

Draft Environmental Standard — Composting

Western Australia Department of Environment & Regulation

DOC: DER 2015/001388

Comments by Bunbury Harvey Regional Council June 2016

Background

Bunbury-Harvey Regional Council manages and operates a composting facility on behalf of the City of Bunbury and shires of Harvey, Capel, Dardanup, Collie, Donnybrook-Balingup and Boyup Brook. At present four of the seven councils have a 3-bin FOGO system. The composting facility was established with the primary purpose of composting FOGO and verge green waste for local government. It is the only facility in WA established primarily for local government composting, which makes the BHRC response unique when compared to other composting facilities. The BHRC have five years' experience in FOGO composting and are considered experts in the specific FOGO field.

Open composting methods have been used and there are no odour issues with the facility. The City of Bunbury and the Shire of Capel were the first councils in WA to introduce a FOGO collection and are the current leaders in the field.

Abbreviations: FOGO = food organics and garden organics

Page, Table or reference	Comments	Recommendations
Page 2	The table should be labelled. It is confusing as it does not explain that it is a guide to this document (I presume it is). Unacceptable feedstock is a risk to groundwater and surface water contamination yet it is not acknowledged in the table. This makes the table rather confusing at the start of the document and it is questioned whether its inclusion is required.	Label the table & introduce it or remove it.

Page, Table or reference	Comments	Recommendations
Page 2	<p>Commercial waste needs to be better defined with more detail. Under the waste strategy there are three main types of waste – municipal waste; construction & demolition waste; and commercial and industrial waste.</p> <p>In this document there are only two types acknowledged – domestic and commercial. Commercial waste covers a broad spectrum of the waste accepted at composting facilities. For example a commercial tree lopper’s green waste is technically commercial waste. In the ES green waste, pallets, crates, bagasse, treated septage and sludge and animal manures are treated differently to commercial waste, when in fact they are all commercial waste. Waste from a school is very similar to that of a domestic residence with low risk, yet it is classified as commercial.</p> <p>One of the best methods of waste education is for schools to have a 3-bin system yet we are unable to accept it at the organics facility under this ES.</p> <p>The DER response to our first submission on feedstock was that the three-bin system will be assessed on a case-by-case basis. As the DER is promoting the 3-bin system, it needs to be clearly included in this document. There are generally only 2 types of 3-bin systems: those with garden organics; and those with food organics and garden organics (FOGO). FOGO needs to be specifically addressed in the ES.</p>	<p>Define commercial waste and use a risk-based approach to define the types of commercial waste able to be accepted.</p> <p>Please do not say that it will be assessed on a case-by-case basis as it needs to be clear in the standard</p>
Page 4 Section 2 Application	<p>“Applicants must demonstrate that they meet the specified standards”.</p> <p>There are still too many issues that will be “assessed on a case-by-case basis”. FOGO needs to be addressed in the ES so it is clear where it sits and the restrictions it is working within.</p>	<p>Include more detail in the ES to reduce ambiguous “case-by-case assessment”.</p>

Page, Table or reference	Comments	Recommendations
Page 6 Table 1. Siting	The vertical separation distance has been increase from 2m to 3m. Is this correct? Justification? Other distances have been changed too.	Change 3m vertical separation to 2m.
Page 8 4.3.3 Soil type	"Where the separation between the composting facility and groundwater presents a <i>risk</i> , further consideration of the pathway is required... All separation is assigned a risk (rated W1-W4). The level of risk either needs to be defined or this needs to be reworded so that soil type is assessed against groundwater risk to get a combined soil-groundwater risk. Table 5 is a great inclusion in the revised document and provides clarity of requirements	Re-word paragraph to indicate that soil type and groundwater depth need to be assessed together to determine risk, as shown in table 5.
Page 9 Table 6 drainage standard	Typo in second paragraph – remove "be"	Typo in second paragraph – remove "be"
Page 10 4.3.5 Risk of Leachate	Table 8 is not a standard, it is a risk matrix.	Include sentence "Risk rating of leachate is specified in Table 8 using the risk categories identified in Tables 11 and 3."
Page 10 Table 8 Risk of Leachate	This table does not seem to be extensive enough as it only includes risk of leachate when groundwater is less than 3 metres deep. There seems to be a loophole here which is easiest explained by an example. If a site is >1000m from a wetland, >500m from a watercourse, with a groundwater level >3m and soil type of fine to course gravel, there is no requirement for any leachate collection or storage system as it is not included in the table. Inclusion of Very high and high risk to groundwater identified in Table 5 should be included in Table 8 so they can be addressed in the standards in Table 9	Include broader categories in the risk matrix (Table 8) that address the very high and high categories identified in table 5.

Page, Table or reference	Comments	Recommendations
Page 11 Table 9	Should this be Example design and construction standards as in Table 7?	Include “Example” so heading reads “Example design and construction standards”
Page 11 Table 9	Typo - has a dot point been omitted under pond relating to man-made liners (HDPE etc)?	Include dot point for man-made liners
Pages 11&12 Table 9	This table shows very clear requirements and is a welcome inclusion in the ES. As explained above, more categories of leachate risk need to be directed to these requirements by expanding Table 8	
Page 12 Table 9	Under moderate risk, Leachate Storage Infrastructure, the design and construction standards refer to the performance standard but it does not give any further information. Is there an alternate performance standard for tanks and ponds that should be referred to?	Clarify
Page 13 Operating methods	The note is not very clear. Can another sentence be added to show that the intent is the contents of the bulk of the waste, not every component within the waste stream? A FOGO example (accepting meat) would be a welcome example to show that the intent is not for FOGO to be classified as a F4 moderate/high risk because of the small component of meat.	Add a sentence “The bulk of the waste determines the feedstock risk category.” Provide a FOGO example.
Page 14. Risk of Odour Table 10	Other tables in the document provide examples for meeting risk categories but Table 10 specifies a <i>required</i> composting method. This does not allow for innovation or proven methods with low odour. In the Response to the submission by BHRC on the first draft of the ES, the DER indicated that the third bin system will be assessed on a case-by-case basis. This does not provide adequate guidelines for a waste stream that is increasing across WA and this ES should include.	Change “required” to “acceptable” or “suggested” Allow the 3-bin system (FOGO) to operate using an outdoor uncovered composting method

Page, Table or reference	Comments	Recommendations
	<p>On page 4 it states that “Applicants must demonstrate that they meet the specified standards”.</p> <p>It does not say that facilities will be assessed on a case-by-case basis if they do not meet the specified standards as has been the DER response throughout the document responding to BHRC’s submission. The document contradicts the process that is intended to be applied.</p>	
<p>Page 14. Risk of Odour Table 10</p>	<p>The separation distances relating to odour will restrain local government from moving to a FOGO collection. There are proven instances of outdoor uncovered windrows accepting primarily FOGO waste with smaller separation distances without odour issues. This should be acknowledged in the document and the ability to operate such facilities.</p> <p>Current evidence of low odour risk for FOGO must be acknowledged. Evidence is requested from DER for the separation distances imposed due to odour relating to outdoor uncovered composting operations accepting FOGO.</p> <p>Are the separation distances for landfill the same as composting?</p>	<p>Re-assess the separation distances for FOGO.</p> <p>Re-assess the required composting methods for FOGO.</p>
<p>Page 14. Risk of Odour Table 10</p>	<p>The separation distances are very challenging for FOGO collections. On one hand the DER and state government are promoting FOGO systems while the DER is also regulating against them.</p> <p>The Western Australian Waste Strategy 2012 “Creating the right Environment” has as its first strategic objective (p.15) “Initiate and maintain long term planning for waste and recycling processing, and enable access to suitably located land within buffers sufficient to cater for the State’s waste management needs”.</p> <p>Has the appropriate modelling of separation distances been conducted to determine if there are any sites suitable or available for</p>	<p>Re-assess separation distances using spatial modelling and availability of land within reasonable access. Make the modelling a public document open for discussion prior to determining separation distances.</p>

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	composting within a reasonable distance from urban areas (including regional areas)? The separation distances and the resulting (costly) composting methods required may render the alternative to composting (landfilling) to be more attractive and cost effective to many local governments.	
Page 15 5.4.2	The first paragraph seems to contradict the first para under 5.4.1. 5.4.1 states facilities must meet the separation distances and 5.4.2 says that where they cannot be met, other control methods for odour are required. This is very unclear.	Re-word 5.4.1 and/or 5.4.2
Page 15 5.4.2	Table 8 refers to leachate, not feedstock	Delete reference to Table 8
Page 16 Table 11	Do animal manures have to be treated? The way this is worded it infers that only septage and sludge it to be treated. If the intent is that animal manure is to be treated, it should be written as “treated septage, sludge and animal manure”. If the intent is that animal manure is not required to be treated, it must be questioned why this has a lower potential for odour than municipal putrescible waste. Untreated pig shit smells far worse than commercial kitchen waste, which is classified as F4!	Clarify the wording and intent of “treated septage and sludge and animal manures”
Page 16 Table 11	Clarity is required regarding the definition of municipal putrescible waste from domestic, commercial or industrial premises. As mentioned above, there are many types of waste from commercial businesses that are suitable for composting – a commercial kitchen is an ideal business to have waste to organics rather than to landfill. Under the current definition this waste requires higher levels of odour control	Clarify the commercial waste that is classified as F4 rather than a blanket inclusion that all commercial waste as high risk.

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Page 16 F4	The BHRC currently accepts silo waste from a stock feed supplier. Under the definition of commercial waste, this is considered as commercial waste and is a high risk. As mentioned above, the definition of commercial waste needs to be clarified and appropriately assessed for risk.	Clarify the risk of commercial waste
Page 16 F4	<p>In the first submission BHRC sought clear definition of “Municipal putrescible waste from domestic, commercial or industrial premises” This has still not been clarified.</p> <p>Why has this category been included in the document? It is not in the EPA Vic document. Does it refer to general rubbish that is “composted” at SMRC? If the intention is to regulate this type of waste from being composted, it needs to be clearer with an example of those processes.</p>	Clear definitions of types of waste and clear examples
Page 17 Table 12	<p>Table 10 refers to five different composting methods yet Table 12 reduces it to two, which do not adequately include all options nor refer to Table 10.</p> <p>F3 is classified as a low/moderate risk yet it is not permitted to be composted in an open environment. There is ample evidence that FOGO systems can be composted in an open environment without odour issues. The requirements for a controlled environment are only for those with a moderate to high risk so F3 should be allowed in the open environment.</p>	Amend F3 to allow composting in an open environment
Page 17 Table 12	<p>An enclosed or covered system needs to be clarified.</p> <p>Can the feedstock be covered with a layer of mulch (similar to daily cover at a landfill) and be considered as a covered system?</p>	Clarify a covered system

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	Examples would be beneficial.	
Page 17 Table 12	BHRC have proven that the feedstock from a FOGO system can be composted in an open environment without odour issues. The DER has conducted audits and there are no odour issues so there is evidence available to DER to confirm that FOGO can be composted in the open environment on a forced air system.	
Page 17 Table 12	Can F4 be composted at all? Both columns say no.	Determine and clarify the intent of composting materials in the F4 risk category
Page 18 6.1 Small retail customers	<p>It is unclear why this section is included in the document.</p> <p>At present bagged compost sold at retail outlets are not required to meet AS4454 or any other standard. How will this be implemented in WA when interstate bagged compost is also sold?</p> <p>Clarify the product standards to be met. Does this include bulk product that is on-sold to another party and then sold to small retail customers or only compost sold direct from the compost producer?</p>	<p>Confirm the intention of this section</p> <p>Confirm if the requirement will apply to products produced outside WA and sold in WA.</p>
Page 20 7 Environmental monitoring	It is pleasing to note that the background monitoring for a new facility no longer states that 12 months monitoring is required. Is this still the intent? If so, make it clear in the document or state that higher risk locations and feedstock may require longer monitoring	Clarify new site background monitoring requirements (if any)
Comparison with other documents	P48 NSW DEC states that “open air methods of composting have been found to be satisfactory with strict feedstock preparation and operating controls.” These are guidelines only – the WA document has definite requirements, not guidelines. Why?	Allow open air methods of composting by imposing feedstock controls, rather than assuming all feedstock is dangerous and require expensive covers

