special Rapporteur on Toxics and Human Rights on his visit to Australia.)