



Chartered Institute of  
Environmental  
Health

Sefydliad Siartredig  
Iechyd yr  
Amgylchedd

# Consultation on the introduction of restrictions on the landfilling of certain wastes

## Response to the Welsh Assembly Government

April 2010

# Sefydliad Siartredig Iechyd yr Amgylchedd

Fel **corff proffesiynol**, rydym yn gosod safonau ac yn achredu cyrsiau a chymwysterau ar gyfer addysg ein haelodau proffesiynol ac ymarferwyr iechyd yr amgylchedd eraill.

Fel **canolfan wybodaeth**, rydym yn darparu gwybodaeth, tystiolaeth a chynghor ar bolisiau i lywodraethau lleol a chenedlaethol, ymarferwyr iechyd yr amgylchedd ac iechyd y cyhoedd, diwydiant a rhanddeiliaid eraill. Rydym yn cyhoeddi llyfrau a chylchgronau, yn cynnal digwyddiadau addysgol ac yn comisiynu ymchwil.

Fel **corff dyfarnu**, rydym yn darparu cymwysterau, digwyddiadau a deunyddiau cefnogol i hyfforddwyr ac ymgeiswyr am bynciau sy'n berthnasol i iechyd, lles a diogelwch er mwyn datblygu arfer gorau a sgiliau yn y gweithle ar gyfer gwirfoddolwyr, gweithwyr, rheolwyr busnesau a pherchnogion busnesau.

Fel **mudiad ymgyrchu**, rydym yn gweithio i wthio iechyd yr amgylchedd yn uwch ar yr agenda cyhoeddus a hyrwyddo gwelliannau mewn polisi iechyd yr amgylchedd ac iechyd y cyhoedd.

Rydym yn **elusen gofrestredig** gyda dros 10,500 o aelodau ledled Cymru, Lloegr a Gogledd Iwerddon.

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As a **campaigning organisation**, we work to push environmental health further up the public agenda and to promote improvements in environmental and public health policy.

We are a **registered charity** with over 10,500 members across England, Wales and Northern Ireland.

**Dylid cyfeirio ymholiadau am yr ymateb hwn at:**

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The Chartered Institute of Environmental Health (CIEH) is pleased to be given the opportunity to comment in respect of this consultation.

CIEH supports the policy objective expressed in the consultation of imposing further restrictions on biodegradable and recyclable wastes to landfill in order to reduce greenhouse gas (GHG) emissions and increase resource efficiency.

### **New Policy Measures – Options**

In the view of the CIEH the suggested 'Do Nothing' option (para 1.3) is not tenable. It is clear that further action is required to reduce material going to landfill, both to reduce GHG and to maximise recycling and reuse of materials with economic value. Whilst levels of recycling with respect to some material, notably glass are good it has taken over 30 years to engrain recycling of glass as normal behaviour, and even then levels of recycling are not as high as they could be. It is unlikely that the necessary levels of recycling and reuse of recoverable materials will be achieved without further drivers.

In the view of the CIEH the preferred route will be a combination of the suggested options.

We endorse Option 3, producer responsibility of waste, covering both end of product life and also a responsibility to reduce packaging, use packaging that is capable of being recycled and labelling the type of material used with recycling instructions to ensure that the purchaser can recycle the packaging effectively.

The CIEH is of the view that a landfill ban *simpler*, as proposed by option 1(a) without further drivers such as a requirement to sort or pre-treat would not be successful. Whilst a ban would have the effect of preventing the specified materials being disposed of to landfill without further steps in place such a ban in isolation does not address how that waste should be treated and where disposal should ultimately take place if necessary. In the view of CIEH it is essential that guidance in the form of regulation should require sorting of waste to remove and recover such recyclable and reusable materials as can be identified followed by treatment to render the remaining waste inert before it is disposed of to landfill. It is inevitable that some waste will have to be disposed of by way of land filling, however where this is the case that waste should be rendered as inert as possible.

We do not consider that Option 2 Sorting and Pre-treatment is a feasible option when applied in isolation, since it does not address the final destination of the waste.

In the view of the CIEH the preferred options should be Option 3, a requirement on producers regarding the end of life disposal of products tied to a requirement to reduce packaging and to ensure that packaging used is capable of being recycled or reused, in association with a requirement to sort and pre-treat waste, Option 2 and an associated landfill ban Option 1(b). Waste segregation and treatment at source is a better alternative to sorting and treatment post-collection, and it is right in our view that producers of waste should have responsibilities in respect of its proper treatment. It is further the case that a requirement for producers to be responsible for the waste that they create may drive producers to treat less waste, to reuse waste and to seek alternative ways of disposing of waste rather than sending it via the municipal waste stream or through commercial waste collection companies to landfill.

We accept that this series of options this is the most complicated selection of options, however the CIEH is of the view that to achieve the maximum benefit from the proposed action it is necessary to identify and tackle waste from as many angles as possible.

The CIEH endorses the comment in 7.21 that where waste is not be disposed of by way of landfill the best rather than the next cheapest alternative disposal method should be used to maximise environmental benefit. It is important that reduction of environmental impact is the driver for appropriate waste disposal rather than financial imperatives.

### **Lead in Periods**

The CIEH recognises the need for lead in periods prior to the implementation of a ban on specific types of waste material being disposed of to landfill. We agree with the suggestion that good levels of recycling should have been established before such time as the ban is imposed and that lead in times should take account of currently recycling levels.

The lead in time will have to be calculated to ensure that adequate provision is made for alternative disposal of material before the ban commences, but it is important that the lead in period should not be unduly long, since the need to find or develop alternative methods of disposal will be a driver to developing solutions. It is also recognised that lead in times may be different across the devolved Assemblies. It is acknowledged that Wales has moved ahead in respect of recycling and reuse of food waste and that proportionately less of this waste is disposed of to landfill in Wales than in the other devolved areas. We are concerned however that steps should be taken to ensure that where there is a difference between lead in periods and particular types of waste are subject to a landfill ban in one devolved areas but not in the neighbouring area that a culture of waste tourism should not be allowed to develop with waste the subject of a landfill ban in one county is moved from country of origin to a neighbouring county where its disposal to landfill is not banned. Although there will come a point when all of the UK countries have landfill bans in place for specific materials until that point is reached there must be a presumption of disposal as close to source as possible.

### **Enforcement Regimes**

It is clear that any ban on introduction of particular waste types to landfill will have to be supported by a management regime. Although the regime is to enforce the ban it is not necessary that all of the methods used should be 'enforcement'. There will be a need to guidance to be produced identifying types of waste banned from landfill sites and further identifying appropriate methods for their disposal. The guidance will further have to be tailored to meet the needs of the groups to whom it is addressed, since a 'one size a fits all' form of guidance is unlikely to be sufficiently sophisticated. There will be a particular need for guidance where mixed waste is produced.

In the view of CIEH it is likely that additional regulation will be needed to take forward the proposed bans in an effective way. There will need to be a duty of care on waste producers and waste handlers as well as new offences of knowingly causing or permitting banned waste materials to be introduced to landfill sites. We point to our response to the Proposed Waste (Wales) Measure (March 2010) and specifically our comments in respect of the use of civil sanctions. We suggest that civil sanctions may an appropriate mechanism to use in addition to the introduction of criminal offences.

Although the consultation document points to data suggesting that incidents of fly tipping do not increase where particular materials are banned from landfill sites the CIEH raises this

issue of one that may need to be addressed. Clearing incidents of fly tipping and disposing of the material is a function of local authorities and one that is not self financing. CIEH has previously provided a response to the consultation on the Waste (Wales) Measure and make reference to our comments regarding Landfill and Site Waste Management Plans and the potential for increased incidents of fly tipping and specifically the need for local authorities and the Environment Agency, as the enforcement bodies to have sufficient resource to tackle and increase in the number of fly tipping incidents.

## **Chapter 6 – Candidate waste types**

### **Paper / card**

1. The CIEH considers that there is a case for a landfill ban in respect of paper and card. We recognise that the benefits of diverting paper and card from landfill are significant, and that the net benefits are high whether a ban is implemented alone or where it is accompanied by a requirement to sort. In order to maximise benefit the CIEH suggests that a requirement to sort would be essential, and that there may be some practical difficulties attached to that requirement, particularly where the paper/card is contaminated with other waste.
2. We note that there is considerable infrastructure in place at the present time for the collection and recycling of paper and card, and further there is significant public acceptance of the need to recycle these materials and a willingness to engage.
3. This is not an area in which CIEH has specific expertise, we therefore make no suggestions.
4. CIEH supports a ban on this waste type. We note that it is important to ensure that there are sufficient facilities to collect paper and card waste, since these materials, as well as wood, are readily combustible and evidence from the Republic of Ireland shows that where a sorting and ban regime is put in place that is over restrictive 'backyard bonfires' become a problem, where the environmental damage can be greater than the environmental impact of disposing of material to landfill.
5. Paper and card have been recycled for some considerable time, we do however note that some forms of paper and card cannot readily be recycled, specifically those which are plastic coated as they come into contact with food. We suggest that manufactures should be encouraged to find alternative ways of protecting food products from paper/card other than the use of non recyclable plastic film, in order that a higher percentage of food paper/card may be recycled.
6. These are not areas in which CIEH has specific expertise, we therefore make no suggestions.

### **Food**

1. CIEH supports a ban on land filling in respect of food waste. There are considerable environmental benefits in terms of CO<sub>2</sub> savings, but additionally are positive benefits to be gained by using food waste as a soil improver.
2. We note that the Green Alliance has found that food waste is banned or restricted from landfill in all of the case study countries that it considered. It therefore follows that a ban in respect of this material is possible and workable. Practical difficulties lie in the lack of facilities to deal with this waste and that fact that it is not readily stored pending treatment. There will also be a considerable issue in requiring householders to separate food waste from the municipal waste stream although most local authorities in Wales are now beginning to collect waste food as a separate stream of waste.

3. The CIEH has no specific expertise in respect of time needed to develop infra structure, however we do underline the importance of having sufficient infra structure in place to cope with the volume of food waste that arises. We consider that the Welsh Assembly Government should drive forward investment in waste food processing and that any large development, e.g. hotel complexes, hospitals etc should be required to show that they can deal with waste food arising on site. It is important that both the public and private sector engage in developing ways of reusing food waste, whether through electricity generation through AD or by recycling the waste into alternative products such as fertilisers and soil improvers.
4. CIEH supports a ban on this waste type.
5. Improving resource efficiency so far as this waste stream is concerned is difficult, since there is no alternative to food. Any improvements will come about from changing consumer purchasing habits and in encouraging use of leftovers to reduce waste. Retailers as well as consumers have a part to play in this, it is important to encourage retailers to provide a comprehensive range of product sizes so that consumers do not have to buy more food than they need, leading to waste, and further to avoid promotions such as 'Buy One Get One Free' that encourage customers to purchase more food than suits their immediate needs which again causes unnecessary food waste. Significant amounts of work have already been undertaken to encourage householders to reduce the amount of food waste going into the municipal waste stream through home composting, using wormeries etc. and this should continue, since the food waste is reused in an appropriate manner, as soil improver and the carbon footprint of tackling and reusing the waste is also reduced as there is no need to collect and transport it.
6. These are not areas in which CIEH has specific expertise, we therefore make no suggestions.

## **Textiles**

1. CIEH supports a ban on textiles being sent to landfill. The evidence suggests that there is a net benefit from preventing textiles being disposed of to landfill, and the fact that the Green Alliance study shows that in all but one of the study countries a landfill ban or restriction was in place in respect of textiles clearly indicates that such a ban is achievable and manageable.
2. There are a number of current initiatives in place for recycling clothing and domestic textiles such as curtains etc, through charity shops and charity collections, their extension should be encouraged. There is however little in the way of collection for end of life clothing and domestic textiles which are not suitable for recycling through charity shops, and such material is not routinely separated by householders from the municipal waste stream. Given the absence of such provision there would be a requirement to pre-sort domestic waste to extract textiles before disposing of the remaining waste.
3. We suggest that the lead in time can be relatively short in respect of this waste since the market for textiles is developed. Waste textiles are used as raw ingredients for further textile manufacture and also used as insulation material and as filling material in furniture etc. The necessary infrastructure, other than the requirement to pre-sort municipal waste is also relatively unsophisticated, being a requirement to separate textiles at source, separate from the municipal waste stream at source and facilities to recycle end of life textiles being made available at Civic Amenity Sites.
4. The CIEH supports a ban on textiles being disposed of to landfill.
5. We make no suggestions with respect to this question.

6. These are not areas in which CIEH has specific expertise, we therefore make no suggestions.

## Metals

1. The CIEH takes the view that there is a very clear case for non-ferrous being considered for a landfill ban. In the case of both ferrous and non-ferrous metals there is a significant energy input required to extract and to process the metal to finished form, and further there is considerable environmental damage caused when extracting the ores. Both types of metals are capable of being recycled with significant estimated savings from doing so and there are significant net benefits to society from banning both types of metal from landfill, but particularly from banning non-ferrous metals.
2. In the first instance we suggest that existing producer responsibilities should be extended, such that removal and disposal of items containing metal becomes the norm where replacement items are purchased. Examples of such scheme are those for white goods such as refrigerators where retailers take away the old goods when delivering the new ones. We also note the beneficial effect that the end-of-life vehicle scheme has had in diverting metal (inter alia) from landfill, and suggest a widening of the scope of the scheme.  
Many of the local authorities in Wales that operate door step recycling schemes collect metal as a discrete item, requiring its segregation from the municipal waste stream, and many Civic Amenity Sites collect metal as a discrete waste stream.
3. There are already a number of plants that take in and reuse scrap metal, and particularly scrap aluminium. Further, there is a market for recycled metal, since once cleaned the 'new' product is identical to all intents and purposes to the 'original'. We consider then that a ban on metal *simpler* going to landfill will not require a long lead in period, however if it is intended that there should be a ban on non-ferrous metal going to landfill before a ban on ferrous metals comes into force, which could be justified by the greater savings and benefits from excluding non-ferrous metals from landfill we consider that the lead in time will have to be longer, since there will be a need to implement a system that segregates and identifies metal types. Given that this identification and segregation process will have to take place if ferrous and non-ferrous metals are to be banned at different times we consider that any ban should apply to both types of metal, and that it should be accepted that the benefits and savings in respect of ferrous metals whilst acknowledged, will not be as great as those for non-ferrous metals.
4. CIEH supports a ban on both ferrous and non-ferrous metals being disposed of by way of landfill.
5. Note our comments to paragraph 3 above.
6. These are not areas in which CIEH has specific expertise, we therefore make no suggestions.

## Wood

1. The CIEH supports a landfill ban on wood.
2. There already a number of uses for wood, and for waste wood. It is recognised that some wood products, notably furniture are recycled, and that some wood waste – products of tree surgery etc are used as a primary fuels source for wood burning domestic fires. Fine wood waste, such as sawdust and bark is used in animal bedding and for decorative garden and soil improvement products, and wood chip is used in the manufacture of fibre board. Waste wood is being used as a primary fuel for

power stations in Wales (Neath Port Talbot and Swansea) and wood pellet domestic central heating systems are becoming more affordable. Given the number of existing markets for waste wood we do not consider that there will be many practical difficulties in implementing a ban on wood entering landfill sites, subject to a sorting regime being in place. Of more concern is the effect of lack of collection/disposal sites which would lead to 'backyard bonfires' as noted in our comments as they relate to requirement for paper and card above.

3. As noted in the consultation document there are a number of initiatives for reducing wood going to landfill sites currently in place and the proposal in the Waste(Wales) Measure to require site waste management plans would also control disposal of waste wood arising from construction sites. Whilst we cannot be specific about lead in times we consider that the lead in time could be relatively short, given the number of potential uses for waste wood that currently exist and the fact that this market is expanding rapidly.
4. The CIEH supports a ban on waste wood going to landfill.
5. See our comments in respect of points 2 and 3 above.
6. These are not areas in which CIEH has specific expertise, we therefore make no suggestions.

### **Green (garden) waste**

1. We repeat our comments made in respect of waste food.

### **Glass**

1. It is clear from the evidence that a ban on glass being disposed of to landfill and used in closed loop recycling has net benefits for society and also significant CO<sub>2</sub> savings. There is however a net cost where a requirement to pre-sort is also put in place. On the basis of the environmental benefit from precluding glass from landfill the CIEH supports a ban on glass being disposed of to landfill, however we recognise that there may be some net costs inherent in such a ban, particularly where the reuse of the glass is not closed loop recycling.
2. There is already high public acceptance of the need to recycle glass, with most local authorities operating a kerb side glass collection system as part of their recycling programme as well as recycling glass in civic amenity sites. This is generally container glass, there is less recycling of flat sheet glass. The practical difficulty in banning glass from landfill sites lies in the need for comprehensive sorting of waste prior to acceptance at landfill, and it is recognised that a requirement to pre-sort gives rise to significant costs but generates significant additional tonnage. We consider therefore that putting in place a pre-sorting mechanism that is effective at removing glass but does not cost prohibitive is a practical difficulty. We also consider that there is a high level of public acceptance for glass recycling, and that this should continue to be encouraged, as there is a danger that the public may take the view that the existence of a pre-sorting mechanism would negate the need for domestic glass recycling.
3. The CIEH has no specific expertise in respect of time needed to develop the necessary infra structure, we therefore make no comment on this point.
4. CIEH supports a ban on glass being disposed of to landfill, subject to the comments made in paragraph 1 above regarding reuse.
5. We consider that there is considerable merit in reducing the amount of glass used for packaging so far as this is practicable since this would also reduce the carbon

footprint of transporting goods packed in glass and support proposals on higher packaging recycling targets for glass.

6. These are not areas in which CIEH has specific expertise, we therefore make no suggestions.

## **Plastics**

1. CIEH supports a ban on plastics being disposed of by way of landfill, but subject to the rider that incineration should not be the alternative method of disposal. We recognise that there will be net cost to society from a ban on land filling plastics, but suggest that this is more than offset by the savings in GHG emissions.
2. For reuse of plastics to be most effective it will be necessary to have sorting regime in place that will sort plastics according to type as different densities of plastics will have to be treated in different ways. This will require an initial pre-sorting regime to remove plastics from the waste stream followed by a plastic classification sorting mechanism to separate grades of plastic.
3. As noted in the consultation document the costs of such a sorting scheme as described in paragraph 2 above could be reduced if sorting was to be undertaken on a national or regional basis, but the lead in time for this will be considerable as no such scheme is currently planned. It necessarily follows that the lead in time for a ban on plastics being land filled would be long, as the necessary infra structure for the collection, sorting and recycling of the waste material is not in place.
4. Whilst the CIEH does support a ban on plastics being disposed of by way of landfill, our support is conditional on the alternative method of disposal being other than incineration. Since the lead in period is likely to be long we consider that some steps should be taken in the interim to reduce the amount of plastic being introduced to land fill. We consider that Government should continue to support schemes such as the WRAP scheme on increasing recycling of plastics and should also encourage higher packaging recycling targets for plastics as well as encouraging the use of recycled plastics either in place of virgin plastic or as a percentage of virgin plastic.
5. The CIEH endorses the concept of encouraging manufacturers and retailers to move away from use of packaging that is hard to recycle to alternatives that are easier to recycle. We note however that the use of plastic container packaging as opposed to glass has advantages in reducing the carbon footprint of the transportation of goods and this benefit should be factored into any equations about reducing the use of plastics as a packaging medium. We encourage the use of cellulose based alternatives to plastic where possible, particularly in 'plastic film' since cellulose will biodegrade. We also support the proposal to place a levy on single use plastic carrier bags as proposed in the proposed Waste ( Wales) Measure and would support alternative materials such as paper for such uses.
6. These are not areas in which CIEH has specific expertise, we therefore make no suggestions.

## **WEEE**

1. Notwithstanding the fact that there is a net cost to society of banning disposal of WEEE to landfill CIEH supports a ban on the same, since in our view there is greater benefit to be had from the collection and reuse of the finite precious metals within WEEE and in diverting chemicals such as mercury which have a detrimental environmental impact from the ground.
2. The practical difficulties in introducing a ban on WEEE being disposed of to landfill lie in the requirement to sort that would be a necessary requirement of such a

prohibition, which would increase the cost of a ban significantly. Nonetheless, for such a ban to be effective we consider that a requirement to sort is essential.

3. The CIEH has no specific expertise in this area and therefore makes no comment about lead in times necessary for the introduction of a ban on WEEE.
4. See our comments in paragraph 5 below regarding reuse of rehabilitation of redundant WEEE.
5. Development of WEEE is fast moving and extremely competitive. Whilst Government could seek to engage with manufacturers and designers to reduce the amount of finite metals used in WEEE and to reduce reliance on use of toxic metals such as mercury it is likely that the market will drive this field for some time to come, and that further as new products come on line the life of existing products will become shorter, with replacement being based on desire rather than redundancy of equipment. There are currently a number of schemes in place for the recovery and recycling of WEEE with inducements to participants to engage (Boots Recycling Scheme with Advantage points, Sainsbury's recycling scheme for Nectar points etc) and some retailers will collect and dispose of redundant WEEE when new items are purchased. Civic amenity sites also segregate WEEE and there are a number of schemes that rehabilitate WEEE for reuse by charities in schools and hospitals abroad. All of these schemes have an important contribution to make, as they keep redundant WEEE out of the waste stream.
6. These are not areas in which CIEH has specific expertise, we therefore make no suggestions.

### **Biodegradable wastes**

1. We endorse a ban on disposing of biodegradable waste to landfill, and repeat our comments made in respect of waste food and waste wood.

### **Non-segregated wastes**

1. The CIEH endorses a proposed ban on land filling non segregated waste. We consider that the costs incurred in sorting waste are more than recovered in the net benefits for recycling and reuse of the recovered candidate wastes.

### **CONCLUSIONS**

1. The CIEH accepts that the strongest case is made for banning biodegradable wastes ( food waste, green garden waste, paper and card, textiles and wood) from landfill .These waste types should be prioritised.
2. We also consider that there is a strong case for recycling metals, particularly non-ferrous metals , based not only on the benefits in terms of GHG and CO<sub>2</sub> reduction, but also in the damage to the environment in the winning of the metals at first instance.
3. We accept that the case for recycling glass is not so strong, in terms of environmental benefit, but note that benefit is greater if the glass is recycled in a closed loop system and would advocate this route as the preferred option where practicable.
4. The case for recycling plastics is also not as strong as the case for recycling of biodegradables, however we feel that such is the potential environmental impact of degradation of plastics that this is a ban that should be advanced with the costs incurred to be shared across the whole of the recycling programme.

5. The case for a landfill ban on WEEE is also not as strong as that for recycling biodegradable material, and in this case the CIEH considers that Government should encourage schemes that recover WEEE and reclaim the finite metals and toxic metals as well as the electrical components as this is a developing area of technical expertise which could have considerable commercial benefits for Wales as well as environmental advantage.

The CIEH would be happy to answer any questions which arise out of the foregoing and to provide any further information if requested to do so.