Recycling and Recovery Targets : Terminology and Definitions with reference to the 'Principal Objective'

Professor Chris Coggins

Executive Summary

During 2002 and 2003 there has been increasing concern over the definition of waste, and especially when wastes ceases to be wastes and are recovered or recycled.

Waste definitions stem from the Waste Framework Directive, and despite codification in November 2003, there are no plans to materially change the Directive – although further clarification is needed in some areas.

Current policy-making in the EU is focussed on the life cycle of resource choice and use through products to waste, as illustrated by the publication of the *Thematic Strategy on the Sustainable Use of Resources* and the *Thematic Strategy on Waste Prevention and Recycling* published during 2003.

Judgements by the European Court of Justice in 2002 and 2003 have focussed on the role of the 'principal objective' in determining whether waste management options can be considered as recovery or disposal.

This has partly been in the context of the Packaging Directive, but with the WEE and ELV Directives coming into force more potential may exist for reuse, refurbishment and re-manufacturing – but reuse to date has focused primarily on beverage containers.

In the UK there is inconsistency in the use of waste definitions and related recycling (and reuse) targets between England and Wales, and some concern that the UK is out of step with other Member States in the interpretation and implementation of the Waste Framework Directive.

The main purpose of this Paper is to argue the case for post-consumer recycling to be more clearly defined in order to reflect the role that post-consumer and post-industrial/commercial wastes can play as secondary raw materials. Using EU case law surrounding 'recovery' the following criteria are suggested :_

- recycling is where the principal objective is to use wastes as secondary raw materials in re-processing industries as substitutes for primary raw materials, and thus meeting key objectives for the sustainable/prudent use of resources (including wastes as resources).

- wastes for recycling must compete in terms of quality, quantity, availability, consistency and acceptable levels of contamination

- the use of such materials or by-products are subject to statutory fit-for-purpose product standards and specifications, and are not being used for 'downcycling' into poorer grade products. Standards would assist consumer confidence, and reduce the stigma that may be associated with such products made with recyclates

- the actual re-processing of such secondary raw materials must be monitored via transparent and verifiable audit trails

- the secondary raw materials must have a positive market price

- re-processing must be a certainty and not a mere possibility

The case for differentiating between stabilised waste and compost are now supported by product-based specifications (WRAP and BSI PAS 100).

Waste

The Waste Framework Directive (75/442/EEC as amended by 91/156/EEC), emphasised the role of the 'disposer' in defining waste :-

> 'waste' means any substance or object which the holder disposes of or is required to dispose of
>
> 'disposal' means :

- the collection, sorting, transport and treatment of waste as well as its storage and tipping above or below ground
- the transformation operations necessary for its re-use, recovery or recycling

Inherent in these definitions is the 'certainty' of waste being disposed, although inclusion of 'transformation operations' under the heading of disposal creates complications for re-use, recovery and recycling.

Moving from the level of EU Directives to UK legislation, the focus is on 'waste' rather than 'products', and there is a conflict in the UK concerning the definition of municipal waste. The EU definition is based on the Landfill Directive :-

> Article 2 (b) : 'municipal waste' means waste from households, as well as other waste which, because of its nature or composition, is similar to waste from households.

This means that municipal waste is based on **composition** and includes relevant wastes from households and commercial premises. This is the definition used in the waste strategy for Wales (*Wise About Waste*, June 2002) and for the calculation of recycling targets in Wales.

In England the Strategy Unit Report, *Waste Not, Want Not. A strategy for tackling the waste problem*, November 2002 uses the definition of municipal waste as in *Municipal Waste Management Survey 2000/01*, and yet also refers to 'Failure the meet these targets (Landfill Directive targets for 2010, 2013 and 2020) could result in fines of up to £180 million per year'.

Chapter 2,

> 'Municipal waste - includes all waste under the control of local authorities, whether or not they have contracted out services. It includes all household waste (89% of municipal waste).

The *National Waste Plan for Scotland* uses the same definition as England.

However in the draft Waste Emissions Trading Act of November 2003, municipal waste is defined as 'waste from households, and other waste that, because of its nature and composition, is similar to waste from households' - as in the Landfill Directive.

The Eurostat/OECD Joint Questionnaire 2002 states :-

- Municipal waste includes household and similar waste
- the definition includes bulk waste (e.g. white goods, old furniture, mattresses) and yard waste (leaves, grass clippings, street sweepings, content of litter containers and market cleansing waste) if managed as waste
- It includes waste from households, commerce and trade, small businesses, office buildings and institutions (schools, hospitals, government buildings)
- It also includes waste from selected municipal service (waste from park and garden maintenance, waste from street cleansing services – street sweepings, the content of litter bins, market cleansing waste)

- It includes waste from these sources collected door-to-door through traditional collection (mixed household waste) and fractions collected separately for recovery operations (through door-to-door and/or through voluntary deposits)

- Municipal waste refers to waste defined as above collected by or on behalf of municipalities

- The definition also includes waste from the same sources and similar in nature and composition which are collected directly by the private sector (business or private non-profit organisations) not on behalf of municipalities (mainly separate collection for recovery purposes) and which originate from rural areas not served by a regular waste service, even if they are disposed by the generator

- The definition excludes waste from municipal sewage network and treatment, and municipal construction and demolition waste

In Defra Roadshows on the Landfill Allowance Trading Scheme (LATS) in July 2004, there still appears some confusion. The WET definition of municipal waste is used, supported by

> 'Commercial waste collected by a Local Authority falls under the definition of municipal solid waste'

There appears to be a grey area in terms of waste companies acting as agents of the Local Authority, either through formal arrangements or the Local Authority specifically referring any approach to collect commercial waste to a private waste management company not already acting as its agent. With commercial waste representing c. 11% of recorded municipal waste in England, some Local Authorities may divest contracts for commercial waste in order to reduce their obligations under LATS.

Such problems become more complicated when Waste Collection Authorities within a Waste Disposal Authority have different policies towards commercial waste, and supplying relevant data to the Waste Disposal Authority. Such commercial waste may be collected and disposed of by the private sector, without any formal 'ownership' by the local Authority or its agent(s).

In terms of tonnage, the figure quoted by DEFRA is c. 28-29 million tonnes for municipal waste, but recent work by M-E-L Research Limited using Environment Agency data for industrial and commercial waste suggests this could be 18-33 million tonnes higher. On the other hand, as more recycling occurs with industrial and commercial waste (c. 30% ?) the overall recycling rate would be much higher than the figure of 12.4% quoted for 'household' waste and 13.5% for 'municipal' waste for England in 2001/02 (using the English definition). Using this broader definition, but consistent with other Member States, might also raise the question of the UK's option to use derogation powers of Landfill Directive targets into question.

The Waste Framework Directive) also contains a waste hierarchy, which has been promoted in various ways by Member States :-

Prevention

Re-use

Recycling

Recovery of energy

Incineration without recovery of energy

Landfill

The UK has largely followed this hierarchy, except in *Making Waste Work 1995*, when recycling and recovery were placed on the same level in the hierarchy. This hierarchy is important as a framework for decision-making leading towards integrated and sustainable waste management, rather than a rigid set of alternatives.

A court case in the UK, Parkwood Landfill v. Commissioners of Customs and Excise, resulted in a Court of Appeal decision in November 2002 concerning 'discard', 'disposer' and 'waste'.

A wholly owned subsidiary of Parkwood Landfill, Parkwood Recycling received waste from Sheffield City Council which was separated into waste for landfilling and recyclable material which was sorted into aggregates and fines which could be used as soil substitution. The waste went to a landfill site owned by Parkwood Landfill and landfill tax was paid. The company also bought a quantity of the recycled material for use as landscaping and road making at the landfill site. Customs and Excise claimed that this should be liable to landfill tax. Parkwood won an appeal before the VAT and Duties Tribunal, but this decision was overturned by the High Court.

The company appealed, and Customs and Excise argued that the use of an intermediary, as in this case, could avoid payment of landfill tax. The Court of Appeal considered in detail the provisions of Section 40(2) of the Finance Act 1996 which set four conditions for a landfill tax disposal :-

(a) there is a disposal of material as waste

(b) the disposal is made by way of landfill

(c) the disposal is made at a landfill site

(d) the disposal is made on or after 1st October 1966

Parkwood accepted conditions (b), (c) and (d) but disputed (a). The Court of Appeal took Section 64(1) of the Finance Act 1996 which provided a separate definition - 'a disposal of material is a disposal of it as waste if the person making the disposal does so with the intention of discarding the material'. They argued that Sheffield City Council was the actual disposer of the waste, that Parkwood Recycling crushed, sorted and graded the waste into saleable materials, the intention of the legislation was that landfill tax was a tax on waste deposited at landfill sites and not a tax on recycling. 'The critical factor is the intention of the disposer. 'The tax bites upon the person who discards not who recycles'.

One notable feature of the decision was the extent to which the Court avoided getting embroiled in EU decisions on the meaning of 'waste' and the term 'discard'. In the Parkwood case, the Court of Appeal treated the landfill tax provisions as a self-contained legislative structure which include as one of its aims the promotion of recycling - instead of primary raw materials.

(sources : *Wastes Management* February 2003 and *ENDS* January 2003).

This debate was continued in 2004 with the publication of new guidance from HM Customs and Excise in the context of landfill tax-free areas. See separate Discussion Paper at the end of the Discussion Paper.

Recovery

Recovery is sometimes taken to be an inclusive term covering materials recycling and energy recovery, with some writers preferring the general term ‘valorisation’. In this Paper, recovery is taken to mean ‘energy recovery from waste’.

At the EU level, in connection with the definition of 'recovery’, the Reasoned Opinion by the European Court of Justice Advocate-General, Commission v, Germany *Belgian Cement Kilns* (C-228/00), delivered in September 2002 stated :-

- The use of mixed waste in cement factories must be classed as a recovery operation, based on the concept of using waste as a fuel and replacing energy from other primary sources. The operation would still occur in the absence of available waste.

- The burning of municipal waste in incinerators, even with the recovery of energy, cannot be classified as 'recovery' and is a disposal operation, which would cease if there is no available waste.

Under the 1975 Waste Framework Directive 'disposal' is defined as operations included in Annex IIA (D10) which include, *inter alia*, "incineration on land", while the recovery operations listed in Annex IIB (R1) include "use principally as a fuel or other means to generate energy", and the decision was based on three conditions which a combustion process must fulfil to be considered a R1 recovery operation :-

- The main purpose of the operation must be to enable the waste to be used as a means of generating energy in an industrial production process

- The amount of energy generated by, and recovered from, the combustion process must be greater than the amount of energy consumed during the process. In turn this energy has to be used effectively, either in the form of heat or, after processing, in the form of electricity

- The waste must be used principally as a fuel, which means that the greater part of the waste must be consumed during the operation and the greater part of the energy produced must be recovered and used

(some commentators have drawn attention to the need to define ‘effectively’ in technical terms, to quantify the term ‘greater part’ and clarify the replacement of primary energy within the plant or in wider terms).

These two judgements were confirmed by the European Court of Justice in February 2003. On the same day, the Court also confirmed judgement in a separate case, Commission c. Luxembourg *Strasburg Incinerator* (C-458/00), that waste sent from Luxembourg to a municipal incinerator (with energy recovery) in France was disposal and not recovery. This judgement repeated the three criteria as well as the general requirement and definition established in the *Belgian Cement Kilns* ruling, with the additional view that the reclamation of energy was a ‘secondary effect’ of the waste incineration whose main purpose was the disposal and not the recovery of waste.

In May 2003 the European Commission agreed with the 'Luxembourg' judgement, in response to written question from a MEP. The Commission response made reference to the principal objective of a municipal incinerator being to dispose of waste. The EU executive states that " by applying the concept of the primary objective of the operation, (the court has) excluded dedicated incineration in municipal incinerators" from the EU Waste Framework Directive list of recovery operations. The Packaging Directive draws its definitions from the WFD, but also by implication, the ELV and WEEE Directives.

The following section is based on *Beyer B. and Hansen W. Incineration as recovery and disposal of waste : Analysis and interpretation of the judgements of the Europe Court of Justice C-458/00 and C-228/00. Policy Brief for the EP Environment Committee EP/IV/A/2003/09.01.*

Quoting another case issued by the same chamber dealing with a similar question (C-6/00), the Court derived **a general requirement** from Article 3(1)(b) and the fourth recital of the Waste Framework Directive :-

> 'the essential characteristic of a waste recovery operation is that its principal objective is that the waste serve a useful purpose in replacing other materials which would have had to be used for that purpose, thereby conserving natural resources'

The Court then established **a general definition** according to which the combustion of waste

> 'constitutes a recovery operation where its principal objective is that the waste can fulfil a useful function as a means of generating energy, replacing the use of a source of primary energy which would have had to have been used to fulfil that function'

The rulings are directly applicable in Member States, but there is a need to consider the full legal, technical, environmental and economic implications of these Court rulings. In addition, it is necessary to review current differences in emission standards between co-incineration and incineration (until the Waste Incineration Directive becomes fully implemented), related issues of waste shipments and controlling 'sham recovery', the possible impact on the Kyoto targets if incineration (with energy recovery) is classed as disposal, and EU and Member State clarification of the terms recovery and disposal.

Directive 2004/12/EC, amending the 1994 Packaging Directive (94/62/EC) includes the following amendment :-

> "No later than 31 December 2008, 60% as a minimum be weight of packaging waste will be recovered **or incinerated at waste incineration plants with energy recovery**". (new text emphasised).

In a Statement by the Council, the Commission and the European Parliament in February 2004 they declared their common intention to propose similar amendments, as appropriate to other relevant legislation.

The European Parliament in December 2003 suggested an amendment to the Waste Shipment Regulations, using 17,000 kJ/kg as a benchmark for wastes to be used for recovery rather than disposal.

In addition to co-incineration being classed as recovery and not disposal, it might be argued that energy companies (rather than waste management companies) seeking to burn municipal waste to produce energy might argue that this is recovery, a type of renewable energy and contributing to climate change mitigation. Such action might then qualify for Renewable Obligation Certificates, given the principal objective of the energy companies ?

In the UK, the Best Value Performance Indicator for energy recovery is BV 82c 'Percentage of the total tonnage of household waste arisings which have been used to recover heat, power and other energy sources'. 'Used to recover heat, power and other energy sources' means :-

- The controlled combustion of waste in specialised plant specifically to generate power and/or heat from the waste feedstock
- The controlled combustion of refuse derived fuel (RDF) in specialised plant specifically to generate power and/or heat from the waste feedstock
- The production of gaseous fuels by reacting hot carbonaceous waste with air, stem or oxygen (gasification)
- The thermal decomposition of organic waste to produce liquid and solid products by pyrolysis

Methane recovery from landfill is **excluded**.

An additional item was added in April 2004

- The biological degradation of organic wastes by anaerobic digestion except where the primary purpose of the process is considered to be the treatment and stabilisation or organic substrates and where the digestate meets the standards set in BV 82b (composting and anaerobic digestion). Waste treated under these circumstances should only be included under BV 82b.

Recycling

At the EU level, the definition of recycling has also been clarified, through the Reasoned Opinion by the European Court of Justice Advocate General, Mayer Parry Recycling v. the Environment Agency and the Secretary of State for the Environment, July 2002 :-

> Steel packaging is not recycled within the meaning of the Packaging and Packaging Waste Directive
>
> "when it has been rendered suitable for use as a feedstock, but has been recycled only when it has been used by a steel maker so as to produce ingots, sheets or coils of steel"
>
> sorting, cleaning, cutting, crushing, separating and baling are not recycling and the material remains "waste"

Referred to as Mayer Parry No. 2, this changed earlier rulings (including Mayer Parry No.1 in 1999) which stated that in restoring the material to a form suitable for sale as a raw material to steelworks, the material ceased to be waste.

The above reasoned opinion was confirmed in June 2003. The judgement defines recycling within the Framework Directive and the Packaging and Packaging waste Directive as follows :-

> 1. Recycling within the meaning of Article 3(7) of European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste is to be interpreted as not including the reprocessing of metal packaging waste when it is transformed into a secondary raw material such as material meeting the specifications of Grade 3B, but as covering the reprocessing of such waste when it is used to produce ingots, sheets or coils of steel.
>
> 2. That interpretation would be no different if the concepts of recycling and waste referred to by Council Directive 75/442/EEC of 15 July 1975 on waste were taken into account.

*Local Authority Best Value Performance Indicators for 2003/04***,** published by the Office Of The Deputy Prime Minister in January 2003 used the following definition for recycling in England :-

> BV 82a Percentage of the total tonnage of household waste arisings which have been recycled
>
> > 'Recycled' means reprocessed in a production process for the original purpose, or for other purposes, but excluding energy recovery. Waste recycled to form compost should only be included under BV 82b

For the purposes of the indicator the following are **not** counted as household waste : incinerator residues (both ash and ferrous metal), beach cleaning wastes, rubble, abandoned vehicles, home composted waste, clearance of fly-tipped waste.

Proposed amendments by ODPM to BV82a in June 2004 for 2005/2006 include :-

- recording tonnages as well as percentages
- breaking the indicator down to measure the types of materials sent for recycling

However, the actual wording of BV82a in this Consultation has been changed to read ;

> ‘Percentage of the total tonnage of household waste arisings which have been **sent for** recycling’

In bold my emphasis, and seems to be a retrograde step in not tracking such materials until they have actually been re-processed.

DoE Circular 11/94 Environmental Protection Act 1990 : Part II Waste Management Licensing. The Framework Directive was published to clarify the distinction between disposal and recycling :-

> paragraph 5.118 'exempts the manufacture of any finished goods from specified wastes. The wastes that may be used in such manufacturing are waste metal, plastic, glass, ceramics, rubber, textiles, wood, paper or cardboard'.
>
> paragraph 5.119 goes on to state 'This general exemption takes out of waste management licensing the final stage of any process of turning such wastes into finished goods'.

This list does not specifically mention tyres, and the Environment Agency view in 2003 was that any use of tyres (whether baled, whole or crumbed) requires a waste management licence. As various other waste items are not specified in this Circular, it is likely that re-processing may require full waste management licensing. Similarly, re-manufacturing is not covered, and WEEE and ELV waste streams will be similarly affected ?

DEFRA and the Environment Agency have been considering the exemptions in DoE Circular 11/94, with reference to recent Reasoned Opinions from the European Court of Justice. *Proposals for amendments to the Waste Management Licensing Regulations 1994 (as amended)* were published as a Consultation Paper in June 2003.

The danger is that if the view of waste *as per* the Waste Framework Definitive, 'once a waste always a waste, based on the original discarder/disposer', all re-processing capacity will have to have waste management licenses and relevant land use planning permissions under waste local plans. This will have major implications for any policies to promote wastes as secondary raw materials, including the promotion of fit-for-purpose **product** rather than **resource** specifications.

In a global context, significant quantities of packaging wastes have been exported and have been able to qualify for Packaging Export Recovery Notes (PERNs) on the basis of the Environment Agency and/or SEPA accrediting the recipient re-processor. In November 2003 the Hong Kong Environment Protection Department notified SEPA that mainland China will no longer accept imported loads of waste plastic packaging from the UK unless it has been shredded. Directive 2004/12?ec amending the 1994 Packaging Directive (94/62/EC) stated that the target or recycling plastics packaging (22.5% by weight) must be exclusively for material that is recycled back into plastics.

A further problem with packaging is the emphasis by Local Authorities in targeting heavier wastes for recycling (newspapers and magazines, glass and green/garden wastes), whilst obligated businesses have to meet all packaging, including light plastic packaging. The proposed amendment to BV82a outlined above will recognise the contribution that collection of particular materials make to overall recycling targets, particularly lighter materials in the context of tonnage-based statutory targets.

In a broader context the 2003 EU Thematic Strategy of Waste Prevention and Recycling discusses the potential role of material-based targets rather that and-of-life product-based targets. In 2002 such targets were welcomed by the UK Local Government Association in its evidence to the Strategy unit, with an emphasis on materials offering the greatest environmental benefit – rather than helping to meet weight-based BVPIs. The Local Authority Recycling Advisory Committee were less enthusiastic about such proposals. In October 2003 the Government, in its response to the House of Commons Environment Committee The future of waste management, has promised to consider the issue as part of this year's review of BVPIs.

Finally, there is the issue of percentage or weight-based targets. Percentages can be affected by changes in the numerator and/or denominator and by growth in waste. Weight-based targets (e.g. kilograms per household per week or year) focus on the collection unit (the household) and can take into account changes in waste growth, waste prevention and reduction, home composting as well as recycling or central/community-based composting. Other writers (e.g. David Davies) argue for such weight-based targets to be used for residual waste, an approach supported by LARAC.

By-products

In contrast to post-consumer and post-industrial/commercial wastes, the UK Quality Ash Association argues that pulverised fuel ash from power stations is a by-product and not a waste, supported by the following criteria :-

- Discarding does not take place when substances, objects, products including by-products, intermediate products or secondary products in their existing form either to be used in industrial and commercial (production) processes or to be placed on the market for further use or consumption. The suitability for use in industrial processes can be assumed in particular if the substances in question meet any available specifications for these processes

- The reuse of the goods, materials or secondary raw materials is not a mere possibility but a certainty (see ECJ *AvestaPolarit Chrome Oy* C-114/01 of September 2003, confirming the *Palin Granit* case)

- That the goods, materials or raw materials should have a high degree of likelihood that they can be used without any further processing prior to reuse

- When the material leaves the production factory premises, in response to an order for delivery to the customer, who made that order and who has a beneficial use for that material, it shall be considered recovered and cease to classified as waste

This is consistent with *DoE Circular 11/94* which provides that if as a by-product/co-product or residue can be transferred or sold for use elsewhere as a raw material and thereby remains in the 'normal commercial cycle or chain of utility', it should not be regarded as waste. The Circular states that a useful by-product should not be regarded as being discarded simply because the holder no longer wants it but wished, for example, to pass it on to another user. Recent UK case law indicates that this guidance needs to be read with care, and also with reference to recent European Court of Justice rulings.

The most recent ruling of 15th January 2004 (Mario Antonio Saettia and Andrea Frediana, Case C-235/02) concerned petroleum coke produced in the course or producing other petroleum fuels in a refinery. Used on-site as a fuel to meet the energy needs of the refinery and other industries, the court held that petroleum coke used in this way should not be categorised as waste.

In Spring 2004, the Environment Agency for England & Wales held discussions with the Government's Department of Environment Food & rural Affairs (Defra) over whether certain by-products from the production of food and drink are 'waste', in accordance with the definition of waste in Article 1(a) of the Waste Framework Directive, as interpreted by the European Court of Justice (ECJ).

The UK National Pig Association (NPA) reports that in the light of these discussions and consideration of ECJ case law, the Agency has concluded that materials resulting from the manufacture of food or drink which are passed on directly to another undertaking for processing into food or drink (for human or animal consumption) are not waste.

The rationale behind this view is said to be that raw materials are being processed in a series of stages (albeit by different undertakings) to extract nutritional value for a number of different purposes, all of which are aimed at manufacturing food or drink from the materials. In these circumstances, the Agency considers that it is appropriate to regard these food and drink by-products as not being discarded as waste but simply as another food or drink product obtained from the original raw materials. In the Agency's view, this conclusion is compatible with the aims of the Waste Framework Directive and the need to ensure its effectiveness is not undermined. This reasoning applies, for example, to brewers grains and spent yeast, where they are used to make animal feed or yeast based products, and to molasses and other derivatives from sugar manufacturing where they are used to make animal feed. However, where residues from the manufacture of food or drink are disposed of, or are used for a different purpose, which amounts to a waste recovery operation (e.g. use of olive residues as fuel), they will be waste.

The NPA says that this reasoning does not affect the question of whether off-specification or out of date food or drink products are waste. In principle, it is likely that they would be waste within the meaning of Article 1(a) of the Waste Framework Directive - they are identified as a category of waste in Annex 1 to the Directive and any producer will seek to limit their production. There are though some distinctions to be made here - for instance whether a particular product is off-specification or not.

The Agency is giving further consideration to this issue in consultation with Defra. In the meantime, decisions should continue to be taken, by those with responsibility for such products or their use, having regard to all the circumstances, the aims of the Waste Framework Directive and the need to ensure its effectiveness is not undermined.

Reuse/Reclamation

Re-use is also referred to as reclamation. In England, recycling as an indicator excludes re-used waste materials, although re-use is included with recycling in the National Assembly for Wales Performance Indicator (recycling) for wastes management – 'Reused means items removed from the waste stream (e.g. collection of furniture from the household) for purposes of re-use without significant processing'.

The Packaging and Packaging Waste Directive (94/62/EC) became law in 1994, and was implemented in the UK through The Producer Responsibility Obligations (Packaging Waste) Regulations 1997.

No quantitative target for 'reuse' was set down in the 1994 Packaging and Packaging Waste Directive, although according to Article 5 :-

> 'Member States may encourage reuse systems of packaging, which can be used in an environmentally sound manner, in conformity with the Treaty'

Targets for reuse of packaging implemented by Member States refer mainly to refilling of beverage packaging, generally aiming to support and/or protect already existing reuse systems. This focuses on primary or post-consumer packaging, to a lesser extent on grouped or secondary packaging but only limited interest in tertiary or transit/transfer packaging.

Denmark has a voluntary agreement covering transport packaging made of cardboard, paper and plastic. This covers both reuse and recycling of material for packaging, with the objective of reaching a by direct reuse or material recycling. level of 80% collection and recovery of transport packaging.
(Source : ARGUS in association with ACR and Carl Bro a/s (2001). European Packaging Waste Management Systems - Main Report. For European Commission DGXI.E.3. The Report focuses on paper and cardboard, plastic, glass and metals with a detailed analysis country by country*).*

As with most other Member States, the UK focussed on glass, paper and cardboard, plastics and metals. Wood (and other) packaging was brought under the UK Producer Responsibility Obligations with effect from 1st January 2000, but the re-manufacturing of wood pallets is not regarded as re-processing for accreditation purposes. Revisions of the 1994 Packaging Directive has new material-based recovery and recycling targets for glass, paper and cardboard, metals, plastics and wood.

Some organisations, including the Waste and Resources Action Programme (WRAP), refer to reclamation and reuse as distinct from recycling.

Also of relevance are retailer take-back schemes and second-hand goods where products are used by a third party (with or without payment). These should not be classed as waste.

As it stands at present the England BVPI for recycling **excludes** re-use, although it is included by the Welsh Assembly Government. Proposed changes by ODPM in June 2004 to BVPIs for 2005/06 in England include a new BVPI for re-use:-

> 'to capture items sent for re-use by Local Authorities and by third parties (including the community sector) working in formal partnership with Local Authorities'.

Composting

In England, statutory Best Value Performance Indicators have been defined for recycling and composting, but they are aggregated for the purpose of recording progress against targets for 2004/05 and 2005/06. In Wales and Scotland, however, there are separate targets for recycling and composting, within such combined targets : in Wales at least 15% for 2003/04, 25% for 2006/07, 40% for 2009/10 - in each case with minimum composting targets of 5%, 10% and 15% respectively, and in Scotland a combined target of 55% by 2020, comprising a recycling target of 35% and a composting target of 20%.

Local Authority Best Value Performance Indicators for 2003/04, published in January 2003, also defines composting :-

- 'Composted' means the controlled biological decomposition and stabilisation of organic substrates, under conditions that are predominantly aerobic and that allow the development of thermophilic temperatures as a result of biologically produced heat. It results in a final product that has been sanitised and stabilised, is high in humic substances and can be used as a soil improver, as an ingredient in growing media, or blended to produce a top soil that will meet British Standard BS 3882, incorporating amendment No. 1. In the case of vermicomposting these thermophilic temperatures can be foregone at the point the worms are introduced.

- Calculation of this indicator includes composting undertaken at a central, or community, composting facility. Home composting is not to be included. The tonnage to be used in calculation is the material sent for composting to these facilities for composting (= BV 82b).

In 2003 the Waste and Resources Action Programme and the British Standards Institute published specifications for the use of waste organic material as compost (PAS 100).

EU proposals on biowaste in 2001 (European Commission *Working Document Biological Treatment of Biowaste, 2nd draft, February 2001*) referred to mechanical/biological treatment as:-

> 'treatment of residual municipal waste, unsorted waste or any other waste unfit for composting or anaerobic digestion in order to stabilise and reduce the volume of the waste'.

The same document defined compost, and provided guidance criteria for meeting the various definitions :-

- 'Compost' means the stable sanitised waste and humus-like material rich in organic matter and free from offensive odours resulting from the composting process of separately collected biowaste, which complies with the environmental quality classes of Annex III.

- 'Stabilised biowaste' means the waste resulting from the mechanical/biological treatment of unsorted waste or residual municipal waste as well as any other treated biowaste which does not comply with the environmental quality classes 1 or 2 of Annex III.

Proposed criteria for EU Biowaste quality classes

	Source segregated[1]	municipal[1] Waste	compost[2] 1	2	stabilised waste[2]
Lead	73 (39 – 100)	450	100	150	500
Copper	32 (24 – 39)	120	100	150	600
Nickel	9 (3 – 12)	45	50	75	150
Zinc	149 (98 – 179)	600	200	400	1,500
Chromium	20 (5 – 36)	120	100	150	600
Cadmium	1 (0.3 - <2)	2	0.7	1.5	5

1. Dutch data from De Koning J, and van der Graaf J. H., J. M. Kitchen Food waste Disposers – Effects on Sewer System and waste Water Treatment.

2. Compost and stabilised waste classes from EU Working Document Biological Treatment of Biowaste, 2nd Draft, 2001.

The 2000/01 EU Working Documents on Biowaste stressed the importance of the waste hierarchy in terms of the possible use of cardboard for composting : reuse, recycling and then composting.

Heavy Metals in Biowaste

	Mixed MSW 'compost'	Median biowaste compost	90th Percentile compost	Sewage sludge
Lead	181-720	63	105	104
Copper	114-522	47	80	330
Nickel	30-149	17	30	36
Zinc	283-1,570	181	284	811
Chromium	70-209	21	37	73
Cadmium	1.7-5.0	0.46	0.89	2.0

Sources : Table from *EU Draft Discussion Document on Biowastes and Sludges, December 2003*

1. Sewage sludge figures provided by Member States for 1999, and are weighted averages.
2. The 'compost' and compost figures are from Amlinger F. Pollack M. and Favoino E (2003) Heavy metals and organic pollutants from wastes used as organic fertilisers. Draft Final Report to DG Environment (unpublished).

It is probable that contamination of residual waste with household batteries and other household hazardous wastes will contribute to higher values, in comparison to source-segregated garden waste, and outputs will remain waste

A further table was published in *Resource, January/February 2004,* again emphasising the importance of source segregation – an illustrating the target levels laid down in *PAS 100 Specification for composted materials* 2002, published by the Waste and Resources Action Programme (WRAP) The Composting Association and BSI.

Heavy Metal Content of 'Composts' from Different Sources

	Green Waste	Biowaste (green+food+ other organics)	Domestic Refuse	PAS 100
Lead	121	87	513	200
Copper	33.1	47	274	200
Nickel	9.7	22	45	50
Zinc	182	290	1,510	400
Chromium	10.6	49	71	100
Cadmium	0.44	1.0	5.5	1.5
Mercury	0.22	0.4	2.4	1

Adapted from Funke (1992). *Guidelines for the composting of organic waste*.

Note the elevated levels all heavy metals except lead in biowaste containing food wastes, and the very much elevated levels of all heavy metals in mixed domestic wastes.

It is probable that contamination of residual waste with household batteries and other household hazardous wastes will contribute to higher values, in comparison to source-segregated garden waste, and outputs will remain waste. This was the stance taken by the Environment Agency in 2001 in regarding the output from the Dano Drum mechanical system in Manchester as stabilised waste rather than a product.

In November 2003 DEFRA consulted on the role of anaerobic digestion in contributing towards recycling/composting targets, via the *Consultation on the role of anaerobic digestion of municipal waste within the Best Value Performance Standards*. The title of this Consultation Paper appeared flawed in referring to municipal waste, and compost from mixed waste. Words in bold indicate how the above definition might be modified

> 'Composted' means the controlled biological decomposition and stabilisation of organic substrates, **either** under conditions that are predominantly aerobic and that allow the development of thermophilic temperatures as a result of biologically produced heat **or under circumstances that are predominantly anaerobic in a biogas plant**. It results in a final product that has been sanitised and stabilised, is high in humic substances and can be used as a soil improver, as an ingredient in growing media, or blended to produce a top soil that will meet British Standard BS 3882, incorporating amendment No. 1, **or applied to the soil as a liquid fertiliser**. In the case of vermicomposting these thermophilic temperatures can be foregone at the point the worms are introduced.

For both composting and anaerobic digestion, EU and UK experts argue that source separation of designated organic waste steams is vital to ensure quality of the end-product.

The Consultation Paper reiterated the case that was made by the Environment Minister in February 2003 that anaerobic digestion would also count towards energy recovery targets, except where the primary purpose of the process is considered to be the treatment and stabilisation of organic substrates and where the digestate meets the standards set in BV 82b.

These changes were confirmed in April 2004, with the additional definition of 'anaerobic digestion' :-

> 'anaerobic digestion' means, the biological decomposition of organic substrates in the absence of oxygen and under controlled conditions in order to produce biogas and a digestate. It results, either directly or after subsequent aerobic treatment in a final product that has been sanitised and can be used as a soil improver, as an ingredient in growing media, or blended to produce a top soil that will meet British Standard BS 3882, incorporating amendment No. 1

Note that this definition is similar to composting, but excludes the quality descriptors 'stabilised' (referring to an aerobic environment) and 'high in humic substances'.

BV 82b was modified to read 'Percentage of the total tonnage of household waste arisings which have been sent for composting or for treatment by anaerobic digestion'

A key issue is how far such treated and stabilised waste will contribute towards meeting the Landfill Directive requirements for diverting biodegradable wastes from landfill. Reference has been made earlier in this Paper to the limit value of 5% Total Organic Carbon, and some mechanical and biological treatment technologies may not be able to meet this target for stabilised waste to landfill.

There is evidence in the UK that schemes to introduce kerbside collection of household green/garden wastes in order to meet BVPIs are also tending to lead to increases in overall waste collected – thus reducing the potential increase in recycling/composting. A report in Material Recycling Week of 23rd April 2004 referred to a two-year research study in Bath and North East Somerset involving 3,000 households and collections of garden waste :-

	Participation Rate9%)	Kg per household per year
Free collection	71	263
With a charge	10	25

Other conclusions from the research study :-

- Weekly kitchen waste collections were more effective than fortnightly ones
- kerbside composting schemes can have a significant impact on overall recycling rates
- service provided all year round were more popular and had higher participation rates than those run on a seasonal basis
- no collection method surpasses another in popularity with the public
- a household's income level is the single biggest factor influencing the amount of materials composted, rather than their urban or rural location. Participation in the collection service increase with the Council Tax band
- contamination of garden and kitchen waste can be significantly reduced if strong enforcement is combined with good communication

Home Composting

The above BVPI definitions clarify that home composting should **not** be included under either recycling nor composting for calculating progress towards meeting BVPI indicators. Home composting is a form of waste diversion or reduction - in either case from the weekly dustbin. Some might argue that home composting is waste prevention (or waste minimisation), but this is not correct, although promoting home composting is sometimes seen as part of an overall education and publicity programme to promote waste prevention. The waste itself, however, forms part of the overall quantity of waste generated by households, but as indicated in the exclusions, should not be included in any calculation of recycling/composting indicators.

The major problem is actually calculating the quantity diverted/reduced through home composting. Unlike the January 2003 definition of recycling, the BVPI is defined in terms of 'waste arisings which have been **sent** for composting' and there is no reference to being (re-)processed into a product.

With WRAP initiating a major project during 2004 to promote home composting through the release of 250,000 home compost bins, there is some concern that this may conflict with schemes to introduce kerbside collection of green/garden wastes.

The ODPM *Best Value Performance Indicators 2005/2006 : Consultation* published in June 2004 proposed re-framing BV84 'Number of kilograms of household waste per head' to make it possible to measure waste minimisation performance at a local level. In addition to 'kilograms of household waste collected per head' this indicator will show :-

- Percentage change from previous year

This will allow the contribution of home composting to be measured in contribution towards waste minimisation.

Disposal

In addition to the potential definition/interpretation of municipal incineration (with or without energy recovery) as disposal, the main waste disposal option is landfill. Increases in recycling and composting will continue to divert wastes from landfill. The Landfill Directive will also have major implications in banning co-disposal of liquid (hazardous) wastes with solid municipal solid wastes, and the proposed three categories of landfill : for hazardous waste, for non-hazardous waste and for inert waste. Furthermore. the Landfill Directive has set stringent targets for the treatment of biodegradable municipal wastes disposed of in (non-hazardous wastes).

These changes suggest that a 'new 'hierarchy' of wastes might be useful to consider in terms of public perception and potential impact on human health and safety and the environment :-

- wastes for recycling as secondary raw materials (according to the principal objective outlined in the Executive Summary) are no longer subject to (specified) waste management licensing constraints

- wastes for energy recovery (according to the principal objective criteria) are no longer subject to (specified) waste management licensing constraints

- waste disposed of correctly in inert landfill sites will offer very little impact

- treated biodegradable municipal waste will offer less impact on leachate and methane generation

- wastes deposited at hazardous waste sites offer the most potential impact, and will require the most careful collection, storage, transport and disposal management. The publication of the Report from the Hazardous Waste Forum in December 2003 emphasises the problems faced by the disposal of such wastes, with the number of licensed landfill sites for hazardous wastes falling from the current 218 to 10 after July 2004

A key issue is effective communication of this hierarchy to the general public who perceive **all** wastes as having adverse impacts on society and the environment. Given the wider role of WRAP in promoting market development for waste, and now waste awareness and education and publicity, this is a task that they should undertake in order to change public perceptions and NIMBY opposition to new waste facilities.

In February 2004, the European Parliament called for a ban on landfilling various waste categories, as part of the Thematic Strategy to implement the EU's Sixth Environmental Action Plan :-

- Ban on landfilling of untreated biodegradable waste by 2010

- Ban on landffilling of recyclables by 2015

- Ban on landfilling of recoverable waste by 2020

- Ban on landfilling of residual waste by 2025 – except where 'unavoidable' or hazardous

Conclusions

Given these various legal cases and changes in definitions, it would seem logical to amend the Waste Framework Directive in order to distinguish between :-

- qualitative and quantitative waste prevention as in the original Directive

- re-use, repair and re-manufacturing : products have not been *discarded as waste*, and have not entered the waste management system – to be classed under the broad title of 'recovery' (although 'valorisation' might be a more inclusive term)

and when waste is discarded

- recycling, where wastes are used as secondary raw materials either for their original purpose or for another purpose (excluding energy recovery)

- recovery via co-incineration (where the principal/primary objective is to substitute other primary fuels as per the Luxembourg judgement)).

- disposal to landfill (and mass burn municipal incinerators following the European Court of Justice Luxembourg judgement)

Such changes may best be included as the basis of a new Resources and Waste Framework Directive. The recent codification of the Directive in November 2003 does not cover these issues.

MEPs on the Environment, Public Health and Consumer Policy Committee have raised questions to the European Commission in Autumn 2003 on the distinction between waste and non-waste, as well as between recovery and disposal operations. They also point to different definitions in various Member States. A number of amendments have been proposed (source :*United Kingdom Quality Ash Association Environment Agency and Waste Issue Update Newsletter*, November 2003 :-

- Whilst not questioning the current definition of waste, calls on the Commission to clarify the distinction between waste and non-waste in particular in cases of secondary raw material or a product, with regard to the aim of the Directive and the need to ensure that its effectiveness is not undermined

- Calls on the Commission to make the existing concept of waste in Directive 75/442/EEC more specific, and in particular to define the point at which an object can no longer be regarded as waste by establishing objective criteria, such as a positive market price, compliance with specified quality standards and direct use in the production process

- Calls on the Commission to formulate clear conditions for the definition of the waste disposal and recovery operations, and actively monitor their proper implementation

The Household Waste Recycling Bill received Royal Assent in November 2003. The Act originally proposed a new recycling target of 50% for 2010, but this has been replaced by a requirement that all English Waste Collection Authorities provide kerbside collection schemes to all households covering at least two types of recyclable or compostable waste. This would be done by amending Section 45 of the Environmental Protection Act which places a duty on Local Authorities to collect household waste. An Authority would be excused if the cost of providing the service was 'unreasonably high' or 'comparable alternative arrangements' were available - such as drop-off/bring banks within 100 metres. The Secretary of State is to report to Parliament by October 2004 on progress by each Local Authority.

In London, *Rethinking Rubbish in London The Mayor's Municipal Waste Management Strategy* in September 2003 proposed that 'The waste authorities must provide all households with recycling collections of at least three materials, one of which should be paper, by September 2004, except where impracticable' (Proposal 16).

E&OE

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Professor Chris Coggins

174 Old Bedford Road
Luton
LU2 7HW

Tel : 01582 412045

Email : WAMTECH@Luton174.fsnet.co.uk

UNDERSTANDING THE DEFINITION OF WASTE

Using this document

The meaning of the definition of waste has changed in recent years due to European and domestic case law. This guidance note is for **internal Environment Agency** use, although in the interests of transparency, it may be shared with external stakeholders. It summarises the Agency's understanding of these changes and explains how this issue is being taken forward. This note may be subject to change in the light of Government guidance or future changes in the law.

What is waste?

"Waste" is defined in Article 1(a) of the Waste Framework Directive as *"any substance or object in the categories set out in Annex 1 which the holder discards or intends, or is required to discard"*. The definition has not changed since 1991, however case law has helped clarify its interpretation.

Annex 1 to the Directive lists different categories of waste and provides a useful indication of the characteristics of substances or objects that may be waste when discarded. The "holder" is defined as *"the producer of the waste or the natural or legal person who is in possession of it"*. The "producer" is defined as "*anyone whose activities produce waste ("original producer") and/or anyone who carries out pre-processing, mixing or other operations resulting in a change in the nature or composition of the waste"*. It is therefore necessary to consider the intention of the original producer as well as any subsequent holder in determining whether a substance or object is waste.

General Principles

The Courts have set out three core principles for determining whether something is waste:

- The scope of the term "waste" turns on the meaning of the term "discard".
- Whether a substance or object has been discarded and is in fact waste, within the meaning of the Waste Framework Directive, must be determined in the light of all the circumstances, having regard to the aim of the Directive and the need to ensure that its effectiveness is not undermined.
- The concept of waste cannot be interpreted restrictively.

When does something become waste?

An object becomes waste when it is discarded even if it has a value or can be reclaimed in some way and the holder may want to pass the object onto another person for recovery, including recycling or re-use. The Directive clearly covers waste that is going to be recovered as well as waste that is destined for disposal. The Agency considers that genuine second-hand goods are not normally caught by the Directive and is producing more guidance on this.

A more difficult area is distinguishing between genuine by-products and residues from industrial processes and we are discussing this further with Government and other stakeholders.

When does something stop being waste?

Once a substance has become waste, it will remain waste until it has been fully recovered. This will be the point at which there is no longer any reason to subject it to the controls and other measures required by the Directive. For some materials this will be when the waste is put back into productive use. The Agency is discussing with Government what measures might need to be satisfied to demonstrate that full recovery has taken place. This is an issue on which the European Commission is also seeking views from interested parties. This clarity is an essential part of increasing consumer confidence in secondary material use.

What does this mean in practice?

As a result of the changes in case law, the circumstances under which a substance may be said to have been discarded have broadened considerably and therefore more activities are likely to be subject to regulation. Further, it is likely that once a substance has been discarded, it remains waste for a much longer period of time.

Whose decision is it?

Whether or not a substance is waste is a matter of law. In interpreting the law, all the circumstances of a particular case will need to be considered. Case law specifically cautions against laying down rules or guidance which restrict the definition. It is the responsibility of the person who produces or holds a substance or object to determine whether what they are holding is waste. People who are unclear as to their obligations should consider taking their own legal advice as ultimately the interpretation of the law is a matter for the courts.

What are the implications?

The Agency is aware that classifying a substance as waste has implications. The most obvious of these are regulatory (eg duty of care, carrier registration and site authorisations). However, there are also strategic impacts (eg how do we measure and plan for the recovery and disposal of waste) and there is a perceived "stigma" associated with waste.

What waste is, and how it is to be regulated is a matter of European and domestic law and the making of such law is a matter for Government. The Agency must act within the law – it does not have discretion as to whether to class substances as waste, nor to decide whether and how to regulate activities involving waste. The Agency has encouraged Government to put in place a more proportionate regulatory regime for waste recovery activities in particular. We are actively supporting Defra in its current review of the waste licensing and exemption regime. We are also looking at increased ways of smartening our regulatory approach (such as the recent review of our policy on financial provision and the production of shell licences).

What is the Agency's approach?

This note is not an instruction to staff to actively seek out activities involving waste. We will be focussing our efforts on ensuring that new regimes are implemented in a way that properly takes account of the broadened scope of waste. Where we are called on to take a view on whether something is waste, the principles set out in this note should be followed.

We recognise that a number of the activities now caught by regulation will be low risk. In deciding whether and how to take enforcement action we will act in accordance with our published Enforcement and Prosecution Policy. Priority should be given to those activities causing or with the potential to cause pollution of the environment or harm to human health.

How are we taking this forward?
The purpose of this document is to help communicate recent changes to the scope of the definition and provide a consistent approach to decision making. We are also:

- working with Government to ensure that Circular 11/94 is revised and that the regulatory and strategic impacts are addressed as far as possible;
- scoping the impacts of these changes to ensure that we have the necessary tools and training to ensure consistent application and that resource impacts are identified and managed accordingly; we anticipate that internal roll out will be completed this year; and
- discussing the issues and implications with key external stakeholders.

Further guidance

For help dealing with generic or national issues, you should contact the relevant policy or process lead in the first instance. Where help is needed on interpreting the law in individual cases you should contact your regional waste lawyer.

Waste Policy
23 September 2003

Landfill Tax-free Areas

Professor Chris Coggins

The landfill tax in the UK was introduced in October 1996 at £7 per tonne for active waste (wastes with the potential to undergo significant physical, chemical or biological changes, when deposited in a landfill) and £2 per tonne for inactive/inert waste. The rate for active waste was increased to £10 with effect from April 1999, and an escalator of £1 per tonne per annum to reach £15 with effect from April 2004. The escalator becomes £3 with effect from April 2005 (tax = £18 per tonne), with the medium/long term target to reach £35 per tonne. There have been no changes and no escalator for the landfill tax on inactive/inert waste.

On behalf of a client I raised the issue of landfill tax-free areas with HM Customs & Excise in April 1997, and the following is a transcript of their reply (*I have the original correspondence*):-

'Where a Landfill site that is registered for the Landfill Tax (LFT) has our approval for a tax-free area to recycle organic/putrescible waste into compost ; this is free from LFT at the time of disposal. It is only free from LFT because it is a Tax Fee Area and for no other reason. One it enters into the 'Licensed area' the original producers intention to dispose of the waste has been met, therefore with any subsequent removals from the tax-free area, it is **the registered persons** intention that counts . For example :-

a. When the wastes subsequently become compost due to a process which fundamentally changes its properties, e.g. aerobic or anaerobic composting they become a 'material and when this is removed from the tax-free area it will NOT be subject to LFT

b. Residues from the composting process (wood, glass, plastic, etc) removed from the tax-free area and taken to landfill, are being discarded as waste and are therefore subject to LFT.

At present my Department has not defined 'fundamentally changes its properties', therefore ti is the responsibility of the registered person to prove such a change has taken place.'

(letter to P. C. Coggins from Peter Butt, Senior Officer HM Customs & Excise, Peterborough, 16th May 1997)

A court case , Parkwood Landfill v. Commissioners of HM Customs and Excise, resulted in a Court of Appeal decision in November 2002 concerning 'discard', 'disposer' and 'waste'.

A wholly owned subsidiary of Parkwood Landfill, Parkwood Recycling received waste from Sheffield City Council which was separated into waste for landfilling and recyclable material which was sorted into aggregates and fines which could be used as soil substitution. The waste went to a landfill site owned by Parkwood Landfill and landfill tax was paid. The company also bought a quantity of the recycled material for use as landscaping and road making at the landfill site. HM Customs and Excise claimed that this should be liable to landfill tax. Parkwood won an appeal before the VAT and Duties Tribunal, but this decision was overturned by the High Court.

The company appealed, and HM Customs and Excise argued that the use of an intermediary, as in this case, could avoid payment of landfill tax. The Court of Appeal considered in detail the provisions of Section 40(2) of the Finance Act 1996 which set four conditions for a landfill tax disposal :-

(e) there is a disposal of material as waste

(f) the disposal is made by way of landfill

(g) the disposal is made at a landfill site

(h) the disposal is made on or after 1st October 1966

Parkwood accepted conditions (b), (c) and (d) but disputed (a). The Court of Appeal took Section 64(1) of the Finance Act 1996 which provided a separate definition - 'a disposal of material is a disposal of it as waste if the person making the disposal does so with the intention of discarding the material'. They argued that Sheffield City Council was the actual disposer of the waste, that Parkwood Recycling crushed, sorted and graded the waste into saleable materials, the intention of the legislation was that landfill tax was a tax on waste deposited at landfill sites and not a tax on recycling. 'The critical factor is the intention of the disposer. 'The tax bites upon the person who discards not who recycles'.

One notable feature of the decision was the extent to which the Court avoided getting embroiled in EU decisions on the meaning of 'waste' and the term 'discard'. In the Parkwood case, the Court of Appeal treated the landfill tax provisions as a self-contained legislative structure which include as one of its aims the promotion of recycling - instead of primary raw materials.

(sources : *Wastes Management* February 2003 and *ENDS* January 2003).

Regarding the following transcript, readers are advised to read the original documents on the HM Customs and Excise website (full address below)

In *Briefing Note 10/04* published on 19th March 2004, HM Customs and Excise announced a change in policy regulating to material used on landfill sites.

Background

For landfill tax purposes, material is disposed of as waste, if, when disposing of it or having it disposed on his behalf, the producer intends to discard or throw it away. The fact that someone else uses it or intends to use it, or would done so is irrelevant. It is the original producer's intention that determines if the material is waste. Only if the material is recycled is the original producer's intention no longer relevant.

Details of the change

Up to now, for the purposes of landfill tax, Customs' guidance has been that material had to undergo a chemical change to be considered to have been recycled. With immediate effect, Customs will accept that if a material is processed, changing it to useable material, the process does not have to change the material's chemical properties in order for it to be considered to have been recycled.

The tax liability will now hinge on the intention of the recycler, as evidenced by the nature of the transaction. If a landfill site operator can demonstrate to Customs' satisfaction that the material he uses in site engineering is not discarded by its processor, it will not be subject to the tax.

Currently, one of the provisions for which landfill site operators can apply in order to operate as tax-free area is if they intend to carry out recycling of waste (which includes composting). Customs' revised interpretation of what constitutes recycling widens the scope of this qualifying use with immediate effect.

Further information from www.hmce.gov.uk and/or Customs National Advisory Service on 0845 010 9000.

HM Customs And Excise (May 2004) Notice LFT1 A general guide to landfill tax,

See **www.hmce.gov.uk/forms/graphics/lft1.pdf**

2.2 What is waste ?

2.2.1 General principle

For landfill tax, the original producer's intention determines if material is waste.

This is illustrated in the following decision table :

If …	**And …**	**Then …**
the waste producer disposes of waste	when disposing of it, they intend to discard or throw it away	the material is disposed of as waste : and it is irrelevant whether you or someone else uses it, or would have done
somebody else, such as a waste carrier, makes the disposal on behalf of the waste producer (either under a contract with, or at the request of, the producer)	when disposing of it, the original producer intended to discard it or throw it away	the material is disposed of as waste ; and the carrier's intention is irrelevant

2.2.2. Recycled material

If waste is processed before its disposal to landfill and the process changes it into a useable material, the original producer's intention is no longer relevant. The landfill tax liability is determined by the intention of the recycler, as evidenced by the nature of the transaction.

The following table gives examples of the processes that may discount the original producer's intention.

If waste is subject to … composting, crushing, bailing, sorting or screening

Then the liability to tax is determined by the intention of the … producer of the new material

18. Extract from The Landfill Tax (Qualifying Material) Order 1996

For reference with qualifying uses involving qualifying materials (see over).

Group 1	rocks and soils including naturally occurring clay, sand, gravel, sandstone, limestone, crushed stone, china clay, construction stone, stone from the demolition of buildings or structures, slate, topsoil, peat, silt and dredgings
Group 2	ceramic or concrete materials including glass (includes fitted enamel, but excludes glass fibre and glass reinforced plastic), ceramics includes bricks and mortar, tiles, clay ware, pottery, china and refractories), concrete includes reinforced concrete blocks, breeze blocks and aircrete blocks but excludes concrete plant washings)
Group 3	processed or prepared (not used) minerals including moulding sands (excluding sands containing organic binders), clays (including moulding clays and clay absorbants such as Fuller's earth and bentonite), mineral absorbants, man-made mineral fibres (includes glass fibres, but excludes glass-reinforced plastic and asbestos), silica, mica, mineral abrasives
Group 4	Furnace slags including vitrified wastes and residues from thermal processing of minerals where, in either case, the residue is both fused and insoluble
Group 5	Ash comprising only bottom ash and fly ash from wood, coal or waste combustion, and excluding fly ash from municipal, clinical and hazardous waste incinerators and sewage sludge
Group 6	Low activity inorganic compounds comprises only titanium dioxide, calcium carbonate, magnesium carbonate, magnesium oxide, magnesium hydroxide, iron oxide, ferric hydroxide, aluminium oxide, aluminium hydroxide and zirconium dioxide
Group 7	Calcium sulphate includes gypsum and calcium sulphate based plasters, but excludes plasterboard. Disposed of either at a site not licensed to take putrescible waste or in a containment cell which takes only calcium sulphate
Group 8	Calcium hydroxide and brine deposited in brine cavity
Group 9	Water containing other qualifying material in suspension

Tax-free areas

7.1 What is a tax-free area ?

If you intend to carry out any of the following **qualifying uses** within the boundaries of your landfill site, you may wish to apply for part of your site to be designated as tax-free area. Waste stored in that area would not bear tax for either up to 12 months or up to 3 years, depending on the qualifying use

Qualifying uses :

Recycle waste (which includes composting)

Incinerate waste

Sort waste pending its use at a place other than a landfill site

Sort waste pending its disposal

Use waste (but it is **not** for use at a landfill site)

Period that waste can be stored for before bearing tax :

Up to 12 months

Qualifying uses :

Store qualifying material for subsequent use in restoring the landfill site

Sort material to obtain qualifying material for subsequent use in restoring the landfill suite

Period that waste can be stored for before bearing tax :

Up to 3 years

When you place waste in a tax-free area at your site the original producer's intention to dispose of the waste has been met. When you remove the waste from the tax-free area it is your intention that counts.

Note : Waste for subsequent use on any of your sites or any other landfilll site which is not qualifying material for use in site restoration cannot be placed in tax-free area unless you are sorting it and accounting for tax on its final disposal. Any residue of material which is unsuitable for restoration purposes will incur tax if not removed from your site within the relevant period, as set out in the conditions of your tax-free agreement.

We recommend that you contact your environmental regulator to ensure that any changes you propose to make to your site, or the running of it as a result of the introduction of a tax-free area are acceptable under the terms of your waste management licence. You may also require planning permission.

You will need to keep a temporary disposal record of wastes entering and leaving the area. Where you store bulk waste in the tax-free area and you cannot get at or identify the earliest stored waste we will treat removals from the area as movements of that earliest stored waste.

> Important : you cannot operate a tax-free area without our written approval and approvals cannot be backdated.

7.2 Applying for a tax-free area

You can apply :

- For more than one tax-free area (to allow storage of different types of waste or different activities such as sorting and recycling)
- to use a tax-free area for one particular qualifying use ; or
- to use a tax-free area for a number of qualifying uses.

You must, however, be able to clearly identify the quantities and types of waste which relate to the different qualifying uses.

Your application should include :

1. the landfill site concerned (you must submit individual applications for each site)
2. the date you want the tax-free area to come into operation
3. the qualifying uses for which waste temporarily deposited in the area(s) will be put
4. the types of waste you expect to deposit in the area(s)
5. the length of time wastes will remain in the are(s)
6. the proposed boundaries of the area(s)
7. **Note :** any application to allow for storage of materials for use in restoration should be made no earlier than three years before the planned commencement date of restoration of the site or (where phased restoration is planned) the commencement of the first phase of restoration

7.3 Boundaries

In any application to operate a tax-free area you will need to identify its boundaries. We do not require you to fence the area, but it must be clearly idenitifiable within your site. For example, boundary markers, site roads, buildings or landscape features may help you to identify the area. More than one tax-free area may be approved ion a site.

You may also wish to change its boundaries periodically as your landfilling operations progress. So long as the temporarily stored waste is clearly identifiable we would not normally object to this, but you will require prior written approval from us before you can change the boundary of your tax-free area.

7.4 Weighing waste

To operate a tax-free area you will need to weigh waste entering and removed from the area. If you have weighbridge you must use it. If you do not, you may use a specified method or propose an alternative method for pour approval.

E&OE

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Professor Chris Coggins

174 Old Bedford Road
Luton
LU2 7HW

Tel : 01582 412045

Email : WAMTECH@Luton174.fsnet.co.uk