

Paper (M)

**Wiltshire and Swindon Waste
Development Forum -**

Topic Paper 5 - Hazardous Waste

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Wiltshire and Swindon Waste Development Forum

Examination of the Need for Treatment or Landfill Disposal Sites for Hazardous Waste: *Topic Paper 5 - Hazardous Waste (Planning and Legislative Background)*

1. Introduction

New Government Regulations are having a dramatic effect on the management of hazardous waste in England and Wales. In relation to waste planning, the main impact of these regulations is that the number of waste handling facilities that can accept hazardous waste has reduced dramatically, whilst the types of waste that are now classified as 'hazardous' have been substantially increased.

These changes are having a major impact on the extent to which we need to plan for new waste management facilities. Over five million tonnes of hazardous waste is produced each year in England and Wales, half of which is landfilled. The amount of hazardous waste produced is set to rise and the ability of existing landfill sites to accommodate hazardous waste has substantially decreased.

This Topic Paper sets the scene for the debate on the management of hazardous waste in Wiltshire and Swindon. The Paper starts by setting out the national and strategic planning policy context and goes on to explain, by way of a series of questions and answers, the main changes to the hazardous waste management regime.

2. The Planning Policy Context in relation to Hazardous Waste

Planning Policy Guidance Note 10 (PPG10) - Planning and Waste Management

Planning Policy Guidance Notes set out the Government's policies on different aspects of planning. They must be taken into account by local planning authorities as they prepare their development plans and may be material to decisions on individual planning applications.

PPG10 provides advice about how the planning system should contribute to sustainable waste management through the provision of the required waste management facilities. Paragraph 5 of PPG10 states that the land-use planning system should meet a number of objectives in pursuit of sustainable waste management, including the objective:

“to provide a planning framework which enables adequate provision to be made for waste management facilities to meet the needs of society for the re-use, recovery and disposal of waste, taking account of the potential for waste minimisation and the particular needs in respect of special waste¹”.

PPG10 goes on to state that Waste Planning Authorities should:

“where possible, identify in their development plans sites for waste management and disposal facilities over the period of the plan, including facilities for the management of waste with specific requirements, such as special waste” (paragraph 29(f)).

Draft Planning Policy Guidance Note 10 (PPS10) - Planning for Sustainable Waste Management

In December 2004 the Office of the Deputy Prime Minister published Planning Policy Statement 10 (PPS10) as a draft for consultation with a view to replacing the existing government guidance for waste planning policy contained within PPG10.

Draft PPS10 advises that planning authorities should deliver planning strategies that, *“enable sufficient and timely provision of waste management facilities to meet the needs of their communities”.*

Draft PPS10 goes on to state that Local Development Documents *“should identify suitable sites and locations for new waste management capacity in development plan documents”* and advises that *“sufficient available and suitable sites should be shown on the proposals map to accommodate the additional facilities necessary to provide capacity for at least 5 years...”*

¹ ‘Special Waste’ as referred to in PPG10 relates to waste defined in Regulation 2 of the Special Waste Regulations 1996. The term ‘hazardous waste’ is now used to describe such waste following the implementation of the Hazardous Waste Directive in January 2002

The implications of guidance contained within PPG10 and Draft PPS10 in relation to hazardous waste are clear: Waste Planning Authorities should ensure that an appropriate network of sites are safeguarded to meet the projected future need for facilities to manage hazardous waste.

The Adopted Wiltshire and Swindon Waste Local Plan 2011

The starting point for the review of waste planning policy in Wiltshire and Swindon is the Adopted Wiltshire and Swindon Waste Local Plan (WLP). The WLP was formally adopted by both authorities in March 2005 and is now available in its printed and CD Rom formats. It is also available on-line at www.wiltshire.gov.uk. An extract from the WLP which relates to hazardous waste forms **Appendix 1** to this Topic Paper.

The WLP is now a statutory element of the Development Plan for Wiltshire and Swindon. It sets out the waste planning framework for Wiltshire and Swindon for the period to 2011 and contains policies that assist in determining planning applications for waste related development proposals and safeguards Preferred Areas for waste sites over the period to 2011.

The implications of the new hazardous waste management regime were highlighted in the WLP Public Local Inquiry Inspector's Report of 2004. A key area of work identified by the Inspector to be undertaken as part of any review of the WLP is the assessment of the needs for the management of hazardous wastes projected to be generated in Wiltshire and Swindon over the period to 2021.

The Inspector accepted that the WLP provides an appropriate starting point in the absence of suitable data and implemented legislation for hazardous wastes, but noted that such information and certainty would shortly be forthcoming and therefore the issue should be re-considered as a matter of urgency in any review of the WLP. **This is key to the current situation.**

Since the Local Plan Inquiry (2003) and more recently the adoption of the WLP, much more certainty exists in the availability of hazardous waste arisings and management/ disposals data. Further detail on hazardous waste data is provided in Topic Paper 6 (to be circulated at the Forum meeting of 20th July 2005).

In addition, a number of new pieces of legislation governing the management of hazardous waste have recently been put in place, providing the regulatory context in which these waste arisings must be managed.

3. Frequently Asked Questions on the New Hazardous Waste Regime

What is Hazardous Waste?

Hazardous Waste is defined as waste that contains substances or has properties that make it harmful to human health or the environment.

The term 'hazardous' does not always mean that such waste is immediately toxic, though some can be. Such wastes not only include substances that are usually recognised as being dangerous or harmful (such as asbestos, leachate, contaminated soils and equipment containing ozone depleting substances, such as fridges and freezers), but can also include wastes from everyday activities, such as engine oils, paints and solvents.

The management of hazardous waste is controlled by The European Union Hazardous Waste Directive (91/689/EEC), which will shortly be implemented in England and Wales by the Hazardous Waste Regulations. The Hazardous Waste Directive relates to the hazardous waste defined within the European Waste Catalogue (Examples of hazardous waste listed in the catalogue include waste products containing oil, tar and acids, waste paint and refrigerants). Such waste is identified in the Catalogue by an asterisk. The European Waste Catalogue can be viewed at:

http://www.environment-agency.gov.uk/commondata/acrobat/2_haz_waste_app_a.pdf

The hazardous waste regulations remove the term special wastes, as currently used to define all wastes that are controlled as hazardous waste in the UK, and introduces the definition of hazardous waste in line with the European definition.

Major hazardous waste sources comprise:

- Construction and demolition;
- Oils and oily wastes;
- Organic chemical process waste;
- Inorganic chemical process waste.

Source: <http://www.hazardouswaste.org.uk/>

What are the new Regulations?

The EU Hazardous Waste Directives and Landfill Directive, which underpin the changes to the hazardous waste management regime, are implemented in the UK through regulations.

The regulations of greatest relevance comprise:

- the Landfill Regulations;
- the Hazardous Waste Regulations; and
- the Pollution Prevention and Control Regulations.

Hazardous Waste Regulations

Shortly to come into force, these will replace the Special Waste Regulations 1996 (as amended). The regulations will introduce revised and more streamlined procedures for monitoring movements of hazardous waste. The regulations are expected to come into force on 16 July 2005.

Landfill (England and Wales) (Amendment) Regulations 2004 ('The Landfill Regulations')

In July 2004 the full requirements of the Landfill Regulations came into force. In effect, the regulations stop the practice of 'co-disposal' of hazardous and non-hazardous waste in the same landfill.

They also require that the hazardous wastes identified in the European Waste Catalogue must be pre-treated to reduce their quantity and hazard before they are landfilled (unless this is of no practical environmental benefit).

Pollution Prevention and Control Regulations 2000 (PPC)

These Regulations came into force on 1 August 2000. They aim to develop a more integrated approach to controlling pollution from industrial sources and achieve a high level of environmental protection through reducing emissions into the air, water and land. Of greatest relevance to the management of hazardous waste is the fact that The PPC Regulations seek to secure waste reduction from industrial sources in the first instance.

What are the roles and responsibilities for hazardous waste management?

Hazardous waste producer/contractor/management company:

- Has a duty of care to ensure hazardous waste is disposed/recovered properly.
- People transporting waste must be registered carriers, to whom the duty of care also applies.
- Responsible for disposal/recovery of hazardous waste within permit (licence) conditions, to minimise risk to human and environmental health.

Environment Agency:

- Regulates producers, through pollution prevention and control legislation, to minimise hazardous waste generation.
- Regulates the cradle to grave system of tracking hazardous waste movements.
- Licenses and checks sites, to ensure their ability to receive specified hazardous waste and operate to a high standard, to minimise harm to the environment.

Local authority:

- Arranges for the collection and disposal of household waste, which can include hazardous waste.
- Provides collection facilities for some hazardous wastes, such as oil and paint.
- Produces Waste Local Plans/Waste Development Frameworks which provide the strategic waste planning framework, and determines planning applications for new waste management facilities.

What is the Hazardous Waste problem?

The new regulations governing the management of hazardous waste have had and will continue to have, a significant impact on the management of hazardous waste in England and Wales.

The new regulations have given rise to a significant change in the management of hazardous waste, involving considerably fewer landfills being authorised to accept hazardous waste, and changes to classification schemes that will increase the quantities of hazardous waste arising. Allied to this is the high level of uncertainty created for industry by the new regime.

Uncertainty

The full impact of the new regulations is by no means clear, and there is much uncertainty about how the waste management industry will react to the changes. The information on which industry can base investment decisions is not yet fully available, in particular the acceptance criteria for hazardous waste at landfill, and the regulations controlling the management of hazardous wastes have only recently been finalised.

This uncertainty presents potential problems now that new specific disposal and treatment facilities are required but are not yet in place. Consequently, the future land use planning consequences are unpredictable, at least for the short term.

Equally uncertain is the effect of the Contaminated Land (England) (Amendment) Regulations 2001 (SI663) and Government pressure to develop a greater proportion of housing land on previously developed or underused land. While on-site remediation is the likely consequence, the total amount of such waste will almost certainly rise. Landfill will not be an option for this waste much longer and new outlets will be needed if the pace of brownfield development is not to be inhibited.

Capacity

There is much concern that there will be a shortfall in capacity to treat, recover or dispose of hazardous waste. This could lead to storage problems and an increase in illegal disposal (including fly-tipping), which could have serious health and environmental impacts.

The need to transport hazardous waste a greater distance

Pre-July 2004 nearly 42 per cent of hazardous waste was transported across regional boundaries. This is likely to continue and may even increase because of the reduction in the number of dedicated hazardous waste landfills.

Transporting hazardous waste potentially increases the risk of pollution incidents. Increased transport costs may tempt some to act illegally, but it will also encourage further minimisation.

What are the potential health and environmental risks of hazardous waste?

By its very nature, hazardous waste is recognised as having significant potential for adverse health effects or pollution of the environment. For this reason it requires more careful management and control than non-hazardous waste.

Any potential effect of hazardous waste on health depends entirely upon the type of waste, the way in which people may become exposed and their individual response to exposure. Any waste could be harmful if it is badly managed or dumped illegally.

Some hazardous wastes, such as waste oils or waste chemicals, have the potential to cause serious environmental damage (for example, pollution of rivers and streams), if they are mismanaged. Others (for example, contaminated soils) have the potential for longer-term damage, such as leaching into groundwater.

Who produces hazardous waste?

In 2001, hazardous waste was produced by over 100,000 businesses. The changes to the definition of hazardous waste, however, will mean that many more businesses will produce hazardous waste. The figure for the number of businesses affected by the new regulations has yet to be quantified.

What options are currently available to dispose of hazardous waste?

Traditionally, the UK has relied upon landfill as the primary method for dealing with hazardous waste, because it has been cheap (£10 - £40 per tonne) and plentiful. Typically hazardous wastes were disposed off in the same hole in the ground as non-hazardous and inert wastes.

The options to dispose of hazardous waste remain largely unchanged, although restrictions such as the ban on the co-disposal of hazardous and non-hazardous/ inert wastes in the same landfill have certainly restricted the remaining hazardous wastes landfill market.

Economic considerations will also influence which option might be chosen will as a result of the new regulations, which may lead to new methods prospering or being established for hazardous waste management. This is Government's intention, as it will create economic drivers for businesses to switch away from landfill and towards more sustainable solutions.

The key options for disposal are: landfill, high temperature incineration and use as a fuel (e.g. in a cement kiln). It is likely that the rising cost of landfill will cause a number of businesses to switch to the other disposal options.

There are a number of alternatives to disposal, such as treatment to turn hazardous waste into non-hazardous waste and minimisation. The cost of these options relative to the landfill option will reduce, again causing a shift towards more sustainable solutions. However, there is likely to be a period of uncertainty surrounding these options as their effectiveness and acceptability (environmentally, economically and socially) are tested by the waste industry, regulators and society as a new and alternative means to the disposal of hazardous wastes.

However, for certain wastes there is no alternative to landfill, and landfill is also the emergency disposal system for many wastes when there is plant failure or 'down-time'.

How are landfills classified under the new Landfill Regulations?

The new regulations require that all landfills must be classified as sites for:

- hazardous waste;
- non-hazardous waste; or
- inert waste.

An interim classification of existing hazardous waste landfills took place in July 2002. Individual landfills are finally classified once the necessary planning consents and Integrated Pollution Prevention and Control (IPPC) permits are in place.

Hazardous waste landfills can only accept wastes listed as hazardous under the Hazardous Waste Directive and that meet the relevant Waste Acceptance Criteria. Waste Acceptance Criteria have been agreed by the European Council and apply from 16 July 2005 by virtue of the Landfill Regulations 2004. Hazardous waste can be derived from any waste stream, including municipal, industrial, commercial and construction.

Non-hazardous waste landfills may accept any waste which is not hazardous, which includes; municipal waste, other non-hazardous waste (including inert wastes) and, in certain circumstances, stable, non-reactive hazardous wastes (for example, asbestos) within a separate cell. Stable, non-reactive non-hazardous waste may also be accepted in these cells.

Inert landfills may only accept inert wastes that meet the relevant waste acceptance criteria.

What proportion of hazardous waste requires treatment?

From 16 July 2004, all hazardous waste sent for disposal at a landfill has required some form of pre-treatment, unless this is of no practical benefit towards meeting the aims of the Landfill Directive.

The government believes that treatments are available that will reduce the amount of hazardous waste that is needed to be landfilled, as well as the hazards of the waste to human health and/or the environment.

What is the projected increase in hazardous waste over the next five years?

Estimates suggest that the increased range of hazardous wastes in comparison with the current definition will mean hazardous waste might grow by over two million tonnes (to an estimated 7.5 million tonnes) as a result of reclassification.

This figure relates to waste arising from commercial and industrial sources. However, encouragement of further waste minimisation, better segregation of hazardous and non-hazardous wastes will all impact to reduce arisings, and we may end up with arisings at a similar level to the present.

The full impact of the increases to the range of wastes to be classified as hazardous will also be affected by the variable manner in which such wastes are produced and disposed of.

Table 1 below shows the hazardous waste arisings and disposal trends in Wiltshire between 1999 and 2003 and demonstrates that there is little relation between one year's data and the next.

Table 1: Hazardous Waste Arisings and Disposals Wiltshire & Swindon 1999 – 2003 (tonnes)

| Hazardous Waste | 1999 | 2000 | 2001 | 2002 | 2003 |
|-----------------|----------|----------|----------|----------|----------|
| Arisings | 28,000 t | 38,000t | 23,000 t | 35,000 t | 31,000 t |
| Disposals | 7,000 t | 49,000 t | 47,000 t | 74,000 t | 77,000 t |

Source: Environment Agency 2005

These fluctuations will make forecasting of future hazardous waste trends particularly risky due to the unpredictable nature of the data, indicating that there may be a need for the new Waste Development Documents to pursue a flexible approach to the management of hazardous wastes.

Will the UK have enough facilities to deal with hazardous waste?

Despite the recent availability of detailed data, the hazardous waste management situation has only recently been revised and it is therefore not yet clear whether enough facilities to deal with hazardous waste are being made available. What we do know is:

- In 2002, 60 per cent of hazardous waste to landfill was contaminated soil and asbestos. This will change. Indeed, it is reported that, in response to the changes in landfill costs, deliveries of contaminated soil to landfill doubled in the quarter year Spring 2004, in anticipation of the increase in costs in July.

In contrast after July 2004, arisings of hazardous waste for landfill, and especially contaminated soil fell. This is because better segregation, less over-consigning and greater recovery rates, in particular on larger development sites where washing processes can be used, is now taking place.

- Waste oil and oil/water mixtures make up another key hazardous waste stream. Since hazardous waste liquids were banned from landfill under the Landfill Regulations in 2002, this option is no longer available. These wastes can be subjected to alternative treatment (recovery as fuel in power stations and cement kilns).
- The chemicals industry confirmed that 16 July 2004 would pass with few problems in their sector, based on their members' views and assurances from their waste management operators. So far that has been the case.
- As of early 2005 there were 12 hazardous waste landfill sites.
- In addition, there are approximately 40 applications for separate cells in non-hazardous landfill for stable non-reactive hazardous waste (e.g. asbestos), as of early 2005 19 are operational.
- Currently (early 2005) operational cells and dedicated hazardous waste landfill, gives an estimated capacity of over one and half million tonnes per annum.

Will hazardous waste include wastes in household waste streams or does this only affect industry?

Some wastes listed as hazardous may be produced at domestic premises, but householders will not be subject to the requirements of the forthcoming hazardous waste regulations. Mixed municipal waste is classified as non-hazardous.

However, local authorities will be subject to the requirements of the regulations for any hazardous waste collected separately from domestic premises or taken to civic amenity sites by members of the public.

These requirements will take effect from the point that the waste arrives at the civic amenity site and passes into the ownership of the local authority and its contractors.

What hazardous waste sites exist or are proposed in Wiltshire and Swindon?

There are a limited number of sites in Wiltshire and Swindon that have consent or that have applied for consent to manage hazardous waste. These include:

| Site Name | Location | Method | Status |
|-----------------|----------------------|--|-------------------------------|
| Waste Matters | Brook Lane, Westbury | Solvent waste recycling and transfer | Permitted and licensed |
| Purton Landfill | Mopes Lane, Purton | Hazardous waste landfill | Permitted and licensed (IPPC) |
| Pound Bottom | Redlynch | Landfill of Stable Non-Reactive Haz Waste (asbestos) | Permitted and licensed (IPPC) |
| Studley Grange | Lydiard Tregoze | Landfill of Stable Non-Reactive Hazardous Waste (asbestos) | Permitted and licensed (IPPC) |
| Parkgate Farm | Mopes Lane, Purton | Hazardous waste landfill | Planning application |

The ongoing need for additional sites in Wiltshire and Swindon to accommodate hazardous waste management facilities will be assessed as part of the review of the WLP, building on existing known resources, recent data and the implications of changes to the hazardous waste management regime.

4. Conclusions

It is clear that over the life of both the WLP (to 2011) and the new Waste Development Documents (to 2021) it will be necessary for Wiltshire and Swindon to be able to make appropriate provision for the management of hazardous waste arisings in the County and the Borough.

There is also a quantity of material that is imported into Wiltshire and Swindon to make use of either disposal or treatment facilities that currently operate, and the ongoing role in providing for such import will need to be taken into account.

Making use of detailed trend data and responding to recent changes to the management of hazardous wastes, the Waste Planning Authorities are in a position undertake a detailed assessment of the ability of the WDDs to provide for future hazardous waste management facilities, both in policy and site allocation terms.

Joint Municipal Waste Management Strategy

What is also needed, however, is a discussion as to the most appropriate way forward for the policies and site allocations of the new WDDs, informed by the conclusions of the Waste Development Forum, to assist in developing an appropriate approach to tackling this issue in Wiltshire and Swindon, and recognising our role in working with other authorities in the South West and the South East.

Extract from the Adopted Wiltshire and Swindon Waste Local Plan 2011

Hazardous and Clinical Waste Facilities

Policy 23

Hazardous and Clinical Waste Treatment Facilities

The WPAs will permit the development and extension of existing sites for hazardous and clinical waste treatment facilities, provided the application complies with Policies 1, 2 and 5 to 10 of this Plan.

Development of new sites for hazardous and clinical waste treatment facilities will only be permitted on land within general industrial areas or on appropriately located, previously used or developed land or buildings. Applications should demonstrate to the satisfaction of the WPA that the proposal:

- a) cannot feasibly be carried out within the capacity of existing sites and buildings;**
- b) cannot be accommodated as an extension to existing sites;**
- c) complies with Policies 1, 2 and 5 to 10 of this Plan.**

This Policy provides a presumption in favour of locating new development within industrial areas (areas considered to be allocated for, or having the character of General Industrial Use Class B2) unless there is an overriding case for locating the development elsewhere. Any such development will need to satisfy **Policy 23** and other relevant policies of the development plan. Developments would not be appropriate in residential areas or in areas for B1 Class uses (Business) or modern Business Parks or within Storage and Distribution areas (Use Class B8).

The Policy also requires that the capacity of existing sites should be investigated and provides a preference for extending existing sites to the development of completely new sites. In relation to clinical waste, attention is drawn to the contents of Paragraph 10.2.8.

However, it is recognised that establishing suitable locations for these waste facilities presents more problems than for most other forms of development because of their potential polluting effects and the concerns that the population of an area would have about the appearance, safety and impacts of such developments over and above other waste management facilities.