



**A USTRALIAN  
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31 Lady Penrhyn Drive Beacon Hill 2100  
(PO Box 326, Willoughby, 2068)

Telephone: (02) 9453 3348  
Fax: (02) 9453 5928  
Mobile: 0407 238 258  
Email: [aebn@aebn.com.au](mailto:aebn@aebn.com.au)  
Melbourne: (03) 9397 2511  
Website: [www.aebn.com.au](http://www.aebn.com.au)

2 November 2007

Mark Gorta  
Manager Waste Management  
Department of Environment and Climate Change  
PO Box A290  
SYDNEY SOUTH NSW 1232

Dear Mark

The Australian Environment Business Network (AEBN) welcomes the opportunity to comment on *Protection of the Environment Operations Amendment (Scheduled Activities and Waste) Regulation 2007* and related documents.

AEBN is an industry and business representative body specializing in environmental issues, which affect our members. Our membership collectively has a turnover in excess of \$50 billion and employs well over 50,000 employees. Further information about AEBN can be found on our web site at [www.aebn.com.au](http://www.aebn.com.au).

Members of AEBN's Policy Reference Group who include most of the industry based environmental managers prepared this submission.

Should you require further clarification of the issues and positions identified in this submission, please contact me on 9453 3348.

Yours sincerely

*Andrew Doig*

ANDREW DOIG  
Director  
AUSTRALIAN ENVIRONMENT BUSINESS NETWORK

# **AUSTRALIAN ENVIRONMENT BUSINESS NETWORK**

**Submission on**

## **Protection of the Environment Operations Amendment (Scheduled Activities and Waste) Regulation 2007**

**and supporting Policies**

**October 2007**



**AUSTRALIAN  
ENVIRONMENT  
BUSINESS  
NETWORK**

**Sydney & Melbourne**

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## EXECUTIVE SUMMARY

The Australian Environment Business Network (AEBN) welcomes the opportunity to comment on the *Protection of the Environment Operations Amendment (Scheduled Activities and Waste) Regulation 2007 (SAW Reg.)* and the associated policy documents.

AEBN accepts” the majority of changes to the waste regulations and proposed policy direction, especially those intended to progress the beneficial use of wastes. Our recommendations relate to additional improvements to be included within the waste reform package to further aid the beneficial use of wastes in an environmentally responsible manner.

A major part of this submission details the problems with POEO Act’s s143, which requires all wastes to go to a licensed waste facility. This problem is, in part, due to the very broad definition of waste, where virtually all second-hand goods can be classified as wastes. In addition the proposed changes also remove any reference to what is a waste facility.

AEBN proposes a new definition for a ‘waste facility’, which includes a new category of a ‘**value-adding process**’, which uses waste, among other materials, as a raw material but does not require a licence under Schedule 1. It is equivalent to, only for *s143* purposes, a waste facility. The term ‘value-adding process’ is further defined by a detailed flow diagram to ensure only *bona fide* value-adding processes are considered under this section and definitions. To assist with the stigma of dealing with a waste material, which can also be considered a raw material, AEBN recommends that waste streams sent to *bona fide* value-adding processes can also be called ‘by-products’.

Other main recommendations cover:

- Removing inconsistencies with the proposed definition of hazardous waste, by removing Class 7 and Class 9 dangerous goods under this definition.
- Defining the terms ‘on-site’ and ‘off-site’ as this creates considerable confusion and practical difficulties if, for example, adjacent lots of land are owned by the same person but only one is covered by an Environment Protection licence.
- Removing the inconsistencies between the POEO Act Schedule 1 and its sister planning instrument, Schedule 3 under the *Environment Planning and Assessment Regulation 2000*.
- Increasing the 200kg threshold for storage of hazardous waste for licensing of waste management facilities as it is too low.
- The need for an exemption clause to permit the Department of Environment and Climate Change to by-pass regulatory requirements, if it considers this action appropriate.

Should the contents of this submission require further clarification, please contact Andrew Doig at AEBN on (02) 9453 3348.

## RECOMMENDATIONS

- R1 AEBN recommends that wastes directed to a *bona fide* value-adding step be called *by-products* (this can be in addition to being also considered to be a waste).
- R2 AEBN recommends that the definition of ‘a lawful waste facility’ be included within Schedule 1 to include:
- Resource recovery
  - Energy recovery
  - Waste disposal (all types)
  - Waste processing (all types)
  - A value-adding process that uses wastes as a raw material [alternatively, this could be made into an exemption]
  - Other applications the environmental authority considers appropriate.
- R3 AEBN recommends that general exemption using a set of simple-to-follow criteria be established for determining those value-adding processes receiving waste by-products. If a value-adding process and the waste by-products meet the criteria, they are at least exempted from Section 143. If the value-adding process and waste by-products fail to meet the criteria, they may have to apply for a separate exemption.

An example set of criteria is presented in this submission (*see page 9*)

- R4 AEBN recommends that Class 9 dangerous goods be removed from the proposed definition of hazardous wastes to maintain consistency with the current classification of hazardous wastes.
- R5 AEBN recommends that Class 7 radioactive dangerous goods be omitted from the definition of hazardous wastes. Instead use the current definition used under the Waste Guidelines:  
‘Any radioactive waste, being waste that:  
(a) contains a substance that emits ionising radiation spontaneously, and  
(b) has a specific activity greater than 100 becquerels per gram, and  
(c) consists of, or contains more than, the prescribed activity of any radioactive element listed in Schedule 1 to the Radiation Control Regulation 1993.’

- R6 AEBN recommends that the following definitions be included under Schedule 1:

‘On-site’ means the site allotment and any adjacent land owned by the same person

‘Adjacent land’ means any land that shares a boundary with the subject land and includes land that is separated from the subject land by a road, river, creek, other easement or the like.

‘Off-site waste’ means waste that is moved or transported to a parcel of land where the owner of which is not the owner of the waste and where the owner of the waste and land are the same, but the land is not adjacent land owned by the owner of the waste.

- R7 AEBN recommends that DECC investigate the legal consequences of a misalignment between POEO Act's Schedule 1 and the Environment Planning and Assessment Regulation Schedule 3.
- R8 AEBN recommends that the threshold limit for Schedule 1 sites that treat hazardous waste should be 200 tonnes received on an annual basis.
- R9 AEBN recommends the POEO (Scheduled Activities and Waste) Regulation 2007 include a clause to provide the DECC the power to issue a special exemption from any provision within the regulation, where it considers such an action to be appropriate.

## 1 INTRODUCTION

AEBN welcomes the opportunity to comment on the *Protection of the Environment Operations Amendment (Scheduled Activities and Waste) Regulation 2007* and the associated policy direction documents including the *Draft Resource Recovery Exemptions (Land Application) Guidance Note*.

AEBN is an industry and business representative body specialising in environmental issues that affect its members. The membership collectively has a turnover in excess of \$50 billion and employs well over 50,000 people. Further information about AEBN can be found on our web site at [www.aebn.com.au](http://www.aebn.com.au).

Overall, AEBN is encouraged by the direction and thrust of the proposed changes to the waste regulatory framework. Industry has been long stifled by the lack of regulation and clarity in dealing with the beneficial uses of wastes. The Department of Environment and Climate Change (DECC) has proposed an innovative method in which to deal with the complex issue of assisting with the beneficial use of waste and protect against potential environmental harm resulting from the misuse of wastes. AEBN is keen to see a process that permits responsible companies to pursue current and unforeseen innovative methods to beneficially use wastes. DECC has a clear gatekeeper role to ensure that only *bona fide* waste re-use practices are permitted to proceed.

In developing such a regulatory framework, the DECC has chosen an interesting and potentially flexible approach to exempt beneficial practices from some or all of the tightly controlled waste laws. Final proof on the effectiveness of the new approach will be identifiable by the time, cost and complexity in implementing the many exemptions that will be asked for. While the DECC is confident that it will have most of the required exemptions in place at the commencement of the SAW regulation, AEBN is not so confident.

Permitting the development of exemptions to waste streams will also permit greater resource recovery and efficiencies, resulting in environmental wins in many areas. A major advantage of the exemption process is its application to classes, types and categories of waste as defined under each exemption. While the need for exemptions will be triggered by large quantities of waste and capital, after the granting of an exemption, smaller quantities of waste will also benefit. This is considered a major advantage by AEBN over the current systems, which can only assess wastes on a one-on-one basis.

Nevertheless, despite the apparent effectiveness of the proposed system AEBN considers there are areas in which the regulatory package can be further improved. The package deals well with land-directed waste, or products containing waste materials that are land-directed. This land-direction arrow is contained in the heading of the *Draft Resource Recovery Exemptions (Land Application) Guidance Note (Guidance Notes)*. It seems, however, that products which are not land-directed that use waste as a raw material in part or all of their manufacture, appear to be missing from this package. A simple renaming and use of minor amendments to the guidance notes could expand the exemption to also include all waste, land-directed and otherwise.

AEBN considers that *bona fide* products (not land-directed using waste as a raw material) also require regulatory recognition, given the severe penalties under environmental laws for doing otherwise. There are many recycling, re-use and reprocessing activities that are potentially breaching environmental

laws<sup>1</sup>. Currently the DECC and other regulators are turning a blind eye to the full implications of waste laws. However, from the tone of the regulatory package AEBN is under the impression that enforcement of such laws under the package will be more to-the-letter and fewer departmental discretions will be used. Industry appreciates and understands the need for tough legislation, and when it is applied with appropriate departmental discretion it is an efficient practice for that regulator, but the regulator is not the only one using the legislation as guidance and even enforcement.

The trouble with having such broad law is that it will make other decision makers such as lawyers, business decision makers and other regulatory bodies baulk at investments or even prosecute on the black letter of the waste laws. This may prevent many waste materials being beneficially used. So simply turning a regulator's blind eye to such issues only works if that regulator is the only decision maker.

AEBN would like to be reassured that adequate resourcing is provided within the DECC for the speedy generation of such exemptions. In addition, the process of commencing and progressing an exemption has not yet been identified. It is also unclear what dispute settlement procedures will be made available for dealing with conflict in establishing an exemption.

In many other areas of law there is some provision for an independent review process where disputes occur. There appears to be no such dispute process over the science of exemptions, their application, creation or time to create and withdraw such applications. Such conflict resolution processes are evident in planning laws and the setting of environment protection licences. If a company is to invest in a process or project supported by an exemption, it should be able to use an independent umpire if damaging changes to the exemption occur or another exemption impacts adversely on its business. The need for environmental scientific assessment of such disputes is required as new findings<sup>2</sup> may strongly support the government's arguments for amendment or withdrawal.

It is also unclear how the exemptions will be handled in a subordinate legislation process. AEBN considers that the exemption process, while welcome, could be subject to provisions under the *Subordinate Legislation Act 1989*, which requires that a regulatory impact study be undertaken on each exemption and each exemption be reviewed every five years. Such requirements may stifle exemptions and undermine their speed in development and gazettal.

Nevertheless, progress in making a flexible regulatory structure is welcomed that:

- protects the environment
- provides guidance to industry, government and the community
- promotes and encourages the beneficial use of wastes
- can use an independent umpire with scientific assessment ability where conflict arises.

It will take about a year to demonstrate how well the DECC's exemption provision can work in terms of flexibility and time and effort on the part of applicants to make these systems work.

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<sup>1</sup> Most breaches relate to the Protection of the Environment Operations Act s143 Unlawful transporting or depositing of waste.

<sup>2</sup> For example, a substance that is environmentally more or less harmful than initially considered may be identified in research.

## 2 WASTE FACILITIES AND S143

Current definitions used for waste management are centred around disposal. The proposed use of the exemptions appears to permit the use of products that contain wastes to be environmentally beneficially applied to land. However, there are many other wastes used beneficially in an environmentally responsible manner that are still caught up, at least in a legal sense, in the current and proposed waste-legislation framework. Put simply, these are the wastes diverted into the making of products that are not directed to land or products directed to land.

Central to this area is the requirement under s143 of the *Protection of the Environment Operations Act 1997* (POEO Act), which requires that all wastes go to a licensed waste facility or equivalent. Given that the definition of waste is now so broad, virtually any secondhand good could be classed as a waste material.

AEBN concludes the best outcome is to develop a simple set of tests and criteria to, possibly as an exemption, exclude many obviously commonly beneficially re-used and resold wastes from s143 requirements. Key to this recommendation is to define what is *bona fide value-adding process* that use waste as a raw material. Wastes that are going to such a process are also defined as by-products.

Substantial care must be taken to ensure loopholes and other abuses of this approach are not practicable. The last outcome AEBN wishes is for the abuse of such a system that results in environmental harm.

### 2.1 Waste – What is Waste?

One of the key issues in the management of waste is correct definition and the use of such definitions. Historically waste has been assigned a very broad definition. Closure of loopholes to prevent the abuse of waste definitions was undertaken to prevent abuse of older style definitions of wastes.

To prevent such abuse the definition of waste was made very broad:

#### **Definition of Waste POEO Act 1997 – “waste” includes:**

- (a) any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment, or*
- (b) any discarded, rejected, unwanted, surplus or abandoned substance, or*
- (c) any otherwise discarded, rejected, unwanted, surplus or abandoned substance intended for sale or for recycling, processing, recovery or purification by a separate operation from that which produced the substance, or*
- (d) any processed, recycled, re-used or recovered substance produced wholly or partly from waste that is applied to land, or used as fuel, but only in the circumstances prescribed by the regulations, or*
- (e) any substance prescribed by the regulations to be waste.*

*A substance is not precluded from being waste for the purposes of this Act merely because it is or may be processed, recycled, re-used or recovered.*

This definition captures many substances that are commonly recycled and declares them waste. Even selling any 'substance' or recycling it still makes it a 'waste'<sup>3</sup>. As a consequence, many recycled materials are not considered to be 'wastes' or have a blind eye turned to them to make practical sense out of the above definition.

The scope of the definition of waste is so broad it causes confusion, uncertainty if applied under s143 of the *POEO Act*:

### ***143 Unlawful transporting or depositing of waste***

*(1) Offence: If a person transports waste to a place that cannot lawfully be used as a waste facility for that waste, or causes or permits waste to be so transported:*

*(a) the person, and*

*(b) if the person is not the owner of the waste, the owner, are each guilty of an offence.*

*Maximum penalty:*

*(a) in the case of a corporation – \$1,000,000, or*

*(b) in the case of an individual – \$250,000.*

*(2) Proof of lawfulness: In any proceedings for an offence under this section the defendant bears the onus of proving that the place to which the waste was transported can lawfully be used as a waste facility for that waste.*

The problem here is that there are many 'wastes' that are commonly recycled or used as a raw material used for another process or is to be made into a product. Such practices have been undertaken for many years well before the current *POEO Act* was established. Some examples of 'wastes' that are commonly recycled and not taken to a licensed waste facility include:

- **Excess bread** → Bakeries commonly bake excess bread and bakery products. Such excess products are returned to their bakery from retail outlets. This is then sold on as stockfeed, usually directly to piggeries [these piggeries are not waste facilities]
- **Excess food wastes** → Many food manufacturers generate waste-food products. Given the high cost of disposal, these are sold to stockfeed companies that are not licensed waste facilities. However, if the food material is a liquid it is common for it not to meet the stockfeed companies' specifications. If this is the outcome, the liquid food waste generally goes to bio-solids subsurface injection on farmland. Liquid waste bio-solids disposal requires a waste facility licence.
- **Asphalt pavement** → Asphalt pavement is dug up from roads and trucked to an asphalt plant, where it is mixed with other raw materials [aggregate, bitumen etc] to make fresh asphalt for road laying.
- **PET bottles** → Recycled PET plastic bottles are turned into a range of products, including new beverage containers to structural plastics, fleecy fabrics, carpets etc.
- **Off-spec products** → If sent back to the manufacturer to be reworked or changed or otherwise to be made into a standard acceptable for putting back onto the market.
- **Product recalls** → This can be under a court order and in many cases includes sending the product back to the manufacturer or importer for reworking or sending back overseas.

Example of less commonly recycled or re-used 'wastes' include:

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<sup>3</sup> In this submission where 'waste' appears within commas it means wastes in the broad sense as defined under the *POEO Act*, which can include any secondhand good if taken to a broad interpretation of the legal definition of 'waste'.

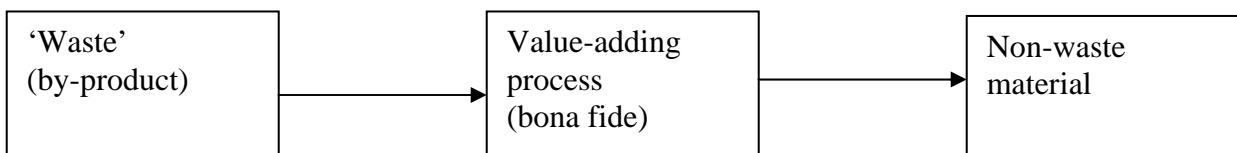
- **Waste acid** → a chemical company contaminates a batch of sulphuric acid, rendering it useless for the process it was intended. However, it is of acceptable quality to be used as a pH correction acid. As this is a 'waste' then the acid can only go to a licensed waste facility. However, beneficial use of the acid sees it being on-sold to another company for pH correction.
- **Waste ammonia** → An ammonia refrigeration process is being shut down. Its ammonia is able to be recycled at a nitric acid manufacturer's site, though some modification of the connections and safety control measures is required. As the ammonia is a waste it technically can only be disposed of to a licensed waste facility.
- **Waste lead** → Metallic lead, commonly used and sold as waterproofing flashing for buildings, is often collected at metal recyclers. This lead is considered a waste and probably can be classed as, at best, a 'restricted solid waste'. It is recycled generally as a metal, back into the lead metal market for re-use.
- **Waste Steam** → A company operates a boiler, but reduces production levels so does not require all the steam it produces. It then sells this excess steam to its neighbour.

All of the above are, in practice, not sent to a licensed waste facility even though they are defined as a 'waste'. There needs to be a definition of the many easily recycled, re-used or reprocessed materials to escape s143.

AEBN proposes that to effectively beneficially use a waste it must go through a *bona fide* value-adding step before it becomes a non-waste.

***R1 AEBN Recommends that wastes directed to a bona fide value-adding step be called by-products [This can be in addition to being also considered to be a waste]***

**FIGURE 1 SIMPLE STEPS FOR A WASTE TO BECOME A NON-WASTE**



The key issue here is to develop a generic exemption starting with the simple, easy-to-identify rules, which increase in complexity if the value-adding process or waste fails to meet each rule.

The rules are based on a number of simple tests, including:

1. Is the waste specified as a raw material in the value-adding process?
2. Is the waste consumed in the value-adding process?
3. Is the product from the value-adding process tested by the market?

## 2.2 Dealing with s143 Beneficially Used Waste Materials

As discussed above, s143 can make it technically and legally difficult to recycle many ‘wastes’. No doubt the laws must be there to ensure that such ‘waste ‘ recycling does not lead to environmental harm. So it is important to separate the *bona fide* recycled or processed ‘wastes’ from those in which more checks are required to ensure the best environmental outcome .

AEBN considers there to be a need for a general exemption for value-adding processes (VAPs) using waste by-products as part or most of their raw materials, which are considered legally equivalent to a *lawful waste facility* under or exempt from Section 143 *POEO Act*.

AEBN also considers that wastes sent to *bona fide* VAPs should be defined also defined as *by-products*. This is reflected in R1 in this submission.

As the term ‘waste facility’ has been removed from Schedule 1 as an activity under the proposed SAW regulation, it now appears to lack legal clarity and would be open to legal interpretation. Further discussion about the issues with commonly recycled wastes and other collected waste materials is found in *Section 4 Schedule 1 Changes* in this submission.

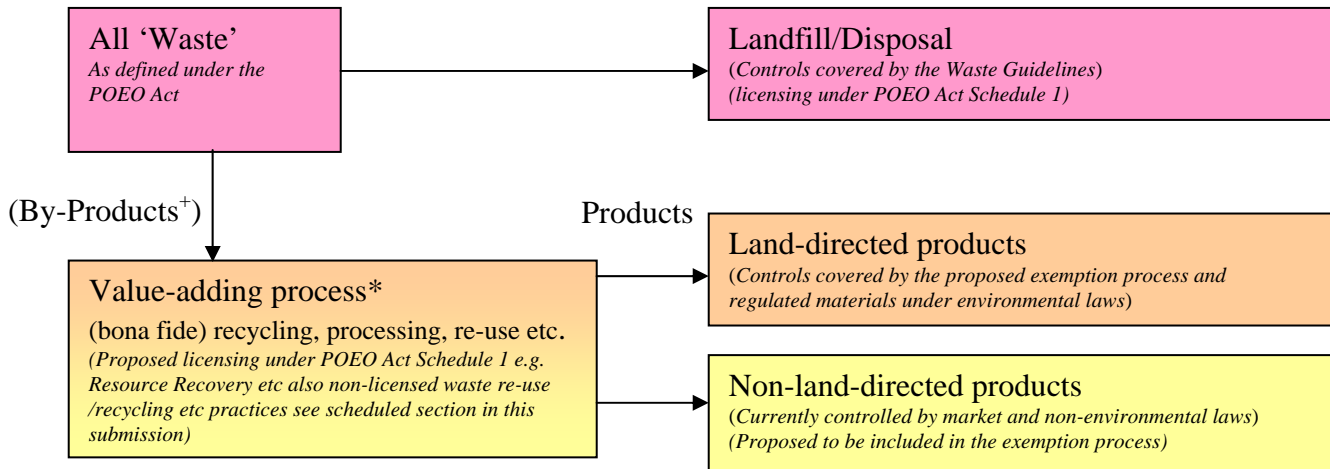
***R2 AEBN recommends that the definition of ‘a lawful waste facility’ be included within Schedule 1 to include:***

- ***Resource recovery***
- ***Energy recovery***
- ***Waste disposal (all types)***
- ***Waste processing (all types)***
- ***A value-adding process that uses wastes as a raw material [alternatively, this could be made into an exemption]***
- ***Other applications the environmental authority considers appropriate***

Note that it may be more convenient to make an exemption to cover generic value-adding processes that use wastes as a raw material, rather than changing Schedule 1 or the waste regulation.

Figure 2 provides a diagram showing the current and proposed approaches – both DECC’s and AEBN’s – to covering the types of wastes requiring exemptions or being covered by licensed waste facility licences. AEBN’s addition is to add in the non-land directed products from value-adding processes that use ‘waste’ as one or more of its raw materials.

**FIGURE 2 CURRENT, PROPOSED AND RECOMMENDED EXEMPTIONS**



Key:  Current  Proposed  Recommended by AEBN

Value-adding process includes any process which takes in wastes and:

- consumes the waste within its process or
- combines the wastes with other raw materials to make a product or
- converts the waste into a product.

+ By-product means a waste material as defined under the *POEO Act* that is directed to a bona fide value-adding process.

Under the above scheme, land-directed products (as proposed in DECC’s waste reform package) are to be controlled via the use of exemptions. If they do not have an exemption or fail the exemption criteria they cannot be used on land and must go to a licensed waste facility. However, as pointed out in this submission there are many ‘wastes’ used as raw materials in value-adding processes where the final product is not land directed. In this circumstance, one could argue, that such ‘wastes’ are placed back into the anthropogenic ‘environment’ and do not enter the natural environment until they become a ‘waste’ again. After this, the process starts again – of assessing where that waste then will go.

Assessment of the environmental fate of a product within the anthropogenic environment is a regulatory issue covered by other sections of environmental laws, such as the *Environmentally Hazardous Chemicals Act 1985*. So is assumed to be out of the scope of this regulatory reform package dealing with waste.

Using the three areas in which a value-adding process can be easily tested, AEBN has been careful to ensure that these simple tests cannot lead to abuse from irresponsible persons. For example, just requiring that a product (from a VAP) is sold to another is no test of its standing in a market. Hence the market must contain multiple customers in a competitive process. Such requirements close the door on cartels and where the product is sold to only a few customers. This is not to say that a waste material cannot be value added to make a product for one or two customers, but that such a limited market would require further evidence that the VAP is *bone fide*. This may require a separate exemption for that waste and VAP.

The DECC has recently set a precedent where if the waste material is going to a *bona fide* non-licensed VAP it must be fully identified as a raw material in this process. The DECC’s [Waste and Environment \(Liquid Waste\) Levy Technical Guidance Notes](#) Technical Guidance Note 1 states:

*'The occupier of a scheduled waste facility may claim a transported waste deduction for the aqueous component of processed, treated or recycled trackable liquid waste that is received at the facility and transported off-site for re-use as industrial water in commercial or industrial processes. This may include a range of industrial process water applications not at a scheduled waste facility.*

*The component of trackable liquid waste proposed for industrial re-use must comply with relevant industrial specifications, standards and guidelines for the particular commercial or industrial process. Where a specification is not available or applicable, a risk management plan must be undertaken (and made available to the Department of Environment and Climate Change (DECC) on request) consistent with the principles outlined in the [National Guidelines for Water Recycling: Managing Health and Environmental Risks \(2006\)](#).'*

While the above only applies to the liquid waste levy, AEBN considers this to set a precedent for permitting such wastes to not have to go to a scheduled waste facility, in somewhat contrary terms to *s143*. It appears that the DECC has formed, in part, a general definition of what a VAP is. AEBN's approach is actually tougher, as it applies to a much wider scope of wastes. Its approach is to also include the market test.

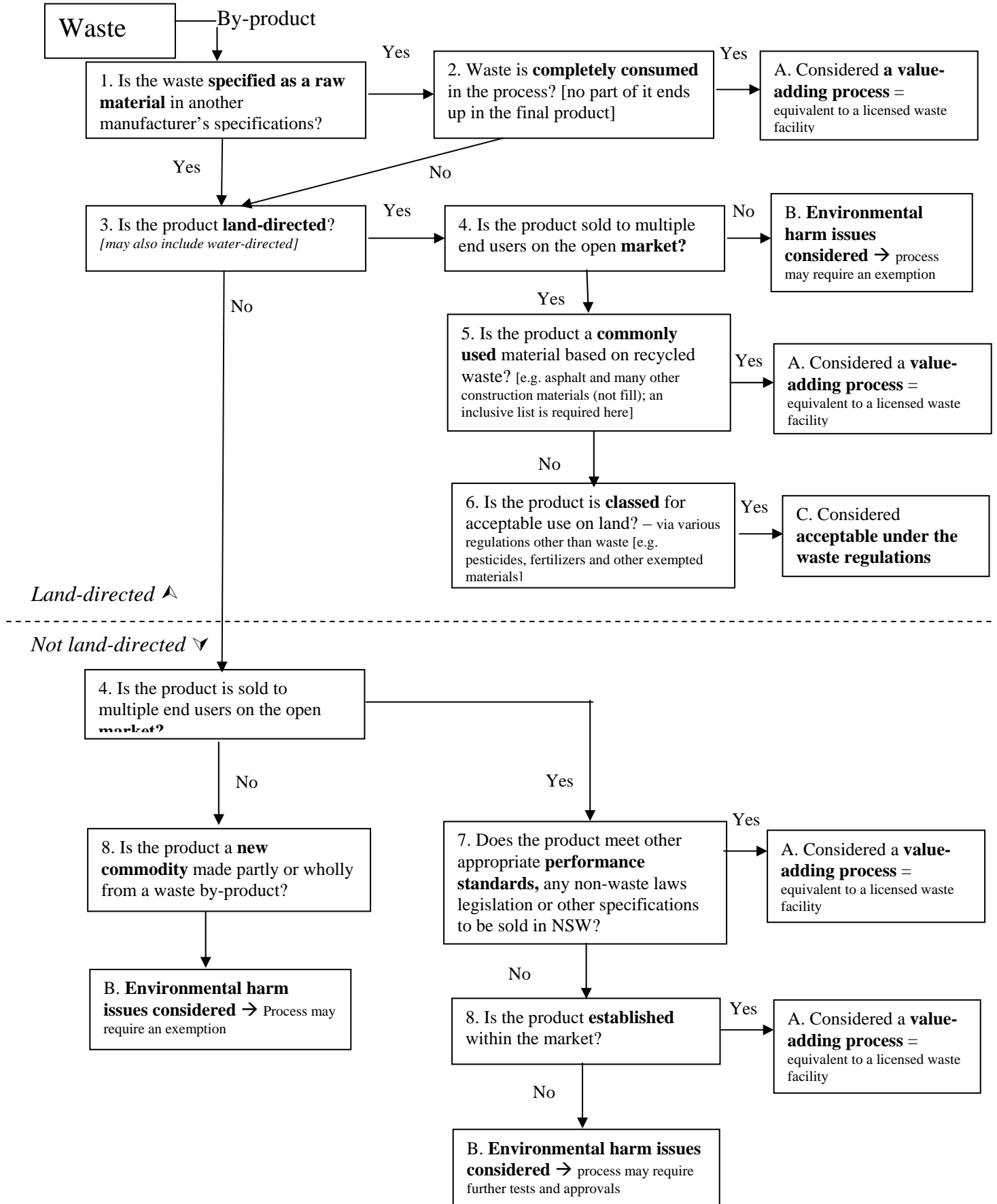
Below is a flow chart that can be used to assess if a value-adding process receiving a waste by-product does not require site receiving the waste to be licensed to be considered to be a waste facility for section 143.

***R3 AEBN recommends that general exemption using a set of simple-to-follow criteria be established for determining those value-adding processes receiving waste by-products. If a value-adding process and the waste by-products meet the criteria, they are at least exempted from Section 143. If the value-adding process and waste by-products fail to meet the criteria, they may have to apply for a separate exemption.***

***An example set of criteria is presented in this submission.***

There are a number of other areas that fallout of this general waste by-product value-adding process. Some examples are product recalls, off-spec products, damaged goods and product returns, among others. These 'wastes', if sent back to either the manufacturer or the importer, should be considered for inclusion under a general exemption.

# FLOWCHART FOR CLASSIFYING VALUE-ADDING PROCESSES EXEMPTION



## **EXPLANATIONS FOR THE ABOVE FLOWCHART DECISIONS ARE BASED ON THE FOLLOWING CRITERIA**

### **1. Is the waste specified as a raw material in another manufacturers' specifications?**

Specification as a raw material is the first step in establishing a *bona fide* beneficial use of waste. Put into DECC's words as discussed above: [the waste] '*must comply with relevant industrial specifications, standards and guidelines for the particular commercial or industrial process*'. The raw material's specification would not be a one-off to cater for acceptance of one specific waste type as a one-off event. Rather, either the raw material specification is written for a specific on-going waste stream or a waste, or the waste stream meets this raw material specification. Note that waste materials, being value added, can make up a small portion, or even 100 per cent, of the final mass. Obviously, the higher the proportion of the waste materials in the final product will also determine the stringency of the use of these testing criteria.

### **2. Waste is completely consumed in the process [no part of it ends up in the final product]?**

If the waste is consumed during the making of another product, such as waste oils used as fuel, or redundant acid used for pH correction, it is then a converted waste and therefore can be classed as a *by-product* if it goes to this type of *value adding process*.

### **3. Is product land-directed? [may also include water-directed]**

As waste legislation is primarily concerned about environmental harm to land, especially s142A and the definition of waste, the current SAW Regulation and the exemptions and guidance note cover this area quite well. Differentiation between land and non-land-directed waste should also be made, to ensure beneficial use of wastes going to non-land-directed products are also covered under waste legislation. There will be grey areas in what types of products may be land-directed or not, such as for concrete and asphalt. Both these products are used within and above ground and both can contain waste materials. They can also be used in marine and freshwater environments, hence the water-directed comment, although other environmental laws cover aquatic environmental issues well.

### **4. Is the product sold to multiple end users on the open market?**

This is the market test. If the product has been sold to a number of companies or consumers then it will be subject to greater market scrutiny than if it was sold to only one end user. If it is sold to just one of a few end users, then there are few players and the potential for abuse is higher. Products that have been sold over a longer period of time have been subject to higher levels of consumer scrutiny.

### **5. Is the product a commonly used material based on recycled waste? [e.g. asphalt and many other construction materials (not fill); an inclusive list is required here]**

This is for land-directed products and should be an exclusionary list of commonly recycled materials that are land-directed. These products do contain wastes, but have been so commonly undertaken that their practices have been condoned by environmental agencies through their lack of regulation and controls. Recycled asphalt pavement is a common example, though distinctions should be made between coal tar and bitumen asphalts. Again, an inclusionary list would be beneficial and a regulatory means to recognise and add to this list would be required.

### **6. Is the product is classed for acceptable use on land? – via various regulations other than waste [e.g. pesticides, fertilizers and other exempted materials]**

The *POEO Act* Section 142D contains specific examples of wastes exempt under s142A Pollution of Land and include pesticides, fertilizers, non-hazardous agricultural or crop waste, bio-solids etc. It also

contains regulatory making powers for DECC to add to this list. Under the POEO (Waste) regulation 2005 sections 44 and 45 define and prohibit the application of residue wastes to land. An exemption power is provided to the DECC to vary such prohibitions.

**7. Does the product meet other appropriate performance standards, any non-waste laws legislation or other specifications to be sold in NSW?**

Along with the controls for the specification of wastes as raw materials, the end product may, in many cases, point to many other regulations, performance requirements, market expectations, standards, codes of practice and legislation that ensure the product is a *bona fide* product. For example, any product blended with waste, such as concrete. It will have to satisfy the end market for quality and meet the performance levels expected of it. If not, market failure will result, assuming the market is competitive.

**8. Is the product an established product within the market?**

This generally does not apply to land-directed products. This is to distinguish between a new product that uses a waste as a raw material and one that has established itself in the market for a reasonable period of time. The basic philosophy for this criterion is that products which have been tested in the market are *bona fide* products, well tested, and accountable and environmentally responsible. New products using waste materials as a raw material will require more detailed considerations from the environmental regulator.

**EXPLANATIONS FOR THE ABOVE FLOWCHART  
OUTCOMES BASED ON THE ABOVE CRITERIA**

**A. Considered a value adding process = equivalent to a licensed waste facility**

If a value-adding process that uses a waste as a raw material reaches this outcome it can be considered to be equivalent to a lawful waste facility under s143.

**B. Environmental harm issues considered →** The process may require further tests and approvals.

If a value-adding process that uses a waste as a raw material reaches this outcome, it will need some level of assessment by the regulatory agency. This may result in the process:

- Receiving a simple approval
- Requiring coverage by an exemption or other regulatory actions
- Requiring further information
- Requiring analysis and testing
- Being declared unacceptable for land application (either the products or the process or both)
- Having other conditions imposed by the regulating body as required

**C. Considered acceptable under the waste regulations**

Environmental law covers regulated acceptance of certain land-directed products and also the banning of the use of certain types of wastes for application to land. These regulatory issues are likely to be expanded over time.

### 3 OTHER DEFINITIONS

#### 3.1 Hazardous Waste

The definition of hazardous waste under the SAW Regulation is:

**hazardous waste** means waste (other than special waste or liquid waste) that includes any of the following:

- (a) anything that meets the criteria for assessment as dangerous goods under the Transport of Dangerous Goods Code,
- (b) a radioactive substance within the meaning of the Radiation Control Act 1990,
- (c) containers, having previously contained dangerous goods within the meaning of the Transport of Dangerous Good Code, from which residues have not been removed by washing or vacuuming,
- (d) coal tar or coal tar pitch waste (being the tarry residue from the heating, processing or burning of coal or coke).

AEBN has identified a number of inconsistencies and issues with this definition. Most are mechanical and require amendment to ensure the legislative changes provide better clarity and continuity with the current definition.

##### 3.1.1 Dangerous Goods Transport Code

The SAW regulation defines the **Transport of Dangerous Goods Code** as:

**Transport of Dangerous Goods Code** means the document called the Australian Code for the Transport of Dangerous Goods by Road and Rail approved by the Ministerial Council for Road Transport and published by the Commonwealth Government from time to time.

The National Transport Commission published the 7th edition of the Australian Dangerous Goods Code (ADG Code) on 12 October 2007. The DECC's Dangerous Goods Section is likely to ratify it next year and apply a period of grace for transition between the 6th and 7th editions. This definition should be checked as it appears to have outdated terminology on the name of the ADG Code. It should also be written to be consistent with the uptake and use of both editions of the ADG Code by DECC's Dangerous Goods section, because as it is written above the 7th edition is now the reference document.

##### 3.1.2 Use of Dangerous Goods Classes to Define Hazardous Waste

AEBN notes a major change in the inclusion of Dangerous Goods Class 7 Radio Active and Class 9 Miscellaneous in the SAW Regulation. These two classes were left out of the Waste Guidelines classification. AEBN also notes that Class 7 has been omitted from the amended Container Reconditioning activity under the SAW Regulation, as quoted below:

###### **14 Container reconditioning**

(1) This clause applies to **container reconditioning**, meaning:

- (a) the receiving from off-site of packaging containers (including metal, plastic or glass drums, bottles, cylinders or intermediate bulk containers) previously used for the transport or storage of, and containing residual quantities of, dangerous goods of Class 1, 3, 4, 5, 6, 8 or 9 within the meaning of the Transport of Dangerous Goods Code,

## **Class 9 Miscellaneous Dangerous Goods**

AEBN considers that Class 9 Dangerous Goods should not be considered a hazardous waste. Class 9 dangerous goods classification covers a range of substances properties including:

- high-temperature liquids (> 100°C solids and > 240°C liquids)
- specialty substances such as dry ice
- only in the 7th edition does it include genetically modified organisms (which should be captured under clinical or contaminated waste)
- only in the 7th edition does it include aquatic ecotoxic substances (this covers a broad range of materials, such as polyelectrolytes and water treatment polymers, which can extend to a wide range of wastes – with long-winded testing methods required).

Class 9 dangerous goods were purposely left out of the current definition of hazardous waste under the Waste Guidelines as they are considered adequately covered under other classifications. AEBN is concerned that due to the increased capture of wastes under the 7th edition ADG Code as environmentally hazardous materials, this will define many currently non-hazardous wastes as being hazardous. Currently such wastes are being safely and environmentally responsibly transported and disposed of without a hazardous waste classification. AEBN is especially concerned that as vast quantities of other common wastes such as Group A liquids, solid wastes and contaminated soils undergo assessment as Class 9 dangerous goods, they automatically become hazardous wastes under the proposed definition.

***R4 AEBN recommends that Class 9 dangerous goods be removed from the proposed definition of hazardous wastes to maintain consistency with the current classification of hazardous wastes.***

Class 9 dangerous goods will still have to be transported to a licensed waste facility or equivalent under s143.

It is also worth noting that as kerbside recycling activities increase the separation of recyclables from municipal waste, the proportion of hazardous waste increases. In certain circumstances municipal wastes could be classified as dangerous goods, and hence a hazardous waste.

## **Class 7 Radioactive Dangerous Goods**

There is considerable discrepancy between the ADG Codes definition of radioactive substances and the *Radiation Control Act 1990*. The current definitions are, in part, contradictory. AEBN prefers to continue with the current definition under Table 4 of the Waste Guidelines on the basis to continue on with as much consistency as practicable.

***R5 AEBN recommends that Class 7 radioactive dangerous goods be omitted from the definition of hazardous wastes. Instead use the current definition used under the Waste Guidelines:***

*‘Any radioactive waste, being waste that:*

- (a) contains a substance that emits ionising radiation spontaneously, and*
- (b) has a specific activity greater than 100 becquerels per gram, and*

- (c) *consists of, or contains more than, the prescribed activity of any radioactive element listed in Schedule 1 to the Radiation Control Regulation 1993.'*

### **3.2 On-site and Off-site**

There are 39 instances of the term '*on-site*' and 28 instances of the term '*off-site*' in the SWA Regulation, however no definition of these terms is provided.

Members report much difficulty in the field definitions used for on-site and off-site when dealing with wastes. Many uses have been inconsistent with other DECC approaches.

For example, company A owns two sites sharing a common boundary. If the licence is so written as to only cover site 1, hence any movement of wastes, such as during construction, from site 1 to site 2 becomes unlawful. Subject to s143, then the second lot requires to be a licensed waste facility (or equivalent). Council reading the waste legislation then determines this directs company A's soils to go to landfill.

In the above example, the difference in environmental outcome is the potential re-use of suitable soil for use on site 2, compared to off-site landfilling of that soil as waste. Contaminated site clean-up criteria is the main environmental control that would apply if sites 1 and 2 were owned by the same person. However, this simple reuse application would be prevented if only one of the sites was licensed. Under this situation sending any contaminated soil to the second site could be considered the same as sending it any other unlicensed parcel of land.

***R6 AEBN recommends that the following definitions be included under Schedule 1:***

***'On-site' means the site allotment and any adjacent land owned by the same person***

***'Adjacent land' means any land that shares a boundary with the subject land and includes land that is separated from the subject land by a road, river, creek, other easement or the like.***

***'Off-site waste' means waste that is moved or transported to a parcel of land where the owner of which is not the owner of the waste and where the owner of the waste and land are the same, but the land is not adjacent land owned by the owner of the waste.***

### **3.3 Liquid Waste**

AEBN has concerns over the current definition of non-liquid waste in the Waste Guidelines . The criterion being used – the material is a free-flowing liquid below 60°C – has much merit, but it can impact on at least one type of waste-treatment method. Some highly odourous food wastes have been in the past frozen prior to transport to a landfill . Generally the putrescible nature of such wastes results in some of it becoming liquid. Freezing of such wastes is a practised method that leads to minimal environmental and occupational health and safety issues at the landfill.

Use of the exemption under section (b) of the proposed liquid waste definition should include some provision for frozen odourous food wastes to go to landfill.

## 4 SCHEDULE 1 CHANGES

When the *Protection of the Environment Operations Act 1997* (POEO Act) was first made, there was a considerable effort from the Environment Protection Authority and the Department of Planning to ensure consistency between the *POEO Act* Schedule 1 and the *Environment Planning and Assessment Regulation Schedule 3 (Designated Developments)* (Schedule 3).

The current changes to Schedule 1 appear to increase the gap between these two important regulatory mechanisms. Moreover, the differences between the classification of waste facilities will cause considerable confusion if a new site has to undergo integrated approval under these pieces of legislation.

For example, Schedule 3 still lists the category ‘waste facility’ consistent with the current Schedule 1. However, there is no provision within the SAW Regulation to amend Schedule 3 to be consistent with the *POEO Act’s* Schedule 1.

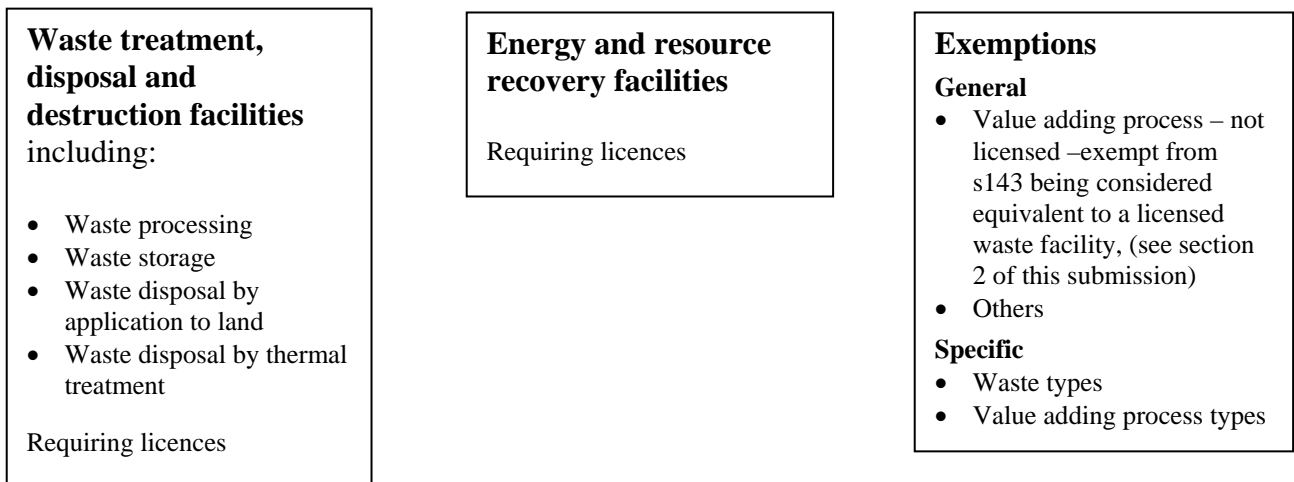
To prevent confusion and potential legal paralysis at the planning approval stage, the DECC should be consulting with the [Department of Planning](#) to ensure such outcomes do not arise after gazettal of the SAW Regulation.

**R7** *AEBN recommends that DECC investigate the legal consequences of a misalignment between POEO Act’s Schedule 1 and the Environment Planning and Assessment Regulation Schedule 3.*

### 4.1 Resource and Energy Recovery Activities

Following the discussion and recommendation in section 2 of this submission, the classification of sites that accept wastes is shown in the following diagram.

#### CLASSIFICATION OF SITES ACCEPTING WASTE



Hence the energy and resource recovery facilities provide 2 benefits to companies licensed or using this as a sub-activity under their main licensed activity, which include:

- Avoiding some of the stigma during the planning process, associated with siting a waste facility – many councils and companies have found considerable local opposition to recycling facilities.
- Avoiding paying the waste levy on any wastes received [as the levy applies to wastes leaving the facility] .

In consideration of the energy and resource recovery section, it gives more weight to AEBN's argument for the value-added process exemptions. Let's look at the definition of Resource Recovery in draft Schedule 1:

### **34 Resource recovery**

(1) *This clause applies to the following activities:*

**recovery of general waste**, meaning the receiving of waste (other than hazardous waste, restricted solid waste, liquid waste or special waste) from off-site and the processing, otherwise than for the recovery of energy, of such waste.

**recovery of hazardous and other waste**, meaning the receiving of hazardous waste, restricted solid waste, liquid waste or clinical and related waste from off-site and the processing, otherwise than for the recovery of energy, of such waste.

**recovery of waste tyres**, meaning the receiving of waste tyres from off-site and the processing, otherwise than for the recovery of energy, of those waste tyres.

The types of wastes that can be 'recovered' are much narrower than provided under the definition of waste. The use of energy and resource recovery will not apply to all wastes under the *POEO Act* definition. As a consequence, there is no scheduled waste facility category where they can go to be beneficially re-used and such wastes must go to an exempt value adding process.

The problems with s143 get more difficult as we look further:

(2) *However, this clause does not apply to any of the following:*

(a) *materials separation and sorting of up to 60 tonnes per year of waste lead acid batteries,*

(b) *the recovery of oil, for purposes other than energy recovery:*

(i) *where up to 20,000 litres per year of recoverable oil is received from off-site, or*

(ii) *where up to 2,000 litres of recoverable or recovered oil is stored on-site at any time,*

(c) *the treatment of sewage at a sewage treatment system,*

(d) *the recovery of stormwater.*

This means that lead-acid battery collectors, small oil collectors, sewage and stormwater recycling and mining for replacement of potable waters are not licensable. It also means that if their customers provide them with their raw materials, which are wastes, their customers are breaching s143.

## **4.2 Hazardous Waste Thresholds**

The following activities under SAW regulations have a licence threshold of 200 kg for hazardous wastes including:

- energy recovery activities
- resource recovery
- waste disposal (thermal treatment)
- waste processing (non-thermal treatment)

- waste transport.

In contrast to the above licence thresholds the following Schedule 1 activities have a 5-tonne threshold including:

- ceramic works
- chemical production
- chemical storage
- metallurgical activities
- mineral processing
- paper or pulp production
- printing, packaging and visual communications
- waste storage.

Apart from transport, this appears inconsistent and questionable. Why are waste-treatment processes so different from the other industry types listed? There is the argument that the treatment facilities can profit from such an activity. However, this argument is flawed as any hazardous generating activities, listed in Schedule 1 or not, can install their own on-site treatment systems to treat the hazardous waste to another form.

The 5-tonne storage limit for the above generation activities will not apply to industry types outside these categories. It will be quite possible for an unlicensed site to generate over 1,000 tonnes of hazardous waste and not be licensed.

The 200 kg limit on hazardous wastes, if applied to waste treatment sites, will impact on research laboratories and small pilot plants. Already the delays in the planning approval process make on-site treatment of contaminated soils a much-avoided and last-choice approach. Many contaminated land-remediation projects requiring on-site treatment can take well over two and some over four years to gain planning approval. Requiring similar time scales and planning approval obstacles will impede the NSW contaminated soil-treatment industry as every lab and pilot-scale project will suffer from needing to gain appropriate planning consent as a licensed hazardous waste facility.

The 200 kg limit was placed in the waste legislation to prevent municipal garbage in trucks being classed as a hazardous waste. This would prevent municipal waste from going to a solid waste landfill. as household can contain small amounts of dangerous goods. For example, household cleaning products (dangerous goods Class 8 corrosives), cosmetics (Class 3 Flammables), swimming pool chemical containers (Class 5 and 8). It was not made to permit small utes to transport small amount of hazardous wastes, though that was an outcome. So for any landfill or resource recovery operation processing solid waste (general waste [putrescible]) that has over 20 tonnes it has most likely exceeded the 200 kg hazardous waste threshold.

***R8 AEBN recommends that the threshold limit for Schedule 1 sites that treat hazardous waste should be 200 tonnes received on an annual basis.***

## 5 OTHER ISSUES

### 5.1 Special Exemption

From time to time DECC will come across certain waste issues, either re-use, treatment, disposal or destruction, which will not fit under the current regulatory arrangements. This includes the proposed exemption provisions.

For example, the disposal of hazardous gaseous products. There is not a Schedule 1 category for treatment of these products. They are uncommon, so the general waste infrastructure is not capable of dealing with them. Redundant chemicals that cannot be resold should be treated. Class 2.1 flammable gases can pose a considerable disposal issue under the regulations. Small quantities have in the past been detonated using explosives in a controlled area to break open the container contents and ignite the contents in air.

Other examples may include disposal of ammonia gas. It is commonly used in refrigeration but a means of disposal means is not generally available. However, for one-off disposals it may be acceptable into other process that use or make ammonia, such as nitric acid plants.

Precedents for such exemption clauses are common in NSW legislation, even in environmental laws. For example, under the [Protection of the Environment Operations \(Clean Air\) Regulation 2002 s26\(3\)](#):

**26 Determination of application for variation of licence ...**

*(3) Nothing in this clause prevents the EPA, when granting an application to vary the conditions of a licence under this clause, from including other conditions in the licence, including conditions imposing more stringent standards of concentration than those applicable to the Group to which the activity or plant will belong as a consequence of the variation.*

More general exemptions are needed, depending on the level of prescriptiveness of the legislation. The Dangerous Goods (General) Regulation 1999 s26 contained a broad exemption provision:

**26 Exemptions**

*(1) The WorkCover Authority may, in writing, exempt any person (including itself) or class of persons, either absolutely or subject to conditions, from any provision of this Regulation (other than a provision of Part 11 or a provision relating to the payment of fees) and may, in writing, vary or revoke any such exemption.*

The Waste Guidelines, and many other aspects of waste legislation are rather prescriptive. In addition, is the proposed use of exemptions that are likely to refer to Australian Standards and other codes of practice. As a consequence, AEBN considers the prescriptiveness of waste legislation will in the future more reflect those under the old Dangerous Goods Regulations, than that of the *POEO (Clean Air) Regulation 2002* a broad style exemption clause is required.

**R9 AEBN recommends the *POEO (Scheduled Activities and Waste) Regulation 2007* include a clause to provide the Department the power to issue a special exemption from any provision within the regulation where it considers such an action appropriate.**

## 5.2 Contaminated Soil Remediation

Special consideration should be awarded to remediation of contaminated land under the waste laws. In many cases the digging and stockpiling of such materials can trigger a range of waste legislation which at least causes confusion and at worst can trigger licence breaches, and the triggering of *s142A Pollution of Land* offence. If *bona fide* site remediation is being conducted then it should be permitted to do so under a contaminated site laws and be excused from much of the waste legislation.

For example, a licensed site is remediating land and makes a stockpile of soils to be assessed for re-use, treatment or disposal. This may violate:

- licence condition on the maximum amount of waste permitted onsite [generally if it is HIGA wastes].
- S142A Pollution of Land offence as the stockpile may harm terrestrial life.

AEBN considers that contaminated soils should be treated as a special case for on-site management. As long as the soils are not moved off-site the materials should be exempt from waste regulations, subject to an appropriate contaminated site management plan.

### Dealing with s142A Pollution Of Land

NSW waste laws are written to manage 2 main issues dealing with where waste can go, including:

- To a licensed waste facility [including exemptions provided for by Council and other agencies] → covered under s143
- Application to land under s142A and its exemptions

To satisfy *s142A Pollution of Land* compliance, the use of wastes as a raw material and also the use of that product must be considered. For example, if wastes are stored on a site as a raw material they can breach this section unless such action is permitted.

Application to land is strictly controlled and is the main reason for the development of the Land Application guidelines. If the product is not directed to land then it will be outside the scope of waste, but is likely to come under many other requirements, environmental and others.

## 6 CONCLUSION

AEBN considers implementation of the above recommendations and advice within this submission will provide better regulatory clarity for those beneficially using wastes at all levels. Where environmental harm is a potential risk then further steps can be taken by the regulator to require the generator and processor are a *bona fide* operation and have responsible environmental protection provisions and outcomes.

Clarification of POEO s143 would be welcomed and will enable a simple test to be conducted by other government agencies, especially Local Government, on what are the equivalent of licensed waste facilities. Within this framework a general exemption for a *value added process* will provide the regulatory clarity to fill in the gap which currently plagues the use and interpretation of this section.

Ensuring that the *POEO Act's Schedule 1* is consistent with the *Environment Planning and Assessment Regulation 2000 Schedule 3* will also prevent serious regulatory blockages in the planning process when either designated development is commenced or development consent is to be granted with conflicting definitions across both pieces of law.

Tidying up of the definitions of hazardous waste will assist with transitional arrangements from the current definitions to the new. The inclusion of *on-site* and *off-site waste* definitions will permit a greater level of practicality in the management of wastes, especially contaminated soils around a large site that comprises a series of land lots owned by the same person, but with differing licence arrangements.

Due to the high level of prescriptiveness within the current and proposed regulatory structure for waste, a general exemption clause will permit DECC to permit or prevent certain types of waste management activities that it considers appropriate.