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24th May 2019

Project Manager
WARR Regulations Amendments
Waste Avoidance and Resource Recovery
Department of Water and Environmental Regulation
Locked Bag 10
Joondalup DC
Joondalup WA 6027

Submission for Proposed estimation/calculation methods for recycling and reprocessing facilities with an output of 1,000 tonnes or more of waste per annum under proposed amendments to the Waste Avoidance and Resource Recovery Regulations 2008

Dear Jill,

We thank you for the opportunity to review the proposed amendments and provide feedback as a liable recycler. We provide our feedback to your questions as set out in the paper as well as any other issues we see may arise out of the suggested amendments.

Eco Resources is a multi-user site that accepts mixed waste loads of C&D waste from all over the metro area as well as north of Perth and south of Mandurah. All loads come through in various truck and bin sizes and contain all sorts of mixed material from sand, brick, wood, furniture, mattresses, tyres, plastics, pvc, concrete, steel, cardboard and polystyrene.

We do not have a weighbridge at our Hope Valley site so we measure all incoming waste by the cubic metre based on the size of the bin/trailer. We do not charge for "air space" so if the bin/trailer is half full then we will only charge for half a load.

We do not charge by the tonne as even if we did have a weighbridge, a mixed waste load can weigh anything from 2 tonnes to 10 tonnes and still have the same volume. As we sort by machine and by hand the volume is more important to us as this is how long it will take us to sort the waste – the weight of it does not matter. So to run our business effectively we charge by volume as this equates to the time required to manually process the material.

We currently use Mandalay software to record all incoming and outgoing material for the annual audits due by the DWER and ASK.

We feel we are already capturing and recording, reporting all information required for our Eco Resources site.

However we have listed our queries and comments below to your report:

1. Are the proposed material categories practical and appropriate for the Western Australian recycling industry?

We propose you add the additional categories to Table 4:

Incoming:

Mixed inert Waste (90% of waste arriving at our facility is Mixed Inert Waste)

The only other waste type we receive is Clean Concrete rubble and Clean Green Waste. So we would assume these would fit into your Concrete and Organics – Garden Organics categories.

Outgoing: After sorting and processing has been conducted. There are various types of the below categories that have different densities and weights depending on the type.

Concrete – Crushed 19mm Roadbase
Concrete - Track Material 75mm
Concrete – Oversize (slabs, boulders etc)
Concrete – with Reinforcement
Brick – Crushed Brick
Metals – Aluminium
Metals – Copper
Metals – Steel
Metals – Brass
Metals – Stainless Steel
Hazardous – eg Gas bottles, batteries
Tyres – Mining Tyres, Earthmoving Tyres, Car Tyres, Truck Tyres, Tyres with Rims

There also needs to be a **Waste to Landfill category** for outgoing. After sorting and processing all incoming mixed waste there is an unsalvageable portion that can only go to landfill (carpet, pvc, insulation, air-conditioning ducting, mdf, treated woods)

2. Are the proposed calculation methods to estimate the weigh of waste received, disposed, leaving and stockpiled at your site clear? If not, what further clarification is required?

We require further clarification on the following:

- We currently record all waste incoming and outgoing. However how do we avoid doubling up on recording of recyclables leaving our site and entering another site for further processing? Eg. 10,000 tonnes of wood (recycled) leaves our site and is recorded as being recycled. Then the same 10,000 tonnes of wood is recorded at the next site, processed and then finally sent to a recycler. Hence now 20,000 tonnes of wood is being recorded before final destination.
- How do we avoid doubling up of recyclables throughout our various sites?
- Stockpiles are forever changing hour by hour – so it is impossible to measure unless these piles are being stored longer term and are not being consistently added to and taken away.
- How is everyone’s data reported going to collate together if everyone essentially has a different method of recording (due to different waste types, processes, data recording systems)?
- Estimating Annual Weight of Stockpiles –Imposing volumetric surveys on what are essentially moving stockpiles is unsafe and costly. Also unsure why you have also singled out Green Waste? Cost to survey a pile of greenwaste only for example would also cost more than the green waste value as most cases this is mulched and given away for free.
- Further to this when there is a weighbridge available – it is impossible to know what weight is deposited to which stockpile. Eg. A mixed load arrives on site (can be either weighed or measure by volume) - is processed and split up into 10 different stockpiles (wood, concrete, sand, steel, paper, plastic, contamination, tyres, landfill, bricks) and then at the end of the period we are to somehow know what these 10 stockpiles weigh? And then do a calculation based on weight in less weight out?
- How do we measure processing losses? And how is this supposed to be measured in tonnes?

3. Are there any barriers that would prevent your organisation from using these calculation methods? If so, what are they and how can they be overcome?

- How do you propose we “Start” on the 1st of July 2019 – are you not cutting it fine and trying to incorporate a change within a few weeks that needs to be thoroughly thought out and implemented to accurately obtain the figures you require? Even though we do record data currently at our sites – if any changes to how we do this are imposed this will

create problems rushing to implement this asap. DWER needs to understand that predominantly we are running a business, concerned with recycling waste and generating an income. Therefore we are already time-poor and restricted to only so many hours in the day that the extra work load imposed by DWER will create unnecessary pressure.

- As our site does not have a weighbridge we would be utilising the 2nd method. However we cannot record volume of each container as a percentage. Each load is measured by the bin/trailer size and if it is not full the volume is determined by the staff and charged accordingly as a cubic metre amount not percentage.
- Estimating weight of stockpiles cannot be done via the 1st or 2nd approved methods. Various problems with these options. The only way to accurately do this is:

All Stockpiles Contained Onsite Collectively = (Incoming Waste Total m3) – (Outgoing Waste Total m3) – (Material utilised onsite m3)

4. Are the proposed default material densities appropriate for the Western Australian recycling industry?

- The material densities that are applicable to our site do need further measuring and confirmation as some are clearly incorrect. ie Sand does not equate to 1:1
- Concrete can come in many forms and sizes and does not just fit into one type of density. There needs to be room for further breakdown of certain categories to allow for different sizes.
- To suggest that we develop our own densities is a very time consuming and laborious. Not to mention inaccurate depending on the type of load arriving. ie Mixed Waste is all types of materials so multiple densities and multiple % of each. There no way to convert this.
- To impose we measure the weight and volume of at least 5 loads of at least 3 cubic metres for each material category reported is impossible.
- Mixed loads of waste can vary – eg. 10m3 of waste can weigh between 2-10 tonnes. There is no bulk density amount that would help convert this accurately. Even with an average over multiple loads.

Bulk Densities are acceptable for sites that have incoming waste loads of one type of material at a time and then outgoing loads are also one type of material.

When all loads incoming are mixed waste loads of multiple materials and densities it is impossible to determine any weight amount of each and every load and each and every subsequent stockpile.

5. Other Queries:

Surveys:

- if this is being proposed then who pays?
- if various stockpiles of various materials are located throughout our site it becomes quite a task to measure them all accurately as they change minute by minute. Safety is a major issue. It becomes high risk of having surveyors onsite whilst working.

Recording of Outputs

- These changes shouldn't be only applicable to sites that have an output greater than 1000 tones. This means that sites can accept waste and stockpile it indefinitely and not be subject to any reporting or any consequences for continued stockpiling of waste.
- These changes need to be applied to any site accepting "waste"
- These changes need to be applied State-Wide and not just for the Metro and Peel Region. If correct data collection is the DWER aim for waste generation, recycling and stockpiling then the entire state needs to be accountable. There is a lot of waste generated in the North and being transported there as well that needs to be captured.
- Does DWER understand that proper waste recycling depots that actively sort and recycle their waste every day and therefore doing the right thing are different from sites that do not consistently sort and recycle? (ie. have no staff and barely any equipment to do so). DWER needs to deal with these two types of waste acceptors in a different manner that helps prevent sites from stockpiling to avoid disposing to landfill and incurring levies by accepting large quantities of waste from the metro area and storing it for years. Greater controls need to be imposed on these types of sites that do not have staff or equipment running to manage the waste effectively.

Penalties

- DWER needs to understand that there are multiple instances of waste sites being opened without licences and council approval and continue to operate for months/years, creating stockpiles of waste all over WA. If nothing is done about these


situations, or DWER has no power to take action faster, then the data collected will never be accurate and imposing further conditions/controls on those sites that are doing the right thing becomes even more unjust.

- What are the penalties for not reporting? What will be the consequences to sites or land owners that accept waste and do not record and report to you? Or do not register themselves as a liable recycler?
- As the initiative is left up to the land/business owner to know if they are a liable recycler or not and then make themselves known to DWER – what is the likelihood that you will be missing out on important data as well as imposing extra work/time/money on legitimate business to do the work for you when others are getting away scot-free?
- Does DWER have time to locate un-registered sites and somehow “police” these sites?

Determining Source of Waste

- Why is asking the least preferable? We have over 200 customers and the only way we know where the waste is coming from is by asking each truck driver as they drive through the gate. Confirmation of location of waste is sometimes provided via job sheets or run sheets.
- Regular customers still travel all over and every load can either come from one place or multiple places. Dependant on whether the waste is coming from a single residence or larger commercial site.

Kind Regards,

A handwritten signature in black ink, appearing to read "K Sumich", with a long horizontal flourish extending to the right.

Kristy Sumich
Director