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## WELSH ASSEMBLY GOVERNMENT

MEASURE TO REPORT THE FINAL DESTINATION OF RECYCLATE SENT OUTSIDE THE EUROPEAN COMMUNITY & EUROPEAN FREE TRADE AREA

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## 1. SPECIFICATION

To investigate how the WasteDataFlow system could be adapted to facilitate the reporting on final destination of recyclate shipped outside the European Community and European Free Trade Area (EFTA)

### 1.1 Overview

The Measure proposes an amendment to the Environmental Protection Act (EPA) 1990 in order to place a duty on authorities in Wales to prepare statements in relation to waste destined for recovery shipped outside the European Community (EC) and European Free Trade Area (EFTA).

The Measure proposes that the onus is placed on local authorities to obtain and report this information to offer full transparency to householders on the final destination of their recyclate. The proposed Measure is intended to address duty-of-care concerns, that waste sent for recycling is being reprocessed in an environmentally sound manner, and looks to encourage the use and development of local markets under the proximity principle.

The intent of the Measure is to capture the following information for all waste destined for recovery, which is shipped outside the EC and EFTA:

- (a) The total quantity of the waste shipped;
- (b) The quantity of the waste shipped which was ultimately subject to a recovery operation;
- (c) The nature of that operation or operations;
- (d) The quantity of the waste shipped which was not ultimately subject to a recovery operation;
- (e) The manner in which that waste was disposed of; and
- (f) In relation to every quantity of waste subject to a recovery operation or otherwise disposed of, the location at which that operation or disposal took place.

The Measure would require local authorities to make publicly available information about the proportion of the recyclate collected from households that is processed outside the EC and EFTA. It is intended that, as a result of this information, residents will encourage local authorities to use recycling facilities that are closer to the source of the recyclate, than those that are further away. In so doing, it expects to encourage the compliance of local authorities with the two principles of proximity and self-sufficiency, both important principles of Welsh waste management. It is also expected that the publication of information will lead to increased interest, and therefore participation, in recycling.

## In terms of destinations of recyclate sent outside EU/EFTA, to what extent is WasteDataFlow able to record this information at present?

There is already a function within Questions 19, 19a and 35 of the current WasteDataFlow system that allow an entry for the final destination of recycling waste from local authorities:

- Q19. What is the final destination of your materials that were collected for and sent for recycling?
- Q19a. What is the final destination of your materials recovered from the residual waste and sent for recycling?
- Q35. What is the final destination of your materials collected for and sent for reuse?

The questions ask for the final recycling destination in the UK, for which the name, address, postcode, type and licence number is known.

The questions ask for the tonnages by Material. The full list of materials is listed overleaf:

Mixed glass	Green glass; Brown glass; Clear glass	
Paper Card Books Yellow pages Cardboard beverage packaging		
Mixed cans	Steel cans; Aluminium cans	
Aluminium foil Aerosols Other scrap metal		
Mixed Plastics Mixed plastic bottles	PET (1); HDPE (2); PVC (3); LDPE (4); PP (5); PS (6); Other (7)	
Other compostable waste	Mixed garden and food waste; Wood for composting	
	Waste food only; Green garden waste only	
Soil Wood Chipboard and MDF Composite wood materials Vegetable oil Mineral oil		
WEEE – large domestic WEEE – small domestic WEEE – cathode ray tubes WEEE – fluorescent and other WEEE – Fridges and freezers		
Automotive batteries Non-automotive batteries		
Mixed tyres	Car tyres; Van tyres; Large vehicle tyres	
Furniture Rubble Plasterboard Paint		
Other materials	Bric-a-brac; Video tapes, DVDs and CDs; Fire extinguishers; Gas bottles; Ink & Toner cartridges; Bicycles	
Mattresses Textile and footwear		
Co-mingled materials		

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There is no requirement on the local authority to use any of the material categories or breakdowns although there is encouragement to make best use. Co-mingled can only be used as a category on the waste collection questions, and so cannot be used in Qu19, 19a or 35.

The questions also ask for the final destination of the contaminant that was rejected at the gate by the reprocessor. The choices on offer are from the following list of technologies and do not require the actual facility to be named, but would indicate 'the manner in which the material is disposed':

- Inert Landfill;
- Non Hazardous Landfill;
- Hazardous Landfill;
- Incinerated with Energy Recovery;
- Incinerated without Energy Recovery;
- Advanced;
- Thermal Treatment;
- Mechanical Biological Treatment (MBT);
- Anaerobic Digestion;
- Residual Waste Materials Recycling Facility (MRF); and
- Other.

Although the questions ask for 'final reprocessor' the choices also include processors and brokers within the UK as it is a master list used in all WasteDataFlow questions. The duty of care as interpreted by the Environment Agency (England & Wales) means that local authorities are expected to use the actual final point at which the waste becomes a resource. This is not controlled by the WasteDataFlow system, but is covered by the Environment Agency audits of each local authority and their review of the data submitted in questions 19/35.

There are no options to identify reprocessors based overseas, simply entries for Outside-UK-EU and Outside-UK-nonEU. There is no categorisation around EFTA.

WasteDataFlow does not ask for the value of any tonnage that does not go through the reprocessor's process, or is rejected during the process, after having been accepted at the gate.

In summary, WasteDataFlow is currently configured to collect tonnages of waste sent outside the EC as a total (by material) for each local authority. This information is not broken down to facility level and so is not recording the recovery process. There is no differentiation between waste sent outside the EU to a broker or directly to a reprocessor. WasteDataFlow is not configured to collect data on material tonnage rejected beyond the gate of the reprocessor. WasteDataFlow is not configured to collect data on the destination of any reject process.

Assuming that the Measure is passed, what changes to WasteDataFlow would be needed in order to facilitate local authority compliance through this route? Also giving consideration to additional costs and timescales to develop the system.

To enable authorities to record the same information for an overseas facility that they currently do for a UK facility would simply need the details of the overseas facilities adding to the lists.

Adding the details of the reprocessors once known would be a straightforward task. The work would be in gathering and validating the details in the first place (as discussed in question 3). The reprocessor details would include: name, address, process type and licence number. Q19 and Q35 allow the amount shipped and rejected at the gate to be recorded with no extra work and the final destination of the gate rejects would be known in terms of 'the manner in which it is disposed'. Compiling and managing this list of reprocessors would be a task undertaken by the Environment Agency, in the same way the Agency manages UK based licences. The costs of this have not been considered here.

Extra development work would be needed if WasteDataFlow were required to gather the tonnage and process for any waste rejected following acceptance at the gate. Extra development work would be required if the address of the treatment of any process rejects was to be recorded.

Any changes to WasteDataFlow questions are best done ready for the start of a data year, namely the entry of April 2010 figures. This would mean that specifications would need to be detailed prior to January 2010, thus allowing sufficient time for question development and testing. Until a more detailed specification is created a cost for the work is going to be relatively inaccurate, but would be in the order of £10K to £20K.

What other practical impediments are there to implementing the Measure and how might these be addressed? (One issue that is often cited is lack of knowledge about what happens beyond brokers, MRFs etc). To what extent could LA contract requirements address this?

The Measure proposes the capture of the following information for waste shipped for recovery outside of the EU/EFTA:

- (a) The total quantity of the waste shipped;
- (b) The quantity of the waste shipped which was ultimately subject to a recovery operation;
- (c) The nature of that operation or operations;
- (d) The quantity of the waste shipped which was not ultimately subject to a recovery operation;
- (e) The manner in which that waste was disposed of; and
- (f) In relation to every quantity of waste subject to a recovery operation or otherwise disposed of, the location at which that operation or disposal took place.

#### 4.1 The legal framework for exporting waste out of the UK

Waste destined for recovery, which is shipped outside the EC and EFTA is already governed by an existing legislative framework.

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal was adopted in Basel (Switzerland) in March 1989 and entered into force in May 1992. As of 22 July 1997, 113 States and the European Union were Parties to the Convention.

In September 1995 the Convention was amended to introduce a new article that obligated Parties and other States which are members of the Organisation for Economic Cooperation and Development (OECD), EU and Liechtenstein to prohibit all transboundary movements of hazardous wastes destined for final disposal to other States. These States are obligated to end all transboundary movements of hazardous wastes which are destined for recovery or recycling.

The Basel Convention is implemented in the European Community by the Waste Shipment Regulations (WSR), which is the key legal instrument setting out controls on waste imports and exports from the UK.

Within the UK the WSR is supplemented by the UK Transfrontier Shipment of Waste Regulations 2007. This deals with certain administrative aspects and makes almost any breach of the WSR that takes place in the UK a criminal offence. Therefore any business that exports waste from the UK in breach of the relevant applicable controls set down in the WSR may face sanction and potentially prosecution by the relevant UK Regulator.



The revised WSR came into force on July 12<sup>th</sup> 2007 and contain three levels of controls, depending on what the waste is and where it is being moved: prohibition, notification and Green List.

- 1. **Prohibition** The import/export of hazardous wastes from/to developing countries is prohibited (except for very restricted circumstances).
- 2. **Notification** The movements of waste must be pre-notified to the regulatory authorities in all concerned countries and prior permission must be obtained before the waste is moved.
  - a) Shipments of hazardous waste to OECD countries will almost always require a notification.
  - b) Movement of all waste to the new EU countries will always require a notification.
  - c) Movements of some Green List wastes to non OECD countries may require notification.
- 3. **Green List** Movements of Green List wastes do not need to be pre-notified and do not need prior permission before going ahead but do need to comply with specified requirements.

The proposed Measure applies <u>only</u> to Green List wastes.

#### 4.1.1 Controls on Export

The controls on export of Green List wastes are as follows:

- EU Member states (except for Latvia, Poland, Slovakia, Bulgaria and Romania) - Green List controls.
- Latvia, Poland, Slovakia, Bulgaria and Romania notification controls.
- OECD countries Green List controls.
- Non-OECD countries various levels of control depending on which particular country it is proposed to send the waste to. See Appendix 1 for a summary of the controls applicable to some key Green List waste streams to some key destination markets.

In general, for commercial and administrative reasons, the majority of exports to non-OECD countries will only be possible where the rules permit the export to take place under Green List controls.

Where waste is sent for recovery in a country outside the EU the exporter must ensure the recovery facility to which the waste is sent is operated according to human health and environmental protection standards that are broadly equivalent to those within the EU. If sent to a facility in the EU it must be recovered at an appropriately permitted facility.

The following extract from the Environment Agency June 2007 publication "Exporting recyclable waste for recovery in non-OECD countries" lists the requirements under the Green List controls.

To export waste under Green List controls, you must:

- Make sure the waste you want to export is 'Green List' waste;
- Check the recovery facility is located in a country that accepts imports of the type of Green List waste being sent under Green List controls;
- Make sure the waste is going to a facility where it will be recovered in an environmentally sound manner;
- Enter into a contract with the person you are sending the waste to for recovery. The contract must contain specified terms and be in place before you send the waste;
- Complete and sign an Annex VII form before you move the waste, providing details about: the people involved with producing and moving the waste, the waste itself, the proposed recovery operation and the recovery facility;
- Make sure a copy of the signed and completed form accompanies the waste on its journey to the receiving facility in the country it is going to;
- Keep copies of the completed form sent with the waste for three years. UK regulators may ask for copies of the forms you have completed for shipments already made;
- If you are sending the waste from Northern Ireland or Scotland, you must send a copy of the completed form to the competent authority before you move the waste.

Unlike Scotland and Northern Ireland, there is no requirement in England and Wales to notify the Regulatory authority of the export of Green List wastes. Regulatory control relies on spot checks by the Environment Agency.

### 4.1.2 Green List Wastes

Green List wastes include some uncontaminated plastics, metals, glass, paper, textiles and other materials and items.

Under Annex III to the WSR the following waste list entries may be applicable to a consignment of waste paper or plastic destined for export:

- B3010 Solid plastic waste; and
- B3020 Paper, paperboard and paper product wastes.

An exporter seeking to classify the waste to be exported under either of these entries must take into account the introductory text to Annex III to the WSR which states:

- "Regardless of whether or not wastes are included on this list, they may not be subject to the general information requirements laid down in Article 18 if they are contaminated by other materials to an extent which
  - a) Increases the risks associated with the wastes sufficiently to render them appropriate for submission to the procedure of prior written notification and



consent, when taking into account the hazardous characteristics listed in Annex III to Directive 91/689/EEC; or

b) Prevents the recovery of the wastes in an environmentally sound manner."

The exporter must also consider whether the waste to be exported comprises a mixture of different types of waste. Mixtures of waste cannot be appropriately classified as an Annex III waste unless there is a single applicable entry within Annex III covering that mixture. There is no single entry within Annex III to the WSR that covers a mixture of, for example, paper and plastic.

Unsorted mixtures of waste plastic and paper derived from mixed dry recyclable municipal collections will, for the purposes of determining the applicable controls under the WSR, be classified as:

♦ Y46 Waste collected from households - If the consignment comprises waste paper or waste plastic that is more appropriately classified as Y46 waste its export to non-OECD countries outside the EU will be prohibited. Exports of such waste to either EU or OECD countries will, as a minimum, be subject to notification controls and in the majority of cases are likely to be prohibited.

### 4.2 Capturing the information required by the proposed Measure

Given that there is an existing regulatory framework that already captures information on waste exported outside of the UK, including outside the EU and EFTA, there is an opportunity for the local authorities to use this system, through access to completed Annex VII Forms, to source details as required in the proposed Measure.

Annex VII Forms require the following information to be specified:

PROPOSED MEASURE TO REPORT THE FINAL DESTINATION OF RECYCLATE

## ANNEX VII

## INFORMATION ACCOMPANYING SHIPMENTS OF WASTE AS REFERRED TO IN ARTICLE 3(2) AND (4)

Consignment information <sup>(1)</sup>			
1. Person who arranges the shipment		2. Importer/consignee	
Name:		Name:	
Address:		Address:	
122 N 500		220 N N	
Contact person:		Contact person:	- In Second
Tel.: Fax:		Tel.:	Fax:
E-mail:		E-mail:	
3. Actual quantity: Tonnes (Mg):	m <sup>3</sup> :	4. Actual date of shipment	:
5.(a) First carrier (2)	5.(b) Second carri	er	5.(c) Third carrier
Name:	Name:		Name:
- 1975			1. BM
Address:	Address:		Address:
Contact person:	Contact person:		Contact person:
Tel.:	Tel.:		Tel.:
Fax:	Fax:		Fax:
E-mail:	E-mail:		E-mail:
Means of transport:	Means of transport	:	Means of transport:
Date of transfer:	Date of transfer:		Date of transfer:
Signature:	Signature:		Signature:
6. Waste generator (3)		8. Recovery operation (or	if appropriate disposal operation in the
Original producer(s), new producer(s) or coll	ector:	case of waste referred to in	
Name:		R-code/D-code:	
Address:		9. Usual description of the	waste:
Contact person:			
Tel.: Fax:			
E-mail:			
7. Recovery facility  Laboratory		10. Waste identification (fi	ll in relevant codes):
Name:		(i) Basel Annex IX:	
1.000		(ii) OECD (if different from	<i>(i)</i> ):
Address:		(iii) EC list of wastes:	
1 2012 0 551		(iv) National code:	
Contact person:		(1) 1 ((1) 1)	
Tel.: Fax:			
E-mail:			
11. Countries/states concerned:			
Export/dispatch	т	ransit	Import/destination
Exportatspaten		Tansit	mport destination
12 D L 4 64 1	11 · · · · · · · · · · · · · · · · · ·	4 + 4 - 1 - 2 - 2 - 2	1
12. Declaration of the person who arranges th			
knowledge. I also certify that effective written co	ontractual obligation	s have been entered into with	the consignee (not required in the case of
waste referred to in Article 3(4)):		Data	Circulture
Name:		Date:	Signature:
13. Signature upon receipt of the waste by the	consignee:	Dete	C'
Name:		Date:	Signature:
TO BE COMPLETED	BY THE RECOVE	RY FACILITY OR BY THE	
14. Shipment received at recovery facility□	or laboratory 🗆	Quantity received: Ton	
Name:	(United)	Date:	Signature:
(1) Information accompanying shi	oments of green lis	ted waste and destined for	recovery or waste destined

(1) Information accompanying shipments of green listed waste and destined for recovery or waste destined for laboratory analysis pursuant to Regulation (EC) No 1013/2006. For completing this document, see also the corresponding specific instructions as contained in Annex IC of Regulation (EC) No 1013/2006.

(2) If more than three carriers, attach information as required in blocks 5 (a), (b), (c).

(3) When the person who arranges the shipment is not the producer or collector, information about the producer or collector shall be provided."

Measure	Annex VII	Comments
1. The total quantity of the waste shipped	Q3 Actual Quantity	
2. The quantity of the waste shipped which was ultimately subject to a recovery operation	Q3 Actual Quantity – It is assumed that all waste accepted is recovered unless rejected at gate, in which case it is returned to sender** Q8 Recovery Operation – but limited by no mention of material rejected from process following acceptance at gate. Note: this information is not currently captured under WDF for material rejected in UK or overseas.	There is an assumption that all waste accepted at gate is recovered. This is consistent with WDF in UK. Removal of the word 'ultimately' from the Measure would capture all waste accepted for recovery as per current WDF model. Due to the likelihood of different contamination levels for each batch of waste and the mixing and bulking of wastes at reprocessing facilities, at best it is expected that only a typical % contamination rate and ultimately rejection from the process rate can be obtained.
3. The nature of that operation or operations	Q8 Recovery Operation	
4. The quantity of the waste shipped which was not ultimately subject to a recovery operation	Q3 Actual Quantity – It is assumed that all waste accepted is recovered unless rejected at gate, in which case it is returned to sender** Q8 Recovery Operation – but limited by no mention of material rejected from process following acceptance at gate. Note: this information is not currently captured under WDF for material rejected in UK or overseas.	There is an assumption that all waste accepted at gate is recovered. This is consistent with WDF in UK. Removal of the word 'ultimately' from the Measure would capture all waste accepted for recovery as per current WDF model. Due to the likelihood of different contamination levels for each batch of waste and the mixing and bulking of wastes at reprocessing facilities, at best it is expected that only a typical % contamination rate and ultimately rejection rate from the process can be obtained.
5. The manner in which that waste was disposed of		Returned to sender if rejected at gate. Not covered if rejected within process which is consistent with WDF at present.
6. In relation to every quantity of waste subject to a recovery operation or otherwise disposed of, the location at which that operation or disposal took place.	Q7 Recovery facility	Subject to limitations discussed above.

There are some limitations with regards the details requested by Annex VII and the details required by the proposed Measure. These are:

## \*\* Environment Agency Guidance - Exporting recyclable waste for recovery in non-OECD countries

"As the UK's competent authorities, we must prohibit exports of waste to non-OECD countries if we believe the waste will not be managed in an environmentally sound manner. If we inspect a consignment of waste in transit and no evidence is available about the operating standards at the recovery facility, we may have to prevent the waste being exported.

#### Contract requirements

Before exporting the waste you must enter into a written contract with the consignee for the recovery of the waste. This contract must clearly state that the person sending the waste and the person receiving it have an obligation to deal with situations where the waste cannot be shipped or recovered as planned, or if the waste is an illegal shipment.

In these situations, the person who sent the waste must take the waste back or make sure it is recovered in an alternative way. The contract must also provide for storing the waste in the meantime."

The limitations of the information captured in Annex VII in comparison to the proposed Measure relate to material that is accepted at gate but subsequently rejected at the process stage. It is worth noting that this limitation also applies to the existing WasteDataFlow system. As highlighted above, due to the likelihood of different contamination levels for each batch of waste and the mixing and bulking of wastes at reprocessing facilities, at best it is expected that only a typical % contamination rate and ultimately rejection rate from the process can be obtained. If this is deemed acceptable then questions 2 and 4 in the proposed Measure could be easily calculated.

The importance of questions 5 and 6 (the latter for the waste rejected element) is highly dependant on the typical % rejected from the process. If this % is minor, then they are of little importance and offer little benefit to the transparency of end destinations for recyclate. The greater the % levels, the greater the importance of these questions. In reality however, % contamination levels are expected to be fairly minor in most instances as it would not be commercially viable for reprocessors to accept recyclate of poor quality, even in countries where disposal costs are minimal, as competitors receiving higher quality recyclate would have a competitive advantage from higher sales. The exception to this are illegal shipments of waste masquerading as recyclate, which are exported to developing countries as disposal costs are typically lower than in the UK.

There are two distinct options for capturing Annex VII information:

#### Option 1

Place an obligation on local authorities to collect Annex VII Forms from MRFs/processors/brokers as necessary for all waste shipments.

#### Option 2

In accordance with the regime in Scotland and Northern Ireland, seek an amendment to the Transfrontier Shipment of Waste Regulations, regulation 45, to



mandate that Annex VII forms are sent to the regulator for all shipments of Green List wastes from waste arising in Wales.

Such information can subsequently be passed on from the regulator to the respective local authorities for use and publication.

#### 4.2.1 Option 1

Place an obligation on local authorities to collect Annex VII Forms from MRFs/processors/brokers as necessary for all waste shipments.

There are a number of practical impediments to the implementation of this option:

- 1. Identifying the final reprocessor
- 2. Traceability
- 3. Co-ordination & guidance
- 4. Resources

#### 1. Identifying the final reprocessor

There can be several intermediate stages in the transfer of materials from a local authority collector to a final reprocessor, which can create great difficulties for local authorities and others to accurately monitor the flow of materials and their final destinations.

Some typical routes to the export market:



Where local authorities are dealing with intermediaries that are directly exporting materials then the potential for capturing information regarding the final destination of the recyclate is high, as the local authorities can stipulate within their contracts that information pertaining to the final destination of the waste is a mandatory

requirement and that Annex VII Form must be returned to the authority for all shipments of waste outside of the UK. Any processors/brokers etc that fail to comply with this requirement would ultimately be in breach of contract and could be replaced.

Where the stages are convoluted e.g. the local authority collects source segregated materials that it sells directly to a processor, who following processing passes the material to a broker who then ships it overseas, for example to China, it becomes more difficult for a local authority to exercise control over the process.

The local authority can contract with the processor, but has no direct authority over the actions of the broker in respect of the choice of the final destination of the waste, so long as the broker operates within the confines of the law. Under the terms of the contract with the processor, the local authority could stipulate that information is required from the processor as to where the processed waste is sent, in line with the authorities duty-of-care requirements. However, the extent to which brokers would assist the processors in complying with this requirement, by supplying the necessary Annex VII Forms, are difficult to gauge and any decision not to use a particular broker who has not been forthcoming with this information could have significant financial implications for a processor, as they risk limiting the options for sale, which might affect their ability/desire to accept local authority waste in the future.

However, it could equally be argued that responsible brokers would recognise the need for local authorities to be transparent on the final destination of their recyclate and were the Measure to be passed such transparency would become a legal obligation for the authorities. In such an event, it is envisaged that recognition of this need for transparency would quickly pass through the various intermediaries, which would facilitate the capture of this information, although some difficulties would no doubt still be encountered, such as with brokers using commercial confidentiality reasons for not providing the information. However, Environment Agency guidance (Reporting Final Destinations of Municipal Waste – Briefing Note) is clear in this regard in relation to facilities in the UK:

#### "We do not consider the information sought, namely, the name and address of intra UK final destination facilities, is commercially sensitive."

There is no reason to suggest that similar information for facilities overseas would be commercially sensitive, as it is already provided in Annex VII Forms.

Where local authorities collect co-mingled wastes that require sorting in a MRF prior to sale, the authority is wholly dependant on the MRF capturing such information. If the MRF is local authority owned and run, such as the ones in Cardiff and Carmarthenshire (although the latter operates at arms length) then the authority can expect with a reasonable degree of confidence that it could capture information as identified above. The two local authority-run MRFs contacted for this study confirmed this opinion. It was also noticeable that the one privately run MRF contacted also sought to gather this information to have full traceability of material destinations:

Ray Harrison of Cardiff Council MRF responded:

"As the MRF is a council facility, we aim to have high operating standards. As a consequence, we have always collected Annex VII reports. These are currently kept on record at the site, if any council wishes to know where their waste is going.



CWM Recycling (Carmarthenshire) responded:

"For the recycled material that is sent abroad, we collect and keep an Annex VII Form of where this waste goes."

AJ Recycling (Pembrokeshire) responded:

"We collect Annex VII forms from all brokers and processors where wastes are sent overseas. We do this voluntarily as we endeavour to find out where all the waste from the site goes so that we have full traceability."

What is not known however, is the extent to which the current system operated by the MRFs captures all of the waste being exported overseas, or whether the information captured is limited by the number of stages in the chain i.e. if the MRF sends the waste to a processor who does not export the waste directly but sends it on to a broker, would they ultimately receive an Annex VII form?

In order to test the robustness of the existing system it is likely that an audit of some of the MRFs would be required to gauge the extent of traceability of waste being sent from the premises.

#### 2. Traceability

Waste sent to MRFs and transfer stations is typically mixed and bulked together prior to necessary treatment and export. This creates challenges with respect to the traceability of waste sourced from an individual authority. The three MRFs contacted for the purposes of this research identified the following practices and limitations:

Cardiff Council MRF responded:

"We also collect material from Caerphilly and Monmouthshire councils (in addition to Cardiff). This waste is weighed when it enters site and ticketed, so that we know how much is coming from which location. However, the waste is then bulked together, meaning that it would be impossible to actually know with 100% accuracy how much material from which source went where (as some is likely to be residual). However, if asked by the councils where the waste went, we would be able to do it

in terms of percentages."

CWM Recycling (Carmarthenshire) responded:

"We collect waste from commercial premises and Carmarthenshire Council only. There is no other waste collected from other local councils. The waste is weighed when it enters site, and is then bulked together. We would be able to determine what wastes have come from the local authority from comparing the tonnages in with the tonnages out, and, if asked, would be able to provide them with a tonnage rather than a percentage."

AJ Recycling (Pembrokeshire) responded:

"We collect waste from commercial premises and Pembrokeshire Council only. There is no other waste collected from other local councils. The waste is weighed when it enters site, and is then bulked together.

Once the waste is bulked together, we would not be able to determine how much (tonnage) of each individual material type came from which source, as the council's waste is mixed waste. However, if asked by the council or other interested parties we would be able to provide a percentage of which materials go where, based on the tonnage entering site from the council and the percentage of materials collected from the site."

The Scottish Environment Protection Agency (SEPA) was also contacted to seek their views on this issue. Their response was:

*"It would be difficult to identify which local authority a particular piece of waste in a consignment came from if it went through a MRF. Yellow Pages and household bills might offer clues.* 

In Scotland local authorities are required to report which MRFs they use via WasteDataFlow. Many local authorities are reporting MRFs as the final destination of their wastes, so an additional check along the audit trail would be needed currently. Tonnages of waste exported should be able to be ascribed to particular local authorities according to a percentage split of materials handled and exported by the MRF. (Annex VII data would show the site of production as the MRF, rather than any local authority site.)"

As a consequence of waste being mixed and bulked at MRFs, there are clearly limitations on the exact identification of the tonnages of waste exported by material from each local authority. The proposed Measure would have to rely on estimations based on assigned fractions. Such methods are fairly robust in their estimations.

Perhaps of greater concern with respect to the proposed Measure, in particular if there is a perception that exporting materials for recovery is to be frowned upon, is the process of mixing local authority waste at MRFs and transfer stations. Take one hypothetical example, where the domestic UK market pays a premium for high quality plastics. Lower quality plastics are only in demand from some non-OECD countries. Monmouth, through good kerbside schemes and educational programmes, collects premium quality plastics in its co-mingled collection, whereas Cardiff is only able to collect plastics of a much lower quality. The waste from both of these local authorities is mixed and bulked at the MRF with the outcome being that the final plastics recyclate is of a grade only suitable for export. In such a scenario the lowest common denominator dictates the final market for the recyclate and local authorities, Monmouthshire in this instance, may be unfairly criticised for not supporting local reprocessors.

#### 3. Co-ordination & guidance

If the onus is placed on local authorities to collect this information there is likely to be a need for a significant degree of co-ordination and guidance from the Welsh Assembly Government (WAG) / Welsh Local Government Association (WLGA) to ensure that each local authority does not reinvent-the-wheel with regards to developing systems to capture all of the information required. Failure to offer clear guidance and to co-ordinate the sharing of best practice is likely to result in a significant collective time and cost burden for local authorities.

#### 4. Resources

Placing the onus on local authorities in Wales to capture all of the information pertaining to exports of waste originating from their areas could be resource intensive, as each local authority is likely to have a significant number of direct and indirect recipients of their waste, including MRFs, processors, brokers and final reprocessors; potentially in the UK, EU/EFTA and OECD and non-OECD countries. Recipients will also vary over time as markets are fluid by nature.

The costs associated with this task are estimated by the WLGA to be in the order of £700K per annum. However, utilisation of the existing regulatory regime and in particular the Annex VII system should decrease these costs significantly. In addition, feedback from the MRFs in particular indicates that there are already systems in place between the MRFs and the recipients of the recyclate to identify end destinations, although it is not known at this stage how robust these systems are. Nevertheless, the indications are at this stage that the mooted £700K costs are excessive and that the true cost will be significantly lower than this, in particular if clear guidance and co-ordination is delivered from WAG/WLGA to the local authorities throughout the initial data gathering process.

#### 4.2.2 **Option 2**

In accordance with the regime in Scotland and Northern Ireland, seek an amendment to the Transfrontier Shipment of Waste Regulations, regulation 45, to mandate that Annex VII forms are sent to the regulator for all shipments of Green List wastes from waste arising in Wales.

Such information can subsequently be passed on from the regulator to the respective local authorities for use and publication.

There are a number of practical impediments to the implementation of this option:

- 1. Amendment of Existing Regulations
- 2. Traceability
- 3. Resources
- 4. Communication

#### 1. Amendment of existing Regulations

In England & Wales the Environment Agency's International Waste Shipments Team (IWST) collate and retain all the data relevant to the regulatory work it carries out for the export of waste. This import/export data is reported annually to Defra, who collate it with the information provide by SEPA and the Northern Ireland Environment Agency (NIEA) for the UK. This is then reported to the European Commission and Secretariat of the Basel Convention for publishing.

In England & Wales there is currently no requirement to send Annex VII forms in to the Regulator for waste exported under Green List rules, whereas in Scotland and Northern Ireland there is already an existing requirement to do so. In England & Wales there is a requirement for the exporter to keep copies of the completed form sent with the waste for three years and the Environment Agency has the authority to ask to see copies of the completed forms for shipments already made. The requirement for Annex VII forms to be sent to NIEA and SEPA comes under regulation 45 of the Transfrontier Shipment of Waste Regulations 2007 (No1711). Defra is the lead on this Statutory Instrument and whilst there are currently no plans to amend it with respect to Wales (e-mail confirmation from Andy Howarth-Aug 09, Defra policy lead on Waste Shipments Regulation), an amendment of regulation 45 would allow the Environment Agency's International Waste Shipments Team to capture information on Green List waste exported from Wales, which could subsequently be fed to local authorities for publication and inclusion in WasteDataFlow.

A response from Katie Willis at SEPA confirmed that the Annex VII reporting system appears to work well, with most operators not having an issue with sending a copy of the completed form. Occasionally forms are received which are not the final version or the details of the recovery facility are missing as brokers try to keep this information confidential.

In 2010 SEPA intends to incorporate the Annex VII system into the National Packaging Waste Database (NPWD). Two-thirds of those submitting Annex VII forms for paper, plastics, etc also submit data under the packaging (export) regime. Much of the data required by both regimes is identical. By entering the data once, SEPA hope that operators will be able to populate the system for both packaging and Transfrontier Shipment requirements, and be able to print off a completed Annex VII for their consignment.

SEPA currently only collect data for shipments to non-OECD countries, but will collect for both non-OECD and OECD shipments once the new system is up and running. NIEA collects data for both types of shipment.

SEPA are currently developing an analysis tool for shipments to non-OECD countries. Local authority waste is captured in the database, along with waste from commercial sources. SEPA have found that many illegal shipments are due to operators not having an understanding of the Green List Regulations, and are sending exports of recyclates to non-OECD countries that have not elected to receive that particular waste. By analysing the database, they hope to be able to identify these shipments quickly and inform operators, thereby minimising the likelihood of repatriation.

Together with other datasets SEPA consider that the Annex VII database gives a good overview of the waste export market. SEPA recognise that they only receive Annex VII forms for the legal shipments and the illegal shipments made in ignorance of the regime, but due to the nature of the Scottish waste market the datasets enable them to determine where possible leaks in the system may be. This proves easier for some waste streams than others; waste electrical equipment is harder to track for instance.

Another benefit to receiving the Annex VII Forms is that SEPA are able to determine the influence of economic conditions on the export of recyclates. The data should also allow them to assist Government in determining the success of waste management policies/strategies over time.

#### 2. Traceability

There are limitations to the information captured under the current regime in Scotland. The following question was asked of SEPA:

If waste goes to a processor/broker in England to be exported abroad, would it still get captured by SEPA through the Waste Shipment Regulations?

With the following response:

"If the waste went to a processor in England before being exported, we would not expect to see an Annex VII Form. However, if a broker was involved, we would get the Form if it was an export from Scotland."

This suggests that waste leaving Wales to be processed in England prior to export would not be captured if the requirement to submit Annex VII Forms was extended to Wales. This omission could significantly affect the ability of local authorities to offer full transparency on waste destinations. This issue would need to be investigated further to determine if there was a method of capturing all of the local authority waste originating in Wales destined for export and not just that exported directly out of Wales or via a broker elsewhere. The answer may lie in the responses given on question 6 of Annex VII, which asks for details of the 'waste generator' and specifies that the details given must be the Original producer(s), new producer(s) or collector. If the original producer of the waste is typically named then one would expect that for household waste it would refer to the relevant local authorities. However, the alternative option to provide information on the 'new producer' or 'collector' muddies the waters somewhat with respect to the information sought by the proposed Measure.

Further discussions with SEPA, NIEA and the International Waste Shipment Team would be beneficial to fully understand the potential limitations of the information captured under question 6 of Annex VII.

#### 3. Resources

Whilst there will be resource and cost implications to administering such a system, the equivalent role in SEPA amounts to the administrative burden of one member of staff for one hour per working day inputting the data from the forms. The cost is therefore fairly negligible and is highly favourable when compared against the WLGA mooted costs for local authorities to capture the data. With planned changes in process for 2010 SEPA hope that the new system will be even less time consuming for itself and the operators.

#### 4. Communication

Assuming that the Environment Agency's International Waste Shipment Team are tasked with processing the information, there will need to be a requirement for this team to aggregate information on a periodic basis and to send this to each local authority so that each authority can enter the data into WasteDataFlow in accordance with the existing reporting requirements. Given that the level of resource required to administer data for Wales is unlikely to exceed that for Scotland, then it is expected that aggregation and timely communication of the data should not be problematic or costly.

#### 4.3 **Proximity principle**

The proposed Measure places a clear emphasis on supporting the principles of 'proximity' with regards to the recovery and reprocessing of recyclates:

Section 55B of the proposed Measure requires the following:

(3) The statement must, in addition to the information required by section 55A(5), also include an invitation to the public to make representations in writing to the authority as to the appropriateness, having regard to the proximity principle, of the

arrangements made by the authority under which waste destined for recovery has been caused or permitted to be shipped outside the European Community and EFTA.

(4) In subsection (3), "the proximity principle" means the principle that waste should be disposed of in one of the nearest appropriate installations.

The accompanying explanatory memorandum states:

1.2 The purpose of the Measure is to require local authorities to make publicly available information about the proportion of the recyclate collected from households that is processed in different locations. In so doing, it encourages the compliance of local authorities with the two principles of proximity and selfsufficiency – both important principles of Welsh waste management.

3.3 However, it is intended that, as a result of this information, residents will encourage local authorities to use recycling facilities that are closer to the source of the recyclate, than those that are further away. It is also expected that the publication of information will lead to increased interest, and therefore participation, in recycling.

4.9 The proximity principle is also one of the 'key principles' for the future management of waste in Wales. The Waste Strategy for Wales states:

"Waste should be recovered or disposed of as close as possible to where it has been produced in order to reduce the environmental impact of transporting it and to ensure that those producing the waste take responsibility as far as possible for dealing with it."

There are currently many local authorities in the UK exporting recyclate to be reprocessed in countries outside of the EU and EFTA. So why are they doing this and is it feasible to expect authorities to abandon such markets in favour of more local ones?

#### 4.3.1 The Export Market

The main household wastes that are exported outside of the EU and EFTA are paper and plastics, with China (a non-OECD country) being the primary market, accounting for some 55% of UK exports of recovered paper and for 80% of recovered plastics in 2008 (WRAP Market Situation Report – Spring 2009; Chinese markets for recovered paper and plastics). Metals are also exported whilst other materials such as textiles, are typically exported via charitable bodies such as Oxfam. Glass tends to be reprocessed within the EU.

China has become a key end-market for the UK's recovered materials and exports from the UK have increased dramatically over the past ten years.



#### Graph 1: UK exports of recovered paper and plastic to China\*

This trade has been driven by the growth in the Chinese economy and the subsequent high demand for raw materials. China has become one of the largest consumers of primary commodities, which is met by virgin raw materials and recyclable materials, which provide a key additional input resource. It is now the world's largest importer of recovered paper and plastics. For many materials, including recovered paper and plastics, the amount of domestically recovered materials is not sufficient to meet the demand and China relies also on imports. Due to the imbalance of trade in goods between the Far East and Europe, whereby far more container capacity is required to transport goods from China to the UK than is required in the opposite direction, shipping costs are relatively low, which assists the trade.

#### 4.3.2 Paper

Chinese imports of recovered paper rose to 24.2 million tonnes in 2008. This growth is predicted to continue (Pöyry management consultants), with consumption of paper and paperboard expected to increase from 73 million tonnes in 2007 to 138 million tonnes by 2020. To meet this demand, Pöyry estimates that Chinese paper producers will be using around 95 million tonnes of recovered paper by 2020, given the current fibre composition. With the Chinese paper recovery rate projected to increase from 34% to 43% by 2020, this means potential demand for imported recovered paper of around 37 million tonnes by 2020.

China is a key destination for UK exports of recovered paper but the UK is a relatively small supplier for China. China sources recovered paper primarily from the US (42%). The EU, as a region, is a key source of recovered paper for China (33%) although the share of each individual country is relatively small. Of China's suppliers from the EU, the UK is by far the largest: accounting for 11% of China's recovered paper imports.





### Graph 4: China's imports of recovered paper by country of origin

Source: China Customs, 2008

The graph below shows a comparison of the average price  $(\pounds)$  obtained per tonne of mixed paper for export against the price per tonne obtained from UK domestic mills, over the period December 2000 – June 2009.



The graph clearly demonstrates that the typical price obtained for a tonne of mixed paper for export significantly exceeds that paid by the domestic market. The global

recession clearly impacted on export and domestic prices in late 2008 but prices are now returning to pre-recession levels.

#### 4.3.3 Plastics

China is the world's largest importer of recovered plastics, with consumption in 2007 amounting to some 15 million tonnes. Imports of recovered plastics are estimated to account for around 45%, or 7 million tonnes of the total consumption. The UK is a relatively marginal supplier of recovered plastics to China, accounting for 9% of Chinese imports, compared with 26% from Japan and 21% from the US.



# Graph 7: World exports of recovered plastics to China and Hong Kong

Demand is expected to rise (Pöyry) to around 45 million tonnes in 2015 and 85 million tonnes in 2020. On the supply side, by 2020, 37 million tonnes is seen as coming from imports with 48 million tonnes recovered from the waste stream in China.

55% of UK recovered plastics exported to China is polyethylene largely comprising plastic bottles and packaging films.

Source: UNComtrade, 2007



## Graph 8: UK exports of recovered plastics to China

Source: HM Revenue and Customs, January-December 2008

### 4.3.4 Control on Exports

In addition to the regulatory framework governing exports of materials for recovery out of the UK, which require material sent for recycling to be reprocessed in broadly equivalent conditions to those used in the EU, China requires that a number of national provisions must be met before export can take place (International Trade in Recovered Paper and Plastics: International Regulations and Commercial Practice', WRAP, October 2008). This includes:

- Ensuring that the recovery facilities (destinations) have the Chinese SEPAlicence (SEPA is the State Environmental Protection Administration);
- The exporter obtaining an AQSIQ licence (AQSIQ is the General Administration of Quality Supervision, Inspection and Quarantine);
- The exporter obtaining a pre-shipment inspection certificate. This also includes certain requirements with respect to the level of contamination and the properties of the materials. For instance, waste plastic bottles are required to be broken into pieces. This means China may refuse shipments of plastic bottles to mainland China ports if the bottles are whole.
- Imports of plastic films from household sources, such as post consumer carrier bags, as well as agricultural films and fishing nets imports have been banned since March 2008.

In September 2008, the China Circular Economy Law was introduced with an emphasis on developing systems for recycling and improving energy-saving and waste re-utilisation. A number of regulations have been introduced to impose tighter environmental standards on the plastics industry, for instance, the 'Technical specifications for pollution control during collection and recycling of waste plastics' (2007). In the plastics sector, the application of controls over the recycling industry has become much tighter and many of the smaller companies have been forced to shut down as a result.

As a consequence of the tightening in standards many Chinese facilities are now extremely modern.

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A recent article by letsrecycle.com in June 2009 "Plastic sector sees price pressure as export controls tighten" reported:

Speaking to letsrecycle.com this week, many in the (plastics) sector have reported that the market price for plastic film and bottles for recycling is starting to fall in the UK and on the export market. This is being put down largely to more thorough checking by the inspection body CCIC in China which is trying to prevent poor quality material being imported.

As a consequence, more material is becoming available to the expanding UK market and as a consequence domestic prices are weakening. One exporter remarked: "The Chinese are taking quality far more seriously and the inspectors and customs officials at the ports are offended when badly presented material arrives."

## 4.3.5 Environmental Impact

A recent WRAP report (CO2 impacts of transporting the UK's recovered paper and plastic bottles to China - WRAP, August 2008) found that despite the distances involved, there are net CO2 benefits from shipping UK recovered paper and plastic bottles to China to be recycled, compared with landfilling them in the UK. The report calculated carbon dioxide emissions of real-life routes for recovered paper and plastic bottles, from the UK to China. The report concluded that these represent less than a third of the carbon savings from recycling (identified by a majority of the life cycle assessments reviewed in the study), indicating considerable net carbon savings when recovered materials are shipped to China for recycling.

## 4.3.6 Summary

- Many recyclate materials are now globally traded products.
- There is a significant demand for recycled products from countries such as China, who are unable to source sufficient materials domestically. A number of countries around the world now assist in meeting this demand.
- Prices obtained for exports can significantly exceed domestic market prices.
- Local authority income from recyclates could be significantly impacted upon if they solely concentrate on domestic markets. This may create a disincentive to recycle, particularly in a time of fiscal tightening.
- There are existing legal controls in place to govern exports and rapidly improving application of these controls in countries such as China that will ensure high environmental standards are met.
- Due to the trade imbalance between China and Europe, the environmental impact of transporting materials to China for recovery are minimal, and there are net CO2 benefits from shipping UK recovered paper and plastic bottles to China to be recycled, compared with landfilling them in the UK

Whilst it is recognised that local reprocessing creates additional local employment, the export market currently offers local authorities (directly or via processors and brokers) a valuable outlet for some of their recyclate. Whilst the domestic and European markets will undoubtedly remain as a vital outlet for a significant portion of total recyclate for the foreseeable future, if this can be augmented by exports it



will ensure that there remains sufficient demand in end markets to continue to create an incentive to recycle.

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#### Consider the reporting timescales that would be feasible for local authorities to comply with, and the mechanism the local authority would use for obtaining this information.

The proposed Measure 55 B (2) states that the *"Publication of the statement must begin within 6 months of the end of the financial year to which it relates and must continue for 6 months or until the end of the financial year in which it first appears on the authority's website, whichever is the later."* 

As discussed under Section 4, Option 1, if the onus is placed on local authorities to collect this information there is likely to be a need for a significant degree of coordination and guidance from WAG/WLGA to ensure that each local authority does not reinvent-the-wheel with regards to developing systems to capture all of the information required. Failure to offer clear guidance and to co-ordinate the sharing of best practice is likely to result in a significant collective time and cost burden for local authorities.

Placing the onus on local authorities in Wales to capture all of the information pertaining to exports of waste originating from their areas could be resource and time intensive, as each local authority is likely to have a significant number of direct and indirect recipients of their waste, including MRFs, processors, brokers and final reprocessors; potentially in the UK, EU/EFTA, OECD and non-OECD countries. Recipients will also vary over time as markets are fluid by nature.

However, utilisation of the existing regulatory regime and in particular the Annex VII system should decrease the time needed to gather such information significantly. In addition, feedback from the MRFs in particular indicates that there are already systems in place between the MRFs and the recipients of the recyclate to identify end destinations, although it is not known at this stage how robust these systems are. If clear guidance and co-ordination is delivered from WAG/WLGA to the local authorities throughout the initial data gathering process then it is certainly feasible that publication within 6 months of the end of the financial year is achievable. It is the extent to which all the necessary information will be captured which is the greater unknown.

As discussed under Section 4, Option 2, assuming that the Environment Agency's International Waste Shipment Team are tasked with processing the information, there will need to be a requirement for this team to aggregate information on a periodic basis and to send this to each local authority so that each authority can enter the data into WasteDataFlow in accordance with the existing reporting requirements. Given that the level of resource required to administer data for Wales is unlikely to exceed that for Scotland, then it is expected that aggregation and timely communication of the data should not be problematic or costly and that publication within 6 months of the end of the financial year is certainly achievable.

What potential is there for an awareness raising approach, for example consider whether local authorities could voluntarily produce this data on their own websites. May Gurney, Somerset already provide this information on their website see <a href="http://www.ectrecycling.co.uk/page/372">http://www.ectrecycling.co.uk/page/372</a> and <a href="http://www.ectrecycling.co.uk/page/372">http://www.ectrecycling.co.uk/page/372</a> and <a href="http://www.ectrecycling.co.uk/page/372">http://www.ectrecycling.co.uk/page/372</a> and <a href="http://www.ectrecycling.where.asp">http://www.ectrecycling.where.asp</a>

A review of all local authority websites in the UK found that very few authorities are reporting publicly on the destinations of their recyclate. For those that do report some information, there is little consistency between authorities on what is reported. Some of the information relates to the end product that recyclate is converted into, others actually name their UK based processors and reprocessors; none were found to name overseas reprocessors. A small number of local authorities report that some of their wastes (typically plastics) are being exported overseas to places like China, but they do not provide any further information than this.

This lack of information is likely to be due to two factors:

- A lack of awareness amongst local authorities as to the final destinations of their recyclate.
- A lack of demand / pressure from stakeholders to obtain transparency on this issue.

To test this assumption the following question was posed to SEPA:

Is there any public pressure that you are aware of; on local authorities to report back what wastes of theirs are being exported overseas?

With the response given:

We do have a question in WasteDataFlow which requires local authorities to report the final reprocessing site, but they do not always know from their contractors where it goes. Presumably this could be put into contracts. Occasionally we do get an MSP query about the export of recyclates. More often are the media queries about where public waste goes.

Where the information is available the technical and resource requirements for including such information on a website are minimal.

See Appendix 2 for a complete list of UK local authorities' coverage of waste issues on their websites.

# What output reports would be required from WasteDataFlow to produce data on final destinations?

The current WasteDataFlow would allow information relating to the proposed Measure to be included within the output reports. However, should specific formats or analysis be required for the Measure, WasteDataFlow is configured to allow quick additions of extra reports. There would be no associated additional costs related to a small number of additional reporting requirements.

## Investigate whether Defra or the EU have plans to consider the issue of reporting the final destination of recyclate exported beyond EU/EFTA?

The Environment Agency's International Waste Shipment Team report annually on their import/export data to Defra, who then collate it with the information provided by SEPA and the NIEA for the UK. This is then reported to the European Commission and Secretariat of the Basel Convention for publishing.

A letter from the Welsh Assembly Government, dated July 2009, sought information from Defra and the EU, as to whether either organisation had any plans to introduce a similar Measure as to that proposed by Nerys Evans. As part of this study we were able to pursue a response to the letters.

Mr Andy Howarth: policy lead for the Waste Shipments Regulation at Defra responded:

"To-date, Defra have no plans to introduce similar measures as those suggested by WAG in terms of reporting the final destination of recyclate exported beyond the EU/EFTA. Defra questions the Welsh Assembly Government's proposed Measures and how, in practice this information could be obtained. Many of the contractors for the local authorities will be MRFs or Transfer Stations, where information on the shipment of recyclate from these sites is commercially confidential. Defra believes that local authorities will have difficulties in obtaining this information from their contractors.

Defra have been trying to encourage local authorities to voluntarily question their contractors in terms of final destinations of recyclate materials. However, some local authorities are reluctant to do so, and others who have asked have found that their waste is being dealt with illegally.

The use of the Waste Shipment Regulations Annex VII form, as used in Scotland and Northern Ireland, has been discussed between Defra and the Environment Agency as a possibility of reporting information on the final destination of recyclate outside of the EU/EFTA. However, there is some opposition to this option, as the quantities of recyclate being exported from England and Wales is much greater than for Scotland or Northern Ireland respectively. There is the potential to overwhelm the Environment Agency in terms of the quantity of information collected for exported Green List wastes via Annex VII.

Despite this, Defra agree that a measure to introduce Annex VII reporting would be much more feasible for Wales, which is of a similar size in terms of population and number of local authorities to Scotland and Northern Ireland."

What is perhaps most noticeable from the Defra response is the reference to 'commercial confidentiality', which appears to contradict the Environment Agency's stance on this issue, although it is noted that the Environment Agency Briefing Note refers specifically to final destinations within the UK and not to exports.

Mr George Kiayias, DG Environment at the European Commission responded:

"The Commission is currently considering an amendment of Regulation (EC) No 2150/2002 on Waste Statistics, whereby Member States will be required to report to the Commission on the amount of exported and imported <u>non-hazardous</u> waste as well as providing information on recyclable materials.



#### PROPOSED MEASURE TO REPORT THE FINAL DESTINATION OF RECYCLATE

With regard to any amendments of the current reporting obligations pertaining to waste shipments, the European Commission do not foresee any amendments in the near future since the new Waste Shipment Regulations (Regulation (EC) No 1013/2006) is relatively new and Member States are still in the process of its implementation. The reporting obligations for the year 2007 are still based according to the old Waste Shipment Regulations as well as Commission Decision 1999/412/EC. However, reporting obligations for the year 2008 and later shall be based on the new Waste Shipment Regulations."

# Highlight any examples of best practice within the EU/EFTA countries whereby the final destination of recyclate is reported

Our research uncovered very few examples from other European countries where the destination of recycled material exported outside of the EU/EFTA has been reported.

- The European Commission webpages on reporting of exported wastes (<u>http://ec.europa.eu/environment/waste/shipments/reports.htm</u>) provides links to only three countries, Germany, Denmark and France, where Green List wastes are mentioned.
- Denmark provides quantities of Green List wastes, but no reference to destinations; whilst
- France provides no data on Green List exports.
- The link to the German report does provide information on 'non-notifiable' wastes (<u>http://www.umweltbundesamt.de/abfallwirtschaft-</u> <u>e/abfallstatistik/index.htm</u>). This webpage contains reports on the quantities of non-notifiable wastes being exported per year up to 2007 and to which country, whether it is within or outside of the EU/EFTA.



PROPOSED MEASURE TO REPORT THE FINAL DESTINATION OF RECYCLATE

## APPENDICES


## 1. SUMMARY OF GREEN LIST CONTROLS

# Controls on Exports of Green List Waste to non-OECD Countries – an Update.

To assist business we have produced the summary table below setting out we consider to be the correct position for key waste streams and key potential export destinations, based on Defra's analysis of the responses received to the Commission's questionnaire. We will, until such time as the errors in the Commission Regulation are corrected and the late responses incorporated enforce the controls as set out in this table. The table is highlighted to indicate cases where other authorities may take a different position.

We will regularly update this table to take account of any further clarification provided by Defra or the Commission and to take account of any further responses received from destination countries where these can be readily interpreted. The updated version of this table will be available on our website.

Other countries to and through which the waste will travel on route to its destination may take a different approach. Before exporting any waste you should make checks with the authorities in those countries to and through which the waste will travel.

#### Key:

Ρ	Prohibited – see note 1
N	Written notification and consent - see note 1
G	Normal commercial controls with Annex VII – see note 1
	Corrected entries. Formally the controls in these cases are as specified in the <u>Green List</u> <u>Regulations (801/2007/EC)</u> – this information appears in brackets. Other countries may insist on this level of control.
	Response received after the publication of the <u>Green List Regulations</u> (801/2007/EC). Formally the controls in these cases are "written notification and consent". Other countries may insist on this level of control.
	No response received therefore written notification and consent required

Note 1: For each of these entries the indicated level of control is as specified in Green List Regulations (801/2007/EC)

Information on the requirements of other countries of destination or for other waste streams can be obtained from the TFS National Service (Tel: 01925 542143).

Waste code	Waste type	Bangladesh	Brazil	Bulgaria	China	Czech Rep.	Egypt	Ghana	Hungary	Hong Kong
B1010	Iron & steel	G		N	G	N	N		G	G
	Aluminium	G		N	G	N	N		G	G
	Copper	Р		N	G	N	N		G	G
GC010	Electrical assemblies	Р		N	G(N)	N	P		G	G
GC020	Electronic scrap	Р		N	P(N)	N	Р		G	G
B1050	Non-ferrous	P		N	P	N	N		G	G
B1090	Batteries	Р		N	P	N	P		G	P
B1115	Cable	P		N	G (N)	N	P		G	G
B2020	Glass	P		N	P	N	P		G	G
B3010	PET	P		N	G'(P)	N	P		G	G
	Polyethylene	G		N	G(P)	N	P		G	G
	PVC (GH013)	Р		N	G(N)	N	P		G	G
	Polyurethane	P		N	G(N)	N	P		G	G
	Polypropylene	Р		N	G(P)	N	P		G	G
B3020	Paper	G <sup>3</sup>		N	G	N	N		G	G
B3030	Textiles	Р		N	G <sup>4</sup>	N	P		G	G
B3050	Wood	P		N	G	N	N		G	G
B3140	Tyres	P		N	P	N	P		G	G

<sup>&</sup>lt;sup>1</sup> The status of this entry is being urgently checked with China <sup>2</sup> China accepts thermoplastic waste, but import of thermoset plastic waste is prohibited <sup>3</sup> Bangladesh only accepts unbleached paper or paperboard or corrugated paper or paperboard or other paper or paperboard made mainly of bleached chemical pulp, not coloured in the mass

<sup>&</sup>lt;sup>4</sup> China only accept cotton, synthetic and artificial textiles. Other textiles types are prohibited.

Waste code	Waste type	Iran	India <sup>5</sup>	Indonesia	Latvia	Lithuania	Malaysia	Nigeria	Pakistan
B1010	Iron & steel	-	G	G	N	G	G		
	Aluminium		G	G	N	G	G		
	Copper		G	G	N	G	G		
GC010	Electrical assemblies		G	G	N	G	Р		
GC020	Electronic scrap		G	G	N	G	Р		
B1050	Non-ferrous		G	P	N	G	Р		
B1090	Batteries		G	P	N	G	Р		
B1115	Cable		G	G	N	G	G		
B2020	Glass		G	G	N	G	G		
B3010	PET		G	P	N	G	G <sup>6</sup>		
	Polyethylene		G	P	N	G	G		
	PVC (GH013)		G	P	N	G	G		
	Polyurethane		G	P	N	G	G		
	Polypropylene		G	P	N	G	G		
B3020	Paper		G	G	N	G	G		
B3030	Textiles		G	G	N	G	G		
B3050	Wood		G	G	N	G	N'		
B3140	Tyres		G	G	N	G	G		

 <sup>&</sup>lt;sup>5</sup> Exporters are advised to check with those entities receiving waste in India that the waste stream may be imported to India without pre-notification
<sup>6</sup> Malaysia has requested that the import of all waste plastics be prohibited from 1 October 2007. Until that date, Green controls apply.
<sup>7</sup> Malaysia requires notification for wood waste and scrap and green list controls for import of cork waste

Waste code	Waste type	Philippines	Poland	Romania	Russia	Qatar	Singapore	Slovakia	Slovenia
B1010	Iron & steel	N	N	N	G			N	G
	Aluminium	N	N	N	G			N	G
	Copper	N	N	N	G			N	G
GC010	Electrical assemblies	N	N	N	G			N	G
GC020	Electronic scrap	N	N	N	G			N	G
B1050	Non-ferrous	N	N	N	N			N	G
B1090	Batteries	N	N	N	N			N	G
B1115	Cable	N	N	N	G			N	G
B2020	Glass	G	N	N	G			N	G
B3010	PET	N	N	N	G			N	G
	Polyethylene	N	N	N	G			N	G
	PVC (GH013)	N	N	N	G			N	G
	Polyurethane	N	N	N	G			N	G
	Polypropylene	N	N	N	G			N	G
B3020	Paper	G	N	N	G			N	G
B3030	Textiles	G	N	N	G			N	G
B3050	Wood	G	N	N	G			N	G
B3140	Tyres	N	N	N	P			N	G

Waste code	Waste type	South Korea	Sri Lanka	Taiwan	Tanzania	Thailand	UAE	Ukraine	Vietnam
B1010	Iron & steel	G	N	G		G	8	N	G
	Aluminium	G	N	G		G	а <u>с</u>	N	G
	Copper	G	N	G		G	9 <u>.</u>	N	G
GC010	Electrical assemblies	G	N	Р		N		N	G
GC020	Electronic scrap	G	N	P		N	2	N	P
B1050	Non-ferrous	G	N	N	Se 2	N	8	N	P
B1090	Batteries	G	N	N		N	ар С	N	P
B1115	Cable	G	N	N		N	÷.	N	P
B2020	Glass	G	N	N		N	- 7	N	G
B3010	PET	G	N	G		N		N	G
	Polyethylene	G	N	G		N		N	G
	PVC (GH013)	G	N	G		N		N	P
	Polyurethane	G	N	N		N		N	P
	Polypropylene	G	N	G		N	<u>i</u>	N	G
B3020	Paper	G	N	G		G	1	N	G
B3030	Textiles	G	N	N		G*	1	N	P
B3050	Wood	G	N	G		G	ĴĴ.	N	P
B3140	Tyres	G	N	N		G	11	N	P



### 2. LOCAL AUTHORITY WEBSITES - WASTE COVERAGE

## **UK Local Authorities Reporting of Waste Destinations**

	England Local Authorities
Local Authority	Destination Notes
	East Midlands
Coventry	Lists UK reprocessors and processors – not overseas <u>http://www.coventry.gov.uk/ccm/content/city-services-directorate/street-</u> <u>services/waste-services/what-happens-to-your-waste.en</u>
Derbyshire	No information on destinations found
Leicestershire	No information on destinations found
Lincolnshire	No information on destinations found
Northamptonshire	No information on destinations found
Nottinghamshire	No information on destinations found
Rutland	No information on destinations found
	East of England
Bedford Borough Council	No information on destinations found
Central Bedfordshire Council	No information on destinations found
Cambridgeshire	No information on destinations found
Essex	No information on destinations found
Hertfordshire	No information on destinations found
Norfolk	No information on destinations found
Suffolk	Explains what happens to the waste at the MRF, but no details of the reprocessors. <u>http://www.suffolkrecycling.org.uk/Content.asp?PID=7&amp;SID=3</u>
	Greater London
London Boroughs	No information on destinations found
Greater London Authority	No information on destinations found
City of London	No information on destinations found
	North East England
Durham	No information on destinations found
Northumberland	No information on destinations found
Gateshed Metropolitan Borough Council	No information on destinations found
Newcastle City Council	No information on destinations found
North Tyneside Metropolitan Borough Council	No information on destinations found
South Tyneside Metropolitan Borough Council	No information on destinations found

	England Local Authorities						
Local Authority	Destination Notes						
Sunderland City Council	No information on destinations found						
	North West England						
Cheshire	No information on destinations found						
Cumbria	No information on destinations found						
Greater Manchester	No information on destinations found						
Lancashire	No information on destinations found						
Knowsley Metropolitan Borough Council	No information on destinations found						
Liverpool City Council	Explains what happens to the waste at the MRF, but no details of the reprocessors. http://www.liverpool.gov.uk/Environment/Rubbish waste and recycling/Recyclin g/material/index.asp						
St Helens Metropoliton Borough Council	No information on destinations found						
Sefton Metropolitan Borough Council	No information on destinations found						
Wirral Metropolitan Borough Council	No information on destinations found						
	South East England						
Berkshire	No information on destinations found						
Buckinghamshire	Mentions some reprocessors in the UK, but not for all materials and not overseas reprocessors. http://www.bucksinfo.net/recycleforbuckinghamshire/what-happens-to-waste/						
East Sussex	No information on destinations found						
Hampshire	No information on destinations found						
Isle of wight	No information on destinations found						
Kent	No information on destinations found						
Oxfordshire	No information on destinations found						
Surrey	No information on destinations found						
West Sussex	Mentions MRF, not specific on types of waste or reprocessors. http://www.westsussex.gov.uk/ccm/content/environment/rubbish-waste-and- recycling/recycling/ford-material-recycling-facility-mrf.en						
South West England							
Bristol	No information on destinations found						
Cornwall	No information on destinations found						
Devon	No information on destinations found						
Dorset	Lists UK reprocessors and processors – not overseas http://www.dorsetforyou.com/index.jsp?articleid=387046						
Gloucestershire	No information on destinations found						

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	England Local Authorities				
Local Authority	Destination Notes				
Isle of Scilly	No information on destinations found				
Somerset	http://www.recyclesomerset.info/pages/recycling_where.asp				
Wiltshire	No information on destinations found				
	West Midlands				
Herefordshire	No information on destinations found				
Shropshire	No information on destinations found				
Staffordshire	No information on destinations found				
Warwickshire	No information on destinations found				
West Midlands	No information on destinations found				
Worcestershire	No information on destinations found				
	Yorkshire and Humber				
East Yorkshire	No information on destinations found				
North Yorkshire	No information on destinations found				
South Yorkshire	No information on destinations found				
West Yorkshire	No information on destinations found				
Lincolnshire	No information on destinations found				

	Northern Ireland Local Authorities
Local Authority	Destination Notes
Antrim Borough Council	Explains where the waste goes for reprocessing, includes the 'Far East' but no overseas reprocessors named. http://www.antrim.gov.uk/docuploads/what%20happens%20our%20waste .pdf
Ards Borough Council	No information on destinations found
Armagh City and District Council	Lists the reprocessors - none overseas. <u>http://www.armagh.gov.uk/text.php?pageID=http://www.armagh.gov.uk/sub_ress</u> <u>ervices_details.php?subresident_id=15&amp;resident_id=6&amp;show_sub=2&amp;txt=Y</u>
Ballymena Borough Council	No information on destinations found
Ballymoney Borough Council	Info for children's education - talks about what happens to the waste in terms of recycling/composting but no reprocessor/processors. http://www.ballymoney.gov.uk/blue%20bin%20 3 .pdf
Banbridge District Council	Lists the reprocessors - none overseas. <u>http://www.banbridge.com/template1.asp?parent=110&amp;parent2=114&amp;pid=189&amp;a</u> <u>rea=1</u>
Belfast City Council	Says where the waste goes for reprocessing in the UK, Europe and even China <a href="http://www.belfastcity.gov.uk/recycle/wherewastegoes.asp?menuitem=trace">http://www.belfastcity.gov.uk/recycle/wherewastegoes.asp?menuitem=trace</a>
Carrickfergus Borough Council	No information on destinations found
Castlereagh Borough Council	No information on destinations found

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	Northern Ireland Local Authorities
Local Authority	Destination Notes
Coleraine Borough Council	Lists UK reprocessors and processors - none overseas http://www.colerainebc.gov.uk/show.php?id=922
Cookstown District Council	No information on destinations found
Craigavon Borough Council	No information on destinations found
Derry City Council	Says what happens to the waste but no reprocessors/processors mentioned http://www.derrycity.gov.uk/recycle/downloads/wastecycle.doc
Down District Council	No information on destinations found
Dungannon and South Tyrone Borough Council	No information on destinations found
Fermanagh District Council	No information on destinations found
Larne Borough Council	Text from website: "What happens to the blue and brown bins' contents? All of the blue bins contents are taken to the Materials Recovery Facility (MRF) in Mallusk where they are sorted into bales and shipped on to the UK or further afield where they are reprocessed into new products. The brown bin materials are sent for composting and used for site restoration/landscaping."
Limavady Borough Council	No information on destinations found
Lisburn City Council	No information on destinations found
Magherafelt District Council	No information on destinations found
Moyle District Council	No information on destinations found
Newry and Mourne District Council	No information on destinations found
Newtownabbey Borough Council	No information on destinations found
North Down Borough Council	No information on destinations found
Omagh District Council	No information on destinations found
Strabane District Council	No information on destinations found

	Scottish Local Authorities
Local Authorities	Destination Notes
Aberdeen City Council	No information on destinations found
Aberdeenshire Council	Lists reprocessors and processors in the UK only. http://www.aberdeenshire.gov.uk/waste/recycling/WhatHappensTo.asp#Cardboa rd
Angus Council	Some reprocessors named but only for UK. http://www.angus.gov.uk/services/View_Service_Detail.cfm?serviceid=1304
Argyll and Bute Council	No information on destinations found
Clackmannanshire Council	No information on destinations found
Dumfries and Galloway Council	Explains what happens to the waste - not who takes it for reprocessing. http://www.dumgal.gov.uk/CHttpHandler.ashx?id=1511&p=0
Dundee City Council	No information on destinations found
East Ayrshire Council	No information on destinations found
East Dunbartonshire Council	No information on destinations found
East Lothian District Council	Explains what happens to the waste - not who takes it for reprocessing. <u>http://www.eastlothian.gov.uk/site/scripts/documents_info.php?documentID=183</u> <u>&amp;pageNumber=2</u>
East Renfrewshire Council	Explains what happens e.g. recycled, but not who by or where. http://www.eastrenfrewshire.gov.uk/housing/recycler/recycling- information/kerbside-recycling.htm
Edinburgh City Council	Explains in depth what happens to it but not where or by who. <u>http://www.edinburgh.gov.uk/internet/Environment/Rubbish_waste_and_recyclin</u> <u>g/Waste_Aware_Edinburgh/CEC_waste_aware_edinburgh_resources</u>
Falkirk Council	Explains in depth what happens to it but not where or by who. http://www.falkirk.gov.uk/services/corporate_neighbourhood/estates_manageme nt/waste_management/household_recycling/recycling_your_waste.aspx
Fife Council	Does mention the locations of where some of the waste goes, including China and Malaysia, but not what quantities go where and no info on the reprocessors. http://www.fifedirect.org.uk/topics/index.cfm?fuseaction=page.display&pageid=2 EC6DC08-042D-EBC7-FA069B0542946F96&subjectid=A3D3D0E9-3F7B-451E- BE0DD78A8E8A8FBD
Glasgow City Council	Explains what happens to waste at MRF and that it is bulked and sent on, but no mention of reprocessors/processors or where. <u>http://www.glasgow.gov.uk/en/Residents/Environment/Refuse_Recycling/Recycling/Recycling+Facility/MRF.htm</u> and <u>http://www.glasgow.gov.uk/NR/rdonlyres/AA42F8C3-9FC8-4CD0-84C0-171E3A49483F/0/MaterialsReclamationFacility.pdf</u>
Highland Council	Explains in depth what happens to the waste but not by who or where. <u>http://www.highland.gov.uk/FJ_CMS/Templates/Standard.aspx?NRMODE=Published&amp;NRNODEGUID=%7b10BB8101-2ECA-4DCD-ACA8-</u> <u>86069DC8DA81%7d&amp;NRORIGINALURL=%2fyourenvironment%2fwastemanagement%2frecycling%2fkerbsiderecyclingcollection%2fblueboxfaq%2ehtm&amp;NRCACHEHINT=Guest#material</u>

	Scottish Local Authorities
Local Authorities	Destination Notes
Inverclyde Council	No information on destinations found
Midlothian Council	No information on destinations found
Moray Council	The link says: What happens to all the cans, glass bottles paper and card once it has been collected? Once the material has been collected, it is baled and transported to various sites for processing. Find out about the waste journey for each material. But the hyperlink within takes to page where says you are not authorised to view this page. <u>http://www.moray.gov.uk/moray_standard/page_41052.html#What_happens_to_all_the_cans_glass_bottles_paper_and_card_once_it_has_been_collected_</u>
North Ayrshire Council	No information on destinations found
North Lanarkshire Council	No information on destinations found
Orkney Islands Council	No information on destinations found
Perth and Kinross Council	Lists the different recyclates and what happens to them, but not who takes them or where. <u>http://www.pkc.gov.uk/Planning+and+the+environment/Waste+and+recycling/Ho</u> <u>usehold+recycling/What+can+be+recycled/Where+recycled+waste+goes/</u>
Renfrewshire Council	No information on destinations found
Scottish Borders Council	Explains in depth what happens to the waste but not by who or where. http://www.scotborders.gov.uk/life/environment/recycling/18271.html
Shetland Islands Council	The majority of the waste is used for energy recovery plant. No overseas reprocessors
South Ayrshire Council	Explains what happens to the waste but not where or by who. <u>http://www.south-ayrshire.gov.uk/documents/?file=EnviroBannerSingles.pdf</u>
South Lanarkshire Council	Some of the links mention reprocessors or processors, but not all (Plastic) and no overseas mentioned. <u>http://www.southlanarkshire.gov.uk/portal/page/portal/EXTERNAL_WEBSITE_D</u> <u>EVELOPMENT/SLC_ONLINE_HOME/ENVIRONMENT_WASTE/RECYCLING</u>
Stirling Council	No information on destinations found
West Dunbartonshire Council	No information on destinations found
West Lothian Council	No information on destinations found
Western Isles Council	Explains what happens to the waste but not where or by who. <u>http://www.cne-siar.gov.uk/recycling/kerbside/kerbsideposter.asp</u> and <u>http://www.cne-siar.gov.uk/recycling/organicwhathappens.asp</u> and <u>http://www.cne-siar.gov.uk/recycling/kerbside/recyclates.asp#Cans</u>

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Welsh Local Authorities	
Local Authority	Destination Notes
Isle of Anglesey	Provides separate WebPages on each type of recyclate. No reprocessor details provided except for steel and aluminium cans which are sent to "British Steel".
Blaenau Gwent	No information on destinations found
Bridgend	No information on destinations found
Caerphilly	No information on destinations found
Cardiff	Details a 'What happens to my recycling' WebPage. Specifies what happens to each of recyclates. However, no audit trail of specific markets. http://www.cardiff.gov.uk/content.asp?id=7347&d1=0
Carmarthenshire	No information on destinations found
Ceredigion	No information on destinations found
Conwy	No information on destinations found
Denbighshire	No information on destinations found
Flintshire	No information on destinations found
Gwynedd	No information on destinations found
Merthyr Tydfil	No information on destinations found
Monmouthshire	No information on destinations found
Neath Port Talbot	No information on destinations found
Newport	Provides general info on waste management, including a recycling reprocessor audit trail: Textiles: TC Textile Recycling / Salvation Army, Glass: Wenvoe Quarry, Paper: Shotton Paper, Aylesford Newsprint, Plastics: Plastic Recovery Ltd, Aluminium: Alupro, Steel cans: Corus. Also includes a colum specifying "Can be remade as". <u>http://www.newport.gov.uk/ dc/index.cfm?fuseaction=wasterecycle.why&amp;content</u> <u>id=N_049867</u> - Updated 7th Feb 2009
Pembrokeshire	No information on destinations found
Powys	No information on destinations found
Rhondda Cynon Taf	Provides general info on waste management including what happens to materials collected for recycling, but no reprocessor audit trail.
Swansea	No information on destinations found
Torfaen	No information on destinations found
Vale of Glamorgan	No information on destinations found
Wrexham	No information on destinations found