

## **REGULATORY APPRAISAL**

### **ENVIRONMENTAL PROTECTION, WALES**

#### **THE HAZARDOUS WASTE (WALES) REGULATIONS 2005**

##### **Background**

1. Hazardous waste is essentially waste that contains hazardous properties that may render it harmful to human health or the environment. Given the risks that it may pose to human health and the environment it is especially important that hazardous waste is managed properly. At present there are around five million tonnes of special<sup>1</sup> waste generated annually in England and Wales, and around 500,000 consignments of this waste. The Hazardous Waste Directive sets out provisions to ensure the controlled management of such waste, and is transposed and implemented in Great Britain through the Special Waste Regulations 1996.
2. The scope of the Directive is defined by the Hazardous Waste List This list was revised, and incorporated into the European Waste Catalogue in 2000, with the changes taking effect on 1 January 2002. The UK Government is obliged to transpose the revised list into UK law. This will be done through the List of Wastes (Wales) Regulations 2005.
3. Given that implementation of the revised Hazardous Waste List will significantly increase the number of hazardous waste producers, and the number of hazardous waste consignments, the system for controlling the movement and management of hazardous waste must be both efficient and effective. The UK Government has, therefore, taken the opportunity to review the Special Waste Regulations 1996 more generally in order to simplify administrative procedures for consigning hazardous waste and to amend the charging scheme for those procedures. The review has also addressed areas where transposition of Directive obligations has been incomplete. The revised control system for hazardous waste is set out in the Hazardous Waste (Wales) Regulations 2005 (the 'Hazardous Waste Regulations').

##### **Changes to the procedures for consigning and monitoring hazardous waste**

4. The Directive requires that hazardous waste must be tracked from source to final disposal to ensure that it has been managed properly. This is currently carried out in the UK using a system of consignment notes, issued by the relevant regulatory authority (the Environment Agency in England and Wales). A consignment note is required every time a load of hazardous waste is moved from one site (consignor) to another (consignee). Each movement is tracked and recorded by the Environment Agency.

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<sup>1</sup> 'Special' waste is the term used to define all wastes that are controlled as hazardous waste within the UK. The proposed Hazardous Waste Regulations will bring the UK definition of hazardous waste broadly in line with the European definition.

5. Given that implementation of the revised Hazardous Waste List will significantly increase the number of hazardous waste producers, and the number of hazardous waste consignments, the system for controlling the movement and management of hazardous waste must be both efficient and effective. The existing system, which is largely administrative, is considered to be burdensome by both the regulator and those operating within the system.
6. The revised control system reduces the administrative burden on both the regulator and those operating within the system and shifts the regulatory focus from administration of the system to assessment of compliance, targeting sites and activities that present the highest risk, with emphasis placed on the waste producer.
7. The Hazardous Waste Regulations incorporate the following key changes to the current consignment system:
8. Introduction of obligation to notify premises where hazardous waste is produced;
  - Removal of the requirement for pre-notification of consignments to the Environment Agency three days before movement of hazardous waste;
  - Consignment notes will still be required to track the movements of waste but the requirement to submit them to the Environment Agency has been removed;
  - The introduction of quarterly reporting, by the consignee, of hazardous waste consignments to the Environment Agency rather than the return of individual consignment notes. Charging for each consignment will be made on the basis of these quarterly returns.

### **Notification of premises**

9. A general requirement for hazardous waste producers to notify sites where hazardous waste is produced, to the Environment Agency, has been introduced, for which an annual 'site notification' fee' will be charged.
10. It is recognised that many 'new' hazardous waste producers (those coming within the scope of the control system for the first time by virtue of the revised expanded Hazardous Waste List) will only be producing minimal arisings of hazardous waste, and often on a sporadic basis. While these wastes must be subject to the control system there is little environmental benefit to be gained from the notification of such sites. The Hazardous Waste Regulations will therefore exempt certain small businesses from the requirement to notify their premises providing they meet the qualifying limitations<sup>2</sup>. The following premises may use this exemption: offices and shops, small agricultural businesses, caravans, camp sites, houseboats, residential homes, premises forming part of a university, school or other

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<sup>2</sup> Less than 200kg of hazardous waste is produced at the premise in any twelve month period.

educational establishment or a hospital or nursing home, doctors' surgeries, dental surgeries, health clinics, prisons, public meeting halls, and premises used by charities.

### **Consignment notes and quarterly reporting**

11. Under the Hazardous Waste Regulations there is no requirement for pre-notification of a consignment eliminating a regulatory and administrative burden on companies consigning waste whilst offering greater flexibility on the timing of consignments to consignors. While notes would still accompany consignments the obligation to submit them to the Agency will be removed. Copies must be kept by consignors and consignees for at least three years.
12. The audit trail of hazardous waste arisings will be monitored by the Environment Agency through the submission of quarterly reports by consignees. Charges for waste movements will be made, by the Environment Agency to the consignee, on the basis of these reports.

### **Multiple collections - Modification of carrier rounds**

13. It is recognised that for small loads of similar wastes, such as waste oils from garages, that it is practical and efficient to collect a series of smaller loads from many producers on the same vehicle.
14. However, the Hazardous Waste Regulations modify procedures for loads collected on carrier rounds (now called "multiple collections"). To meet Directive requirements, information must be obtained about each load collected, including details about each producer. Under the multiple collection procedure, each load collected will, therefore, be required to have a unique consignment code and a separate consignment note for multiple collections will obtain all the information required on individual loads whilst also providing streamlined summary information for carriers and consignees. Charging for loads on multiple collections will also change such that each load will be subject to a waste movement fee (although this fee will be lower than the fee for single waste movements). However, in order to simplify administrative procedures, and avoid excessive paper work, the Regulations include a schedule for recording loads on multiple collections.

### **Changes to mixing requirements**

15. There is a general prohibition on the mixing of different types of hazardous waste or mixing of hazardous waste with non-hazardous waste in the Hazardous Waste Directive. This provision, which previously applied to those who dispose of, recover, collect or transport hazardous waste, has been extended to those producing hazardous waste (mixing will still be allowed where it is being undertaken in accordance with a permit). Although this is not an explicit provision of the Directive it is justified by the environmental benefits to be gained. As the source of hazardous waste, producers are the first place in the waste management chain where wastes could be mixed. Mixing of different hazardous wastes is generally discouraged given the unknown risks associated with the resulting waste.

The types of reactions that can occur when mixing such wastes are complex and the hazard characteristics of the resulting waste are not always easy to ascertain.

16. The mixing of hazardous waste with any other materials, whether hazardous or not, is also undesirable for a number of reasons. Firstly it might be undertaken to dilute the hazardous waste to below threshold value levels, thus avoiding hazardous waste controls. Secondly, such mixing can in some cases increase the volumes of hazardous waste arisings, by rendering non-hazardous waste hazardous. An example of this would be fluorescent tubes disposed in a skip full of otherwise non-hazardous commercial waste. The presence of these tubes would result in the whole skip full of waste being classified as hazardous waste. Separation of wastes at source is also known to encourage recycling, fluorescent tubes are a good example. The recycling of these tubes is technically feasible but recycling rates have been low through minimal separation of the tubes from general commercial waste arisings.

#### **Implementing the revised Hazardous Waste List**

17. The revision of the Hazardous Waste List has resulted in an expanded list of wastes now classified as hazardous within the EU. While more than 200 additional waste streams have been added to the list many of these are already controlled as hazardous wastes within Great Britain, through the Special Waste Regulations, because of their hazardous properties. Nevertheless, it is expected that there will be a significant increase in the number of hazardous waste producers and hazardous consignments as a result of implementation of the revised list. A summary of the most important changes is at Annex A.

#### **Purpose and intended effect of measures**

18. This draft Regulatory Impact Assessment (RIA) is concerned with the implementation of the Hazardous Waste (Wales) Regulations 2005, which repeal and replace the Special Waste Regulations 1996 which transpose the European Hazardous Waste Directive (91/689/EC).
19. Replacement of the Special Waste Regulations 1996 (S.I. No 972) is necessary to implement the revised European Hazardous Waste List, now incorporated into the European Waste Catalogue (2001/532/EC)<sup>3</sup> and to revise the control system for hazardous waste to ensure complete transposition of the Hazardous Waste Directive.
20. Separate Regulations will be issued in England although the proposed changes to the control system will be very similar to those in Wales. Given that the Environment Agency is the relevant regulatory authority for the control of hazardous waste for England and Wales this RIA addresses the regulatory impacts for England and Wales

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<sup>3</sup> As amended by Commission Decisions 2001/118/EC and 2001/119/EC, and Council Decision 2001/573/EC

## **Risk Assessment**

21. The UK is subject to infraction proceedings for incomplete transposition of the Directive. An adverse judgement, under Article 226 of the Treaty, was received from the European Court of Justice in October 2004. This judgement has now been referred back to the Court, under Article 228 of the Treaty, by the European Commission. Without the proposed changes an unfavourable ruling, and the imposition of significant daily fines, from the Court are likely. It is difficult to predict the size of the fines but one Member State has been charged €20,000 (£12,500) a day, by the Court, for non-compliance with the Waste Framework Directive.
22. Hazardous wastes, by their very nature, possess hazardous properties. Some may present direct risks to human health, for example because they are carcinogenic. Others have serious safety implications due to high flammability. Hazardous wastes that are ecotoxic or mutagenic may present long-term risks to the environment. The Hazardous Waste List was revised to incorporate it into the European Waste Catalogue, providing the opportunity to amend the list in view of waste already considered hazardous by Member States. Around 200 wastes were formally added to the list though many of these are already controlled as 'special' waste within Great Britain.
23. The risks from hazardous wastes are exacerbated if hazardous wastes are incorrectly handled, stored, transported, recycled or disposed of without due care. For example, irresponsible disposal of waste oils or solvents could lead to the severe contamination of groundwater. A mandatory audit trail for such waste, as provided for in the Special Waste Regulations, allows the waste to be tracked from cradle to grave, thus deterring waste holders from attempting to dispose of hazardous waste incorrectly. By shifting the focus of the system onto hazardous waste producers, and shifting increased regulatory resources to inspection activities, the Regulations will help tackle instances where wastes are not notified, or are incorrectly consigned.
24. One of the key aims of the Welsh Assembly Government's waste management strategy<sup>4</sup> is the minimisation of hazardous waste. A more simplified control system as provided in the Hazardous Waste Regulations would allow the Environment Agency to shift resources from administration of the system to monitoring and inspection activities. These will include producer visits, whereby Environment Agency staff sign-post advice to waste producers on minimisation of waste, and/or hazardous waste production management. These visits will inform assessment of sector compliance to allow future visits to be targeted according to risk.

## **Options**

25. Three options were fully considered in the consultation on draft Regulations, all of which fully implement the requirement of the European

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<sup>4</sup> Waste Strategy 2000 for England and Wales, DETR

Directive, with a fourth 'alternative' option<sup>5</sup> suggested but not fully worked up (i.e. no charges were identified). In light of comments received during consultation this RIA consider four options.

**Option 1: Implement the changes to the Hazardous Waste List only (no change to control system or charging scheme)**

26. This option would implement the changes to the Hazardous Waste List only, with no changes to the control system or charging scheme. The Hazardous Waste List was extended to include a number of significant additional waste streams. Many of these waste streams include items that are likely to be generated at some time by most UK businesses or commercial premises, e.g. computer monitors containing cathode-ray tubes. This option will not fully implement the provisions of the Hazardous Waste Directive relating to mixing, separation and cradle to grave monitoring of waste.

27. Experience with the charging scheme for special waste has shown that charges for carrier rounds do not fully cover the regulatory costs of assessing compliance of all the producers of waste on each round in line with the Directives requirements. Consequently there is some cross-subsidy between producers who use carrier rounds and those who do not.

**Option 2: Implement the changes to the Hazardous Waste List but with package of de-regulatory changes to the control system, including changes to carrier rounds (full charges for loads on carrier rounds)**

28. This option is the same as option 1 with the addition of the following regulatory changes to the control system:

- Remove obligation for pre-notification;
- Introduce requirement for site notification;
- Remove obligation to copy consignment notes to Environment Agency, introducing instead an alternative consignment related charge based on quarterly reporting;
- The prohibition on the mixing of wastes (hazardous with hazardous, and hazardous with non-hazardous) would be extended to producers;
- Modified procedures for carrier rounds:
  - Individual consignment code for each individual load collected;

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<sup>5</sup> Paragraph 7.10 of the consultation paper, and in the partial RIA for that paper (paragraph 4.42 of annex C)

- Charge payable for each individual consignment. This would introduce a level playing field for all producers, with no cross subsidy dependent on method of collection.

**Option 3: Implement the changes to the Hazardous Waste List but with package of de-regulatory changes to the control system but no change to carrier rounds**

29. This option is the same as option 2 except that carriers rounds remain unmodified.

30. Under this option the charges would be set to maintain the financial advantages of carrier rounds, but at the expense of producers who do not use them. Experience with the current charging scheme has shown that charges for carrier rounds do not cover the regulatory costs of assessing compliance of all the producers of waste on each round. Consequently there is significant cross-subsidy between producers who use carrier rounds and those who do not.

**Option 4 - Implement the revised Hazardous Waste List but with package of de-regulatory changes to the control system, including changes to carrier rounds (partial charges for loads on carrier rounds)**

31. This option is a variation of option 2 in terms of charges for loads of wastes on carrier rounds. Under this option the same regulatory changes envisaged under options 2 and 3 would be introduced. However, although individual consignments on a carrier round would levy a charge this would be set at a lower rate than for single consignments.

**Benefits and Costs**

32. The Environment Agency's regulatory costs are fundamental for setting the charging scheme for the revised control system. The cost of the Environment Agency's activities must be recovered through charges. The increase in the number of hazardous wastes, and thus the number of hazardous waste producers, will require additional regulatory activity. The costs are primarily for the establishment of a new electronic system to receive and record notifications and quarterly returns. The system will facilitate intelligence-led targeted visits to hazardous waste producers.

The charges for premises notification are:

- (a) £28 for each premises notified in writing;
- (b) £23 for each premises notified by telephone; and
- (c) £18 for each premises notified in electronic form.

**Business sectors affected**

33. Most industries and businesses already produce waste (non-hazardous) of some sort, but under the Hazardous Waste Regulations and the List of

Wastes Regulations many will become hazardous waste producers, for the first time.

The impacts can be summarised as follows:

- *Existing hazardous waste producers* will be affected by the administrative changes to the hazardous waste control system and the changes to the charging scheme. Some existing hazardous waste producers may have to consign increased quantities of waste as a result of implementation of the revised Hazardous Waste List. The regulatory impact of the proposed options varies depending on the current pattern of hazardous waste production and management of the organisation.
- *New hazardous waste producers* will come within the control system for hazardous waste for the first time as a result of implementation of the Hazardous Waste List. This will have administrative and financial implications for these businesses.
- *Waste management operators* will have new business opportunities as a result of implementation of the revised Hazardous Waste List, with new waste streams coming within the control system for the first time. Most waste management companies offer inclusive services to their customers covering any administration services as well as the management of the hazardous waste. Consignees will also be obliged to submit quarterly reports, detailing consignments received, to the Environment Agency, against which charges for waste movements will be levied. Thus operators may be able to offer new services such as consignment services and site notification to hazardous waste producers. Waste management companies, that are also consignees, will have a new requirement to maintain an inventory of hazardous waste on their site (although many keep one already as part of normal business practices, or as a requirement of their permit). Implementation of the revised list may result in increased costs for waste management companies where they generate waste new to the list.

The impacts can also be considered by sector as follows:

#### **Impact on agriculture**

34. Agricultural waste is currently excluded from the UK's waste management controls which implement the Waste Framework Directive (WFD), and thus it is currently excluded from the controls implementing the Hazardous Waste Directive. However, the Welsh Assembly Government has given a commitment to introduce the Regulations necessary to extend the Wales' waste management controls to agricultural waste. and it is likely that a number of agricultural wastes will be classified as hazardous waste, such as waste oils, asbestos, veterinary wastes and pesticides, and will thus be subject to hazardous waste controls.



35. The Environment Agency recently commissioned some work<sup>6</sup> to provide information on the quantities of hazardous waste produced on holdings and, in particular, to enable consideration of the 200kg threshold for exemption from the requirement to register as hazardous waste producers. All of the holdings surveyed were found to generate one or more types of hazardous waste. The most common type being lead acid batteries, with other wastes including waste oil, syringes and needles, aerosols and electronic and electrical equipment. The mean quantity of waste generated by the surveyed holdings was estimated to be 430kg per year, of which more than half, an estimated 250kg, is represented by scrapped vehicles. However, the survey noted that wastes such as vehicles and electronic equipment are not generated on an annual basis. 43% of the holdings surveyed were estimated to produce more than 200kg of waste in a typical year and, as such would be required to register as hazardous waste producers under the Hazardous Waste Regulations.

#### **Impact on charities and the voluntary sector**

36. Implementation of the revised Hazardous Waste List which includes certain waste electronic and electrical equipment such as cathode ray tubes (commonly found in televisions and computer monitors) means that a number of charities and voluntary sector organisations come within the hazardous waste control system for the first time. There are a number of charitable organisations currently involved in the recovery, refurbishment, re-use and recycling of waste household electronic and electrical equipment. Any collection and onward movement of these wastes, where hazardous, will need to be consigned and storage facilities will need to be licensed accordingly. However, these organisations may benefit from proposed new licensing exemptions currently being drawn up for the storage, pending recovery, of certain types of hazardous waste. Furthermore, in the case of WEEE, exemptions from licensing are being developed for low risk treatment of these wastes leading to their recovery.

#### **Impact on local authorities**

37. Domestic waste (i.e. that produced by accommodation used solely for living purposes) is exempt from the provisions of the Hazardous Waste Directive so householders may take domestic hazardous waste to civic amenity sites without needing to consign the waste. In addition, where local authorities make collections of hazardous waste from domestic premises, it would be impractical to require consignment notes for each collection. Thus hazardous waste separately collected from domestic premises is not be subject to the provisions of the Regulations until it has been delivered to the local authority collection point, and needs to be consigned on from that point. In recognition of the changes to the Hazardous Waste List, local authorities were given additional funding for the expansion of the Hazardous Waste List in the SR2002 EPCS<sup>7</sup> settlement to reflect the wider range of domestic waste classified as hazardous.

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<sup>6</sup> Survey of Hazardous Waste on Farms, Hyder Consulting for the Environment Agency, February 2005

<sup>7</sup> Spending Review 2002 for the Environment Protection and Cultural Services block

### **Impact on the healthcare sector**

38. The adoption of the hazard property H9 (infectious) in the classification of waste from the healthcare sector is likely to lead to more clinical waste being classified as hazardous. Estimates of the cost impact are difficult to quantify, but will be offset by the decision to classify only cytotoxic and cytostatic medicines as hazardous waste, rather than all discarded POMs. The costs will also be offset by more of the current yellow bag waste stream going to landfill rather than incineration. This reduction in yellow bag waste assumes a greater degree of segregation of non-hazardous waste streams from the clinical waste streams, and the development of the guidance should assist this process. The reduction also envisages a pragmatic approach in relation to the use of the H9 hazard property, and if necessary, the development of guidance additional to the Environment Agency's current guidance document WM2 to assist that process.
39. The decision to increase the threshold for the site notification provisions from 50kg to 200kg will remove the requirement for most GPs practices to notify their premises.

### **Impact on dentists**

40. The addition of new waste streams, such as dental amalgam, cathode ray tubes and fluorescent tubes, in the revised Hazardous Waste List mean that more waste items from dental premises will be classified as hazardous. However, the major impact in dentistry will be the requirement to limit environmental pollution from waste dental amalgam by the use of amalgam separators to filter wastewater from surgeries.
41. Practices regularly replace, improve and upgrade their equipment and premises to enable them to deliver high quality services, and to comply with legislative and other requirements including health and safety requirements. The cost of making all dental surgeries compliant is difficult to estimate as an unknown number may already be suitably equipped, However, it is likely that these will be a small proportion of surgeries. Where the installation of an amalgam separator is necessary, a typical purchase cost may be about £500, but individual and installation costs may vary considerably depending on the nature of the equipment used in a particular surgery, its physical layout and plumbing arrangements, and the scheduling of installation to minimise disruption to clinical sessions.
42. As with all hazardous waste producers, there will be some additional overheads e.g. in keeping consignment records, cost of collection of waste and the servicing of any specialist equipment such as amalgam separators.

### **Benefits**

#### *Economic benefits*

43. Implementation of the revised hazardous waste List and the new control system for hazardous waste will provide new business opportunities for

waste management companies. Information on the impact on competition within the waste management industry can be found in section 7.

44. The environmental benefits of the proposed Hazardous Waste Regulations will be delivered through the control of a wider range of hazardous wastes than at present as regards their handling, storage, transportation, recycling and disposal. Revision of the control system will ease the regulatory burden on existing hazardous waste producers, and will shift the regulatory effort of the Environment Agency from administrative activities to field-based activities with the aim of increased reduction and prevention of pollution incidents, and greater detection and control of breaches. Producer visits will also contribute to hazardous waste minimisation in the long term.
45. The ban on mixing and greater segregation at source encourages waste management options further up the waste hierarchy.
46. The proposed changes to the procedures for consigning hazardous waste would generate the same benefits as option 2, with the exception of the charging scheme. Maintaining some element of cross-subsidy of carrier rounds would result in a higher consignment charge for producers not using multiple collections and means the charges are less reflective of regulatory effort. However, a lower fee for loads on carrier rounds encourages the use of an effective and efficient means of collecting small quantities of hazardous wastes.

#### *Social benefits*

47. The implementation of the revised Hazardous Waste List will bring a wider range of wastes within the control regime for hazardous wastes thus providing a higher level of health and safety for workers within the organisations of hazardous waste producers and the waste management industry. However, it is not possible to quantify these benefits.

#### **COSTS**

48. The costs section focuses on the regulatory costs setting out the charges to be levied, by the Environment Agency, for site notification and waste movements for each option. The charges are based on cost recovery for the Agency's activities.

#### Uncertainties & Assumptions

49. The regulatory costs of the control system, must be met by charges for administration and operation of the system, such as charges to notify premises at which hazardous waste is produced, and for each movement of waste through quarterly returns from consignees. Thus the number of hazardous waste producers and hazardous waste consignments will significantly influence the costs of regulating the system. There are a number of uncertainties in calculating the current number of hazardous waste producers. It is also difficult to calculate the current number of

consignments from each producer as many loads of waste are consigned on carrier rounds (where the numerous loads are consigned as one load).

***Number of waste producers (notified sites)***

50. There are also a number of uncertainties associated with implementation of the revised Hazardous Waste List, such as the lack of reliable data on the likely number of new hazardous waste producers, and hazardous consignments. Analysis of the Environment Agency's Special Waste Tracking (SWaT) data indicates that there is an average of 100,000 special waste producers per annum.

51. Due to the nature of some of the new entries on the Hazardous Waste List every small business has the potential to become a hazardous waste producer. It is estimated that there are close to 3.4 million small firms (those with under fifty employees) within the UK<sup>8</sup>. However, it is estimated that around 2.4 million of these are companies with no employees (i.e. are sole traders or dormant companies) and are hence not all likely to be hazardous waste producers. In addition, some small firms will qualify for the exemption from notification of premises. Research, for the Environment Agency, on estimating the impacts of expansion of the Hazardous Waste List estimated that there could be 100,000 to 1.3 million hazardous waste producers (based on 10% of SMEs with no employees and inclusive of all SMEs with employees).

52. However, it is assumed that many small companies will qualify for the exemption from notification, or produce hazardous waste less than once a year. For the purposes of this RIA, with all the uncertainties in the data, outlined above, it is estimated that there will be 110,000 notified sites<sup>9</sup> in year one.

53. A number of consultation responses suggested that this estimate was overly conservative. However, as the exemption from site notification has been widened (in response to comments received during the consultation) the estimate of 110,000 notified sites is seen as a reasonable figure for the final RIA. This estimate of expected activity level are considered to be reasonable and pragmatic and attempt to balance the risk to the Environment Agency under-recovering their costs, with the risk of achieving a surplus. Experience from year one of the new system will inform the Environment Agency's charging scheme for subsequent years, reviewing any charges, if necessary. Following two to three years of operation it is anticipated that risk-based charging will be incorporated into the charging scheme.

***Number of waste movements***

54. The expansion in the Hazardous Waste List will result in an increase in hazardous waste arisings. Estimates of the scale of the increase come

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<sup>8</sup> Small and Medium Sized Enterprises (SME) Statistics for the UK 2001, Small Business Service 2002.

<sup>9</sup> Based on the average number of hazardous waste producers for 1999-2001 with a 10% increase as the net effect of all the uncertainties

with their own set of uncertainties and assumptions. Under the current system the average number of consignments is 529,000 per annum. The data suggests that of these consignments 16% are carrier rounds. For modelling purposes it is estimated that there is an average of six collections of waste on each carrier rounds (the majority of consultation responses supported this). These figures generate a total of 952,200 waste consignments.

55. For the purposes of this RIA, and on the basis on the uncertainties in the data, outlined above, it is estimated that there will be 1,000,000 individual consignments generated under the new system in year one. However, in light of comments received during the consultation, and further examination of the data, the estimate for number of waste movements has been revised to 1,150,000. Again this figure reflects a balance between the risks of the Environment Agency under or over recovering their costs.

## **Regulatory Costs**

### ***Charging mechanism***

56. Charges for the first year are set out on Schedule 9 of the Hazardous Waste Regulations. There are charges for site notification and waste movements based on the method of application, e.g. electronic versus paper, reflecting the varying administrative costs for each application method.

57. Given that the requirement for site notification is the same across the options, the fee remains the same across the options (see Table 1). However, given the variations in charging for multiple collections between the options the waste movement fee varies between them (see Table 2).

**Table 1** – Summary of site notification fees for different methods of application

<b>Method of application</b>	<b>Site notification fee</b>
Internet	£18
Other electronic	£18
Telephone	£23
Paper	£28

**Table 2** – Summary of waste movement charges for single loads and for loads on multiple collections across the different options

	Option 1	Option 2	Option 3	Option 4
<b>Type of consignment</b>	Paper	Electronic	Paper	Electronic
Single	£16.35	£7	£14	£15
Load on multiple collection	£16.35 charged per multiple collection	£7	£14	£15 charged per multiple collection
				£22
				£22 charged per multiple collection
				£10
				£19
				£5
				£10

58. While cost savings will be made, by the Environment Agency, through simplification of the control system, increased resources will be needed to deal with the increase in the number of hazardous waste producers and hazardous waste consignments. The Environment Agency estimate that the charging scheme will need to raise £10.1 million in year one (in comparison to £8.3 million generated by the existing system).

59. The Hazardous Waste Regulations include powers for the Environment Agency to establish a charging scheme. It is expected that the Environment Agency will consult stakeholders on a proposed charging scheme for the Hazardous Waste Regulations later this year. The final charging scheme will need to be approved by the Welsh Assembly Government.

### **Compliance activities**

60. Over 85% of the regulatory costs will be apportioned to enforcement and compliance activities - including visits to consignees, identifying and examining incidents of non-compliance and enforcement campaigns - with nearly 30% of these earmarked for producer visits.

61. Compliance effort will be targeted at high-risk sectors. In time, risk-based charging will be introduced, but until then the Environment Agency will undertake risk assessments on the site notification database to prioritise inspection activities. In general, it is likely that those sites producing and consigning significant quantities of hazardous waste, that are not regulated under other legislation – such as waste management licensing and PPC Regulations – will be most likely to be targeted for visits.

### **Compliance costs for industry**

62. The costs falling on hazardous waste producers for each of the options are discussed below in more detail. The scale of cost falling on industry depends on whether the producer has previously consigned waste under the Special Waste regime, in which case increase to costs may be relatively minor, and if so whether the waste is being consigned as part of a carrier round. The largest impacts will be on existing hazardous waste producers that use carriers rounds, and new hazardous waste producers coming within the hazardous waste control regime for the first time. The

tables in annexes B and C set out the total regulatory costs across the options. The notes to the tables recognise that waste movements fees will be charged to consignees. For the purposes of this RIA it has been assumed that the full regulatory costs will be passed on to hazardous waste producers.

63. The comparison of costs, below, has been considered on the basis of existing hazardous waste producers and new hazardous waste producers. The tables in annexes B and C set out the total regulatory costs under the options. The costs for existing hazardous waste producers should be compared against what they already pay (reflected in option 1).

### **Option 1**

64. Under this option it is proposed that hazardous waste producers would continue to pay £16.35 per consignment<sup>10</sup>, with the payment made when the consignment code is issued. Those using carrier rounds would continue to divide the consignment fee between the waste loads on the round. As discussed above, changes to the Hazardous Waste List will increase the number of waste producers and the number of consignments of hazardous waste. This additional consignment activity would have a proportionate increase on the workload of the Environment Agency so any increase in annual revenue would be used to cover the Environment Agency's additional costs.

#### *Existing hazardous waste producers*

65. This option would generally be cost neutral to those currently consigning hazardous waste. Those consigning waste without the use of carrier rounds would continue to 'subsidise' those producers using rounds.

#### *New hazardous waste producers*

66. New producers would be subject to a £16.35 fee per consignment. This would maybe be lower for producers whose waste is collected as part of a carrier round as the cost of the consignment can be shared between all the producers on the round. The regulatory costs are not considered to be substantial, particularly in comparison to the overall costs in managing the waste.
67. There is also a risk of infraction costs for Government due to incomplete transposition/ implementation of the Hazardous Waste Directive.

### **Option 2**

68. If all the individual loads on a carrier round were charged separately, this would distribute the charges more evenly. This would benefit those

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<sup>10</sup> The Environment Agency are seeking a 2.5% increase on this fee from 1 April 2005, subject to approval by HMG.

producers not using carrier rounds, who at present in effect 'subsidise' the regulatory costs of those using carrier rounds.

69. As the financial advantage of using carrier rounds will be removed a lower waste movement fee of £7 could be charged for all consignments, again on the basis of quarterly returns from consignees.

*Existing hazardous waste producers*

70. As shown in annex B, under this option the impact on the costs to hazardous waste producers would be largest for producers with only one waste consignment per year with a total regulatory cost of £25 against current costs of £16.35. However many of these are likely to be small producers who will qualify for exemption from premise notification obligations, so the costs would be reduced (by £18). The increase is not considered to be substantial, particularly in comparison to the overall costs in managing the waste. All producers consigning more than two loads will benefit from reduced charges (where they have not previously used carrier rounds) under this option.

71. Annex C shows that the biggest cost implications are for those waste producers who currently use carrier rounds. A full assessment of how much of the regulatory cost individual producers on a carrier rounds currently pay is difficult as it depends on how the carrier decides to pass on the consignment cost and how many producers there are on the round. However, for the purposes of this RIA it is estimated that consignment of a load on a carrier round would cost a producer £2.73 per load. This is based on the consignment charge of £16.35 (under the Special Waste regime) divided by an average of six loads on a carriers round (consultation responses supported the average of six loads per carriers round we are aware that some sectors have significantly higher loads per round).

*New hazardous waste producers*

72. Annex B and C show the costs for new producers. Under this option the waste movement fee would be the same regardless of whether the consignment was a single load or part of a multiple collection. Many of new producers are likely to be small producers who will qualify for exemption from premise notification obligations, so the costs would be reduced (by £18).

**Option 3**

73. Under this option a site notification fee of approximately £18 for hazardous waste producers will be introduced. A waste movement fee of approximately £15 will also be charged quarterly on the basis of electronic quarterly returns from consignees.

*Existing hazardous waste producers*



74. As shown in annex B, the impact on the costs to hazardous waste producers, under this option, as shown in Table 1, is that cost savings are only made to those consigning more than thirteen loads per year. The costs savings to those that do are also much less than those in option 2.

#### *New hazardous waste producers*

75. Annex B and C show the costs for new producers. Under this option the waste movement fee would be the same regardless of whether the consignment was a single load or part of a multiple collection. Many of new producers are likely to be small producers who will qualify for exemption from premise notification obligations, so the costs would be reduced (by £18). The regulatory costs are not considered to be substantial, particularly in comparison to the overall costs in managing the waste.

### **Option 4**

76. The option sits between option 2 and 3 in terms of the changes to the charging system for loads on multiple collections. Under this option a site notification fee of £18 for hazardous waste producers would be introduced. Consignment fees would be charged depending on the type of waste movement. Single consignments would be charged £10 or £19 (for those using electronic or paper consignment notes respectively) and loads on multiple collections would be charged £5 or £10 (for those using electronic or paper consignment notes respectively).

#### *Existing hazardous waste producers*

77. The impact on the costs to hazardous waste producers, under this option, as shown in annex B, would be largest for producers with only one or two waste consignments per year. However many of these are likely to be small producers who will qualify for exemption from premise notification obligations, so the costs would be reduced (by £18). The increase is not considered to be substantial, particularly in comparison to the overall costs in managing the waste. All existing producers consigning more than two loads would benefit from reduced charges (where they have not previously used carrier rounds) under this option.

78. Annex C shows that the biggest cost implications under this option are for waste producers who currently use carrier rounds. As per option 2 a full assessment of how much of the regulatory cost individual producers on a carrier rounds currently pay is difficult and the same estimates and assumptions apply when considering the impact.

#### *New hazardous waste producers*

79. Annex B and C show the costs for new producers. While the costs are a new impact on producers they are generally lower than the charges made under the Special Waste regime (for more than two consignments). In

addition, many of new producers are likely to be small producers who will qualify for exemption from premise notification obligations, so the costs would be reduced (by £18). The regulatory costs are not considered to be substantial, particularly in comparison to the overall costs in managing the waste.

**(ii) Other costs**

80. It can be expected that hazardous waste producers will incur additional costs to those charged by the Environment Agency for site notification and waste movement fees (the latter are charged to the consignee but are likely to be passed on to the producer as part of any service). There might also be some administrative costs associated with completing paperwork for site notification and consignment forms.
81. The requirement for the producer to keep records of hazardous waste produced on-site will incur costs although it is likely that many sites will already undertake such activities as part of their licence/permit conditions.
82. Consignees will also incur additional administrative costs through the requirement to compile quarterly reports to the Environment Agency and for maintaining inventories of hazardous waste received on site. Again some consignees may already undertake elements of these activities. It is not clear how much of these costs will be passed on to hazardous waste producers.
83. New hazardous waste producers will face additional costs for the management (recovery, recycling, treatment and/or disposal costs) of their waste. Costs for treating and disposing of hazardous wastes are generally higher than those for non-hazardous wastes. In addition given the uncertainty regarding hazardous waste capacity in the UK, as a result of implementation of the requirements of the Landfill Directive, these costs are expected to rise over the next few years. Detailed current and expected costs are limited given commercial confidentiality. Annex D lists the estimated range of current costs for different management methods. The regulatory charge forms only a very small proportion of total costs to industry for hazardous waste management.
84. Consignees will incur costs as a result of the need to compile and submit quarterly reports of consignments to the Environment Agency. The bulk of these costs are likely to be passed onto waste producers.

**Costs for a typical business**

85. It is difficult to define a typical business as there is not a typical pattern of waste production and movement. The costs incurred by hazardous waste producers will depend on whether they were hazardous waste producers under the Special Waste Regulations 1996, the pattern of any consignments of hazardous waste and how much hazardous waste they will produce under the new system. The biggest impact will generally be on those producers coming within the hazardous waste control regime for

the first time. However, the tables in annexes B and C highlight the relative costs for a range of waste movements.

### **Equity and Fairness**

86. The revisions to the hazardous waste control system, as set out in the Hazardous Waste Regulations, put the onus of responsibility for the hazardous waste on the producer, in keeping with the polluter pays principle. Introduction of producer notification, through premises notification, will enable the Environment Agency to identify and track those responsible for consignments of hazardous waste within the waste management chain.

87. Implementation of the Landfill Directive, and in particular the ban of co-disposal of hazardous wastes with non-hazardous wastes in July 2004, has resulted in a reduction of the number of dedicated landfill sites taking hazardous waste. However, the corresponding increase in landfill gate fees has resulted in greater minimisation of hazardous waste, with a measured reduction in arisings since July 2004. Whilst some regions have no dedicated merchant landfill site, all regions have access to either separate cells for stable non-reactive hazardous waste including asbestos, or like London, have never had a hazardous waste landfill. Hazardous waste has always travelled between regions in response to market conditions.

### **Small Firms' Impact Test**

88. Due to the nature of the wastes to be classified as hazardous wastes in the revised Hazardous Waste List, such as discarded computer monitors, it is anticipated that the majority of all small and medium-sized enterprises will become hazardous waste producers for the purposes of the Hazardous Waste Regulations. The impacts on each small business will depend on whether the business previously produced hazardous waste, if so whether they use carrier rounds, or if the business will be a new hazardous waste producer under the new control system. For existing hazardous waste producers the scale of impact will be greater if they use carrier rounds. It is estimated that approximately 80% of companies employing the carrier rounds system are small businesses. There will be increased regulatory costs for those organisations that currently use carrier rounds although these will be minimised through the provision of the exemption for small producers.

89. The proposed changes will have administrative and financial implications for those small businesses brought within the hazardous waste control system for the first time. While the majority of these businesses will be producers of non-hazardous waste, and thus aware of duty of care provisions, and many are likely to have contracts with waste management companies, some will incur higher regulatory costs.

### **Competition Assessment**

90. The competition filter was applied to assess the risk of a significant detrimental effect on competition. The test was informed by discussions with the Environment Agency and industry.

91. These proposals focus on the administrative procedures for the Hazardous Waste Regulations and this assessment is therefore focused on the impact of these administrative changes on competition. The answers to the competition filter indicated that the risk of a significant detrimental effect on competition is low.

### **Amongst hazardous waste producers**

92. Most companies and businesses, whatever their market, are likely to produce some form of hazardous waste at some point e.g. when renewing IT systems and disposing of old computer monitors. The Regulations will therefore impact on many markets but, within any given market, the Regulations will impose the same requirements on all companies producing hazardous waste.

93. As discussed in the Small Firms Impact test, some firms may face increased costs but as shown in Tables 1 and 2, the costs that will be incurred rise in proportion to the number of consignments. As a result, bar differences in the volume of hazardous waste produced, we do not expect any firms to be affected substantially more than others. Many companies will also come within the hazardous waste control system for the first time but they will not be subject to any costs that existing producers do not have to meet. We do not expect that the costs detailed in this RIA will be significant enough to be a barrier to entry for any given market, nor do we expect the costs to be significant enough to affect the market structure (e.g. changing the number of firms) for any given market.

### **Amongst waste management companies**

94. The Regulations place the same obligations on all waste management companies. The obligation to provide quarterly reports will place an administrative burden on such companies although it is likely that these costs will be passed on to hazardous waste producers. Although larger waste management companies are more likely to be able to absorb these costs, and therefore be more competitive, it is not thought that that it will be significant enough to affect market structure. Estimates (from data two years ago) based on revenue (converted to tonnages and extrapolations based on average disposal rates), actual and guessed tonnages and extrapolations based on disposable assets, found that the greatest market share of any one company for technical waste (including non-special liquids) was 10%. The impacts will also depend upon other factors such as type of waste, volume of waste, frequency of collection, location etc.

### **Enforcement and Sanctions**

95. The Environment Agency for England and Wales will enforce the proposed Hazardous Waste (Wales) Regulations 2005. The penalties for offences

committed under the proposed Regulations will be a fine of up to £5000 on summary conviction (Magistrates Court), and up to two years imprisonment on conviction on indictment (Crown Court).

96. Fixed notice penalties of £200 will be issued by the Environment Agency for the following offences:

- failure to comply with the requirements of the Regulation covering quarterly returns to the Agency and producer returns and/or failure to properly complete the returns;
- failure to complete, properly or at all a consignment note or failure to comply with requirements for schedules and written explanations etc.

97. The simplified control system set out in the Hazardous Waste Regulations has been designed to allow the Environment Agency to shift resources from administration activities to on-site visits and inspections. In the longer-term it is anticipated that inspections will be undertaken using a risk-based approach.

### **Monitoring and Review**

98. The effectiveness of the proposed Regulations will be monitored through the administration of the hazardous waste control system, primarily through the Environment Agency's ability to monitor, track and account for all hazardous consignments within England and Wales.

99. Data will continue to be compiled and submitted to the European Commission in line with the reporting requirements of the Hazardous Waste Directive.

100. The elaboration of the Strategy on Prevention and Recycling on Waste includes an assessment of existing waste policies. In this regard the European Commission is seeking views of Member States and stakeholders on a detailed examination of the Waste Framework Directive and related legislation. One of the key aims of the review is to simplify waste legislation, one proposal is the integration of the Hazardous Waste Directive with the Waste Framework Directive. The UK Government has responded to the questionnaire, and the response is available on the Defra website<sup>11</sup>.

### **Consultation**

#### With Stakeholders

101. A 12 week public consultation was carried out from 3 August to 29 October 2004 on these specific proposals and copies of the consultation paper were sent to all key stakeholders including: local authorities; Environment Agency; industry representatives; businesses; public

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<sup>11</sup> <http://www.defra.gov.uk/environment/waste/thematicstrat/questionnaire-ukresponse.pdf>

organisations and Non Governmental Organisations (NGO's). A list of consultees is attached at Annex E. DEFRA also carried out a similar consultation between these dates.

102. A total of 43 written responses to the consultation were received from both public and private sector stakeholders and their comments were considered in the preparation of this final instrument. A summary of the consultation responses is attached at Annex F.

#### With Subject Committee

103. The Environment, Planning and Countryside Committee scrutinised these Regulations on the 2 February 2005 (Paper EPC(2)-01-05 (p.2) and recommended approval of the Regulations, without amendment.

#### **Summary and Recommendations**

104. This Regulatory Impact Assessment considers the costs to businesses of the Hazardous Waste (Wales) Regulations, and should be read in conjunction with the consultation paper *'Review of the Special Waste Regulations 1996 in Wales'*.

105. The RIA considers the impacts of implementation of the revised Hazardous Waste List for the purposes of the Hazardous Waste Directive, and changes to the administration of the control system for consignment of hazardous waste and the necessary changes to the charging structure.

#### **Recommendation**

106. In view of the benefits and costs assessed for each option and the risks associated it is recommended that the Make the Legislation option is the only option. This will have the following effect:

- Transposition and implementation of the revised Hazardous Waste List;
- Simplification of the administrative system
  - the requirement to pre-notify movements of hazardous waste will be removed;
  - movements of waste will be reported to the Environment Agency on a quarterly basis;
  - modified procedures for carrier rounds but with favourable charges for those consigning loads on multiple collections.
- Shift the regulatory focus onto compliance activities rather than administration – premises at which hazardous waste is produced will be notified to the Environment Agency on an annual basis facilitating inspection activities.

## Annex A

# Key Impacts of the Changes to the Hazardous Waste List in the UK

The updated European Waste Catalogue (2001/532/EC) now includes the revised Hazardous Waste List. A significant number of additional items are now formally classed as hazardous waste when discarded and must be consigned and disposed of accordingly. These will include *inter alia* refrigerators, end-of-life vehicles, personal computers and televisions, fluorescent lighting, contaminated soil and incinerator bottom ash. A full summary of the Hazardous Waste List can be found on the Commissions website<sup>12</sup>.

Expansion of the list of wastes means that almost all organisations or businesses will produce hazardous waste at one time or another and there will thus be a significant increase in the total number of consignments. It is difficult to predict with any certainty how these changes will effect UK consignment activity but estimates, from a recent study<sup>13</sup>, for the most significant changes are detailed below.

**Table 3** - Estimates of the additional number of consignments and sites producing hazardous waste following changes to the Hazardous Waste List

Hazardous waste	EWC code*	Estimated number of consignments per annum	Estimated number of sites producing
Refrigerants	14 06 01	60,000	25,000
End of life vehicles (ELVs)	16 01 04	300,000 - 400,000	10,000
Fridges / freezers (households)	16 02 11	31,500	477
Fridges / freezers (commercial/industrial)	16 02 11	30,000	30,000
Cathode ray tubes (CRTs) – personal computers	16 02 13	57,000	51,000
CRTs – televisions	16 02 13	52,000	3,500
Contaminated soils	17 05 03	20,000	1,200
Insulation materials	17 06 03	1,000	1,000
Bottom ash	19 01 11	25,000	25
Fluorescent tubes	20 01 21	60,000 – 250,000	40,000 – 100,000
<b>TOTAL</b>		<b>585,000 – 875,000</b>	<b>137,275 – 197,275</b>

<sup>12</sup> [http://europa.eu.int/eur-lex/pri/en/oj/dat/2001/l\\_0471/l\\_04720010216en00010031.pdf](http://europa.eu.int/eur-lex/pri/en/oj/dat/2001/l_0471/l_04720010216en00010031.pdf)

<sup>13</sup> Review of the Special Waste Regulations – Assessment of the expansion of the European Waste Catalogue, Envirospire, August 2001.

\* European Waste Catalogue code

The extension to the Hazardous Waste List could result in up to 200,000 additional sites producing hazardous waste and nearly a million more consignments. This would represent a doubling of current activity. The most significant changes in terms of likely numbers of producers and consignments are as follows:

## **Chapter 14 - Waste organic solvents, refrigerants and propellants**

### **14 06 01 chlorofluorocarbons, HCFC, HFC**

Waste refrigerants will be generated during the disposal or refurbishment of refrigeration equipment and air conditioning units etc. The main impact will occur on those companies that carry out maintenance work. Around 4,000 refrigeration-servicing companies maintain 300,000 systems in approximately 50,000 organisations. It is anticipated that 20% of the servicing operations (i.e. approximately 60,000) could generate small (around 1.5 Kg) quantities of hazardous waste. Approximately 9,500 businesses manufacture food products in England and Wales and are likely to require refrigeration, a further 1,500 store and distribute food products and more than 100,000 retail them. It is estimated that in any year, around 22,000 of these sites will generate waste supplemented by a further 3,000 in other sectors.

Each site generating waste would need to be notified to the Environment Agency (estimated that there will be an annual total of less than 70 tonnes of hazardous waste consigned per site). More significant tonnages will be generated by the same organisations discarding redundant equipment that contain these hazardous components under 16 02 11 – see below.

## **Chapter 16 - Waste not otherwise specified on the list**

### **16 01 04 - End of life vehicles**

End of life vehicles (ELVs) will need to be consigned as hazardous waste. This could generate an additional 200,000 to 300,000 consignments each year (assuming loads use combinations of five or ten vehicles at a time) and require the notification of around 6,500 sites from which vehicles may be consigned. There are around 3,500 dismantling facilities in the UK that would need to be notified to the Environment Agency as they will produce hazardous waste during the process of de-polluting vehicles.

In this scenario, the proposed Regulations will increase the number of consignments by between 300,000 and 400,000 loads annually and require the notification of approximately 10,000 sites.

### **16 02 11 - Discarded equipment containing chlorofluorocarbons, HCFC, HFC**



This entry will require the notification of all commercial and industrial premises disposing of refrigeration equipment and the notification of sites accepting waste domestic refrigerators, freezers and fridge freezers.

#### *Household Sources*

Around 2.5 million domestic fridges are disposed of in the UK each year. Most of these currently end up at one of the 477 local authority owned civic amenity sites. If these items are taken off-site in loads of 50 this would produce 30,000 consignments. There are a number of fridge treatment plants operating in the UK. Removal of waste gases from these sites could generate approximately another 1500 consignments.

#### *Commercial and Industrial Sources*

Freezers, refrigerators, cold stores and air conditioning units are widely dispersed across industrial sectors, including food preparation, distribution and retail, hotels, garages etc. The replacement period for this equipment is between five and ten years (15 years for air conditioning) implying that around 86,000 refrigerators, 24,000 freezers and 78,000 air conditioning units are scrapped each year. This arising would be produced from around 30,000 sites all of which would need to be notified. Assuming that replacement includes the removal of several units from a single site, the number of additional consignments between producer and scrap yard to be approximately one per site or 30,000 annually. The consignment of hazardous components from the scrap yard might involve a further 400 consignments.

#### **16 02 13 - Discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12**

Equipment containing cathode ray tubes (CRTs) will form a significant part of hazardous waste under this entry. All discarded computer monitors and televisions will be classified as hazardous waste and require a consignment note at the point at which they are discarded.

#### *Personal Computers*

Around 3.5 million personal computers were discarded in 1998, 75% of which from commercial sources. Almost all of the commercial waste arisings are handled by specialist companies that find alternative uses for the equipment, or crush it.

The personal computers in the household sector tend to be older and have genuinely reached the end of their useful lives. In some cases they have been stored for a lengthy period before disposal. This is expected to increase over the next ten to fifteen years before flat screen technologies (liquid crystal displays) enter the household waste stream and replace discarded CRTs.

For the purposes of this RIA it is estimated that all transactions would be consigned as hazardous waste and that all civic amenity (CA) site arisings would be consigned.

2,625,000 personal computers discarded from commercial premises in average loads of 50 will generate 52,500 consignments annually from perhaps 50,000 sites, as most disposals will occur as one off annual events.

A further 656,250 personal computers from CA sites will be consigned in loads of 150 to specialist contractors generating a further 4,375 consignments from the 477 CA sites. The estimates shown in the Table 3 recognise that these sites will be registered for the disposal of other wastes.

### *Televisions*

Plastics in televisions frequently contain brominated flame-retardants, cadmium pigments and labels or adhesives that make recycling almost impossible. Of the 2,095,000 televisions discarded annually 85% arise in the household market. The majority are eventually discarded at CA sites, very few being mixed in with general household waste.

The 1,780,750 televisions discarded from household sources will be consigned from CA sites in loads of 150 to specialist contractors thereby generating 11,900 consignments from 477 sites.

Most of the remaining 314,250 televisions from the commercial sector are likely to be sold or given to staff but assuming that at least 15% are discarded separately this will generate 40,000 consignments from 3,000 sites including locations such as betting shops, bars and financial institutions.

## **Chapter 17 - Construction and demolition wastes (including excavated soil from contaminated sites)**

Chapter 17 wastes are likely to generate significantly higher volumes of consignable wastes. At present, of the 72.5 million tonnes of construction and demolition wastes, just over 1 million tonnes are consigned, 90% to landfill.

### **17 05 03 Soil and stones containing dangerous substances**

Data on the level of contamination of soils removed for disposal is not available. Estimates of 500,000 tonnes have been tested with operators in the contaminated soils sector. Although highly uncertain, this change in the list might generate 20,000 loads from approximately 1200 individual sites.

### **17 06 03 Other insulation materials consisting of or containing dangerous substances**

Polyurethane foams containing CFCs and HCFCs are used in rigid building insulation foams and are currently not consigned. These materials were used in buildings from the early 1980's and are unlikely to generate significant

volumes of waste for several decades. They are most likely to arise during repair, extension or improvement to buildings. They will also arise at treatment centres for discarded fridges and freezers. We estimate that no more than 1,000 consignments from 1,000 sites will be produced each year. The cost of disposing of these materials from discarded fridges and freezers will present greater problems than the administrative cost of consignment.

## **Chapter 18 – Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)**

### **18 01 10 amalgam waste from dental care**

Amalgam waste is hazardous by virtue of mercury, and to a lesser extent other constituents such as silver and tin.

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## **Chapter 19 - Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use**

### **19 01 11 Bottom ash and slag containing dangerous substances**

Approximately 500,000 tonnes of bottom ash and slag are produced from waste management facilities, of which 8,500 tonnes were consigned in 2000. This is expected to produce an additional 25,000 consignments each year from approximately 25 sites. Power stations will also generate considerable quantities of bottom ash which will be covered by this entry and the related Chapter 10 entry.

## **Chapter 20 - Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions**

### **20 01 21 Fluorescent tubes and other mercury containing wastes**

In general use, lamps are replaced in small numbers and might be disposed of in the general waste where they would not be considered hazardous. Where end of life lamps are collected separately the arising can be in large numbers, ranging between a few hundred and several thousand at any one time. More than 60 million are discarded annually, 90% of which are from commercial and industrial sources. Certain companies employ contractors to replace lamps at intervals regardless of their condition; these waste arisings are generally sent to specialist contractors but are not consigned.

For the purposes of this study it has been assumed that around 20% of the lamps will be sent for recycling, a further 10% to crushers. These estimates are highly speculative. If 30% of the 60.75 million lamps were discarded in this way, we would expect the lamps to be collected and bulked up at transfer stations. Loads of 50 to 200 lamps would be bulked to 3500 for transit, each load generating a consignment. For larger loads the transfer station would

not be used. This level of activity would generate approximately 60,000 consignments from potentially 40,000 sites. However, since almost all organisations use fluorescent lamps, it is possible that a far larger number of organisations will consign their lamps and the upper range of estimates is 250,000 consignments annually from 100,000 sites.

**Annex B - Summary of regulatory costs across the options per producer for single load consignments based on different application methods**

Method of application	Option 1		Option 2		Option 3		Option 4	
	Movement	Proposed cost (£)	Site £18 Movement £7	Site £18 Movement £14	Site £18 Movement £15	Site £18 Movement £22	Site £18 Movement £10	Site £18 Movement £19
Applicable charge	16.35							
No. of waste movements/year								
1	16.35	25.00	25.00	32.00	33.00	40.00	28.00	37.00
2	32.70	<b>32.00</b>	46.00	46.00	48.00	62.00	38.00	56.00
3	49.05	<b>39.00</b>	60.00	60.00	63.00	84.00	<b>48.00</b>	75.00
4	65.40	<b>46.00</b>	74.00	74.00	78.00	106.00	<b>58.00</b>	94.00
5	81.75	<b>53.00</b>	88.00	88.00	93.00	128.00	<b>68.00</b>	113.00
6	98.10	<b>60.00</b>	102.00	102.00	108.00	150.00	<b>78.00</b>	132.00
7	114.45	<b>67.00</b>	116.00	116.00	123.00	172.00	<b>88.00</b>	151.00
8	130.80	<b>74.00</b>	<b>130.00</b>	<b>130.00</b>	138.00	194.00	<b>98.00</b>	170.00
9	147.15	<b>81.00</b>	<b>144.00</b>	<b>144.00</b>	153.00	216.00	<b>108.00</b>	189.00
10	163.50	<b>88.00</b>	<b>158.00</b>	<b>158.00</b>	168.00	238.00	<b>118.00</b>	208.00
11	179.85	<b>95.00</b>	<b>172.00</b>	<b>172.00</b>	183.00	260.00	<b>128.00</b>	227.00
12	196.20	<b>102.00</b>	<b>186.00</b>	<b>186.00</b>	198.00	282.00	<b>138.00</b>	246.00
24	392.40	<b>186.00</b>	<b>354.00</b>	<b>354.00</b>	<b>378.00</b>	546.00	<b>258.00</b>	474.00
36	588.86	<b>270.00</b>	<b>522.00</b>	<b>522.00</b>	<b>558.00</b>	810.00	<b>378.00</b>	702.00
52	850.20	<b>382.00</b>	<b>746.00</b>	<b>746.00</b>	<b>798.00</b>	1162.00	<b>538.00</b>	1006.00

**Note:**

- some small firms may be liable for an exemption from the site notification requirement, and hence will not need to pay the £18
- The waste movement fee is charged, by the Environment Agency, to the consignee on the basis of the quarterly reports which must be submitted. However, for the purposes of the RIA it is presumed that this charge will be passed on to the hazardous waste producer as part of any waste management service.

- figures in bold represent where costs are less than those under Special Waste regime (which are effectively reflected in option 1)

**Annex C - Summary of regulatory costs across the options per producer for consignments on multiple collections based on different application methods**

<i>Method of application</i>	<b>Option 1</b>		<b>Option 2</b>		<b>Option 3</b>		<b>Option 4</b>	
	<i>Movement £16.35</i>	<i>Site £18 Movement £7</i>	<i>Site £18 Movement £14</i>	<i>Site £18 Movement £15</i>	<i>Site £18 Movement £15</i>	<i>Site £18 Movement £8</i>	<i>Site £18 Movement £5</i>	<i>Site £18 Movement £15</i>
<b>No. of waste movements/year</b>	<b>Proposed cost (£)*</b>	<b>Proposed cost (£)</b>	<b>Proposed cost (£)</b>	<b>Proposed cost (£)*</b>	<b>Proposed cost (£)*</b>	<b>Proposed cost (£)*</b>	<b>Proposed cost (£)</b>	<b>Proposed cost (£)</b>
1	2.73	25.00	32.00	5.50	5.50	6.66	23.00	33.00
2	5.45	32.00	46.00	8.00	8.00	10.33	28.00	48.00
3	8.18	39.00	60.00	10.50	10.50	14.00	33.00	63.00
4	10.90	46.00	74.00	13.00	13.00	17.67	38.00	78.00
5	13.63	53.00	88.00	15.50	15.50	21.33	43.00	93.00
6	16.35	60.00	102.00	18.00	18.00	25.00	48.00	108.00
7	19.08	67.00	116.00	20.50	20.50	28.67	53.00	123.00
8	21.80	74.00	130.00	23.00	23.00	32.33	58.00	138.00
9	24.53	81.00	144.00	25.50	25.50	36.00	63.00	153.00
10	27.25	88.00	158.00	28.00	28.00	39.67	68.00	168.00
11	29.98	95.00	172.00	30.50	30.50	43.33	73.00	183.00
12	32.70	102.00	186.00	33.00	33.00	47.00	78.00	198.00
24	65.40	186.00	354.00	63.00	63.00	91.00	138.00	378.00
36	98.10	270.00	522.00	93.00	93.00	135.00	198.00	558.00
52	141.70	382.00	746.00	133.00	133.00	193.67	278.00	788.00

**Note:**

- some small firms may be liable for an exemption from the site notification requirement, and hence will not need to pay the £18
- options 2 and 4 both include charges for individual loads on multiple collections, for option 2 there is a flat fee for all loads (whether single consignments or loads on a multiple collection), whereas option 4 has two tiers of charging including a lower charge for loads on multiple collections

- costs in options 1 and 2 are based on an average of six loads per multiple collection (based on data from carrier rounds)
- The waste movement fee is charged, by the Environment Agency, to the consignee on the basis of the quarterly reports which must be submitted. However, for the purposes of the RIA it is presumed that this charge will be passed on to the hazardous waste producer as part of any waste management service.



## Annex D

### Hazardous Waste Management Costs

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<b>Management method</b>	<b>Estimated range of costs<sup>14</sup> (£/tonne - unless stated otherwise)</b>
<b>Landfill</b>	
- Solids and sludges	>£50
- Contaminated land	>£50
- Bonded asbestos	£150
<b>Treatment</b>	
- Solvent recovery (clear acetone)	£12 - £25 per drum
- Physico-chemical (liquid)	£20 – £60
- Stabilisation	£30 – £50 per cubic metre
<b>High temperature incineration</b>	
- Solids	£300 – £800
- Liquids	£0 – £250
<b>Co-incineration</b>	
- Substitute liquid fuels (SLF)	£0 - £50

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<sup>14</sup> From industry sources, March 2005

## **Annex E - List of Consultees**

3 RE Group  
A&B Oil  
Abzorboil  
Access to Capital Wales  
ADAS Environment  
*ADAS Pwllpeiran*  
ADAS Wales  
AEA Technology Environment  
*Aerospace Wales Forum*  
Agricultural Engineers Association  
Air Conditioning and Refrigeration Industry Board  
Air Products Plc  
AKZO Nobel Chemicals  
AKZO Nobel decorative Coverings  
Alchemia Ltd  
All Metal Processing Company  
*All Wales Ethnic Minority Association (AWEMA)*  
Alpha Fry Limited  
Aluminium Federation Ltd  
Amerada Hess  
Amersham International plc  
Amey Plc  
AMG Resources Ltd  
AMT Services  
Andrew Bryce & Co  
Anglia Oils Ltd  
Anglowide Industries Limited  
ARCA  
Arch Timber Protection  
Arena Network  
Arup Environmental  
Asbestos Control & Abatement Division  
Asbestos Removal Contractors Association  
Ashurst Morris Crisp  
Aspinwall & Co Limited  
Association of British Chambers of Commerce  
Association of British Commerce  
Association of British Health-Care Industries  
Association of British Pharmaceutical Industries  
Association of Directors and River Inspectors of Scotland  
Association of Drum Manufacturers  
Association of Electrical Machinery Trades  
Association of Independent Electricity Producers  
Association of London Cleansing Officers  
Association of Manufacturers of Domestic Appliances (AMDEA)  
*Association of National Park Authorities*  
Association of Private Pet Cemeteries and Crematoria  
AstraZeneca Ltd  
Baker & McKenzie  
Balcan Engineering Ltd  
Barkonsult  
BBH Power Solutions  
BEAMA Capacitor Manufacturers Association  
Bechtel Ltd  
Bennetts Retail  
Berwin, Leighton Paisler

BG Consultants  
Biffa Waste Services Ltd  
Biowis e  
Birnic Electrical Systems Ltd  
Bitmac Ltd  
Blagden Packaging  
Blake Laphorn Solicitors  
Blue Circle Incineration Ltd  
Boverie Leiton Paigner  
Bowman Process Technology Ltd  
BP International Ltd  
Brecon Beacons National Park  
Bridgewater Paper Company Ltd  
Britannia Refined Metals Ltd  
Britannia Zinc Ltd  
British Adhesive and Sealants Association  
British Aerosol Manufactures Association  
British Aggregate Construction  
British Agrochemicals Association  
British Apparel and Textile Confederation  
British Association for Chemical Specialities  
British Battery Manufacturers Association  
British Biogen  
British Cement Association  
British Ceramic Confederation  
British Chambers of Commerce  
British Chemical Distributors and Traders Association  
British Chrome & Chemicals  
British Coatings Federation Ltd  
British Colour Makers Association  
British Constructional Steelworks Association  
British Dental Association  
British Dental Association (Wales)  
British Electrical Repairs Limited  
British Federation of Printing  
British Foundries Association  
British Furniture Manufacturers  
British Gas  
British Glass Manufacturers Association  
British Imaging and Photographic Association  
British Independent Steel Producers Association  
British Leather Confederation  
British Lubricants Federation Ltd  
British Medical Association  
British Metal Finishing Association  
British Metals Federation  
British Non-Ferrous Metals Federation  
British Nuclear Fuels Plc  
British Oat & Barley Millers'  
British Paper & Board Industry Federation  
British Pest Control Association  
British Photographic Association  
British Plastics Federation  
British Ports Association  
British Printing Industries Federation  
British Rail  
British Rail Research Scientific Services  
British Recovered Paper Association  
British Refrigeration Association  
British Retail Consortium

British Rigid Urethane Foam Manufacturers  
British Rubber Manufacturers Association  
British Safety Council  
British Scrap Federation  
British Secondary Metals Association  
British Soft Drinks Association Ltd  
British Steel plc  
British Sugar Plc  
British Textile By-Products Association  
British Textile Machinery Association  
British Urethane Foam Contacts Assoc Ltd  
British Vehicle Salvage Federation  
British Veterinary Association  
British Waterways  
British Wood Preserving & Damp-proof Association  
British Wood Preserving Society  
Brocks Haulage Ltd  
Brooklyn Court Dental Practice  
Brown & Root Environmental  
Brunel University  
BT Exact Technologies  
BTP Storage Ltd  
Building Employers Confederation  
Building Research Establishment  
Business Development Manager  
Butterworths  
BWPA  
Bywaters Ltd  
C J Pearce & Co.  
Cadmium Association  
Calder Industrial Materials  
Calnay  
Cameron McKenna  
Cameron McKenna  
Campaign for the Protection of Rural Wales  
Cardiff County Council  
Cardiff University  
Cardiff waste forum  
Cardiff Wood-Waste Recycling  
Carless Refining and Marketing Ltd  
Castle Cement Ltd  
Catomance Ltd  
CBI Wales  
CECA (Wales) Ltd  
Cedric Information Systems  
Cemetery Medical Disposal Services Association  
Centre for Alternative Technology  
Centre for Research into Environment and Health  
Chairman: PSNC  
Chartered Institute for Environmental Health  
Chemical & Oil Storage Management Ltd  
Chemical and Oil Recycling Association  
Chemical Industries Association  
Chemical Recoveries  
Chemox International Plc  
ChemRegs Consultancy Services  
Chester, Ellesmere Port & North Wales Chamber of Commerce  
Chris Cutchey Ltd  
CJH Consult Associates  
Cleanaway Ltd

Cleveland County Council  
Clinical Support Services  
CMR  
Codling Associates  
Cogent Defence Systems  
Cold Storage & Distribution Federation  
Combined Heat and Power Association  
Combustion Engineering Association  
Commission for Racial Equality Wales Office  
Communities Against Toxics  
Composting Association  
Confederation of British Industry  
Construction Federation  
Construction Industry Research and Information Association  
Cookson Industrial Materials  
Corus  
Cory Environmental limited  
Cory Environmental Municipal Services Ltd  
Country Land & Business Association  
Country Landowners  
Countryside Council for Wales  
County and County Borough Councils in Wales  
County Council Waste Management  
Coutaulds Textiles  
Cranfield University  
Creage UK  
Croda Solvents Ltd  
Croner Publication Ltd  
Crop Protection Association  
Cumbria County Council  
Cuprinol Ltd  
D A Stuart Oil Co Limited  
Dartex Coatings  
David Davies Associates  
Davies Bros Ltd  
Degussa Limited  
Denton Hall  
Department of the Environment and Local Government  
Dept of Health  
Devon County Council  
Disability Rights Commission  
Distillex Ltd  
District Audit  
DNV Technica Ltd  
Dockgrange Ltd  
Dotara Recycling Ltd  
DTI  
Duracel Batteries Ltd  
Duval of Romsey Ltd  
E A Technology  
Earthrite  
EASI BIND International Ltd  
EB Nationwide Ltd  
ECOTEC  
ECT Recycling Ltd  
Edelchemie (UK) Ltd  
Electricity Association  
Electronic Components Industry Federation  
Elementis Chromium  
Ellis & Everard

Energy and Environment Group  
Energy-from-Waste Association  
Engineering Employers Association  
Entec UK Ltd  
Entrust  
Enviro Consulting  
Envirogreen Ltd  
Environment Agency Wales  
Environment Council  
Environmental Industries Commission Ltd  
Environmental Planning Consultant  
Environmental Resources Management  
Environmental Services Association  
Enviros  
Enviros  
Envirosaspinwall  
Equal Opportunities Commission  
ERM Strategy and Economics  
Eunomia Consulting  
Eurisol  
Euro Exide Corporation Ltd  
Euromet  
EUROMETREC & EFR  
Euronet  
European Portable Tank Association  
European Resin Manufacturers Association  
European Thermo Technology Ltd  
Eurotech Environment Ltd  
Eurotrade Consulting Ltd  
F. Murphy Alloys Ltd  
Farmers Union of Wales  
Federation of Civil Engineering Contractors  
Federation of Communication Services  
Federation of Drum Reconditioners  
Federation of Master Builders  
Federation of Small Businesses  
Federation of small Businesses  
Federation of Small Businesses  
Felixstowe Tank Developments Ltd  
Fibro power Ltd  
Fieldside  
Food and Drink Federation  
Food Standard Agency  
Forum of Private Business  
Foster Yeoman Ltd.  
FRCA  
FRCA  
Freight Transport Association  
FRICS  
Friends of the Earth  
Friends of the Earth Cymru  
Fritz Bender Metals (UK) Ltd  
Fujitsu  
G&P Batteries Ltd  
Galvanizers Association  
Garage Equipment Association  
GATX Terminals Ltd  
GEC  
GEHE UK Ltd  
General Council of British Shipping

Geo-Plans Consultants Ltd  
Global Protection Services  
Gloucestershire County Council  
Golder Associates (UK) Ltd  
Golder Associates (UK) Ltd  
GPU Power Distribution  
Great Marsh Ltd  
Greater Manchester Waste Regulation Authority  
Green Alliance  
Green Waste Recycling Ltd  
Greenpeace UK  
Greenway Orcol Ltd  
GRJB & Associates  
Grosvenor Power Services Ltd  
Groundwork - Salford and Trafford  
Groundwork Caerphilly  
Groundwork Cymru  
Groundwork Wales  
Gwent Healthcare NHS Trust  
H A Masons (Metals) Ltd  
H J Enthoven Limited  
H M Prison Service  
Hales Waste Control Ltd  
Hammond Suddards Edge  
Hanson Plc  
Harp International Ltd  
Hays Distillation Ltd  
HDRA  
Health & Safety Executive  
Health Promotion Library  
Heathrow Airport Ltd  
Hemings Waste Management Ltd  
Henkel - Ecolab Ltd  
Hexcel Composites Ltd  
Hickson Timber Products Ltd  
Homelux Nenplas  
Horticulture Research International  
House Builders Association  
ICI  
IF-TEC  
IGES  
INCO Europe Ltd  
INCPEN  
Independent Garage Association  
Independent Waste Paper Processors Association  
INEOS Fluor Ltd  
Innotech International  
Institute for European Environmental Policy  
Institute of Biological Sciences  
Institute of British Foundrymen  
Institute of Directors  
Institute of Directors  
Institute of Geography and Earth Sciences  
Institute of Grassland and Environmental Research  
Institute of Metal Finishing  
Institute of Packaging  
Institute of Petroleum  
Institute of Quarry Managers  
Institute of Waste Management  
Institution of Chemical Engineers

Institution of Electrical Engineers  
Integrated Skills Ltd  
Intercote Industrial Paint  
International Technology Traders Ltd  
Intervention Board  
IoD Policy Unit  
Isle College  
Jamont UK Ltd  
JBR Recovery Ltd  
Johnson Cleaners UK Ltd.  
Johnson Matthey  
Juniper Consultancy Services Ltd  
KD Offshore (Southampton) Ltd  
Knowaste UK  
Kodak Ltd  
L P Gas Association  
L W S Waste Services  
Landbridge Shipping Ltd  
Lattice Group  
LAWDC Association  
Lea Royal (UK) plc  
Lead Development Association  
Lechyd Morgannwg Health  
Leicestershire County Council  
Leigh Environmental  
Letsrecycle  
Licensed Animal Slaughterers & Salvage Association  
Light Metal Founders Association  
Lighting Industry Federation Ltd  
Link Waste Ltd  
Lloyds Register  
Local Authority Recycling Advisory Committee  
Local Government Association  
Loddon Holdings Ltd  
London Assembly Environment Committee  
London Chamber of Commerce & Industry  
London Transport Distribution Services  
London Waste Regulation Authority  
Londonwaste Ltd  
Lovell, White Darrant  
LP Gas Association  
Ludgate Consultancy & Training  
LWRA  
M.E.L Research  
Marcus Hodges Environment Ltd  
Master Tanners Association  
Materials Recycling Weekly  
Mayer Parry Recycling Ltd  
McKenna & Company Environmental Law Group  
Mercury Recycling Ltd  
Merseyside Waste Regulation Authority  
Micanite & Insulators Co Ltd  
Microgen UK Ltd  
Mid Wales Partnership  
MJ Carter Associates  
Mobile Takeback UK  
Montagne Jeunesse  
Motor Vehicle Dismantlers Association of Great Britain  
Motor Vehicle Repairers Association  
Motorola Ltd



Ms C Reed - Packaging News  
National Association of Shopfitters  
National Association of Waste Disposal Contractors  
National Association of Waste Disposal Officers  
National Blood Service  
National Care Standards Commission  
National Chamber of Trade  
National Consumer Council  
National Council of Citizens Advice Bureaux  
National Farmers' Union  
National Federation of Consumer Groups  
National Federation of Demolition Contractors  
National Federation of Private Pet Crematoria  
National Grid Co Plc  
National Grid Safety Branch  
National Power PLC  
Natwest  
NAWDO  
Neston Tank Cleaners  
New Opportunities Fund  
NFU Cymru  
NHS Purchasing & Supply Agency  
North Wales Dental Committee  
North Wales Economic Forum  
North Wales Pollution Group  
Northern Ireland Environment & Heritage  
Northern Rock  
Northumberland County Council  
Norwich Union  
Nuclear Electric plc  
NuLife Glass  
NWA  
Nycomed Amersham plc  
OIKAS Storage Ltd  
Oil Recovery Association  
Onyx Environmental Group Plc  
Open University  
Organic Resource Agency Ltd  
ORRTEC  
Orthene Chemicals Ltd  
OSS Group Ltd.  
Owens Corning Fiberglas (GB) Ltd  
Packaging and Industrial Films Association (PIFA)  
Paint Research Association  
Paintmakers Association  
Pannone & Partners  
Paper Federation of Great Britain  
Pet Food Manufacturers' Association  
Peter King & Associates  
PFC Engineering Ltd  
Pharma Waste Ltd  
Pharmaceutical General Council (Scotland)  
Phoenix County Metals Ltd  
Photographic Waste Management Association  
Pira International  
PJ Associates  
Plaid Cymru  
Powell Duffryn Terminals Ltd  
Powerday PLC  
Powergen

Precious Metal Industries Group Ltd  
Princess Royal Hospital  
Professor Chris Coggins  
Proprietary Assoc of Gt Britain  
Protim Solignum Ltd  
Protim Solignum Osmose  
Public Interest Consultants  
Puri-Dent UK  
Quality Control & Industrial  
Quarry Products Association  
RAC Motoring Services  
RDC  
Rechem International Ltd  
Reclamation Association  
Recycling & Waste Management  
Recycling and Resource Management Ltd  
Refined Bitumen Association  
Renewable Energy  
Rentokil Environment Services  
REPAK  
Research Council  
Resource International Ltd  
Rethmann U.K. Ltd  
Richard Phillips Engineering  
RICS Wales  
Ring Containers Ltd.  
Road Haulage Association Ltd  
Royal Borough of Kingston upon Thames  
Royal Commission on Environmental Pollution  
Royal Mail Legal Environment Group  
Royal Pharmaceutical Society of Great Britain  
Royal Society of Chemistry  
RSPB  
Rural Design and Building Association  
S Grndon Waste Ltd  
S3 Environment Solutions  
Safety Kleen UK Ltd  
Safety Micron Systems UK Ltd  
Safeway Stores plc  
Sand and Gravel Association Ltd  
Sanitary & Medical Disposal Services Association  
Sara Lee Courtaulds  
Save Waste & Prosper  
Schlumberger Dowell  
Scottish Executive  
Seals Sands Storage Ltd  
Seed Crushers' & Oil Processors' Oil Association  
SEPA  
Severn Trent Plc  
Sevenside  
Shanks  
Shanks & McEwan Group Plc  
Sharps Recycle Oil  
Shellfish Association of Great Britain  
Shindler & Co  
SIENA  
Silver Lining Industries Ltd  
Simmons & Simmons  
SITA Holding U.K. Ltd  
SLR Consulting Ltd

Small Businesses  
Smith Kline Beecham  
Society of British Gas Industries  
Society of Motor Manufacturers and Traders Limited  
Society of the British Battery Industry (SOBAT)  
Solvents Industry Association  
South East Wales Economic Forum  
South Wales Chamber of Commerce & Industry  
South West Wales Economic Forum  
South Western Tar Distilleries Ltd  
Southwark Borough Council  
Specialised Organic Chemical Sector Assoc  
Spirechem North West Ltd  
SRM Ltd  
St Bartholomew's Hospital  
Strategem Ltd  
Sustainable Wales  
Sustainable Wales  
SWAG  
SWAP  
Team 4  
Tees Storage Company Ltd  
Textile Services Association Ltd  
Thames Water  
The Asbestos Information Centre Ltd  
The Assoc of the British Pharmaceutical Ind  
The Biognosis Society  
The Bird Group of Companies Ltd  
The BOC Group  
The Boots Company Plc  
The British Chemical Distributors & Trade Association  
The Can Makers  
The Chartered Institute of Environmental Health  
The Chartered Institute of Water and Environmental Management  
The China Clay Association  
The Composting Association  
The Cosmetic, Toiletry and Perfumery Association  
The Coventry and Solihull Waste Disposal Company Ltd  
The Environment Council  
The Environment Industries Commission  
The Forum on Contaminated Land (FOCIL)  
The Gaymer Group Ltd  
The Halon Users National Consortium Limited  
The Independent Tank Storage Association  
The Industry Council for Packaging and the Environment  
The Institution of Civil Engineers  
The Law Society  
The Maltsters Association of G.B  
The Manse  
The National Alliance for Cleaner Kilns  
The National Federation of Self Employed & Small Businesses  
The National Pharmaceutical Association  
The NHS Confederation  
The Packaging Federation  
The Pet Food Manufacturers' Association  
The Plastics and Rubber Institute  
The Recycling Centre  
The Royal Town Planning Institute  
The U K Renderers Association Ltd  
The UK Major Ports Group Ltd

The Water Companies Association  
Torfaen CBC  
Tower Colliery Ltd  
TRADA Technology Ltd  
Transco  
Transformers Section Leader  
Triton Transformer Services Ltd  
Tyne and Wear Waste Unit  
UK Cleaning Products Industry Association  
UK Environmental Law Association  
UK Offshore Operators Association Ltd  
UK Petroleum Industry Association  
UK Renderers Association  
UK Steel Association  
UK Waste Management Ltd  
Union of Independent Companies  
United Kingdom Agricultural Supply Trade Association  
United Kingdom Environmental Law Association  
United Kingdom Nirex Limited  
United Kingdom Recycling Council  
United Molasses  
University Hospital Wales  
University of Central Lancashire  
University of Newcastle  
University of Wales  
University of Wales Bangor  
University of Wales College of Cardiff  
UWCM  
Valpak Ltd  
Van Omeran Tank Terminals London BV Ltd  
Veale Wasbrough  
Viridor Waste Management Ltd  
VitalEarth Systems Ltd  
Voluntary Sector Assembly Centre  
W.S Atkins Environment Ltd  
Wales Automotive Forum  
Wales Chamber of Commerce  
Wales Co-operative Centre Ltd  
Wales Environmental Services Association  
Wales Environmental Services Association  
Wales Social Partners Unit Ltd  
Wales TUC Cymru  
Wales Women's National Coalition  
WAMITAB  
Warmer Bulletin  
Warmer Bulletin  
Waste & Resources Action Programme  
Waste Advisory Services (Scotland) Ltd  
Waste Management International Plc  
Waste Processing Association  
Waste Recycling Group plc  
Waste Watch  
Wastecare (GB) Ltd  
WasteLink  
Water Services Association of England and Wales  
Water Services NI  
Water UK  
Welsh Conservative Party  
Welsh Development Agency  
Welsh Electronics Forum

Welsh Institute of Rural Studies  
Welsh Labour Party  
Welsh Liberal Democrats  
Welsh Local Government Association  
Welsh School of Pharmacy  
WESA  
Wessex Water  
West Midlands Waste Unit  
West Yorkshire Waste Management  
White Horse Garage  
White Rose Environmental Ltd  
Wilkinson International  
William Battle Associates  
Willow Haven  
WINTO  
Wood Panel Industries Federation  
Wood Recyclers Association  
WRAP  
WRc plc  
Wyvern Resources Ltd  
Zeneca Ltd  
Zinc Pigment Development Association

**Annex F- Hazardous Waste Regulations Summary of Responses**

<b>Consultation Response</b>	<b>Consultees raising point</b>
<p>Oppose inclusion of POMs as hazardous waste. Remove term 'other medicines' from List of Waste Regs.                      Will affect development of 'take-back' schemes.                      2.3(l) in consultation.                      See inclusion of many harmless wastes as unnecessary.                      If POMs are listed as hazardous waste then would like threshold criteria for contamination by medicines on packaging and needles.                      POMs are not added in Scotland, therefore will cause cross border issues.</p>	<p>Community Pharmacy Wales, Rentokil, Cliniserve, Polkacrest, Biffa, HSE, Law Society, Sterile Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS, Frontier Medical Products, Welsh Health Estates, Health and Safety Executive, Brecon Beacons National Park Authority,</p>
<p>Should also exemptions for low levels of veterinary medicines or no expansion of the EWC which would discourage veterinary take back schemes. Ch 3 Para 3.5                      Para 5 could cause problems to individual farms in terms of storage and disposal requirements                      Para G Small businesses (such as farms) should not be expected to pay disproportionate costs for notification and registration. Farms should also not be responsible for fly-tipped waste on their land.</p>	<p>Farmers Union of Wales</p>
<p>POMs should be hazardous waste</p>	<p>Llandough Hospital, Shanks Group PLC, CPRW</p>
<p>POMs should be included in the Regulations if they exhibit hazardous properties and are not covered by the cytostatic or cytotoxic definitions</p>	<p>CORUS, Environment Agency</p>
<p>Exemption criteria are not wide enough to relieve hospitals and healthcare premises from the need to notify.</p>	<p>Health and Safety Executive</p>
<p>Exemptions for warden/care home facilities – should have waste classed as domestic waste</p>	<p>Community Pharmacy Wales</p>
<p>2.3(a) Refinement to thresholds for producer registration to exclude small producers with 4 collections per annum. Risk that producers will store waste for longer to escape notification.</p>	<p>Rentokil, Cliniserve, Polkacrest, Sterile Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS, Frontier Medical Products,</p>
<p>Updated Register of producers on the Environment Agency website.</p>	<p>Rentokil, Cliniserve, Polkacrest, Sterile Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS, Frontier Medical Products,</p>
<p>2.3 c If this information has to be provided then suggest annual draft as an alternative.</p>	<p>Rentokil, Cliniserve, Polkacrest, Sterile Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS, Frontier Medical Products,</p>
<p>2.3(g) Need further clarification on the term</p>	<p>Rentokil, Cliniserve, Polkacrest, Sterile</p>

<p>'mixing'.</p> <p>Don't want extension on ban of mixing identical wastes from different sources – oppose restricting consignments of hazardous waste to a single EWC code as this will increase costs and number of journeys and prevent collection of same waste from different process origin. Reg 42 1a.</p> <p>Also small quantities of waste that are separately packaged but transported together Regs 17(2) and 21/22.</p>	<p>Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS, Frontier Medical Products, Eurisol UK Ltd, Biffa,</p>
<p>Pg 16 5.1 Further to above point on mixing. Blanket ban is unworkable and should not be based on a single EWC code.</p>	<p>CORUS, British Coating Federation, Llandough Hospital, Campaign for the Protection of Rural Wales,</p>
<p>2.3(g) Mixing – Hazardous Waste spillage contained with absorbents would as Regs stand constitute an intentional mixing of waste. Regs need re-phrasing to allow for this containment.</p>	<p>Biffa</p>
<p>Reg 6 incorrectly refers to Reg 10, which is not there.</p>	<p>Rentokil, Cliniserve, Polkacrest, Sterile Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS, Frontier Medical Products, Eurisol UK Ltd,</p>
<p>Exemption for sorting medicines if pharmacies are asked to do it.</p>	<p>Community Pharmacy Wales</p>
<p>Segregation of needlesticks is impractical and may lead to injury of staff</p>	<p>Health and Safety Executive</p>
<p>Reg 21 Would be very costly to industry</p>	<p>Rentokil, Cliniserve, Polkacrest, Sterile Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS, Frontier Medical Products, Eurisol UK Ltd,</p>
<p>Reg 27 A single method would be adequate. The EA should provide information on their website in a searchable format.</p>	<p>Rentokil, Cliniserve, Polkacrest, Sterile Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS, Frontier Medical Products, Eurisol UK Ltd,</p>
<p>Reg 29 – Need to prescribe what 'reasonably require' means in terms of information and format.</p>	<p>Rentokil, Cliniserve, Polkacrest, Sterile Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS, Frontier Medical Products, Eurisol UK Ltd,</p>
<p>Reg 36 Want alignment extended in the case of infectious substances to provide clarification of definition by use of the same definition employed in the ADRs.</p>	<p>Rentokil, Cliniserve, Polkacrest, Sterile Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS, Frontier Medical Products, Eurisol UK Ltd,</p>
<p>Reg 53 3d This is unworkable as it is impractical to state the location in many cases as it varies on site.</p>	<p>Rentokil, Cliniserve, Polkacrest, Sterile Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS,</p>

	Frontier Medical Products, Eurisol UK Ltd,
Reg 58 Format and form of returns needs to be specified.	Rentokil, Cliniserve, Polkacrest, Sterile Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS, Frontier Medical Products, Eurisol UK Ltd,
Reg 59 30 days is too short a period of time. This needs to be annually or quarterly.	Rentokil, Cliniserve, Polkacrest, Sterile Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS, Frontier Medical Products, Eurisol UK Ltd,
Reg 76 Needs clarification i.e. powers of appeal, prosecuting body etc	Rentokil, Cliniserve, Polkacrest, Sterile Technologies Group, General Healthcare Group, Hygieco, Sanitary Medical Disposal Services Association, Cathedral Hygiene Services, Griffiths and Nielsen Ltd, PHS, Frontier Medical Products, Eurisol UK Ltd,
Pg17 Notification of Premises - should allow one centralised company registration for all of a companies sites and in the case of road and rail works.	CORUS, Royal Mail Group, Road Haulage Association
Does the duty to notify extend to demolition and renovation sites? The company working on such sites will produce asbestos regularly from different premises.	Health and Safety Executive
1.7(a) should utilise procedure laid out in A1(4) of Directive 91/689/EEC which allows Member States to seek amendments to the EWC – should be a new entry for cytostatic and cytotoxic medicines which contain dangerous substances and appropriate mirror entry to code 180206. This would bring consistency between England, Wales, Scotland and NI.	Biffa
1.7(h) The EA cannot exercise any pro-active control. They will only become aware of waste deposits when the disposal facility completes its quarterly return.	Biffa
1.7 (l) Is there a de-minimis volume for which records are required?	Biffa
1.7 (n) The fee should be levied directly at the producer. The consignee should not have to sub fee for submission of returns.	Biffa
2.2 3 <sup>rd</sup> indent – The EA do not have the legal power to require the reduction in the production of hazardous waste.  4 <sup>th</sup> indent – These proposals do not reduce the administrative burden on the Waste Management industry.	Biffa
2.3 (a) Producer Registration does nothing to reduce Hazardous waste production.	Biffa
2.3© This procedure will still result in the consignee incurring greater costs.	Biffa
2.3 (j) The carrier who collects the waste from the unregistered producer is not punishable by a fixed penalty. It is inequitable that the carrier should face greater punishment.	Biffa



6.3-6.6 Will hazardous waste producer's details be available on a public register? Need clarification of the system by which collections can be determined if the producer is exempt from registration with the EA.	Biffa
7.2 It is unclear how the carrier and consignee can verify if the producer is exempt from registration and has paid the registration fee or not. The consultation is in breach of the Cabinet Code of Practice on Consultations on this point.	Biffa
7.7/7.8 7 days may prove insufficient if the waste cannot be returned to the producer.	Biffa
7.9/7.10 Extra revenue should allow for significantly reduced individual consignment charge. Draft schedule 6 is badly drafted.	Biffa
7.13/7.14 Must be able to return waste to the consignor. The proposals are at odds with the Duty of Care, Polluter Pays Principle and Producer Responsibility. The holder will bear significant extra cost as things stand.	Biffa, CORUS, British Coating Federation Ltd.
8.6 Don't see how this will lift the burden on the waste management industry. Most of the proposals will increase the burden and the cost is unlikely to be absorbed by the waste management industry.	Biffa
8.9 Any returns should be made concurrent with the EA reporting period	Biffa
9.2 An OPRA system should be implemented for inspecting producers premises with the introduction of the new regulations.	Biffa
12.1/12.3 Projected/previous years costings should be included as justification for final charging scheme for premise notification, consignments and quarterly returns.	Biffa
13.3 1 Month for modification to Waste Management Licences is too short. It is also disproportionate to the 2 years allowed for exempt activities to apply for a WML. The period should be 12 months.	Biffa
1.6(m) Fixed penalties would be too easy for the EA to issue and are just a revenue-raising tool.	CORUS
2.3 (e) Disposal at site of production – simple systems should be allowed and rejected waste should be allowed to remain at production/disposal site because of the environmental risk.	CORUS
2.3 (m) 3 months lead in time is not sufficient	CORUS, Purident, British Coating Federation
6.3 Notification of Premises – 50kg is too low. 250 kg is more realistic. Should be no criteria for notification based on number of consignments, should just be based on hazardous waste produced.	CORUS
Pg 71 Schedule 1 Annex 1 – Need clarification of 'contaminated' in items 17 and 18 of Annex 1A – what level of contamination?	CORUS
Pt 1/Pt 4 Pgs 25, 36. 43-44 Want 'holder' to be amended to 'holder means the producer of the	Purident

waste to the person who is possession of it, which in the case of waste concealed in the fabric of a building is the owner of the building'. Relevant in the case of amalgam in the pipework of a building.	
Support ban on mixing where they pose a threat to environment or public health, or where ability to recover them is undermined.	Purident, Arch Timber Products, Brecon Beacons National Park Authority, Environment Agency
Support mixing in accordance with waste permit or a registered exemption. There is a need for exemptions to continue for low risk activities. These will need to be reviewed to ensure the criteria for the Hazardous Waste Directive are satisfied. Inclusion of these criteria in the Regulations and guidance will remove the need to modify licenses to give effect to those provisions and ensure mixing is in accordance with the Hazardous Waste Directive.	Environment Agency
5 Duty to separate mixed wastes. Does every dentist require a permit? Do they need one before they install amalgam separators?	Purident
6 Consignments and Charges. Multiple consignment charges will encourage dentists to mix wastes. Suggest a Dental Surgery Combined Consignment Note with a single charge	Purident
7 Consignment of Waste. Would like to add Reg: Containers with up to 1kg of disinfected amalgam waste from dental care may be consigned by post provided the container has been approved by Royal Mail. The consignor must complete and enclose a pre-printed consignment certificate ( and a copy retained)	Purident
Text Errors: <ul style="list-style-type: none"> <li>• Reg 6 © refers to Reg 10. This should refer to Reg 11</li> <li>• Reg 7 b refers to Reg 11. The reference should be to Reg 12</li> <li>• Reg 75 (1) and 76(1) refers to Reg 70, perhaps this should be 71</li> <li>• Reg 37 (3) Reference should be to Reg 45 not 44</li> <li>• Reg 33 (1) at the end of para (a) the word 'and' or 'or' is needed</li> <li>• Pt 4 Pg 43 Heading for Regs 21, 22, 23 should read ' Hazardous Waste – Mixing or separation'. If not amended then a separate heading should be inserted for Reg 23 reading 'Separate Hazardous Waste'.</li> </ul>	Purident
A proposed code of practice for the separation of amalgam waste should be included.	Purident
7.8 7 days is too long a period. How can producers be sure that waste is being stored correctly.	Llandough Hospital
Permitting Impacts	Environment Agency

<p>As the new Hazardous Waste Regulations will incorporate the revised Hazardous Waste List more substances will be classed as hazardous.</p> <p>Licensed and exempt facilities will need to be clear as to what types of these changes status wastes they are authorised to receive.</p> <p>The EA would like to pursue alternative legislative mechanisms that will minimise the burden on industry and the agency. It may be possible for transitional provisions to allow continued acceptance of changed status wastes without the need for individual licenses to be amended.</p>	
<p>Exempt Sites</p> <p>There are a number of exempt sites that will want to continue to take changes status waste. WEEE take back provisions are likely to increase the number of sites wishing to store white and brown goods that will classed as hazardous.</p> <p>The EA would therefore like exemptions to continue for low risk recovery activities involving hazardous waste. The EA would like the UK Government and Welsh Assembly to pursue this with the European Commission as a matter of urgency. There is a need for transitional exemption arrangements.</p>	Environment Agency
<p>Definition of Hazardous Waste</p> <p>The EA would like there to be a simple cross reference to the EU Hazardous Waste list and corresponding decisions as this would provide clarity and reduce the need for subsequent amendments.</p> <p>This is supported by the recent House of Lords decision (Defra vs Asda Stores Ltd 2003 UKHL71) and mirrors the EA guidelines (WM2) on the classification of hazardous waste.</p> <p>If it is deemed necessary to transpose the list into domestic legislation the EA would prefer the definition to be wholly contained in the List of Waste Regulation. Current proposals contain elements of the definition in both sets of regulations which may lead to difficulties in interpretation.</p>	Environment Agency
<p>Additional Requirements on the EA</p> <p>The EA is unable to accept a broad range of duties. The EA would prefer to see the power to issue a derogation replaced by a statutory defence to prosecution.</p>	Environment Agency

<p>Charging</p> <p>In the interim the EA welcomes the charges as laid out in the Regulations. In the future these charges should be set out in an EA charging scheme and subject to annual review in light of operational experience and to ensure full cost recovery.</p> <p>Changes to proposals post consultation may have an impact on the proposed charges i.e.</p> <p>Charge for notification of premises relies on the assumption that 100,000 premises will be registered in the 1<sup>st</sup> year. Changes to exemption criteria could affect this estimate.</p> <p>The two charging options given for consignee returns depend on assumptions for total numbers of consignments and the likely number of consignments per carrier round.</p> <p>The consultation refers to a lower charge for collections made as part of a multiple collection, and this option is not detailed in the RIA. If adapted the lower charge would need to be off-set by an increase in charges elsewhere as the EA's regulatory effort is not proportionate to the method of collection of the waste.</p>	<p>Environment Agency</p>
<p>Multiple Collections</p> <p>There is a need for each individual load and producer to be separately identifiable, but needs to be achieved without imposing an unnecessary burden on industry. The EA wishes to work with the Assembly on a more suitable provision.</p>	<p>Environment Agency</p>
<p>Rejected Loads</p> <p>Should be directed to a suitably permitted facility. Only when such a facility cannot be identified should the waste be returned to the producer. Obligation to redirect should fall to the producer alone.</p>	<p>Environment Agency</p>

