

The Hon Penny Sharpe MLC

Minister for Climate Change, Minister for Energy,
Minister for the Environment, Minister for Heritage,
Leader of the Government in the Legislative Council



DOC24/919778

Professor Hugh Durrant-Whyte
NSW Chief Scientist & Engineer
Office of the Chief Scientist & Engineer
Level 6, 52 Martin Place
Sydney NSW 2000

By email: nswchiefscientist@chiefscientist.nsw.gov.au

Dear Professor Durrant-Whyte

I write to you regarding the *Report from the Chief Scientist and Engineer on Energy from Waste May 2020* with additional advice as at November 2020. I note that the report was prepared in response to a request to your Office by the former Government to establish a working group to undertake a review of Energy from Waste (EfW) in NSW to ensure proposals adopt international best practice standards and controls to protect human health and the environment.

The report made several recommendations based on an independent expert review of the then draft NSW best practice air emission limits for EfW facilities. Subsequently, the NSW Energy from Waste Policy Statement was updated to reflect the advice on air emission standards provided in the report. The independent expert review recommended that best practice air emission limits were reviewed within three years.

Noting the above, I kindly request that you consider if there is any further advice that you would provide to the NSW Government on international best practice standards and controls for energy from waste facilities to protect human health and the environment. Further, could you please provide advice on the specific matters listed in Appendix A to this letter.

Your advice will assist the NSW Government as it considers measures to address the waste management needs of this state as landfills are soon to reach capacity.

If you require further information to assist you, please contact Juliet Corish, Manager Policy, Environment Protection Authority at juliet.corish@epa.nsw.gov.au or on 0448 853 787.

Sincerely,

Penny Sharpe MLC

Minister for Climate Change, Minister for Energy,
Minister for the Environment, Minister for Heritage

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Appendix A

Matters that the NSW Chief Scientist and Engineer is specifically asked to consider:

Emissions monitoring averaging periods

Representatives from the energy from waste industry have stated that it is not feasible to meet the air emission standards in Table 1¹ of the [NSW Energy from Waste Policy Statement](#)² on a 1-hour averaging period. While they are not opposed to reporting a facility's performance against a 1-hour averaging period, they consider that compliance with the air emission standards in Table 1 is only feasible if, for regulatory compliance purposes, facility performance is averaged over a 24-hour period. Could you please advise if it is technically and practically feasible for energy from waste facilities to be able to meet the air emission standards in Table 1 of the NSW Energy from Waste Policy Statement if performance is averaged over 1-hour periods.

Confidence intervals

Representatives from the energy from waste industry have stated that it is only feasible to operate an energy from waste facility if confidence intervals³ are allowed for continuous monitoring of emissions. They consider that adding confidence intervals helps account for variations inherent in the energy from waste process and in measuring equipment and minimises potential under or over-estimation of emissions levels. Could you please advise if it is appropriate from a technical perspective to include confidence intervals for measuring emissions from energy from waste facilities.

Ammonia slip

Currently, the emission standards in the NSW Energy from Waste Policy Statement set a concentration limit of 5mg/m³ averaged over 24-hours for ammonia. Representatives from the energy from waste industry have stated that setting ammonia slip at 5mg/m³ instead of 10mg/Nm³ will require additional equipment installation and chemical consumptions which have a negative environmental impact. Namely, they claim that the requirement to meet a 5mg/Nm³ ammonia slip stifles the ability to limit emissions of oxides of nitrogen (NOx). Could you please advise on the best ammonia slip emission standard for energy from waste facilities to protect human health and the environment.

¹ Excluding ammonia as that standard requires averaging over a 24-hour period.

² <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/waste/21p2938-energy-from-waste-policy-statement.pdf>

³ Probability that any measured value will fall within a stated range of precision i.e. +/- 5%.