



LONDON BOROUGH OF HILLINGDON

ENVIRONMENT OVERVIEW AND SCRUTINY COMMITTEE

2003/04 Report

INCINERATION (WASTE TO ENERGY)

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CONTENTS

Summary	Page	1
Recommendations	Page	2
Background	Page	3
Operational Overview & Context – Basic Operational Framework	Page	4
Operational Overview & Context – Legislative Framework	Page	5
Operational Overview & Context – Recycling & Waste to Energy	Page	6
Operational Overview & Context – Current Issues	Page	7
Scrutiny Process – Expert Witness – Environment Agency	Page	10
Scrutiny Process – Expert Witness – CIWM	Page	12
Developments Since the Scrutiny Process	Page	13
Conclusion	Page	15
Background Documents	Page	17

ENVIRONMENT OVERVIEW & SCRUTINY COMMITTEE INCINERATION (WASTE TO ENERGY)

SUMMARY

The following report examines the main issues raised during the Environment Overview & Scrutiny Committee's recent investigation into the relative merits of using incineration for large scale waste disposal.

The report examines the background to this issue by assessing the various factors which surround the potential use of incineration under the context of the Borough's waste management operations relevant to Hillingdon's status as a Waste Collection Authority.

The report also examines a key legislative development that has taken place since the scrutiny process was concluded earlier this year.

In conclusion the Committee recognises that the use of incineration as a disposal technology is at best an emotive subject. However, through the process a number of expert witnesses were able to demonstrate that properly operated modern incineration facilities **do not** present any threat to human health.

Therefore given the other issues identified during the course of the scrutiny the use of incineration was accepted as necessary part of an overall waste management approach that relies on mix of solutions tailored to meet specific circumstances. In turn whilst the Committee fully endorses and congratulates the Borough's Waste Division on the approach taken to date with respect to the development of Hillingdon's comprehensive range of recycling services it does recognise that incineration does have a role to play.

However, in doing so the Committee urges the Cabinet to support the Borough's Waste Division in taking all necessary steps possible to ensure that Hillingdon's use of recycling and composting technologies is maximised before the use of incineration is employed to deal with the remaining wastes. To this end the Committee makes a series of detailed recommendations for consideration by Cabinet to ensure these objectives are met.

RECOMMENDATIONS

- 1. That the Cabinet note the contents of the report.**
- 2. That the Cabinet notes the position of the Environment Overview & Scrutiny Committee on the use of incineration for large scale disposal operations as detailed in paragraphs #.40 - #.42.**
- 3. That the Cabinet notes that any decision to send Hillingdon's residual wastes for incineration is a decision that can only be taken by the West London Waste Authority as explained in paragraphs #.3, #.4 and #.40.**
- 4. That the Cabinet notes that the Borough is currently involved in putting together a Statutory Joint Municipal Waste Management Strategy (JMWMS) for West London.**
- 5. That as part of the JMWMS Borough officers look to incorporate the latest Best Practice on Local Authority waste reduction and reuse techniques which have been demonstrated to work elsewhere.**
- 6. That Cabinet instruct officers to put together costed plans for increasing the current kerbside service to weekly.**
- 7. That Cabinet, following on from the decision at the Council meeting of the 26th February 2004, instruct officers to report back on plans for the implementation of a Boroughwide kerbside recycling service for glass.**
- 8. Instruct officers to pursue all relevant opportunities to bring external funding into the Waste Division. Particular attention is to be paid to potential investment in the Borough's three Civic Amenity sites with emphasis to be placed on Capital investment to be funded as much as possible from outside the Authority.**
- 9. Instruct officers to continue to lobby WLWA to seek and where possible take advantage of any opportunities to divert Hillingdon's residual wastes to some form of waste to energy including incineration.**
- 10. Instruct officers to report to the Cabinet / responsible Cabinet member as and when on all key developments relevant to the implementation and operation of the Government's new Tradable Landfill Allowance Scheme.**
- 11. Instruct officers to report back to the Environment Overview & Scrutiny Committee towards the end of each financial year with a complete progress update on our current performance in the areas of recycling, composting and waste to energy recovery**
- 12. That the Cabinet, instructs officers to ensure that the Borough's current procurement policies give full consideration to the need to purchase reusable and recycled goods where possible.**

- 13. That given the Waste Divisions excellent recycling record to date that the Cabinet consider setting and funding new and enhanced recycling services to ensure that Hillingdon continues to exceed current statutory recycling targets.**
- 14. That the Cabinet notes the work of various Government Agencies that have been set up to further the Sustainable Waste Management Agenda as detailed in the report and instructs the Waste Division to work with these Agencies as and where applicable to enhance the Borough's recycling performance.**
- 15. That the Cabinet instruct the Head of Planning to carry out a thorough review of the Authority's Unitary Development Plan to ensure that we are actively planning for new waste recycling and recovery facilities within the Borough.**
- 16. That the Head of Planning be instructed to widen and implement new planning policies for developers to ensure that the provision of long term sustainable waste management practices is incorporated into the design of all new developments in Hillingdon.**

INFORMATION

Background

#.1 Given the increasing awareness of the need to fundamentally improve our waste management practices previously the Environment Overview & Scrutiny Committee, (herein referred to as the Committee) elected to examine the relative merits incineration for large scale waste disposal applications. In order to achieve this the process was broken down into a number of key areas :-

- What are we trying to achieve – where are we trying to get to ?
- What are the problems that need to be solved to get there ?
- What do we know about where we are now ?
- What services partners and stakeholders are included in the scrutiny ?
- What key corporate objectives have shaped the scope of this scrutiny ?
- What links are there between this scrutiny and other strategy developments or reviews ?

#.2 We met as a Committee on a number of occasions from July 2002 onwards to hear evidence in connection with our investigations. We first heard from officers in the Borough's own Waste Division who gave an overview of the operational framework within which the Authority's waste management services are organised and run.

#.3 We next heard from officers on the topic of Air Quality, in particular around Heathrow Airport. An issue that we considered relevant given that one of the options for treatment of waste is greater use of incineration which may produce emissions and have an effect on air quality.

#.4 We then heard evidence from outside the Council, firstly from Dr John Gregory of the Environment Agency (EA), who took us through the issues the Agency would be considering in relation to an application received from Grndon's for a licence for a new waste to energy plant at Colnbrook. The EA is the main Government body charged with responsibility for protecting the environment by strictly regulating all emissions to land, sea and air.

#.5 We next heard from Stephen Didsbury of the Chartered Institute of Waste Management (CIWM), who explained the current issues around incineration. The CIWM is the professional body which represents the UK's waste management professionals both in the UK and abroad.

#.6 We also visited Lewisham where we saw a modern incineration plant in operation.

#.7 We also heard evidence from Hillingdon Waste Division about methods of waste collection used in Hillingdon, including recycling methods and heard about targets set by Government for recycling.

Operational Overview & Context – Basic Operational Framework

#.8 The first key issue that was highlighted for the Committee was that Hillingdon is a waste collection authority (WCA) **only**; and as such holds no powers of disposal. In turn as a WCA Hillingdon is one of six constituent Borough's that make up the West London Waste Authority, (WLWA) which is the regional joint waste disposal authority responsible for arranging the safe and efficient disposal of all wastes collected and delivered to it by its constituent Boroughs. The other Borough's that form WLWA include Brent, Ealing, Harrow, Hounslow and Richmond Upon Thames. The relationship between WLWA and its constituent Borough's is governed by statute which requires an Act of Parliament to change.

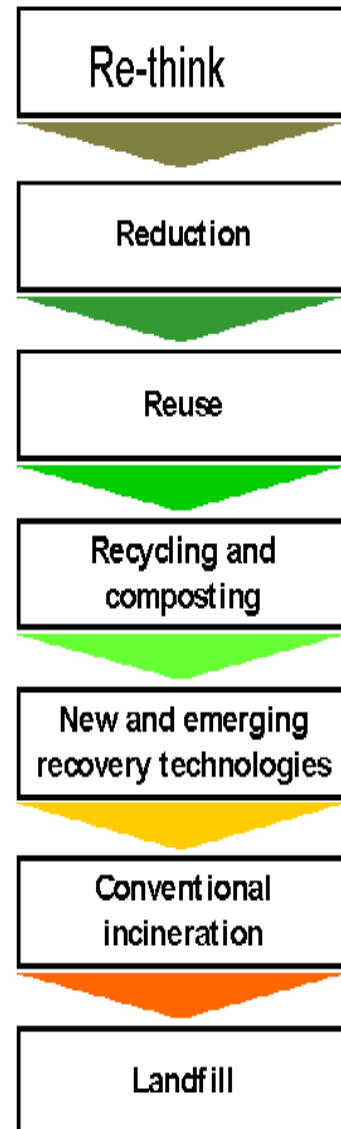
#.9 This point is of fundamental importance because it means that in law neither Hillingdon nor any of the constituent Borough's have any legal 'say' in the options WLWA decides to use in pursuit of its statutory waste disposal responsibilities. Therefore, unlike most Council services which are subject to competition, the constituent Boroughs have no option but to deliver the wastes they collect for disposal to WLWA. Legally the constituent Borough's cannot seek alternative arrangements for the wastes they dispose of. At best the constituent Borough's can only lobby WLWA about any decisions it takes with regard to waste disposal technologies it wishes to use.

#.10 In addition to the above the Committee also notes that WLWA is due to receive additional powers which would enable it to direct Borough's to deliver certain wastes in a format to be decided by WLWA to a location of their choosing in order to ensure compliance with forthcoming legislation relevant to the Government's new tradable landfill allowance scheme. This subject is discussed under paragraphs #.31 - #.39.

Operational Overview & Context – Legislative Framework

#.11 In addition to the basic legal framework detailed above there are a number of key legislative drivers identified during the course of the scrutiny which the Authority **must** have regard to when developing its future waste management programme :-

- **Waste Management Paper No. 28** – this was the first document published by Central Government which organised the various waste management technologies into a rigid hierarchy of preference with waste reduction at the top (most desirable) and landfill at the bottom (least desirable).
- **Making Waste Work** – was published in 1995 and revised the idea of the waste hierarchy by placing recycling, composting and waste to energy on an equal footing. However, in addition this document also attempted to ease the concerns of some stakeholders by stating that the waste hierarchy should be used a general set of guiding principles such that solutions should look to utilise elements at each level of the hierarchy in a mix of technologies tailored to specific situations.
- **Waste Strategy 2000** – is the Government’s current waste strategy which has further developed the theme of the hierarchy by clearly placing recycling, composting above the use of energy recovery followed by landfill.
- **The Mayor’s Municipal Waste Management Strategy** – finally published in September 2003, the Mayor’s strategy adopts the main principles of the waste hierarchy whilst adding in an additional level to place new emerging waste recovery technologies above that of conventional incineration which has been the main waste to energy technology used to date.

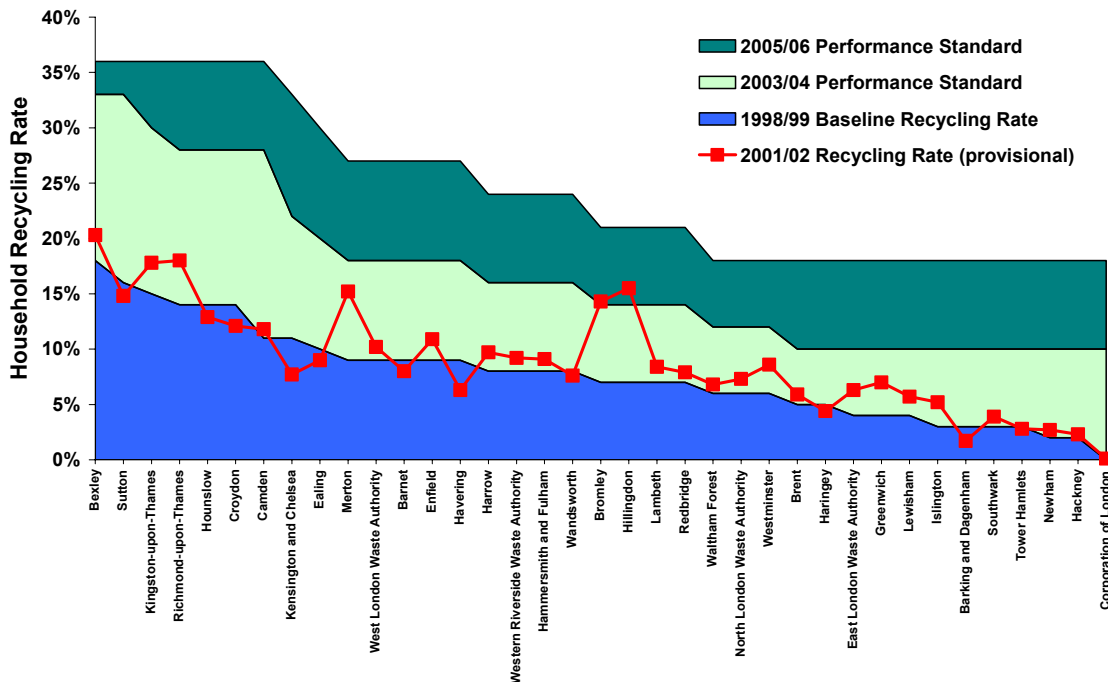


Operational Overview & Context – Recycling & Waste To Energy.

#.12 The main theme running through each of the legislative drivers above was / is the need to move public sector waste management practices further up the hierarchy. To this end in March 2001 the Government set individual best value recycling performance standards for each local authority in England and Wales. These targets are fundamentally different to all others previously set because they have been placed on a statutory footing with local authorities open to possible sanction if targets are not achieved.

#.13 For Hillingdon the Government set targets for recycling 14% and 21% of household waste by 2003/04 and 2005/06 respectively. Hillingdon's response was to publish a draft Waste (Recycling) Strategy in 2001 which set a higher target of recycling 23% by 2005/06. However, mindful of the fact that not everything can be recycled the Borough's draft strategy also set a target of sending 45,000 – 50,000 tonnes of residual waste to some form of incineration with energy recovery each year by 2005/06.

#.14 To date Hillingdon's recycling rate has risen to over 23% which should place us at the top of the London League table for recycling for 2003/04 having achieved our 2005/06 target some 2 years ahead of schedule. However, whilst this is excellent news for Hillingdon as yet no plans have yet been put in place for diverting the necessary tonnages to waste to energy as per the draft strategy. At this time despite the Authority taking every opportunity to push WLWA to seek opportunities to adopt some form of energy recovery WLWA have consistently failed to do so.



#.15 As part and parcel of placing recycling targets on a statutory footing Central Government has on a number of occasions also stated that it will look at levying penalties against local authorities who do not achieve their statutory targets. However, so far these penalties remain undefined.

Operational Overview & Context – Current Issues

Funding

#.16 With the introduction of kerbside recycling services for mixed dry recyclables and compostable garden wastes the Borough has channelled significant levels of investment into the Borough's recycling programme over the last 4 years. In turn this level of investment has been rewarded by Hillingdon moving to the top of the London Recycling League table for 2003/04; a performance which should also see it move into the top 10% nationally.

#.17 In addition to the very substantial levels of investment by the Authority, the Committee notes that the Borough's Waste Division has also been very successful in attracting external investment to support the Borough's recycling programme including most recently a grant of £428,000 from the London Recycling Fund to support the introduction of kerbside recycling for compostable garden wastes. The Fund is scheduled to run until March 2006. The Waste Division will continue to work with the Fund in an attempt to secure additional funding for kerbside recycling services for glass as well as proposals for a major redesign and refurbishment of the New Years Green Lane Civic Amenity site. However, the Committee asks the Cabinet to note that any future funding from the Fund will be conditional on significant contributions from the Authority and / or any relevant private sector partners.

#.18 In addition to the above following lengthy negotiations the Waste Division is also about to enter into long term contractual arrangements with the private sector for the provision of a dedicated In Vessel composting system in the North of the Borough. This site which represents £2.5million - £3 million of private sector investment will be able to handle all of the Borough's current and future reprocessing needs for the compostable wastes as well as serve as an important regional facility for West London.

#.19 Elsewhere in this report the Committee comments on the very substantial increases in disposal costs faced by the Borough as a result of the implementation of the Government's tradable landfill allowance scheme. Whilst the potential magnitude of the increase will of course be of concern to the Borough, the Committee suggests that such an increase in disposal costs is also an opportunity to re-assess in general any recycling opportunities which have not been followed through due to their comparative cost per tonne. As disposal costs increase dramatically a number of potential new initiatives will increasingly become cost effective.

Markets

#.20 Currently over 80% of the materials collected for recycling are sent to outlets which have been secured via contracts negotiated by the Borough's Waste Division. However, as more and more local authorities bring new recycling services on line in pursuit of statutory targets the need to have secure long term outlets for recyclables will become of vital importance. Whilst the Committee has every confidence in the Waste Division's ability to negotiate existing and new contracts as necessary the Committee would like to see the Waste Division take advantage of any relevant opportunities to work with the Government Agencies that have been set up to enhance / create markets for recyclable material. In doing so we would recommend the Waste Division looks to work with the following organisations :-

- **WRAP** – the Waste Resources Action Programme is a not-for-profit company in the private sector, backed by substantial Government funding from DEFRA, DTI and the devolved administrations in Scotland, Wales and Northern Ireland. WRAP has laid down targets across eight programmes - five material streams (paper, plastics, glass, wood and aggregates) and three generic areas (procurement, financial mechanisms, and standards and specifications). Originally established to promote sustainable waste management and create stable and efficient markets for recycled materials and products, WRAP's remit has recently been extended to cover waste minimisation, organics market development, an advisory service for local authorities in England and a national waste awareness and communications programme.
- **London Remade** is a strategic partnership between the business sector, London Boroughs, regional government, waste management companies and the not for profit sector. Their principle objective is to develop and promote new markets and secondary industries based on the reprocessing and reuse of London's recycled materials. The programme operates across London, however, their inward investment programme is particularly focused on the Thames Gateway region of London and on the promotion of river transport.

EU Directives

#.21 The main drivers for the dramatic changes in public sector waste management across Europe stem come from the considerable number of European Directives on waste management which are designed to drive performance up the waste hierarchy. The complete range of Directives are too numerous to mention, however, each will have significant direct and / or indirect consequences for the way in which we handle wastes in the future. Chief among these directives are the following :-

- **Landfill Directive** – this directive requires member states to progressively reduce the landfilling of biodegradable municipal waste, (BMW). The environmental justification for this requirement is that the decomposition of BMW in the anaerobic conditions of a landfill produces methane, which is a powerful greenhouse gas. A quarter of the UK's total methane emissions comes from landfill. In the UK the Government has decided to meet the requirements of the landfill Directive through the implementation of Landfill Allowance Trading Scheme as commented on later in the report and which the Committee notes is the subject of a separate report submitted to the Cabinet.
- **Waste Electrical and Electronic Equipment Directive** - also known as the WEEE Directive places certain restrictions on the use of certain hazardous substances in electrical and electronic equipment. The proposed Directive is designed to tackle the fast increasing waste stream of electrical and electronic equipment and complements European Union measures on landfill and incineration of waste. Increased recycling of electrical and electronic equipment, in accordance with the requirements of the Directive, will limit the total quantity of waste going to final disposal. Producers will be responsible for taking back and recycling electrical and electronic equipment. This will provide incentives to design electrical and electronic equipment in an environmentally more efficient way, which takes waste management aspects fully into account. Consumers will be able to return their equipment free of charge. Given that the implementation date of the Directive is still a few years away at this point in time the Waste Division is keeping a watching brief on how the Directive develops and how it is eventually translated in UK law. So far the Government has stated that no additional legislative requirements will be placed on Local Authorities in order to meet the Directive. However, in line with the general aims of the Directive the Waste Division is looking at ways in which better separate of WEEE waste can be achieved from the Borough's current waste flow.
- **End of Life Vehicle Directive** – known as the ELV Directive it aims to reduce, or prevent the amount of waste produced from end of life vehicles (ELVs) and to increase recycling and recovery of their constituent parts. Initially the directive requires costly depollution treatment of ELVs before they are disposed of, and eventually vehicle manufacturers and importers will be required to assume the responsibility for disposing of ELVs including meeting the costs. One of the potential downsides to the Directive is that it may force a large number of small vehicle dismantlers out of business who will not be able to afford to invest in their premises to bring treatment standards up to the level required by the Directive. In turn this will result in more abandoned cars being left on the street as well as substantially increased costs for disposing of vehicles via authorised treatment facilities.

Scrutiny Process – Expert Witness – Environment Agency

#.22 As part of the scoping report for the scrutiny the Committee agreed to take evidence from both the Environment Agency (EA) and the Chartered Institution of Wastes Management (CIWM). The EA is the main Government body charged with the responsibility for protecting the environment by strictly regulating all emissions to land, sea and air. The CIWM is the professional body which represents the UKs waste management professionals both in the UK and abroad. With respect to the terms of reference for the scrutiny it was decided to ask specific questions relevant to the use of incineration as a large scale waste disposal technology.

#.23 Dr John Gregory from the EAs South East Area was invited to the Committee meeting on the 11th December 2002 to answer questions relevant to the use of incineration as a waste disposal technology. The following questions were asked :-

Q. *Is it true that air leaving the plant is cleaner than that going in ?*

A. Dr Gregory said he could not agree that air is cleaner coming out than going in. It will contain more Nitrogen Dioxide (NO₂) and acid gases (Sulphur and Chlorine) plus particles with some heavy metals. Using the proposed Grundons incinerator at Colnbrook as an example a 65m high chimney is proposed to ensure that emission levels are adequate once they reach ground level, making a fraction of one percent contribution to the overall total. Typically NO₂ content may be 2%. The south west prevailing wind direction is also a factor.

Q. *Raised concerns that air quality is already poor in this area ?*

A. Air Quality modelling has been carried out by Grundons. An update of this has been requested by the EA. Previous modelling showed annual average peaks 500m north east of the site. By the time the emissions reached the M4 / M25 junction the only concerns the EA had were over NO₂ levels, which were already likely to be near the 2005 required levels.

Q. *Is it true that incinerators are getting better in technological terms ?*

A. Yes modern day incinerators represent a step change in performance from older units. Firstly, old incinerators were not designed to keep NO₂ levels down. Now, temperatures are kept down in the main combustion zone. 3% unburnt carbon is now allowed in emissions and is unlikely to be reduced any further. Also previously water was used to try and control gases whereas activated carbon is now used to treat volatile organics including dioxins whereas there was previously no control on them at all.

Q. *Is the process reliable?*

A. It is tested regularly.

Q. How did the EA regard incineration as an option for future for waste treatment ?

A. Dr Gregory stated that the EA supports the waste hierarchy, with incineration and landfill as the last resort. Dr Gregory also added that for some materials like glass and selected organic wastes there was little point in incinerating when other processes such as recycling and composting could recover greater value. Duncan Jones from the Borough's Waste Division stated that the key message was that waste collection and disposal authorities through partnership working had to use a mix of technologies including recycling, composting, incineration and landfill if they were going to successfully manage the Borough's long term waste management requirements within the current and future legislative framework.

Q. Assume much of Grundon's waste for incineration will come from their skip business. Is there a conflict?

A. Dr Gregory responded that in all likelihood a separate company, which would be separately financed, would be set up to operate the incinerator. It will need contracts from people needing waste incineration and these will specify where waste is sourced and how it will be sorted prior to incineration.

Q. How will adherence to contracts be monitored? / How long will a licence be for?

A. Dr Gregory stated that the plant will have a permanent licence but will be reviewed every 4 years. Each time it is reviewed a full review and a technical trail will be needed. Dr Gregory added that the plant should have a life expectancy of 25 years.

Q. Are there any negative health impacts caused by incinerators ?

A. Dr Gregory stated that The EA relies on Government Agencies, (eg. Health Authorities) to help answer such questions. Previous studies of populations living around the 'old' incinerators concluded there was no evidence that these caused health problems, however, some economic effects could have masked any effects. New incinerators are significantly better than old ones.

Dr Gregory referred to EU standards on incineration. There is a Waste Incineration Directive, which was implemented in 2002. UK legislation contains a lead-in time and there is a 2 year period to achieve the limits in the Directive. All new permits granted by the EA in the Thames Region for the last 5 years have been based on the new limits. Monitoring by the EA of incinerators is carried out on an annual basis but in the first year of operation of any new incinerators, there were 4 inspections together with continuous monitoring of some incinerator outputs.

Q. If an operator was so minded, could they 'fiddle' the output figures?

A. Yes, it is possible but the EA do random inspections. Some monitoring is carried out on-line but checking data against records is the best method.

Scrutiny Process – Expert Witness – CIWM

#.24 Mr Stephen Didsbury, Waste & Recycling Manager for the London Borough of Bexley was invited to attend the Committee meeting on the 19th March 2003 to provide additional information on the relative merits incineration versus landfill. This session took the form of a presentation by Mr Didsbury in his capacity as a Chartered Waste Manager and a member of the CIWM. After the presentation the following questions relevant to incineration as a waste disposal technology were asked :-

Q. Has there been any causal links established between health issues and clusters around 'old' style incinerators ?

A. In response Mr Didsbury stated that some studies around old incinerators have found links. However, Mr Didsbury also stated that in all likelihood other factors such as a close proximity to power stations probably accounted for any negative health issues. It was also pointed out that there is no way to separate any potential health affects good or bad as result of living next to an incinerator from other life style factors eg. habits such as smoking, levels of exercise, occupation etc. Mr Didsbury added that causal links had definitely been found in populations living in close proximity to landfill sites. In turn to put some of the above into context studies had also shown that the extremely popular Millennium firework display had generated more dioxins in one event than any modern incinerator would in a year.

Q. What information could the CIWM provide on issues like dioxins?

A. Mr Didsbury, referring to his presentation, responded that to place the issue of dioxins and other emissions in context the emissions from modern incinerators per unit of power generated were **lower** than the common alternatives such as coal, oil or gas fired power stations. In turn when looking at emissions such as Nitrogen Dioxides and particulates modern day incinerators only contributed 0.3% and 0.03% to the overall totals. In the case of dioxins modern incinerators were shown to contribute no more than 3% of the total with the steel industry, industrial coal combustion, domestic coal combustion, traffic and domestic wood burning making much bigger contributions to the overall total. Mr Didsbury went on to point out that a study in March 2000 by the Committee on Carcinogenity concluded that the risk of cancer as a result of waste incineration in modern plants could not be measured by modern epidemiological techniques.

Lewisham – information about visit / plant seen.

#.25 To gain first hand experience with respect to the workings of a waste to energy plant, the Committee asked Officers to arrange a visit to such a site. The South East London Combined Heat and Power plant (SELCHP) in Lewisham was able to accommodate a site visit and tour. The tour enabled the Committee to see how the concept of waste to energy was adopted and how a typical waste to energy plant is run.

#.26 To summarise SELCHP is a mass burn incineration plant situated in North Deptford, Lewisham, 6 miles from Hyde Park. The plant has a capacity to handle 420,000 tonnes of household waste a year. Energy released from the incineration process produces enough electricity to power the plant itself and approximately 35,000 homes. It is a commercial partnership between the public and private sector incorporating the London Boroughs of Lewisham, Southwark and Greenwich.

#.27 During the visit the Committee placed high emphasis on the emissions generated during the process and asked what monitoring procedures were in place. Site management were able to illustrate the type of systems that were used for monitoring purposes and to address and overcome any operational problems, which could otherwise have a detrimental impact on the environment.

#.28 The Committee also asked a series of questions concerning noise emissions from the plant. In response site management explained that this is an area which SELCHP tightly regulate, claiming there is no increase in background noise in the immediate area. It was noted that there was residential accommodation only 200 meters away from the plant.

#.29 Key to the design of the plant was to ensure it was integrated as much as possible into its residential surroundings. To this end communication and regular meetings with community groups commenced prior to the plant being built and are still on going today. Open days are held where the general public can tour the site and see it in operation.

#.30 The visit to SELCHP gave a clearer understanding as to the workings of a waste to energy plant and highlighted some of the technologies available to control and monitor a range of environmental concerns.

DEVELOPMENTS SINCE THE SCRUTINY PROCESS

#.31 Since the end of the scrutiny process there has been one very significant legislative development which must be examined in this report in order to properly assess the Committee's position on the use of incineration.

#.32 At the end of August 2003 the Government published a consultation paper on the new Tradable Landfill Allowance scheme which represents the transposition of the European Landfill Directive into UK law. **(the Committee notes that a detailed report in response to the Government's consultation has been prepared and submitted to the Cabinet for formal approval).**

#.33 The scheme is designed to be the main legislative driver which will govern the disposal of public sector wastes up until 2020 and will drastically reduce the tonnage of biodegradable municipal wastes able to go to landfill over the next 16 years. Waste Disposal Authorities will be responsible for achieving the requirements of the Directive and will be subject to substantial financial penalties if they landfill in excess of their available allowances.

#.34 The Government is seeking views on the proposal that penalties for each excess tonne of waste should be twice the cost per tonne of the most costly established method of diversion from landfill. In any event WDAs such as WLWA receive all of their operating budgets from their constituent Borough's via the annual levy. Therefore any such penalties levied against the WDA are in effect being levied against the constituent Boroughs.

#.35 The consultation paper notes that although allowances will only be issued to WDAs, WCAs will have an integral role to play in ensuring that the BMW diversion targets are met. Close working relationships between WDAs and WCAs will be needed. To this end the Government has amended the Waste and Emissions Trading Bill to require WDAs and WCAs to produce Joint Municipal Waste Management Strategies.

#.36 Based on work already completed , the tradable allowance system should have no financial consequences in 2004/05. However, based on the level of detail currently available 2005/06 could be the first year of impact for the scheme with a potential cost to the Borough of somewhere between £880,000 - £1.232million.

#.37 Across the long term the potential difference in costs between the use of landfill or incineration with energy recovery for those wastes which cannot be recycled are detailed in the table below :-

Year	Future Total Disposal Costs Using Landfill @ £175/ tonne		Future Total Disposal Costs Using Incineration @ £100/ tonne		Difference (Savings) Using Incineration Instead of Landfill	
	Tonnage Changes		Tonnage Changes		Difference	
	+1%	+3%	+1%	+3%	+1%	+3%
2006/07	£31.87m	£33.72m	£18.73m	£19.79m	£13.13m	£13.93m
2009/10	£32.80m	£36.74m	£19.26m	£21.51m	£13.54m	£15.22m
2012/13	£33.75m	£40.03m	£19.81m	£23.40m	£13.94m	£16.63m
2015/16	£34.74m	£43.63m	£20.37m	£25.45m	£14.36m	£18.17m
2018/19	£35.75m	£47.56m	£20.95m	£27.70m	£14.80m	£19.86m
2019/20	£36.10m	£48.96m	£21.15m	£28.50m	£14.95m	£20.46m

Assumptions :-

- *The cost of landfill as a result of the implementation of the tradable allowance system as well as accelerated rises in landfill tax is assumed to average out across the period at £175 per tonne.*
- *The cost of incineration with energy recovery is assumed to average out across the period at £100 per tonne.*
- *As per the Government's consultation document waste growth is forecasted to grow at between 1% - 3%.*
- *Historically since 1994/95 the average growth in waste in Hillingdon has been 3.4%.*
- *NB – most industry commentators expect the gap in costs between landfill and incineration to be larger than indicated here. If this proves to be the case then potential savings will be bigger than detailed above.*

#.38 The range of costs detailed above are based on the assumption that residual wastes will grow between now and 2020 at a rate of 1% - 3% per annum. However, these costs do not take into account any impact that improvements in recycling by any of the constituent Borough's may have nor any decisions WLWA may take to either borrow or buy allowances from future years. In addition any unanimous agreement by the constituent Borough's to stop taking trade wastes which can be agreed and implemented prior to April 2005 will also limit potential financial implications.

#.39 The figures detailed above clearly indicate the magnitude of the possible increase in disposal costs if Hillingdon in conjunction with WLWA fail to take some difficult decisions over the technologies we use in the future to deal with the wastes we create which cannot be recycled. What is clear from the above is that a disposal system which continues to rely on the use of landfill is neither sustainable nor affordable.

CONCLUSION

#.40 In conclusion the Committee recognises that the use of incineration as a disposal technology is an extremely sensitive subject. However, the results of the scrutiny process clearly indicate that modern incineration plants do not present any measurable risk to human health. In turn as a result of the scrutiny process the Committee considers that modern incineration plants poses less risk to human health than landfill. However, the Committee asks that the Waste Division keep abreast of any new measuring techniques which are used in the future to assess the potential health impacts of waste incineration and report back to this Committee should any new findings question the conclusions of the scrutiny process. In addition the scrutiny process has also demonstrated that incineration emits negligible levels of pollution when compared with other industrial processes. The Committee also recognises that the ultimate decision on whether or not to use incineration cannot be taken by Hillingdon but rather remains at the sole discretion of the West London Waste Authority.

#.41 In an ideal world we would be able to recycle everything which is discarded as waste. However, even though the scrutiny process has demonstrated that Hillingdon is now top of the London League table for recycling there will always be a significant element which cannot be recycled and which will need to be disposed of in a safe and

efficient manner with minimum environmental impact. In turn through our assessment of the main implications of the Government's new Tradable Landfill Allowance scheme it is clear that the element which cannot be recycled can also no longer be simply allowed to go to landfill for both environmental **and** financial reasons.

#.42 Therefore given the issues identified during the course of the scrutiny the use of incineration is accepted as necessary part of an overall waste management approach that should be based on a mix of solutions tailored to meet specific circumstances. In turn whilst the Committee fully endorses and congratulates Borough's Waste Division on the approach taken to date with respect to the development of Hillingdon's comprehensive range of recycling services it does recognise that incineration does have a role to play.

LEGAL IMPLICATIONS

#.43 The report by the Environment Overview & Scrutiny Committee including its recommendations as such has no direct legal implications for the Borough. As stated in the report the selection and use of various technologies for the large scale waste disposal applications is not for Hillingdon to decide.

#.44 The report has also highlighted a fundamental change in the use of recycling and landfill targets which for the first time have been placed on a statutory footing. Therefore the only legal requirement for the Borough is to ensure that all current and future waste service provision meets all current and future statutory targets and legislative frameworks and that officers and the administration can demonstrate that the necessary decisions have been taken in pursuit of these targets.

RESOURCE IMPLICATIONS

#.45 There are no direct resource implications arising from this report. Possible financial implications relevant to the implementation of the Government's Tradable Landfill Allowance have been discussed but are being dealt with via a detailed report which has already been submitted to the Cabinet.

#.46 The recommendations detailed above asks the Cabinet to instruct officers from the Waste Division to undertake a number of service development functions which will have potential financial implications. However, it is noted that the instructions as they currently stand require officers to report back to the Cabinet before any actions are taken. Any financial implications can therefore be addressed at this stage.

BACKGROUND DOCUMENTS

Waste Management Paper – No. 28

Environment Protection Act 1990

Waste Strategy 2000

LB Hillingdon Draft Waste (Recycling) Strategy 2001 – 2006

The Mayor's Municipal Waste Management Strategy – September 2003

Minutes of EO&SC Meetings July 2002 – April 2003

DEFRA Landfill Allowance Trading Scheme – 31st August 2003

Report to WLWA Board – 8th October 2003

Minutes of Overview & Scrutiny Committees 9/4/03, 19/3/03, 11/12/02, 18/11/02, 19/9/02, 22/7/02.