National Waste and Recycling Industry Council

Friday, 3 March 2023

nationalgreenhouseaccounts@industry.gov.au

Department of Climate Change, Energy, the Environment and Water
GPO Box 3090,
Canberra ACT 2601,

Dear Sir/Madam,

The National Waste and Recycling Industry Council (NWRIC) is the principal business Council representing international and national business owners of the sector. Our members' investments include major landfills, resource recovery facilities, firming power facilities, all forms of collection services and a comprehensive range of secondary reprocessing/remanufacturing operations. Council members directly employ more than 16,000 Australians in more than 725 specialty industry-owned assets.

Council members strongly support the review of the National Greenhouse and Energy Reporting (Measurement) Determination 2008 (NGERs (Measurement) Determination) methods for solid waste disposal on land ahead of 1 July 2023. It is envisaged that DCCEEW's proposed amendments (subject to minor amendments as recommended below) will immediately address the concerns that have been raised regarding increased accuracy of reported data for site emissions and subsequently, increased accuracy of emissions reporting for the sector overall, as well as elements relating to the Safeguard Mechanism.

Landfills are an essential element in today's integrated waste management infrastructure, providing a cost effective and reliable disposal of non-recyclables and the processing of residuals and unsorted wastes.

It is important to note that in terms of landfill emissions that these are a continuum generated over the full lifecycle of a working landfill facility and for an additional period of up to 30 years post closure. Where larger facilities exist, this could equate to a landfill lifecycle for methane management of more than 85 years that operators have responsibility to manage.

In response to the proposed amendments Council provides in addition to its specific feedback three questions for the departments consideration. These questions are predicated on the fact that our industry considers regulation reforms must be enduring and that in order to ensure the sector operates under the principle of worlds best practice, ongoing flexibility and currency must be retained within any reporting mechanism to maintain an effective reporting model that coexists with an ever-changing business operating environment that is constantly impacted by technological changes.

Council members do not support 'a set and forget reporting mechanism' as such a regulatory design impedes and undermines the industry's confidence of advancing technological investment and the sectors innovation in terms of the dynamic working environment of landfill management practices.

Council advocates:

1. Should periodic reviews of equation 5.15C be agreed to reflect evolving best-in-class industry practices? If so:

a) What is an appropriate frequency of such reviews? And b) What forums are appropriate to conduct these reviews?

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Further, in terms of 5.15C we advocate that minor amendments be made to reflect industry capping practices and improvements to capping technologies that have advanced since the development of the original methodology:

- Members advocate that capping utilising a phytocap to be elevated as A5. Phytocap technology has significantly advanced since Method 2 was originally released, and research has identified that phytocapping is now accepted as an engineered final cap can be as effective as a final clay cap over of 1 metre or greater (for example, refer to Venkatraman, Kartik & Ashwath, and Nanjappa, (2022), and Phytocaps Reduce Methane Emission from Landfills).
- Members advocate that the word **'final'** also be removed from 5.15C A4(b) and A5(a). Progressive clay capping is currently used as a landfill management technique, which assists to reduce emissions to atmosphere. These clay caps are not always final but have the same emission reduction benefits to the relevant section of the landfill and combinations of clay cover and geo – membranes also offer alternate flexibility.

Members strongly support the proposed updates to Method 1 which recognises that landfill gas collection efficiency up to 95% is achievable:

- The proposed amendments will encourage landfills to improve their gas collection efficiencies, without the perverse outcome of increasing emissions.
- The proposed move to utilise 5.15C in Method 2 to assist to calculate collection efficiencies for landfills will encourage landfills to use improved capping techniques that will assist to drive up landfill gas collection and reduce emissions from the sector.
- The proposed approach enables a more tailored method to determine site specific emissions, without imposing additional significant costs or administrative burden on reporters.

Additional considerations in amendments to Method 1 post 1 July 2023 are:

- The changing nature of waste, including from improved waste management practices and governments own waste policies, means that the waste compositions included in NGERs (Measurement) Determination may / will become outdated. It is proposed that the overall scope of these compositions be considered for adjustment to include consideration of food organic garden organic (FOGO) practices, and the increased use of bioplastics in defaults.

- The continued development of 5.15C to align its application to what is physically occurring at landfills. Specifically, assessment of the default percentages assigned to A2 to A5 and the consideration of other capping technologies such as biocovers. This will assist Australia's reporting outcomes to better reflect the actual outcomes of landfilling and ensure that accurate emissions data is obtained.

Council also advocates for DCCEEW consideration:

2. Ensuring industry best practice is maintained managing the complexities of wastes landfills are now accepting, how can the equations provided better reflect each of A3, A4, and A5 calculations of having a range of capture efficiencies that can accommodate evolving landfill gas cover and gas capture infrastructure practices.

As example -What activities (i.e., flux measurements over landfills) are required to demonstrate higher capture efficiencies than that prescribed in the equation? And how often should these activities be undertaken?

3. Is there an appropriate point in time--during the financial year or calendar year—to apply the equation that reflects a more stable operating environment or is that date be flexible?

Council also reaffirms its agreement that in order the proposed reforms are enduring, and any changes made reflect the real operating environment, the arranged meeting between DCCEEW representatives and industry at a Victorian landfill facility proceeds as soon as can be arranged.

Council offers dates in either March or April be accommodated during the consultation period to better reflect a greater understanding and opportunities for improvement over all of the future reporting system

The Council endorses and supports all its individual member responses, as these provide more concise and representative operational insights into the role NGER's play and of interaction with the industry's commercial and other business operating environments.

Yours Sincerely

National Waste Recycling Industry Association

Rick Ralph

Chief Executive Officer