Submission on the revised Department of Environment Regulation Draft Environmental Standard: Composting

June 2016

Status of this Submission

This Submission has been prepared through the Municipal Waste Advisory Council (MWAC) for the Western Australian Local Government Association (WALGA). MWAC is a standing committee of WALGA, with delegated authority to represent the Association in all matters relating to solid waste management. MWAC's membership includes the major Regional Councils (waste management) as well as a number of Local Government representatives. This makes MWAC a unique forum through which all the major Local Government waste management organisations cooperate. This Submission therefore represents the consolidated view of Western Australia Local Government. However, individual Local Governments and Regional Councils may have views that differ from the positions taken here.

This Submission is yet to be endorsed by the Municipal Waste Advisory Council and will be considered out of session. The Department will be notified of any changes to the Submission.

Executive Summary

The Association welcomes the opportunity to comment on the revised draft *Environmental Standard: Composting*. It is clear that the Department highly values the feedback received on the original draft of the Environmental Standard, has listened to the concerns raised and, most importantly, has implemented a genuine approach to engagement. The steps taken by the Department to provide individual responses to Submissions and establish a Composting Industry Working Group are appreciated.

The Association supports the Department's move towards a more outcome based approach to regulation. It is particularly useful that there is now a clearly explained process that applicants can follow when proposing an alternative approach to what is included in the Standard. The inclusion of definitions, a review mechanism and an approach to determining risk has resulted in a clearly structured document that sets out the Department's expectations and provides some guidance on how to meet these requirements. Linkages and direct quotes to other DER regulatory guidance have also been included, which increases clarity.

The composting sector makes a valuable contribution to the economy, diverting resources from landfill and improving the depleted soils of Western Australia. Through the Composting Industry Working Group the Department has worked with the industry to identify some of the impacts that a new approach to regulation could have on existing operations. When the Environmental Standard is finalised, the Department needs to ensure that any additional requirements are implemented in a staged manner and that industry is given sufficient time to improve its practices. The Association understands that it is the Department's role to regulate the sector, however if substantial investment in infrastructure is required by industry to meet the new Standard, then the Association would seek the Department's support in approaching the Waste Authority to provide assistance and ensure that the vital service provided by the composting industry continues. If increased regulation is introduced without support, or there is no increase in demand for the material that is produced, the viability of existing composting operations may be affected.

Recommendation: The Department of Environment Regulation supports the Association in seeking financial support from the Waste Authority, if necessary, to assist any compost facilities with improving performance and implementing testing regimes.

As a general principle, the Standard "*will be applied to both new applications and to existing licenses.*" There is a need for an assessment of the impact that the additional requirements on infrastructure design, construction, performance standards and product parameters will have. Local Government requests that when the Department undertakes any assessment of the cost/benefits relating to new regulation, this analysis is undertaken in a rigorous way and released publically.

Recommendation: That the Department of Environment Regulation assesses the cost/benefit of new regulation and publishes the results of this analysis.

Throughout the Standard, there are instances where advice from other draft DER documents has been included: draft *Guidance Statement: Regulatory Controls* and draft *Guidance Statement: Separation Distances.* DER has not reached a final position on these matters and consequently has not responded to the feedback received through consultation.

Recommendation: That the draft Environmental Standard: Composting is not implemented until a final position has been reached on matters relating to Regulatory Controls, Separation Distances and any other regulatory reform documents which affect composting operations.

Introduction

Local Government welcomes the opportunity to comment on the Draft Environmental Standard: Composting (the Standard). The latest version of the Standard shows that a substantial body of work has been undertaken by the Department to make it a practical, outcomes based approach to regulation. The changes to the Standard and the response to feedback demonstrates a genuine commitment to consultation on regulatory reform. This has been welcomed by the wider industry.

Many of the documents that will establish a framework for the Departments approach to regulating prescribed premises such as composting facilities have already been consulted on. The Association anticipates that the final documents will soon be released. It is not until all of the documents which will inform the regulation of the composting industry are finalised, that the implications for each facility will be fully understood. Currently, there a number of uncertainties facing composting operators – particularly the requirements relating to Regulatory Controls, Separation Distances and Odour.

There is a need to support industry as it transitions to operating in accordance with the Standard. It is important that sufficient time is provided to implement any infrastructure or process changes. If the industry is not given this time, there could be unintended consequences such as a facility closing and an increase in landfilling of organics.

This Submission provides feedback on the structure of the Environmental Standard, as well as the documents that have been used to inform its development.

Draft Environmental Standard: Composting

This section of the Submission contains specific comments on each section of the Standard and where appropriate proposes an amendment or alternative approach.

Section 1 - Purpose
The Association supports the inclusion of a list of potential risks from aerobic composting facilities in the Standard. It is understood that these are the broad risks that specifically relate to composting facilities. In the draft DER *Guidance Statement: Regulatory Controls* more site specific risks (e.g. dust) are identified for composting facilities. When finialising both documents it is important to ensure that the *Environmental Standard: Composting* references other site specific risks which will be relevant for applications. Conversely, the Regulatory Controls document also needs to reflect the risks included in the Composting Standard. It is particularly important for the Department to identify

how the risks from 'products' will be conditioned in the operation of a facility.

In terms of the structure of the Standard, there is a need for all of the potential risks identified in Section 1 to be specifically addressed in the rest of the document. For example, the risk of soil contamination has not been specifically addressed in the document. However, it is understood that it is addressed indirectly through the groundwater and surface water considerations, as well as limitations on feedstock. Additionally, there are no requirements for soil monitoring.

The first table in the document directs readers to the various section of the document where each risk is discussed, it is suggested that the title of this table be amended to reflect that this the intent of the table. Some of the connections that have been made in the table require further attention. For example, the linkages between product contamination (as an output) is a risk to the stormwater and surface water at a prescribed premises are not clearly stated. A request has been made for the inclusion of a process diagram that explains how to navigate the Standard and licensing application process. The approach taken to develop Figure 1 of the draft *Guidance Statement: Regulatory Assessment Framework* could be applied.

Section 1.1 - Definitions
The Association supports the inclusion of a list of defined terms that reflects industry practice and terminology and requests that all terms defined throughout the Standard are included in this section. For example, composting hardstand, leachate collection system, leachate storage infrastructure, surface water controls, material, product, product standards, pasteurized product and mature compost. The Association requests that terms such as *clinical waste* and *biomedical waste* are defined in this document, given there are definitions for *hazardous waste* and *quarantine waste*.

Commercial Waste – the current definition of commercial waste could cause different interpretations to be made on the various feedstock risk categories of Table 11. In this Table, waste from a commercial or industrial premises is given the highest risk rating for feedstock. However, there are instances where commercial waste, considering its current definition, could be rated at a lower risk. For example, greenwaste from commercial garden maintenance businesses, manure from commercial piggeries.

Compost – *"Compost means an organic product that has undergone controlled predominately aerobic and thermophilic biological transformation through the composting process to achieve pasteurisation and reduce phytotoxic compounds, and achieve a specified level of maturity."* The Association notes the inclusion of the word 'predominantly' to this definition, to accommodate other methods such as anaerobic digestion.

Hazardous waste – The current definition is very broad. The Association requests that the definition is referenced in a similar manner to that of quarantine waste.

Leachate – It would be beneficial for the Department to explain that stormwater generated onsite, should not flow offsite (as per the usual approach to license conditions that are applied to a prescribed premises). The current wording on "*potentially contaminated areas*" is very broad, the definition could be amended to specify what areas would be considered 'contaminated' within a composting facility.

Natural Geological Barrier – As this term is no longer used in the Standard, it could be removed from the list of defined terms.

Section 2 - Application
This section of the Environmental Standard is clearer than the original draft. The Association supports the inclusion of text from the *draft Guidance Statement: Environmental Standards*, outlining what type of situations the CEO will not apply an Environmental Standard to a prescribed premises.

Section 3 - Acknowledgements
The Association is pleased to note the acknowledgement of the contributions made by various WA agencies and the composting industry to the development of the Standard.

Section 4 - Location and Siting
As a general comment, the approach taken to drafting performance standards is relatively consistent, with clearly articulated statements. However, there are noticeable variations in the approach taken to design and construction standards.
For example:

- *Section 4.3 Risk to Groundwater* the design and construction standard is simply a list of defined terms (these should be placed in Section 1.1 of the Standard)
- *Section 4.3.4 Composting Hardstand* has a risk assessment matrix, along with design and construction standards that in some cases appear to apply to all operators and with others are only provided as an 'example' that varies dependent on the level of risk.

Applying a consistent structure to design and construction standards would allow operators to quickly pinpoint the requirements that are relevant to their business. For example, performance standards are specifically named in Table 9 but not Table 7. These items are further discussed under *Section 4.3.4 Composting Hardstand* and *Section 4.3.5 Risk of Leachate.*

Section 4.2 - Siting
The Association supports the inclusion of requirements on minimum distances to environmental receptors in the Standard, as distinct from Separation Distances which address impacts on public health. The Standard would benefit from further clarification on and/or references to:

- Maximum highest historic groundwater level: why the level has been increased from 2m to 3m?
- Hydraulic gradient – the purpose of changing the direction of the hydraulic gradient?
- Public drinking water source well/bore and surface water sources that supply drinking water – why there has been a decrease in the minimum distance from 500m to 300m?
- Both private and public potable supply well/bore – why are there changes to the distances?

The Association supports the inclusion of a statement on the process operators can follow when facilities do not meet these distances.

Section 4.3 - Risk to Groundwater
The Association supports the adoption of a risk based approach that establishes the level of risk presented by each type of facility, and then links this to infrastructure requirements. In relation to the performance standard, discussion at the Composting Industry Working Group meeting identified there was a need for further clarification on what was considered to be a material impact on groundwater. In Section 7.2, Tier 2 monitoring is required if there is a 10% change to background water quality. Working Group members with experience in the water testing field indicated that greater than 10% annual variation in some parameters does occur naturally. Instead of 'materially impacted' other wording should be considered, for example, significantly altered or polluted.

The definition of a 'composting hardstand' and the activities that can occur on a hardstand does raise questions if major upgrades will be required at existing sites. The Association supports the inclusion of the note on Category F1 feedstock and requests that this note is also included in *Section 4.3.4 Composting Hardstand*.

Section 4.3.1 - Groundwater Value
The Association commends the approach taken by the Department to determine the value of groundwater and implement a process that can be followed to assess the risk that a prescribed premises has on groundwater. Given that much of the State has salinity issues and would be classified as G3, it may be worth providing guidance to licensing officers and operators on how to navigate a case-by-case assessment. Without guidance, this type of assessment may take additional time.

Section 4.3.2 - Depth to Groundwater
The Association requests that references are provided in the final Standard for the thresholds outlined in Table 3. Additionally, for some contextual information could be provided on how it should be used.

Section 4.3.3 - Soil Type
Table 4 presents an approach that builds on previous risk classification ratings. The Association requests clarification on the suitability of compacting each type of soil in-situ to form a hard stand area. Currently, there are differences in the soil descriptions of Table 4 and Table 7 that could cause some confusion for operators. Clarification is also requested on how S2 'fill' is defined. For example, if the material is 'fill' from construction and demolition activities, it could be less permeable than the other materials in that category.

Section 4.3.4 - Composting Hardstand
The wording for the drainage standard in Table 6 is easier to understand than what was used in the original draft, but appears to require all operators meet the drainage standard on both hardstand and drainage infrastructure. This is despite the fact that operators accepting F1 feedstock do not have to store material on a hardstand area (Section 4.3, page 7). The Association requests that clarification is provided on the application of this design and construction standard. Additionally, clarify if all of the design and construction standards are to be set requirements, or examples of acceptable approaches that operators can take.

Table 7 provides examples of acceptable hardstand design and construction standards for each type of risk classification. This approach is very useful and will help to streamline the application process. For those facilities operating under a very high risk classification, a question has arisen on the presence of silty loam soils in Western Australia. An additional question relates to the hydraulic conductivity value of hardstands for facilities in high groundwater risk areas. Specifically, why the value of $1x10^{-8}$ m/s has been assigned for potentially in-situ soil types that constitute a *Natural Geological Barrier.* Adding to the confusion, is that fact that in Section 1.1, the defined term of a *Natural Geological Barrier* has a value of $1x10^{-7}$ m/s.

Section 4.3.5 - Risk of Leachate
The wording of the design and construction standards states that leachate management systems 'must satisfy the standards specified in Tables 8 and 9'. The Association suggests rewording the design and construction standard to better reflect that Table 8 is not a standard, as it only assigns risk.

The way that WL 1 and WL 2 are currently worded suggests that if facilities do not meet the risk classification outlined (WL 1 risk classification includes water classified as W1 in Table 3 etc) then there is no risk of leachate to groundwater. The Association questions if this was the Departments intent.

An additional point that requires clarification in section 4.3.5, relates to the direction of the hydraulic gradient. In Table 1 of the Standard, the term "*down hydraulic gradient*" is used, as opposed to the term "*up hydraulic gradient*" for WL1 and WL2. This section could also benefit from an additional reference to Table 11, so that readers can quickly find how Feedstock Risk Categories are determined.

With regards to Table 9, it is good to have a linkage between the level of risk of a facility and infrastructure requirements. The Association suggests some editorial changes are made to maintain consistency throughout the Standard:

- Reword the title so it is consistent with that of Table 7. Such as, "*Leachate collection examples for meeting risk category*."
- Suggest rewording the table heading, to maintain a consistent approach to Table 7. Such as, "*Example design and construction standards*."
- Another area where Table 9 differs entirely from Table 7, involves the inclusion of performance standards.

- In Table 9, under the moderate risk rating for leachate storage infrastructure, there is no specified level of performance for leachate tanks and ponds.

Section 4.4 - Stormwater and surface water
The intent of the performance standard in this section, is both to reduce the amount of leachate generated (through minimising stormwater and surface water ingress) and to prevent pollution of the environment through the discharge of leachate.

The design and construction standard is not as clear in its intent. For example, if stormwater is contaminated, it is leachate – as per the definition in Section 1.1. In this instance, an appropriate end point for stormwater is a leachate pond. The Association suggests this section of the Standard is reworded to achieve the following outcomes:

- Prevent surface and storm water from becoming leachate by ensuring it does not enter feedstock, composting windrows or products
- If the surface or storm water does become leachate, then directing it to leachate ponds.

Section 5 - Operating Methods
Section 5.1 - Unacceptable Feedstock
Compared to the original draft of the Standard, the wording of this section is now much easier to understand. However, as discussed at the Composting Industry Working Group meeting, there are still a number of concerns with the implications of the definition for unacceptable feedstock.

The Composting Industry Working Group identified that there are three general approaches used with some of the feedstock identified:

- Producing a particular product: where specific feedstocks are added to a compost to achieve a specific product type
- Treatment: where small amounts of materials listed under section 5.1(a) or (b) are introduced into a compost product as a means of treating that material
- Waste disposal: where a material that adds no value to the end product is added.

It is considered that only the 'waste disposal' option would be problematic in terms of feedstock. The Association requests that the Department reconsiders how it will regulate materials currently defined as 'unacceptable feedstock'.

Section 5.2 - Contaminants in Waste Feedstock
The Association appreciates that some organic feedstock may contain contaminants. For collections from the community, via kerbside or vergeside systems, contamination is always a risk. Local Government manages this risk through education, enforcement and technology solutions. As identified in the Associations previous Submission, and our comments on section 5.1 in this Submission, a clear distinction needs to be made between blending of feedstock to make a specific end product and the use of organic material to 'dilute' a waste stream. Blending of feedstock material such as outputs from an Alternative Waste Treatment facility with other organic material, is common practice.

Section 5.4.1 - Separation Distances
The Association supports the inclusion of Separation Distances in the Standard – and that there is now clear guidance in Section 5.4.2 for operators on what to do if a facility does not meet the Separation Distances. As the Separation Distances document has yet to be finalised the Association would like to reiterate its position that Separation Distances should not be used a default means of addressing public health risks by either environmental regulators or other decision making authorities. There are technology and processes available that operators can use to minimise offsite impacts where there are lesser distances. When setting the new Separation Distances, an evidence based approach must be used, that demonstrates the need arising for any change of distance, for any type of prescribed premises.

Dialogue with the Department on how Separation Distances are considered for composting facilities highlights that they relate to risk, rather than acting as an exclusion zone. Unfortunately, how

Separation Distances are currently presented in the Standard infers that they are exclusion zones. If operators cannot meet the Separation Distance for a specific activity – e.g. outdoor uncovered, turned windrows, then the activity cannot occur. This does not take into consideration other operational controls which could address the issue of odour.

Section 5.4.2 - Feedstock Risks and Controls for Odour

The Association supports the flexible approach taken by the Department to assign feedstock risk categories. For example, material what was originally classified as a 'high risk,' is now a 'moderate/high risk.' Some of the amendments made to this section, could be further refined. For example:

- F1 & F2 – 'controlled greenwaste collections' 'Municipal source separated kerbside garden waste' – DER's feedback to WALGA's initial Submission states that "*feedstock risk categories have been revised in the Draft ES. Risk ratings have been attributed based on the risk of odour. DER has amended Table 11 (previously Table 4) to include two options for municipal source separated kerbside waste that is controlled and not controlled*." This does not appear to be the case in the current version of the Standard
- F2 - "*biosolids and aged manure*" has been amended to "*partially treated sludge and aged manure."* This term could benefit from an example, as has been provided for other waste types, or alternatively an explanation of what 'partially treated' means
- F4 – Amend 'municipal' to 'mixed' and remove 'disposed of into municipal waste collection systems.' This category isn't strictly municipal waste, as it is waste from a mixture of sources not necessarily collected through the municipal waste system. There are a number of private contractors providing this type of service.

Given that the majority of composting facilities will not be able to meet the Separation Distances outlined in Table 10, it is very important that clear advice is provided on the operating controls required. The present structure of Table 12 does not clearly explain what composting methods are required for various feedstock types. An example that explains what is meant by the term 'enclosed or covered systems' would be beneficial. Some sites cover windrows that are in the open environment with a layer of mulch. The Standard is not clear if this is still an acceptable management practice. It is also suggested that the Table be re-titled to say 'Acceptable Composting methods', rather than 'Required'.

In Table 12, mixed source separated kerbside garden waste/food waste is classified as F3 (Low/Moderate Risk). In the Table this material is marked 'No' for open environment processing – however in the definition of Controlled environment or additional controls, it states 'where feedstock is at a moderate to high risk of odorous emissions'. Currently, mixed source separate kerbside garden waste/food waste is composted in an open environment without causing odour issues – this is due to how the operation is undertaken. The Association recommends that for F3 feedstock, open environment composting is included as an option.

For F4 feedstock, Table 12 indicates that it cannot be composted at all as both open environments and controlled environment or additional controls are marked as 'No'. This seems at odds with the definition of the conditions under which moderate to high risk feedstocks can be processed.

Section 5.5 Liquid Waste

Liquid waste has a range of potential risks to public health and the environment. As discussed at the Composting Industry Working Group meeting, considerations of the risk that Liquid Waste presents needs to be integrated into the rest of the document.

Section 6.1 - Small Retail Customers

The Association appreciates the clarification provided on the sale of material to small retail customers. It would be beneficial for the following phrase to be included in this section: "*Material that is intended to be, or is available to be, sold to small retail customers must meet the Product Standards in Section 6.2 of this Standard*." A question has been asked on who must meet the Product Standards, in situations where bulk material is sold to another party that will sell it to small retail customers.

For clarity it would also be useful to include a section which highlights that compost not intended for the small retail customer market, is subject to a separate regulatory approach - and to provide details of that regulatory approach (for example, refer to the Biosolids Guidelines).

Section 7 - Environmental Monitoring
The introduction of a tiered approach to monitoring along with clear parameters on when a full monitoring regime is required is a sensible approach. As mentioned previously, monitoring triggered by a 10% change in background water quality may not be appropriate, as some parameters vary more that this naturally.

The frequency of testing, prior to operations, is questioned. As currently written this would require one year of ground and surface water monitoring – prior to the establishment of any type of composting facility. While this may be a prudent approach for a facility in a high risk location, consideration should be given to reducing this requirement for lower risk sites.

Section 8 - Transition of Existing Facilities
The Association supports the inclusion of a section that signals how the Departments intends to apply the Standard to existing facilities. As per the discussions at the Composting Industry Working Group, it would be useful to include more detail in this section to highlight that:

- New conditions will be developed in consultation with current operators
- Any changes would have a reasonable timeframe, commensurate with risk.

It may be useful to include this paragraph in Section 2 of the Standard.

Section 9 - Bibliography
The Association supports the inclusion of a bibliography and requests that in text references to other documents are provided in the Final Standard.

Section 10 - Review
The Association supports the inclusion of a review mechanism in the Standard.

Conclusion

The current version of the Standard is a significant improvement on the original draft. With a few refinements, the Association is confident that this document will form the basis of a sensible, risk based approach to the regulation of composting facilities.

Additional requirements on industry must be implemented using a staged approach, with an appropriate level of support. References to the advice provided in other draft DER documents must be reviewed when they are finalised to maintain a consistent position across its regulatory framework.

The Association looks forward to continuing to work with the Department on its regulatory reform program.