ALOA
Australian Landfill Owners Association

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National Greenhouse and Energy Reporting (Measurement) Amendment Determination 2012: consultation draft

NGER Amendment 2012

The Australian Landfill Owners Association (ALOA) appreciates and approves of the following amendments to the *National Greenhouse and Energy Reporting (Measurement) Amendment* (*NGER Amendment*):

- additional options for the selection of default decay rate constants (k values) (Part 5.2 Division 5.2.2 Method 1), and
- the amendments to Method 2 (Part 5.2 Division 5.2.3 Method 2).

Comments on other parts of the NGER Amendment are as follows:

Part 5.2 Div 5.2.2 Sect 5.4 Method 1 75% rule

ALOA has significant concerns about the 75% rule set out in section 5.4(3) (75% rule) in the context of application under the Carbon Pricing Mechanism (CPM). This concern is twofold:

- application of the 75% rule leads to an outcome whereby **estimation** of emissions generated will be higher than **actual** emissions generated. This results in a situation where a landfill caught by the 75% rule will be passing through a higher carbon price to its customers than it properly should be. This is a poor outcome for the users of landfills captured by this rule, and will have significant commercial implications.

- application of the 75% rule results in a perverse outcome whereby there will be a disincentive to capture more gas and aim for the highest possible gas efficiency. Indeed there may be instances where a landfill operator decides to turn down its landfill gas capture equipment, to ensure its gas collection does not exceed 75%.

The NGER Amendment proposes an adjustment to the carbon stock model in Section 5.4B, C and D. However this adjustment to the carbon stock model has no effect on the emissions result for sites that trigger the 75% rule in the long term. The carbon stock adjustments reduce the CH_{4gen} but this reduction is eliminated when the amount of gas collected exceeds 75% of CH_{4gen} and CH_4^* = Gas collected/(0.75) less oxidation once more. Carbon stock adjustments will only have an effect when the landfill stops taking waste and the amount of gas collected falls to below 75% of CH_{4gen}.

The over estimation of DOC in the waste could be more than 20% i.e. the 75% rule creates 20% extra gas yield for the same waste composition compared to a site not using this rule. This is plainly inequitable, given that sites using the 75% rule will be paying 20% more Carbon Tax.

An alternative has been suggested that equates the CO_{2eq} yield from the default waste mixes, DOC and DOC_f for the site with the implied CO_{2eq} yield calculated from the CH_4^* using the 75% rule by adjusting the implied collection efficiency. This is a logical approach because if the amount of gas being collected is compared to the total expected

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yield a relationship can be calculated to compute the collection efficiency independently. The imposition of an artificial ceiling on the collection efficiency is no longer needed.

Part 5.2 Div 5.2.7 Sect 5.22 Legacy Waste

This new section of the Determination shows how to split the emissions into those from Legacy Waste (not subject to Carbon Tax) and those generated from non-Legacy Waste (subject to Carbon Tax). The approach is basically to use a FOD model for the gas generation for waste deposited up to the 30th June 2012 and a FOD model for the gas generation for the whole site and to deduct one from the other to get the non-Legacy waste gas generation and ratio L_r. This is also applied for the gas combusted, flared, transported off site etc. The factor used throughout this section is CH_4^*. The problem is that if the site is under the 75% rule its CH_4^* is not derived from a FOD model but from the 75% rule. This means that the Legacy/non-Legacy waste split cannot be performed for sites under the 75% rule. These sections must use the factor CH_{4gen} not CH_4^* in order for Section 5.22 to work for sites under the 75% rule.

Future Considerations
ALOA would like to submit the following matters for consideration for the next *NGER Amendment* and we would welcome further discussion on these matters.

Waste Audit Guideline
There is some confusion in the landfill industry around what waste sampling technique to implement. The waste sampling technique audit requirements under NGER are unclear. NGER states that reporting organisations are to use the "waste audit guidelines issued by the State or Territory in which the landfill is located; of if no guidelines have been issued…ASTM 5231-92 (Reapproved 2008) or an equivalent Australian or international standard" (NGER Determination 5.11)." In States and Territories where no guidelines have been issued there is some confusion as there are many standards to choose from and none are universally consistent for each waste type (municipal solid waste (MSW), commercial & industrial (C&I) or construction & demolition (C&D)). To avoid inconsistency and confusion, a single national waste sampling technique audit guideline is required and needs to be specified in the NGER Determination. Such national clarity will create a more efficiency carbon scheme and lead to less confusion for landfill operators and customers.

Co-located Facilities
The facility boundaries between separate activities located on one site is an area of concern. If two activities are being operated by the one company on the one site it is difficult to attempt to classify the activities as two separate facilities under NGER and the two activities may need to be reported as one facility. For example, if a company was to co-locate a small composting activity (taking non-biomass and non-source separate input) with a landfill (over the 25,000 tCO_2-e liability threshold for the Carbon Pricing Mechanism (CPM)) then all the emissions from the compost activity will create a liability. This is especially concerning as waste treatment technology is becoming more diversified and such a penalty on co-located facilities would hamper alternative waste technology innovation and efficiency gains from reduced transportation between waste facilities.

Global Warming Potential of Methane
The global warming potential of methane under NGER is currently 21 times that of carbon dioxide. The Intergovernmental Panel on Climate Change (IPCC) 2007 report indicated that methane has 25 times the global warming potential of carbon dioxide over a 100 year period. If the global warming potential of methane under NGER was to increase from 21 to 25, we would see a 20% increase in liability for the landfill sector for all non-legacy waste which has already been accepted from customers. Many people in the landfill sector are wary of this and are building this risk into their cost models for the CPM. If the NGER Determination could provide for a 5 year moratorium on liability

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related to any change in the calculation of the global warming potential of methane this could provide greater certainty for the industry and therefore greater investment on carbon abatement.

95% capture efficiency rule for Closed Landfills

The 75% rule currently applies to all landfills. We propose that when a landfill is no longer actively receiving waste (i.e. the active face is sealed) and the final cap has been applied, the landfill gas capture efficiency that can be achieved is greater than 75%. Therefore, we propose that a 95% capture efficiency rule should be applied to closed landfills.

Anomolous classification of waste under levy data requirements

Section 5.10(2) of the current Determination provides "if the operator of the landfill **is required**, under a law of the State or Territory in which the landfill is located, to collect data on tonnage of waste received at the landfill according to the waste streams set out in column 2 of the following table – (the tonnage of each waste stream must be estimated) by using that data" [emphasis added]. ALOA understands that this requirement is mandatory – there is no discretion to choose not to use this data and choose to use the default percentages. The Technical Guidelines confirm that the laws referred to in this section are intended to capture landfill levy requirements.

Accordingly, there appears to be no ability not to use the data coming out of the landfill levy statements, and to reclassify the waste in a way which is more consistent with the actual waste type.

In some states, the landfill levy waste classification does not properly classify certain waste streams in relation to the organic component of that waste stream. For example, the waste stream is required to be classified as C&I or industrial, when it should more properly be classified as C&D. This produces a perverse outcome, because customers of these landfills will be required to pay the carbon price based on the C&I emissions number (1.08), rather than the more appropriate C&D emissions number (0.17).
In our view, an amendment is required to section 5.10(2) to deal with this situation.

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