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Dear Chris

The Australian Sustainable Business Group (ASBG) welcomes the opportunity to comment on the *Review of the Excavated Natural Material Resource Recovery Exemption (ENM RRE)*.

The Australian Sustainable Business Group (ASBG) is a leading environment and energy industry representative body that specializes in providing the latest information, including changes to environmental legislation, regulations and policy that may impact industry, business and other organisations. We operate in NSW and Queensland and have over 150 members comprising of Australia's largest manufacturing companies. Members were fully involved in the development of this submission and ASBG thanks them for their contribution.

ASBG strives to assist regulatory agencies to prepare more efficient regulatory process, with the outcome of achieving practical, efficient, low cost solutions to achieve high environmental outcomes.

ASBG welcomes the proposed changes to the ENM RRE as it will reduce costs and time to efficiently classify ENM wastes as suitable for reuse and reduce wastes to landfill. In particular ASBG welcomes:

- The use of cylindrical hot spot identification, which provides better clarification of hot spot areas within a volume of potentially recoverable ENM material. This approach goes with the adage that it makes no sense in sending more waste than necessary to landfill or further waste treatment.
- The changes to the monitoring requirements for smaller quantities of waste -- down to 500 tonnes with 3 samples.
- Changes to the metal limits
- General alignment of the ENM Exemption with contaminated site assessment and remediation practices.

While these above steps are welcomed and considered in the right direction of making it easier to recover, recycle and reuse exempted waste, the costs of monitoring still pose a barrier to good environmental practices. In saying this ASBG accepts there is regulator's balance: Making the rules too open and broad, will merely permit abuse of the system. Make them too tight and the cost of compliance is set too high. Obviously the issue is always a balance between environmental protection and its proper policing and resource recovery. The issues where ASBG considers further thought and investigation is required into further streamlining the ENM process includes:

- Smaller quantity assessment of ENM requirements
- Clarification of what is meant by 'does not contain any asbestos'

1. SMALLER QUANTITIES

While the reduction of sampling down to 500 tonnes is welcomed, the frequencies of excavated materials quantities are inversely and exponentially proportional. To put it another way, the number of smaller loads of ENM is far higher than for larger loads. Smaller loads of ENM therefore have a higher proportional measurement cost.

Smaller construction sites, excavations etc. are caught with the need to undertake ENM and other exemption testing. Since 2008 when the new waste laws came into being, the treatment ENM has gone from no assessment and policing the consequence, to a pre-assessment preventative approach. This was, and still is, a major change. Many ENM generators, especially small ones, are still not properly aware of their legal obligations under NSW waste laws. ASBG is concerned this may have added to the level of illegal waste disposal, which is an issue being covered under our [submission](#) on the *Review of The Waste and Environmental Levy*.

Under the waste laws, ENM and other RRE covered materials, require written proof they pass the required RRE. For smaller loads this is a considerable cost. The current level of costs for the ENM RRE is estimated to be about \$4,000 to \$5,000. So the reduced set of testing is welcomed. However, it still does not provide a cost effective and practical means to measure and assess all ENM and other RREs used under NSW Waste legislation. A far more practical, efficient and effective measurement approach is required especially for smaller loads — loads under 500 tonnes.

While the review of the ENM RRE is welcomed, there is a cross over with the Recovered Aggregate RRE and other related RREs. As a consequence, ASBG recommends that the Recovered Aggregate RREs should also be reviewed and be aligned with the ENM RRE. Over time other RREs can be changed to include changes to the ENM RRE where appropriate.

So what is the cost of measurement? For example assume:

- The cost of landfilling ENM (non-putrescible) is \$170/t,
- This will increase to about \$230/t in 2015-16 (levy increase + carbon price)
- Transport and handling costs for reuse are assumed to be similar to landfilling and reuse
- Cost of sampling and analysis of 3 samples \$1,500 -- \$2,000
- Time to undertake sampling and receive analysis 7 days
- Time for expedited sample results 3 – 4 days – cost 25% more

At current costs the monitoring cost is directly equivalent to the landfilling of 9 to 11.5 tonnes dropping to \$6.5 to 8.6 tonnes by 2015-16. However, this direct measurement cost vs disposal costs, ignores time costs uncertainty that the material may fail the requirements and other ENM exemption requirements such as finding a suitable reuse location.

Time of delay is dependent on the site, and can be a major cost, which can range many times the actual sampling and analysis time. An option is to pay more for a speedier result, but this can add an additional 25% to the cost to reduce the time to about 3 days. Nevertheless, time delays especially on construction site can add substantially to the cost of measurement. Delays in construction, waiting for sampling results for materials, can add tens of thousands of dollars to the cost of complying with the ENM and other RREs. The question is where it is more cost effective: to landfill vs use as a resource recovered material? Again making it easier, in time and costs to measure will increase diversion from landfill and gain higher compliance.

ASBG considers that alternate lower cost testing for smaller quantities, such as less than 40 tonnes would ensure higher compliance and more frequent ENM use. It is also appreciated the design of such testing

criteria is difficult to ensure loopholes and abuse are minimised. ASBG's recommendations for faster, lower cost measurement include:

- **Human Sense Testing:** Development of on-the-spot testing where visual and direct human senses provide reasonable levels of confidence on the contents of the potential ENM. This would only be applicable for the smaller loads (< 500 tonnes) of potential ENM and other RRE materials. An example of this is the putrescibility test used in the Waste Classification Guidelines. Human sense on-the-spot based tests could be developed for:
 - Rubber, plastics, bitumen, paper, cloth, paint and wood – sighting of such material will require such a test be undertaken.
 - Petroleum hydrocarbons may be assessed by a visual and smell test – tester would be most likely be required to undergo some form of training.
 - Other substances such as asbestos sheeting or fibres, at least for triggering other tests.Where there is any evidence that a listed substance may be present using the simple sense tests, then analytical testing for those materials or substances will be required. While the on-the-spot tests are generally less accurate than off-site laboratory analysis, they may also pick up other issues with the suspect soils and material in question.
- **Historical Assessment:** History of the site use should be used with the sense tests to provide a higher level of confidence on the ability of such tests to identify if the waste passes the ENM requirements. For example, industrial use on the land may substantially limit, even totally the human sense tests. Where there is suspect contamination then such tests must be undertaken.
- **Permitting a subset of the testing criteria to be used** such as permitted under the Waste Classification Guidelines. Under this approach, if a reasonable history of the waste can be identified and the generator of the waste can demonstrate and document which types of materials do not require testing. 3 samples would be required, but with a reduced set of measurements to be undertaken. This subset could be assigned by a 3rd party to provide further assurances of a reasonable measure of the substances of concern.
- **Development of on-the-spot analytical assessment**, where testing equipment can be brought on to a site to deliver a test result in less than a few hours.
- **Use of 3rd parties** to undertake on-the spot assessment. Human sense and other on-site testing (see below) are used to inspect and provide a written report on their assessment citing which, if any other off-site ENM test, is required to be undertaken. This is already a practice for the assessment of VENM at contaminated sites and other excavation work. Cost of geotechnologists or other suitably qualified persons to conduct on the spot testing is around \$600 to \$700 per visit. Such 3rd party on-the-spot testing will need to provide a written report and be similar to a the use of surveyors report. Appropriate education, training and Professional Indemnity insurance will be required for testers to be qualified.
- **Use of maps** which identify specific areas of suspected or potential contamination. Where excavations are conducted in these areas a full or partial testing of the ENM is required. A similar mapping system is used for the need for monitoring wells at underground Petroleum Storage Systems. In the future a GIS mapping system could also identify background levels of substances of concern.
- **Specific Areas:** ENM and other RRE material types around a site can be considered different areas under specific circumstances e.g. driveway use, residues from masonry stockpile areas. This would only apply where the generator was the applier of the materials and can demonstrate the area and quantities applied.
- **ENM already assessed** and tested can be, if not blended with other materials, be able to reuse it original testing certificate. There will need to be strict controls on the ongoing use of such material such as use for specific purposes. For example, use of road-base from crushed concrete which was used for temporary road construction at a building site.
- **Soil Bank:** Assist in the development of a soil (ENM) bank where a landfill is used to assess, process, stockpile and sell (if it has value) EMN and other RRE materials. Taking the suspect ENM there where testing can be undertaken and the materials sorted and tested for reuse. For the majority of

materials sent to such a soil bank the gate fee should be substantially lower than for the landfill largely due to the waste levy. Materials not meeting the RRE requirements will need landfilling and subjected to the full waste levy.

The next step is to consider the use of the above solutions and applying these to the scale of the ENM and other RRE materials. ASBG's considered a range of quantities of materials which includes:

- A minimum threshold is around 10 to 20 tonnes. Currently, it is far more cost effective and convenient to send the ENM to landfill. On the spot assessments could be best suited to this small scale. Use of the mapping system could also further reduce the measurement burden on especially householders undergoing small scale excavations such as for a swimming pool or basement. For such small loads the use of a reduced set of testing requirements could be undertaken.
- Medium threshold where a more cost effective approach to the full set of analytes may be used. ASBG considers this would be for 20 to 100 tonnes of ENM. Here a more thorough on the spot assessment can be conducted, with where, necessary 3 samples are taken and assessed for a reduced set of chemical contaminants from the ENM RRE.
- Larger amounts of > 100 to 300 tonnes where the 3rd party testing can still be undertaken, but again with stricter on the spot assessment is undertaken.
- Loads or amounts > 300 tonnes be subject to the proposed requirements in the draft ENM, but have some option for the other choices of assessment provided.

Depending on the success of the alternative testing these could be applied to even larger volumes of material. Also to consider when providing lower cost measurement for smaller quantity ENM amounts is the costs of rectification. Smaller loads should in general be of lower cost to remove and dispose of where errors have occurred.

2. ASBESTOS TESTING

The ENM RRE state simply that:

The generator must ensure that the excavated material does not contain any asbestos.

While the need to minimize human exposure and properly dispose of asbestos is critical, this statement provides no legal comfort on what is considered a 'zero' or safe level of asbestos. Background levels of asbestos are measurable in many urban areas in soils, water and on and in other materials. These levels are tiny, but are detectable. As a consequence of not identifying a background level or 'zero' equivalent level means that virtually all wastes are likely to contain asbestos.

Waste classification including landfilled wastes, ENM and other RREs are affected by the lack of scientific definition of what is an acceptable 'zero' level of asbestos, based on typical background levels. Without this virtually all wastes could be found to contain tiny traces of asbestos. While the EPA and other government agencies may be reasonable in the application of what is 'zero' others may not. Potential for third party prosecutions under s252 and s253 make the unscientific definition of asbestos wastes legally risky for anyone responsible for handling any waste in NSW.

3. CONCLUSION

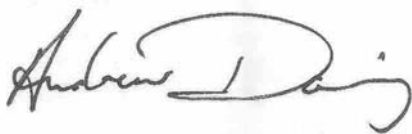
The issues raised in relation to the ENM RRE have broader implications. Many of the measurement issues identified in the ENM review are also current to many other RREs. Use of on-the-spot assessment, either by direct use of human senses or by on-site testing, will lower costs or increase the speed of ENM for reuse. Issuance of written assessments by 3rd parties will also assist that such wastes are assessed in a legally suitable manner.

Overall a lower cost and quicker assessment process will not only serve to protect the environment, it will also make it easier for generators to follow the correct procedures, lessening temptation to be illicit or simply send the ENM materials to landfill.

Asbestos having a scientifically based measurement approach to determine 'zero' (i.e. background levels) will provide certainty for all generators of waste. This will remove the legal fear that asbestos fiber of any degree or amount may be found and used against the persons involved.

Should you require ASBG to clarify or elaborate on the above matter please contact me.

Yours Sincerely



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