

Ms Nancy Chang
Interim CEO
NSW Environmental Protection Authority
Locked Bag 5022
Parramatta NSW 2124
Submission via email: EnvSolCLR.Requests@epa.nsw.gov.au

2 October 2026

Dear Ms Chang

Re: New Organics Processing Facility Guidelines

Thank you for the opportunity to provide feedback to the NSW EPA on the new Organics Processing Facility Guidelines (“new guidelines”). The Waste Management and Resource Recovery Association of Australia (WMRR) as the national peak body representing Australia’s \$20 billion waste and resource recovery (WARR) sector, represents over 2,300 members across more than 380 organisations, spanning industry, government, research institutions and NGOs. Over a third of our membership is based in NSW, with WMRR representing more than 750 individual members from over 130 organisations.

Based on the most recent economic assessment available, the WARR sector contributed more than \$5.31 billion to the NSW economy annually and employed over 14,500 people. The sector delivers the essential service of managing waste while reducing emissions through methane abatement, organics diversion, material recovery, recycled-content manufacturing, soil products and energy recovery. These benefits rely on long-lived, capital-intensive infrastructure (including organics processing facilities) which are subject to complex planning, approval and licensing requirements.

The new guidelines replace and update the existing 2005 composting guidelines, and appropriately retain a performance-based, fit-for-purpose approach, using an ISO 31000 risk framework and proportionate controls rather than imposing a one-size-fits-all model. However, in being updated, they must also provide clear and practical direction for new operators and assessing officers who may not possess the technical expertise required to evaluate complex organics processing risks.

With food and garden organics (FOGO) mandates increasing and altering the composition of feedstock volumes, and increasing demand on processing capacity, operators need predictable planning and licensing pathways to invest and expand. Although the guidelines do not create legal obligations, by providing regulatory and technical guidance they will influence development and planning applications, Environment Protection Licenses (EPLs) and license variations, and may ultimately be incorporated into enforceable license conditions. WMRR therefore considers it essential that the guidelines align with existing regulatory frameworks, avoid creating unintended compliance requirements and provide benchmarks that operators and regulators can apply consistently and confidently.

In 2025, WMRR provided its comments to Arup for targeted early stakeholder feedback to shape the development of the new guidelines, calling for:

- the revised guidelines to retain a performance-based, technology-neutral approach while reflecting mandatory FOGO collections, emerging technologies including modular bioconversion units, and developing markets for byproducts such as digestate and biochar;
- updated regulatory, resource recovery and biosecurity references;

- clearer feedstock definitions and contamination thresholds;
- rejection and hazardous-material protocols;
- nationally consistent PFAS limits, testing and sampling methods;
- environmental controls and modelling to be proportionate to each facility's actual risks, rather than assuming conventional site-based composting or universal enclosure; and
- aligning waste-risk categories with EPL conditions so operators can accept equivalent or lower-risk feedstocks without unnecessary license variations and establish practical licensing pathways for mobile and modular technologies operating across multiple sites which may already be approved and licenced organics processing (composting) sites.

WMRR acknowledges that the new guidelines have substantially addressed many of these concerns. However, there are some issues outstanding which WMRR encourages the NSW EPA to address before finalising the guidelines. For clarity and brevity, WMRR has identified these outstanding issues in reference to the otherwise overall positive approaches taken by the new guidelines.

WMRR's analysis of the approach of the new guidelines and the issues outstanding

- Moving from compost focused guidance to now cover six (6) defined processing technologies and providing technology specific appendices for composting, anaerobic digestion (AD), dehydration, insect bioconversion, vermicomposting and mulching facilities (sections 1.3 & 4.3 and Appendices B–G.).*

Issue outstanding: WMRR understands the policy intent of the new guidelines is to facilitate improved uptake of best available technologies (BAT) to promote circular outcomes and address the transition to mandated FOGO collection and processing – hence coverage of solid and liquid digestate (noting operators still require compliance with a general or specific resource recovery order and exemption before land application) and the technology-agnostic approach. One (1) of the emerging technologies for food organics processing is AD – and WMRR notes that the existing AD facility in NSW operated by Veolia (Earthpower) has obtained a Resource Recovery Order and Exemption to make a 'prill' – a dried material that is then sold to market as a soil improver. In Vessel Composting (IVC) is also referred to, noting it offers improved environmental outcomes for managing food and garden organics materials when compared to open windrow composting.

However, the new guidelines specify that they do not capture thermal treatment technologies (such as pyrolysis) covered by the NSW Energy from Waste Framework and [Energy from Waste Technical Note](#) – and this restricts the effectiveness of the guidelines in supporting the development of IVC and AD projects, as the oversize from IVC processing of FOGO and digestate from AD processes is not eligible for a thermal process to make biochar. Currently, thermal treatment technologies for genuinely residual waste defined under Item 7 in the [Eligible Waste Fuels](#) guidelines only allows source separated green waste.

Despite the intention of the guidelines to support emerging organics technologies, the existing convoluted regulatory framework for byproducts, in particular thermal treatment of byproducts from FOGO composting and AD, is threatening their development and investment. Given energy recovery is higher on the hierarchy than disposal, this makes no sense at all and breaches NSW EPA's own objectives of complying with the waste hierarchy.

WMRR recommends that the NSW EPA:

- Introduce general RRO/Es for digestates and biochar end products to be applied to land, and;

- amend the eligible fuels guidelines to allow FOGO oversized residuals and digestate byproducts to undergo treatment for the purposes of producing a beneficial char.

This will facilitate a meaningful compliance and development pathway for AD and FOGO IVC facilities and allow for market development for these beneficial byproducts.

- ii. *Updating and expanding the overview of the planning and licensing process in section 2, including reference to the Resource Recovery Orders and Exemption (RRO/E) framework.*

Issue outstanding: The new guidelines explain the operation of RRO/E frameworks and links feedstocks and outputs to applicable RRO/E conditions, contaminant thresholds, sampling and testing, and recognises a wide range of primary and secondary outputs, including compost, mulch, digestate, biogas, protein, frass, fertilisers and vermicast as well as their soil-health, nutrient recovery and recovered energy benefits. They also link output requirements to intended markets, applicable standards, and customer specifications.

However, it is unclear how the guidelines will remain aligned with changes to AS4454 (which is referenced), the Resource Recovery Framework and any updated contaminant requirements without requiring another review. Whilst WMRR is less concerned with changes to the voluntary AS4454 standard, we believe it is critical that the guideline accurately and genuinely reflect the contemporaneous regulatory requirements, noting that historically some organics processors have inadvertently accepted materials contrary to the *Compost Order 2016*.

In the first instance, to help ensure that regulatory and policy settings set by the NSW EPA genuinely assist in the transition to a meaningful circular economy for organics by supporting the uptake of best available technologies in NSW, the EPA should finalise its review of the Resource Recovery Framework and finalise suitable general RRO/Es that can facilitate regulatory compliance. Otherwise, there is a real risk that the new guidelines will provide detailed guidance for operations that are misaligned with the governing regulatory framework, and consequently, guide facilities that have no end-markets for byproducts.

- iii. *Shifting from issue-based requirements to a whole-of-facility risk assessment. The new guidelines require risk assessment consistent with ISO 31000 and ISO 31010, supported by layered assessments such as HAZID, HAZOP, environmental risk, odour, fire and biological risk assessments.*

Issues outstanding: WMRR appreciates that the new guidelines have markedly shifted the focus away from managing traditional composting facilities towards recognising different types of organics processing facilities as circular infrastructure with beneficial output products that reduce landfill emissions and recover nutrients, with facility considerations covering operational greenhouse-gas management that considers transport, methane, nitrous oxide, biogas leakage and energy use. However, there is still a gap in that whilst the guidelines recognise the evolving processing methodologies and benefits, there is no direct link between the technologies in the new guidelines and licensing.

In particular, the new guidelines' recognition of modular systems (sections 1.2 and 2.4.2), does not solve the practical problem of obtaining approvals to move and operate the same unit across multiple sites for processing. They do not create a license or approval mechanism allowing one (1) mobile processing system to operate across multiple generators or sites (such as the use of modular insect bioconversion units at currently licensed council-owned composting sites). In WMRR's view, NSW requires a practical approval pathway for mobile and modular technologies, noting that these may be operating across multiple licensed sites, and these technologies offer a cost effective and convenient solution for processing food waste in particular. Further, without this reform, recognising innovative technologies in

the guidelines will not translate into their timely deployment, and misalignment between the guidelines and licensing could prove challenging and confusing for operators.

- iv. Replacing the three (3) risk categories for feedstock with suitability, contamination and output-pathway considerations, provides more flexibility for operators in product quality, with feedstock selection and management now covered in section 4.4 and Appendix A. The guidelines align FOGO and other feedstock definitions with the POEO Act and include technology-specific feedstock suitability tables.*

Issue outstanding: The existing 2005 guidelines classified incoming organics into Categories 1–3 according to their environmental risk, with Category 3—including meat, fish, fatty/oily materials and mixed residual waste—representing the highest risk. The new guidelines instead focus on the actual characteristics and contamination profile of individual feedstocks, their compatibility with the processing technology, and the RRO/E governing the intended output. This is a significant and welcome conceptual regulatory shift.

However, WMRR remains concerned that the guidelines do not resolve the disconnect between risk-based feedstock assessment and premises-specific approvals. There is no automatic flexibility to accept another feedstock that has an equivalent or lower risk. Changes involving feedstocks, throughput or technology may require development approval, while new feedstocks may require amendments to planning consent or an EPL (sections 2.4.1 and A.3).

In WMRR's view, operators should not need a full license variation to accept an equivalent or lower-risk feedstock where existing infrastructure and controls are demonstrably adequate and approved throughput limits are not exceeded.

- v. Identifying physical, chemical and biological contaminants and providing risk-based acceptance and testing guidance. Feedstock acceptance requires documented acceptance criteria, inspection, sampling, testing, isolation and rejection of non-conforming loads, supported by supplier agreements, recommending a less than 2% by weight physical contamination in source-separated organics (with further reduction over time), whilst less than 1% for FOGO is identified as international best practice (A.4.2–A.4.3.).*

Issue outstanding: The new guidelines recognise that contamination should preferably be prevented or removed before biological processing and specifically warns that processing plastics can create microplastics, and that chemicals can leach during processing, making later removal difficult or impossible. They identify that responsibility for output quality is shared between producers such as councils/ residents/ feedstock suppliers and processors. WMRR cautions that whilst this suggests a shift to responsibility upstream, regulatory intervention and education efforts should be firmly directed at addressing contamination at the source, where it can be prevented most effectively.

The interaction of the 2% contamination threshold recommendation with collection contracts, facility acceptance criteria, FOGO mandates and regulatory enforcement needs clarification and certainty. WMRR supports clear contamination controls, rejection procedures and protocols for hazardous or unexpected materials, but the expectations must align with FOGO collection requirements and council contracts, and must not transfer responsibility for poorly presented material entirely to processors. Instead, it is incumbent on the NSW EPA to ensure that there is alignment between these instruments so that they do not unfairly impact any parties to existing contracts nor inhibit ongoing improvements to product quality.

Whilst WMRR appreciates the guidance on physical contamination limits has been proposed by industry seeking cleaner inputs through organics feedstocks received to protect product quality, it is vital that this

be supported by contract terms, that are to be implemented transparently over an agreed timeframe to ensure that there is a transition period, as well as avoiding potential contract disputes or change of law claims. This approach was taken with municipal processing contracts when NSW was implementing the container deposit scheme.

In the absence of a considered and balanced approach to inputs and processing, there is a risk that this new guidance could be put into a license condition or approval, and be unable to be met due to existing agreed contracts. For example, WMRR understands anecdotally that many existing municipal contracts stipulate <3% contamination thresholds.

To this end, WMRR recommends that explicit wording is included in the final guidelines alongside the introduction of mandatory contract quality clauses by EPA as part of the mandatory FOGO rollout.

- vi. Identifying PFAS as a potential feedstock contaminant. The new guidelines also recommend more rigorous testing for higher-risk streams without stipulating a specific PFAS threshold.*

Issue outstanding: As discussed above, greater certainty is required for recovered output products, noting that technical recognition of digestate, frass, vermicast and other emerging materials within the guideline document does not create a viable market unless clear RRO/Es, contaminant criteria and lawful end-use pathways are available. Clear regulatory settings for feedstocks and end-products are essential to underscore investment in organics processing capacity – and this is an outcome WMRR has advocated for nationally, noting that many organics processors operate across jurisdictions and sell into what is, one (1) national market.

WMRR calls for the final NSW guidelines to be supported by nationally consistent, science-based standards for inputs and outputs, including clear PFAS thresholds and agreed sampling and testing methods that protect human health and the environment without unnecessarily preventing beneficial reuse. An agreed national threshold should be developed as a matter of urgency under the Heads of EPA (HEPA) process and incorporated into the final guidelines.

- vii. Providing typical design controls (section 5) to manage environmental risk and extending outlined environmental controls to feedstock management, operational competence and health and safety.*

Issue outstanding: Facilities are expected to have acceptance criteria, inspection, sampling, testing, isolation and rejection procedures, supported by supplier agreements and escalation mechanisms (section 6.3 and A.4.2). However, WMRR reiterates that processors do not have complete control over the material delivered to a facility – even where feedstock requirements are prescribed. From time to time, there may be unexpected items disposed of in the organic waste stream. Whilst Appendix A requires acceptance procedures to cover hazardous materials including asbestos, needles and sharps, and states that hazardous materials should not be accepted, the new guidelines do not yet have a distinct “unexpected finds protocol”. WMRR recommends the EPA provide guidance on this in the final version to promote best practice protection of the environmental and human health.

The final guidelines could also be stronger on biosecurity risks. *The Biosecurity Act 2015* and *Biosecurity Regulation 2017* are incorporated into the new guidelines, with detailed requirements for restricted animal material (RAM), including the ruminant feed ban and the continuing classification of outputs derived from RAM. There are also broader controls for pests, weeds, disease and biosecurity, however, there is a notable gap in that phylloxera is not addressed. WMRR appreciates that existing operators in NSW are well aware of the phylloxera risk, however, given the influx of new operators and technologies that will come into the state to support the delivery of the FOGO mandates, it would be prudent to capture this in the final guideline, noting that there is a real risk of contamination which could be highly detrimental to the NSW wine industry.

It is hoped that the final guidelines will facilitate safe organics recovery rather than unintentionally create additional barriers to investment, innovation and capacity expansion. WMRR's recommendations address the outstanding issues and seek to preserve technology neutrality, ensure controls are proportionate to risk, align feedstock categories with licensing conditions, clarify contamination requirements, enable a smooth transition to mobile and modular processing, and establish workable end-use pathways for recovered products. These are necessary if the guidelines are to support the infrastructure, innovation and market development required to divert organics from landfill and deliver a safe, circular economy for NSW.

Please contact the undersigned if you wish to further discuss WMRR's comments.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Gayle Sloan".

Gayle Sloan

Chief Executive Officer

Waste Management and Resource Recovery Association of Australia