

FRIENDS *of the*
earth

The Incineration Campaign Guide

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2. *Up in Smoke...why Friends of the Earth opposes incineration.*

Introduction

This introduction explains

- *why Friends of the Earth has produced this guide*
- *how the guide can best be used*
- *why there are separate references to Northern Ireland.*

Here we present a summary of our arguments, some ideas for finding your way around this book, and an overview of each separate section.

Why an incinerator campaign guide?

Incinerators present serious environmental threats. Friends of the Earth opposes incineration for the following reasons:

- Incineration wastes valuable resources. Research by Friends of the Earth suggests that we need to reduce resource consumption by 80-90 per cent¹. We cannot continue to burn valuable resources in incinerators. Incinerators, through their very existence, encourage our "throw-away society".
- Recycling resources, as compared with burning waste and exploiting virgin resources, saves energy consumption and production of greenhouse gases (global warming gases) such as carbon dioxide.
- Incinerators need considerable certainty of waste supplies for 20 years or so. They almost literally demand creation of waste as feedstock, thus closing off alternative strategies for dealing with the waste.
- Incinerators cost a huge amount of money to build, and incineration, according to a report for the European Commission, is set to become the most expensive method for dealing with waste².
- Incinerators produce toxic emissions and heavily contaminated ash.

¹ McLaren, D., Bullock, S., Yousuf, N. (1997). *Tomorrow's World - Britain's Share in a Sustainable Future*. London, Earthscan.

² European Commission, DGX1 (1996). *Cost-benefit analysis of the different municipal solid waste management systems: objectives and instruments for the year 2000*. A report by Coopers & Lybrand/CSERGE. Luxembourg, Office for Official Publications of the European Communities.

- Incinerators rely on landfill sites to dispose of polluting ash, which is still a considerable volume - around one half of the volume as compared with compacted landfilled rubbish³. Landfill sites have their own problems.

How to use this campaign guide

Friends of the Earth believes that communities and individuals should be involved in the debate about waste prevention, waste disposal and particular proposals for incinerators. This guide should enable you to develop confidence with incineration issues and help you anticipate and prepare for the opportunities which are presented as the campaign develops.

If possible, do not wait until there is a proposal for an incinerator on your door-step. Decisions about particular incinerators often relate back to earlier decisions on planning policies or waste strategies, so we have included sections to help you campaign at these earlier stages in the process (*see Sections 2, 5 and 13*). This guide should help you whether your local authority is just considering incineration or other waste management strategies for the future or if you are opposing a specific proposal for an incinerator.

The focus of this guide is on municipal waste incineration (i.e. the general household and commercial wastes collected by the local authority for disposal) and

³ Department of the Environment/Welsh Office (1995). *Making Waste Work. A strategy for sustainable waste management in England and Wales*. The Stationery Office, London. Figures that talk of the ash volume as one tenth that of the original waste are comparing the uncompacted volume of the original waste, rather than its final compacted state in the landfill.

Box 1: Where should I begin...?

If you are new to campaigning and have not had much experience with waste management issues, have a look at Section 2 on incineration campaigns (which summarises the stages of waste management planning and incinerator proposals), and the case studies in Section 13. The case studies should give you some insight into the possible scenarios and give you a good idea of how campaigning might proceed. These examples have been written by local campaigners active in Friends of the Earth's local group network and we hope that their stories illustrate that campaigning is absorbing and fulfilling. There is no book that can substitute for direct experience, but we have tried to bring you a flavour of campaigning alongside the wealth of information here. Annex 5 summarises some planning decisions and will be useful if you have not been involved in planning issues before.

It's easier than you think...

Don't be put off by the detail in this guide! It's even OK to say that you don't understand everything "but Friends of the Earth says...". Common sense and asking questions go a long way. *There are sensible alternatives to incineration and most campaigning is about persuading politicians and other decision-makers that they will be very unpopular if they insist on incineration.* Although we have put in lots of technical detail, we have done this to help you understand the process and be able to cope with technicalities when they arise. You may not have to absorb all the details - think about recruiting other people to help on specific bits or try to get your elected representatives to do the legwork. Remember that if politicians feel enough pressure, they will start looking for ways out themselves and will be able to garner the technical resources of the council officers too.

the prospects for recycling, but much of this guide (e.g. planning law, operating permits) will apply to other more specialised facilities such as incinerators for clinical waste, sewage sludge and chemical waste incinerators. Arguments against cement kilns burning hazardous waste as fuel⁴ and incinerators or power plants used for disposal of BSE-infected animals are not addressed specifically either, since there are specific concerns and studies and politics which are beyond the scope of this text.

Northern Ireland

This guide is written predominantly from the perspective of England and Wales. Both the administrative structures responsible for waste management and legislation differ drastically in Northern Ireland. We have included a separate chapter to help, and some further guides are mentioned in the Reading List (*Annex 7*). Remember that there will be many similarities whether you are campaigning in England or Northern Ireland, but that you might need to check on the particulars of legislation and process.

As stated in the text, the existing legislation governing waste management in Northern Ireland is about to be

replaced with new legislation which will bring it broadly in line with the rest of the UK. However, although Northern Ireland should achieve legislative parity with the rest of the UK in 1997, a number of factors will help to create confusion over the next 1-2 years.

The introduction of the new legislation must be followed up by regulations issued by the Department of the Environment, which may result in further delays before the legislation is actually in force "on the ground".

Additionally the Department of the Environment has just awarded a contract to consultants to write a Strategy for Sustainable Waste Management for Northern Ireland. Until this strategy is published (probably not before early 1998) there is likely to be a great deal of confusion on the part of local authorities over what government policies apply in Northern Ireland.

FOE's Northern Ireland Campaigner has written a briefing sheet on Waste Management in Northern Ireland for local groups as a supplement to this guide. Telephone 01232 664131 (Northern Ireland FOE) for details.

Scotland

Although much of this guide has general relevance for anyone concerned about incineration, this guide does not specifically cover Scotland, which has separate

⁴ FOE is working on the issue of cement kilns burning toxic waste. A briefing is available: FOE (1997). *Gone to blazes...burning hazardous waste in cement kilns.*

legal and administrative organisations. Friends of the Earth Scotland can be contacted in Edinburgh, telephone 0131 554 9977.

Feedback Please

Do give us your thoughts on what was the most useful part of the guide. What was the least useful? What was covered in too much detail or what was covered in too little? What were the most grievous omissions? Has it helped you win a campaign? All constructive criticism will be gratefully received and your experiences might be useful to share with other campaigners in a later edition of the guide.

The information in this guide is up to date at the time of going to print but, like all publications, it will become out of date and will need to be regularly updated. In particular, the technical supplements will be updated with information from other sources; you will be able to get updates from FOE from time to time. It would be helpful if you would fill in and return to us the form inserted into this guide.

An Overview of Each Chapter

This guide is broken down into sections and annexes. You will not need to read the whole guide at once, some sections are more relevant at different stages of the campaign, and many sections will act as reference material into which you will dip when appropriate. Although overall any campaign is likely to take some time, **some stages of a campaign happen very quickly**. For example you only have 21 days at most to comment on a planning application, so immediately find out what stage things are at.

Section 1 - Campaigning

This section -

- highlights the importance of involving large numbers of people in your campaign
- suggests how you may want to plan your campaign
- provides advice on the essential elements of most campaigns.

These are general points on campaigning. Read this section before you start campaigning.

Section 2 - Overview of incineration campaigns

This section -

- gives a broad overview of the path to incineration
- explains briefly the plans, policies and authorisations affecting waste incineration
- touches on the scope of the arguments that will be useful
- notes that the pro-incineration lobby will also be active.

Section 3 - Incineration Policies

This section -

- provides an overview of UK policies on waste and incineration
- provides an overview of European policy
- gives an overview of Friends of the Earth's views.

This section should provide useful background information for your campaign. You may not want to read this immediately, but refer to it later when your campaign is underway and you have found out the basic information.

Section 4 - The Environmental Problems of Waste Incineration

This section -

- provides an overview of the environmental problems associated with an incinerator, including:
 - air pollution
 - the production of toxic ash
 - water pollution
 - the destruction of valuable resources
 - cutting off options for alternative waste management strategies
 - lost job potential
 - noise, traffic and loss of amenity.

Here we summarise the problems of incineration, apart from the question of relative energy efficiency and greenhouse gas/global warming issues, to which we devote an entire annex (*Annex 4*). More detail on air pollutants is given in *Annex 2*.

Section 5 - Campaigning on Waste Plans

This section -

- describes the types of waste plan that are produced

- explains their importance with respect to incineration policies.

If you are campaigning on waste issues in your area, waste plans will undoubtedly be important. You may be able to influence the content if one is under production or review in your area, and you will need to read the relevant plans to learn about current policy if you are opposing any proposals.

Section 6 - Establishing the facts about a proposal

This section -

- identifies the information you will need for your campaign
- provides tips on getting the relevant information.

A good campaign needs to carry out some research before it can begin. This section is essential reading before the campaign is launched.

Section 7 - Who gives planning permission

This section -

- describes when incinerators need planning permission (most do)
- details who gives the permission
- discusses the official guidance given to the decision-makers
- looks at the rights of appeal if a planning application is granted or refused.

This section is essential reading so that the group understands 'the rules of the game' whilst it is campaigning to stop the council giving planning permission for an incinerator. This section should be read in conjunction with the next two sections where we cover the planning process and lobbying in more detail. The section on waste plans also has useful background relating to the planning system.

Section 8 - Objecting to the Planning Application

This section -

- guides your group through compiling its objection to the planning application.
- suggests useful allies who may be able to provide you with evidence in your objection
- details the grounds on which you can object to the application
- suggests information you will want to include in your objection.

This section is essential reading when your group compiles its objection to the planning application.

Section 9 - The Local Planning Authority and How to Lobby Them

This section -

- explains how local authorities work
- provides tips on influencing their decisions.

This section is useful background reading when you're campaigning against the planning permission.

Section 10 - Who Gives Incinerators Licences to Operate?

This section -

- details what licences are needed by an incinerator before it can operate
- describes the procedure for applying for a licence
- identifies the opportunities to object to the licence application.

This section is essential reading for the group so that it can understand "the rules of the game" when campaigning against the granting of a licence to operate. Information from this section may also be useful when you are campaigning against incineration in general.

Section 11 - Campaigning Against the IPC Application

This section -

- details grounds for opposition to an application for a licence to operate.

This section is essential reading when your group compiles its objection to the granting of a licence to operate.

Section 12 - The Environmental Statement

This section -

- describes when an environmental statement is needed
- describes what an environmental statement is
- suggests how to examine an environmental statement.

This section is essential reading when your group is examining an environmental statement.

Section 13 - Campaign Case Histories

This section -

- gives concluding remarks
- highlights three examples of incinerator campaigns.

This section is useful reading before starting to campaign or when it is feeling like an uphill battle.

Section 14 - Northern Ireland - Planning and Waste Disposal Licensing

This section -

- provides details on waste management planing and licensing in Northern Ireland
- identifies opportunities to campaign on the granting of the licences.

This section is essential reading for campaigners in Northern Ireland.

Annexes

1. The Arguments
2. Air Pollution and Health
3. Municipal Waste Incinerator Emission Limits (to air)
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Appendices

1. FOE Briefing Sheet: *Don't Burn it or Bury it - alternatives to landfill and incineration*
2. FOE Briefing Sheet: *Up in Smoke...why Friends of the Earth opposes incineration.*

Section 1

Campaigning

This section -

- *highlights the importance of involving large numbers of people in your campaign*
- *suggests how you may want to plan your campaign*
- *provides advice on the essential elements of most campaigns.*

These are points on campaigning in general. Read this section before you start campaigning.

Before you read the rest of this guide, remember - **you can win**. Anti-incineration campaigns are having an impact. Most people who lose their battles against incinerators do so because they haven't managed to motivate large numbers of local people to object to the proposals and/or lack the insight and information they need to translate their justifiable concerns into an effective campaign. We hope that this guide can help you motivate people and give you the information you need to win your campaign.

However, even if your campaign does not stop an incineration policy or incinerator proposal completely, it will not have been a total failure. Your campaign will send more signals to government and local authorities that incineration is deeply unpopular with the public, and will almost certainly have made sure that the impacts of an incinerator development are mitigated. You will also have ensured that there will be considerable scrutiny of the operation and pollution potential of any incinerator in the future.

The success of your campaign is likely to depend on a variety of factors, so do not ever think that you have no chance of winning! You may not even be aware of some factors at play, and certainly will not have control over every influential detail - for instance the company involved might suddenly pull out because it has over-extended itself elsewhere, or changes at Board level cause a re-think for whatever reason (including the hassle that local campaigners are causing!). But you should prepare to:

- mobilise a high level of support within the local community when possible, and
- make solid and well-presented arguments on waste management, planning and pollution issues.

It will probably be easier to rouse large numbers of

residents when a particular site for an incinerator has been identified or when a firm proposal for an incinerator is in the offing, rather than when you are trying to influence a broader strategic decision. You will need to exercise some judgement about what sorts of tactics (like public meetings) to use when, but the more visible your campaign (e.g. letters in the newspapers), then the easier it will be to get mass support when you need it.

Bear in mind that your campaign is part of a wider campaign for a sensible waste management policy. It is important not to do anything that will make your own campaigning or that of other groups more difficult, for example suggesting that an incinerator should be built somewhere else.

Planning your campaign

A good campaign is a campaign that is well planned and involves a number of people to share the work. A good campaign will identify the following:

The campaign objective - be clear about what you want to achieve, e.g. to prevent incineration from appearing to be an acceptable option to the local authority or to prevent an incinerator from being built, and to persuade the council and others that the waste could be managed some other way, preferably through waste minimisation and recycling (*see appended briefing sheets*).

The targets - those people whose mind you need to change. In the case of an incinerator campaign, that is going to be a) your council (the local planning authority) over waste management policy or a planning application, b) planning Inspector if a case goes to public inquiry, and c) the Environment Agency who will provide the incinerator operator with a licence to operate. This guide goes into a lot of detail on how to influence these people and when is the best time to do

so.

The key players - these are the people who could help or hinder your campaign. For an incinerator your allies are likely to include local residents, parish councils, the media, other local community groups and perhaps your local MP. Council officers in the local planning department and waste disposal authority may also be on your side. Your opponents will include those people who are planning to build and operate the incinerator.

The research you need to do - this includes finding out who is supporting incineration or proposing an incinerator, who will make the decisions and what guidelines they will use to do so, what are the alternatives. Some of this information is in this guide but some of it you will need to find locally.

The tactics and opportunities - winning the campaign will involve using the right tactics at the right time. For example building up local support may involve leafleting and holding public meetings. At other times you will need to prepare good arguments for lobbying the Council (which this guide will help you do) and you might try to open up a debate in the newspapers with a letter. A good campaign recognises that it can't do everything at once and plans to put its efforts into the right actions at the right time.

The resources you need - every campaign needs money and people. Your campaign plan should identify opportunities to raise money - through street collections, jumble sales, etc - and opportunities to involve people, for example through delivering leaflets, lobbying councillors, etc.

A time line - a calendar of events and what needs doing when. This helps ensure that things get done and that the whole group knows what is happening and coming up, but don't be afraid to change it as events unfold.

Spending time as a group writing the campaign plan and dreaming up **stunts** is always time well spent.

Publicising your campaign

Here are a few examples of how you could publicise your campaigns.

Use the media. Getting articles in your local press and on the radio enables you to get your message to many thousands of people. You can generate stories for the media in a range of ways, for example:

- launch a campaign
- hold a public meeting
- welcome or condemn new proposals
- lobby a council meeting
- do a public opinion survey
- have a stunt - perhaps dumping waste at the proponent's doorstep.

Aside from trying to make the news, it is useful early on to make your campaign group known to the media with a brief letter to the news desk enclosing a list of contacts with phone numbers. Then the press know where to contact someone when they are looking for a comment. Remember that the other side may also be trying to generate (favourable) stories and the press will very probably call you up for your views if they are aware of your campaign.

Leafleting is an important way of communicating your concerns to a large number of people and raising public awareness of the campaign. You could post leaflets through doors at houses in key locations, for example near the proposed incinerator or in the area that the key councillors live - those councillors who have the responsibility to give or refuse planning permission.

The leaflet should say what the environmental problems of incineration are and what your group thinks about the proposal. The leaflet should also tell people how they can help, for example writing to the councillors for their area. It is important to encourage as many people as possible to send letters to the council saying they object to the proposal. Let them know that councillors get few letters and phone calls and that therefore their effort will make the councillors sit up and take notice.

Hold a public meeting and invite the key councillors to attend or speak. You will want to ensure a good turnout to this meeting to be certain that they are aware of the strength of feeling. Use an accessible and well known venue, perhaps a local community centre. Put up posters and distribute leaflets advertising the meeting a few weeks in advance. Advertise in the local paper (or at least ask for a mention in the events section). Write to all the councillors inviting them to attend (and offer the leaders of the political parties the opportunity to speak) and also invite the key council officers. **Don't forget to invite the media.** At the public meeting you will want to have a member of your group saying why it opposes incineration, and also offer other groups the opportunity to do the same.

Organise a petition or public opinion survey. This is aimed at convincing the councillors of the level of support for your campaign, and is relatively simple to organise. It can simply ask "have you heard that there

is a proposal to build an incinerator at X ?”, “do you want the incinerator at X or not ?”, “do you think we should be recycling our waste instead ?”. It is worth carrying out the survey outside shopping areas and other places where plenty of people go. Once you've asked a few hundred people you can then let local councillors know the results and also tell the media (*see below*).

Organise a letter-writing campaign. Councillors and Environment Agency officials will be more impressed with the greater personal effort that is required for people to express their views in a letter than simply by signing a petition. You can encourage people to write letters through your leafleting, posters, press work and public meetings.

Key campaign materials

Most campaign groups have found the following materials useful:

- A leaflet outlining the threat, what you're doing about it and what action you want others to take.
- A newsletter/news sheet to keep supporters up to date with what is happening.
- A list of key people in the campaign and their contact numbers.
- A briefing sheet - a briefing sheet - this should provide further information to journalists and new people joining your campaign; if it looks professional so much the better, but the facts are all important.
- Posters with a simple message - for example “no toxic fumes in our backyard”. These can be put up in shop windows, homes or used on placards.
- Postcards and pre-printed letters.

Bear in mind who will read the information. If it is targeted at the general public, keep it simple. If it is aimed at council officials, you could use more technical language and arguments.

A few general campaigning tips

Remember the range of arguments. Whilst it's important to focus in on particularly weak points of the proposal, it is usually best not to concentrate on too narrow a range of issues since the points of interest may change. Make clear at all opportunities that there are a range of reasons why the proposal should be rejected and do not allow your campaign to be wrong-footed by tactical concessions from the developers.

Ask questions. No-one can be expected to become an expert in planning and pollution law and procedures overnight. Ensure that you talk to relevant officials (such as the council, Environment Agency or even Department of the Environment, Transport and Regions staff) to be absolutely sure that you understand latest policy or where a process is up to. There will be many points of procedure - including crucial deadlines or meetings, the desirable format and number of copies of any objections - of which you should be aware.

Your campaign may take a long time. Whilst you should find your campaigning rewarding and satisfying - whatever the outcome - campaigning against an incinerator proposal can take a long-time. Even as a group the campaign may sometimes seem a rather lonely and thankless business. Many developers half-expect a storm when they announce their proposals, but count on the fuss dying down after a while. So prepare yourself for the long haul and stick at it.

Get as many people involved as possible. Try and involve as many people in the campaign as possible. Not only does this allow the work and cost to be spread more evenly but it gives the campaign greater credibility if you can claim to be speaking on behalf of the local population.

Spread the workload. Spread the workload as evenly as possible amongst the group, making sure that you identify and use the skills and resources that people in the group can contribute. These may range from the highly specific (e.g. legal experience, relevant scientific experience, media experience, previous campaigning experience) to more general (time to write the letters, time to visit the Town Hall or Library during the day, time to be available for media calls during the day).

Run effective meetings. Ensure that the campaign group meets regularly and that you have an agenda to try to make sure that everything that needs to get sorted out, does get sorted out - this also gives a good impression of the group. Also try to make sure that there is a written record with key points raised during the meeting, and any decisions and action points that might have been agreed. This is useful to help you keep track of who is doing what.

Build up a media list. It is important, if possible, to make personal contact with the local media (papers, TV and radio) and keep the journalists up to date with the progress of the campaign. Again, make sure that you have a list of the names, position, telephone number(s), fax number and address of all relevant media contacts.

Get it in writing! As far as possible, make sure you have a written record of all exchanges (for example with the developers and the council), rather than being drawn into a succession of cosy informal chats or off the record briefings. This will allow you to reference

key points in any subsequent campaigning literature you produce. It is also useful to be able to produce these 'solid facts' when dealing with the media.

Section 2

Overview of Incineration Campaigns

This section -

- *gives a broad overview of the path to incineration*
- *explains briefly the plans, policies and authorisations affecting waste incineration*
- *touches on the scope of the arguments that will be useful*
- *notes that the pro-incineration lobby will also be active.*

Important reading if you are unsure as to what might be going on.

It may be that you are face to face with an incinerator proposal almost literally in your backyard. With any luck you have found out about it before the actual planning application is submitted, which means that you will have more time to organise a campaign. Better yet, you think the council is not doing enough about recycling and you want to influence their policies against incineration. Whatever you think the situation is, you must confirm exactly what is happening.

The major stages

When you try to figure out what is happening about a possible incinerator or pro-incineration policy, one or more of the following stages may be under way:

- a) development of a relevant strategy and/or plan for waste disposal in the area - a waste disposal plan or waste local plan (or unitary development plan); this is a policy setting stage
- b) the formation (and possibly selling off) of a separate "arm's length" waste disposal company; under 1990 legislation, local authorities need to separate out this function and subject the disposal service to competitive tendering
- c) preparation of a waste disposal contract by the local council; the council sorts out how to deal with its own need for municipal waste disposal
- d) consideration of an application for planning permission; a developer submits a formal application for a new incinerator at a specific site (quite likely following informal discussions with relevant parties)
- e) application for a pollution control permit; details of emission limits and related matters, which can

affect the design of the plant, have to be agreed with the pollution control authority, usually the Environment Agency, although possibly the local authority

- f) applications for other permits if needed - such as a water abstraction licence or trade effluent permit for discharges to sewer
- g) application for a "non-fossil fuel obligation" subsidy (but these decisions are not open to public involvement).

These stages do not necessarily follow each other neatly, but may be interdependent and simultaneous to a large extent. If you read the case studies in this guide, you will begin to get a good feel for the sorts of scenarios that can occur (*Section 13*). For instance, the waste disposal contract, and formation and selling off of the arm's length company might be happening simultaneously and the outcome will be influenced by the council's adopted waste management policy. It could also be important to watch that the actual processes (such as consultation stages) are being carried out according to the rules. It is possible to challenge decisions on the basis that the correct procedures were not followed. We would urge you to talk to as many informed people as possible in order to find out the situation in your area and so get invaluable background information on both the formal and more informal processes and politics.

Because waste disposal is now a huge business which costs everyone money and causes environmental problems, international, national and local governments have become more and more involved in considering **strategy**, and preparing laws, plans and guidance on the subject (*see Section 3*). Very often, the beginnings of an incinerator proposal are bound up with an adopted waste management strategy or

plan. A national waste strategy is under preparation and local strategies may have been prepared. You will be able to consult these documents to see whether particular proposals in your area are consistent with these existing policies.

It may be that **waste plans** are under discussion, and that you will have an opportunity to influence these. Demonstrating a body of opinion in favour of recycling will be very useful, and you should create opportunities to directly talk to councillors and officers about the problems of incineration. We describe the varieties of plans, which vary in their status, in Section 5.

After emptying our bins and collecting other municipal waste, councils have large amounts of rubbish to dispose of. **Waste disposal contracts** can be crucial to the viability of an incinerator project. Incinerators need fuel, councils have rubbish which can be used as fuel, and so very long-term contracts may be struck between a council and an incinerator operator. Influencing these contracts is very important - very often they are for 25-year time spans, ensuring that the council has to produce waste for burning for a long time to come.

Planning laws and procedures, which govern the siting of facilities, are very important for a development such as a new incinerator. The **planning system** has to provide for public input and considerations such as traffic generation, noise, loss of amenity and landscaping considerations can be crucial. The decision also has to bear in mind the waste management strategy and any consideration given to previous identification of suitable locations for waste disposal facilities in relevant local plans (*see Sections 5 and 7*).

The **pollution control** process permits public scrutiny of the application and permit, but it has to be said that the responsible authority is unlikely to give much weight to non-expert opinion as long as any relevant pollution standards are being met (even though we might argue with those standards). But pollution issues will still be relevant because they help you to argue for alternative waste management strategies and can be important at the planning stage. Local people will also care about the pollution issues.

We do not go into **other permits** such as water abstraction licences here since these are not always needed and are unlikely to be the major focal point of any campaign. But it is still worth bearing in mind that any other permits that are needed might have some contentious points which might just prove to be an

Achilles heel, and which will also give you an opportunity to keep the issue in the news.

You may well find that **economic arguments** are put forward in support of a strategy or proposal at various times, and of course it helps to understand what factors are at play here. Incinerators cost a lot to build, need a steady supply of waste to burn, may produce power and heat for sale, may qualify for subsidies, and someone aims to make a profit by charging the waste producer/waste collector for waste disposal. The economics should also be considered against the costs of alternative methods of waste disposal.

At all these stages, wide-ranging **environmental arguments** will also be important - not just local pollution matters, but issues that are bound up with the evolving concepts of sustainable development - destruction of resources, job creation opportunities through recycling, the savings in energy by recycling goods instead of burning and then processing more virgin materials, the relative production of gases which contribute to global warming by the different waste management options (*see Annex 4*).

These factors are inter-related and potentially complex, and some may not be relevant in your particular circumstances. We provide more information about the arguments and procedures below. Your job is to find out which events are unfolding or what debates are taking place (or not taking place) then join in or create the debate, making the climate as unfavourable to incineration as possible and hope that this tips the balance.

The earlier you are involved the better, but it is never too late. Even if an incinerator is already operating in your area, looking at its operating and pollution record or talking about alternative ways of dealing with the waste can pay off in the long run.

Campaigning

Key stages for campaigning are when **waste strategies/plans** are being formulated (*see Section 5*) and when **planning applications** are being developed and/or submitted (*see Sections 6-8*).

The policy development stage may be crucial. If your campaign can start up early enough, then it is possible that you could actually prevent any plans for a municipal waste incinerator being developed well before a planning application is submitted. Remember that the council is full of elected officials who have

some sensitivity to public opinion! Arguments about the alternatives for waste management, encouragement of recycling efforts, reminders of the problems of incineration, and clear signs of public support for your campaign could be enough to persuade the council early on that incineration would be so politically unacceptable that they seek alternatives well before encouraging incinerator applications.

It is quite possible to start the debate before an application shows up - here are some ideas:

- promote recycling and ask your council what they are doing - backed up by the waste hierarchy, national and European policies that encourage recycling, arguments about jobs and energy savings
- get waste issues on the agenda by looking at what is happening with waste currently in your area - at landfill sites/or current waste disposal option
- get involved with discussions about the waste disposal plan (if there is one for your area)
- get involved with the waste local plan - which addresses locations of sites
- argue for waste disposal contracts which favour recycling and object to other contracts.

If you tackle a pro-incineration local authority at these earlier stages you are likely to need the full range of arguments at your disposal - but particularly those on waste management issues and pollution issues. In later chapters we try to tackle the range of information that we think will be useful, but there is no blue-print for success - it will take a mixture of campaigning inspiration, persuasive arguments, and a knowledge of who is thinking and/or making decisions at the local authority. This guide is inevitably a pick'n'mix of information, arguments and tactics.

Expect counter-propaganda...

It is likely that there will be considerable debate in the press so do not expect that your position and arguments will go unchallenged. For example, the DTI's guide on "energy from waste" (EFW) proposals recognises that public concerns are quite legitimate, but also goes into techniques for "consultation" and spreading the message that EFW can be acceptable. Do not let the counter-arguments put you off - to a large extent, the more successful you are at getting your message across, the more you will hear from "the other side", and no doubt they will have more resources for PR. But getting the alternative view out there is important, and any incinerator developer must recognise that there will be some impact on a community. Your opposition is bound to help minimise that impact at least. Remember the basic premises that incinerators are expensive, a waste of resources, and undesirable in any neighbourhood no matter how few molecules of X are coming out of the stack.

And keep at it!

We cannot predict all the possible political scenarios here (and so the related pressure points or courses of action), but we advise you to talk to as many informed people as possible to understand what is happening and when crucial decisions might be taking place. Campaigning is a dynamic activity and the more you know about the politics, the more you will spot your chances or be able to prioritise your work. But don't expect to know everything before you start - you will undoubtedly learn about the politics and technicalities as you go along. Just doing something is important. It can even set off a chain of events that one could never predict. So do not get too hung up on the complexities of any situation. You do not want an incinerator, you do not want the Council to tie up waste resources to an incinerator contract - and keep explaining why not.

Section 3

Incineration Policies

This section -

- provides an overview of UK policies on waste and incineration
- provides an overview of European policy
- gives an overview of Friends of the Earth's views.

This section should provide useful background information for your campaign. You may not want to read this immediately, but refer to it later when your campaign is underway and you have found out the basic information.

UK policy

Much of the existing policy referred to here, such as the White Paper on waste management strategy, Making Waste Work⁵, was formulated under the previous Conservative government. Now that the Labour party is in power (since May 1997), we can expect some shifts in direction and emphasis, although these may take some time to crystallise. We are not over-optimistic of seeing a radical overhaul although we expect recycling to receive extra consideration, maybe through economic instruments⁶. In In Trust for

⁵ DOE/WO (1995). *Making Waste Work. A strategy for sustainable waste management in England and Wales*. The Stationery Office, London. The document is described as "advisory". Targets set out in this document are not statutory, or legally binding, but provide an indication of intent. A statutory waste strategy, to be published beyond 1997, was envisaged.

⁶ Angela Eagle, Parliamentary Under-Secretary of State for the Environment, Transport and the Regions: "It is important to improve recycling and increase the proportion of waste managed by the options towards the top of the waste hierarchy. We will be looking carefully at the options for doing this as part of our wider assessment of waste management and recycling policy." House of Commons Hansard, 14 July 1997.

"The Government believes that the recovery of energy from waste, for example through incineration, can play an important part in sustainable waste management practices, as part of a general effort to move up the hierarchy of waste management options. It should, however, play its part within a wider context in which reduction,

Tomorrow, Labour's environmental policy statement (1994), the party promised to reduce the proportion of waste going to landfill, and mentioned encouraging recycling and re-use through use of recycled material in packaging and deposit schemes. We have signalled any developments up to the time of writing, but bear in mind that waste policy is in any case evolving at both UK and EU level as society tries to grapple with the problems.

The UK appears to have accepted the importance of many of the problems associated with waste disposal, but is still left with the problem of how to deal with waste without upsetting the vested interests that produce it and manage it. It is estimated that we produce over 400 million tonnes of waste a year in the UK⁷. This is big business.

The so-called "hierarchy" of waste management options (based on environmental considerations) has traditionally shown any form of incineration to be

re-use and recycling of waste are favoured. It is also essential that both new and existing incinerators meet stringent emissions standards to protect public health and the environment." House of Commons Hansard, 15 July 1997.

"We are looking carefully at both existing measures and at possible further measures to increase recycling. Recycling makes sense only if it represents the best practicable environmental option for a particular waste stream." House of Commons Hansard, 27 July 1997.

⁷ Department of the Environment, Transport and the Regions (DETR) (1997). *Digest of Environmental Statistics, No. 19*. London, The Stationery Office.

generally a less desirable option than recycling/composting⁸ (see Box 2). However, the 1995 White Paper on waste policy, *Making Waste Work*, shows a category, euphemistically called "recovery", which put recycling/composting alongside incineration with energy recovery (often referred to as waste-to-energy, WTE). This effectively states a presumption that energy recovery is as desirable environmentally as recycling (with which we strongly disagree - see below), making it easier for strategic waste management decisions by local authorities to favour incineration with energy recovery at the expense of recycling/composting. It was noted that "*Substantial potential remains for England and Wales to expand the use of waste to energy.*" Nothing that the Labour government has said since would indicate disagreement with this statement.

Current targets

Making Waste Work set a modest target for a reduction in the proportion of controlled waste⁹ going directly to landfill from 70% to 60% by the year 2005. This is to be achieved partly through various waste reduction and recycling initiatives, but is likely to increase the amount of waste being incinerated prior to landfilling.

The White Paper also set a target to recover 40% of municipal waste by 2005 - but recovery includes the possibility of WTE incineration, although the paper also re-affirmed the target of recycling or composting 25% of household waste by the year 2000. We are currently at 12.5% for recovery (including recycling) and 6.5% for recycling alone¹⁰.

Unfortunately, several other initiatives which exist in relation to waste management also work to *increase* the role of incineration as a waste management option.

Of particular significance here are the Non-Fossil Fuel Obligation (NFFO) Orders¹¹; the Packaging Waste

Regulations; the landfill tax; and the move away from sea-disposal for sewage sludge.

NFFO (pronounced "noffo") subsidies directly support the generation of electricity from non-fossil fuels. The Fossil Fuel Levy, paid through electricity bills, was introduced through the Electricity Act 1989 to support electricity generated from non-fossil sources through the NFFO mechanism. Under the NFFO, electricity distribution companies are required to secure specified amounts of electricity generating capacity from non-fossil sources of energy. They meet this obligation by signing contracts with generators who are paid a premium price for the electricity produced. The premium paid is funded from the money collected through the levy. The subsidy is used to support renewable energy (wind power, hydro power, etc) as well as nuclear power and incineration.

The Packaging Waste Regulations¹² implement the European Packaging Directive¹³. The Directive states that a minimum of 50% of packaging disposed of in each European country has to be "recovered" (which can include energy recovery), but that at least 25% (i.e. half of the 50%) has to be recycled by the year 2001. The UK is aiming for 52% and 26% respectively (close to these minimum targets). It is too early to see exactly how the packaging industry will respond to this, but clearly the targets give some added impetus to incineration.

The signing of the North Sea Conference Declaration in 1990 committed the UK to the complete cessation of sea-disposal of sewage sludge by 1998. Prior to 1990 the UK disposed of 24% of sewage sludge at sea, and incinerated a further 5%. Many of the sewerage undertakers regard incineration as the only real alternative to sea disposal, and the percentage of sludge burnt will undoubtedly increase as a result.

The landfill tax

A new tax on landfill disposal was introduced in 1996. The basic tax is £7 per tonne, with a lower charge of £2 per tonne for more inert waste (also referred to as inactive waste). The inert category includes incinerator bottom ash (but not fly ash) and much contaminated land is excluded completely. Although the tax was

⁸ Royal Commission on Environmental Pollution (1993). *Seventeenth Report. Incineration of Waste*. London, The Stationery Office.

⁹ In this context, controlled waste excludes agricultural, mining/quarrying and sewage sludge wastes but includes commercial, industrial and construction/demolition wastes as well as municipal waste.

¹⁰ Angela Eagle MP, 29 July 1997, House of Commons Hansard.

¹¹ Electricity Act 1989

¹² Producer Responsibility Obligations (Packaging Waste) Regulations, SI 1997/648

¹³ European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste OJ L 365, 31.12.1994, p. 10

Box 2: The waste hierarchy

The options for waste management have been ranked according to their approximate environmental benefit and disbenefit. In the White Paper, *Making Waste Work* (DOE 1995), the hierarchy was shown with 4 levels, and you may find the following hierarchy quoted as accepted wisdom:

1. Reduction
2. Re-use
3. Recovery (recycling, composting, incineration with energy recovery)
4. Disposal (landfill, incineration without energy recovery)

Because of pollution problems, the destruction of resources by incineration, the energy savings and job creation potential of recycling, Friends of the Earth does not believe that energy-from-waste schemes should be equivalent to recycling (i.e. material recovery), and, on the basis of statements from the Labour party and European policy below, you can challenge anyone who tries to argue for their equivalence on the basis of *Making Waste Work* (also see Section 5).

For example, in 1996, Joan Ruddock, Labour MP for Lewisham and former Shadow Minister for Environmental Protection, stated that "*the Opposition's view... is that there should be a general presumption in favour of recycling, provided that it is sustainable and environmentally sound, and that we should attempt to recycle and gain materials before attempting to produce an energy gain*" (20 November 1996, European Standing Committee A).

It is also important to point out that, whilst clearly endorsing waste reduction as the most preferable option, the European Commission has distinguished recycling and energy recovery. The review of the strategy for waste management (COM (96) 399, 1 August 1996) states "...*preference should be given, where environmentally sound, to the recovery of material over energy recovery operations*", although this is qualified with "*it will be necessary to take into account the environmental, economic and scientific effects of either option. The evaluation of these effects could lead, in certain cases, to preference being given to the energy recovery option*". A presumption in favour of recycling has been supported by the Council of Ministers (and thus the UK) which "*considers that at present, and until scientific and technological progress is made and life-cycle analyses are further developed, reuse and material recovery should be considered preferable where and insofar as they are the best environmental options*" (in its Council Resolution of 24 February 1997 on a Community strategy for waste management, Official Journal C76/1, 11.3.97).

In a letter to Friends of the Earth (12 September 1997), Michael Meacher MP, Minister for the Environment, echoed the Council Resolution: "... *it is important to ensure that the environmental impact of waste management is minimised; recycling is to be preferred to incineration with recovery if and insofar as it represents the Best Practicable Environmental Option, as the Council resolution recognised.*" [See the next box for a definition of BPEO.]

Box 3: Best Practicable Environmental Option, BPEO

In the UK, the choice of a waste management option should involve choosing the "Best Practicable Environmental Option", BPEO. The Royal Commission on Environmental Pollution, in its 12th report on BPEO (1988) described BPEO as follows: "*The BPEO procedure establishes, for a given set of objectives, the option that provides the most benefits or least damage to the environment as a whole, at an acceptable cost, in the long term as well as in the short term.*"

The quote from RCEP was used in *Making Waste Work*, which then stated: "*Across the waste streams as a whole there is a need to move waste management practices further up the hierarchy. However the choice of waste management options for a particular waste stream will be guided by the principle of using the best practicable environmental option. This takes into account both the environmental and economic costs and benefits of different options.*"

It is also worth noting that it has been stated very clearly that, when letting a waste management contract, "*WDAs [Waste Disposal Authorities] are not required to accept the lowest tender where an alternative offers environmental benefits. On the contrary, WDAs can award contracts which offer clear environmental benefits even where a cheaper option exists*" (*Making Waste Work*, p 109).

ostensibly brought in as a "green" tax for environmental purposes, FOE believes a much higher rate is necessary to promote recycling - a study prepared for the Government predicted that there would only be a 1% shift towards recycling with the tax at its current level¹⁴. In the absence of parallel measures to encourage re-use, recycling and reduction at source, such a tax would inevitably increase the demand for incineration unless it too has a tax levied on it, as FOE believes it should. £7 per tonne, however, is not sufficient to overcome the cost differential between incineration and recycling/composting. In any event, the cost of landfilling is likely to increase markedly in future due to the implementation of stringent standards and the shortage of sites close to large population centres.

European Union policies

European law sets the framework for waste regulation throughout the European Union. This is achieved mainly through legal instruments known as Directives, which are proposed by the European Commission, and then require agreement by the European Parliament and the Council which is made up of Ministers from the Member States. The Framework Directive on waste sets out the basic requirements and definitions for waste management. A separate Directive exists for hazardous waste. Linked to these two Directives are Directives on waste disposal which at present concentrate on setting standards for incineration (*see Annex 7 for these references*). However, a draft Directive on landfill¹⁵ has been adopted by the Commission and this is currently being negotiated in the European Parliament and Council of Ministers. The directive aims to encourage: separate collection of organic wastes; sorting, recovery and recycling; capture and combustion of methane (a potent greenhouse gas); and keeping combustible material such as paper and plastic out of landfill.

The Commission is in favour of pre-sorting waste prior to landfilling and also of pre-treating organic waste so that it presents less of a pollution risk and facilitates handling. Pre-treatment might mean composting, digestion or incineration to reduce the organic content of waste. These practices are likely to increase landfill costs significantly. The increased restrictions on landfill

are therefore clear and, if passed into law, will undoubtedly affect current UK practice on a national scale - and may well push waste management further towards incineration.

Nevertheless, the European Commission and the Council of Ministers have given support to the presumption that recycling (material recovery) is preferable to incineration with energy recovery (*see Box 2*).

Note that proposals and negotiations for a new incineration directive may arise in 1998. The status of the 1994 proposal (*see Annex 3*) is unclear at the moment.

FOE's view

We have called for a statutory recycling target of 40% of household waste by the year 2005, and a tougher non-statutory target of 80% for the year 2010. This may seem "ambitious" as Michael Meacher told us, but 40% is well feasible, and an 80% target could promote some lateral thinking and radical solutions.

Incinerators are unnecessary where the waste concerned could be managed in some other, more environmentally safe, way. Given the availability of alternative and preferable waste management options, i.e. waste reduction, re-use and recycling, FOE believes that no further expansion of present incineration capacity should be sanctioned in the UK pending conclusive research into the necessity of each individual plant i.e. a plant should not be given the go-ahead unless a strategy is also in place to reduce, re-use, recycle as much waste as possible. In addition, full account should be taken of the external costs such as the health effects, the consumption of non-renewable resources, and lost employment opportunities¹⁶.

Although Friends of the Earth believes that the NFFO levy is an appropriate support for more environmentally benign technologies at an early stage in their commercial development (e.g. wind power, wave power, etc), we believe it is inappropriate to support incineration via a NFFO subsidy. Not only do incinerators burn fossil fuels if plastic is present in the waste stream (plastics are made from oil), but incineration of recyclable waste actually results in *even*

¹⁴ DOE (1993). *Landfill Costs and Prices: Correcting Possible Market Distortions*. A Study by Coopers and Lybrand. London, The Stationery Office.

¹⁵ Com(97)105, 5.03.1997, 97/0085(SYN)

¹⁶ See Annex 4. More employment opportunities are associated with waste recycling than with incineration

Box 4: EC law and UK law

EC laws and decisions have to be transposed into national law. For example, an EC Directive may be enacted in the UK through (parts of) an Act (primary legislation) and/or through Regulations (secondary legislation), with guidance issued in the form of a Circular. Be aware that the UK interpretation of European law may not be absolutely correct, and on matters of European law, it is always worth checking the original laws. European policy, legislation and drafts are usually published in the Official Journal of the European Communities ("C" and "L" series), known as the "OJ", although some Commission documents may have to be obtained from the European Commission itself.

more fossil fuel energy being consumed in replacing those materials (see Annex 4). In addition to this, a European Commission report has suggested that the environmental impact of incineration with energy recovery is greater than any benefits derived from them¹⁷. A subsidy meant to support environmental 'goods' should not be used to prop up environmental 'bads'.

The rate at which reduction in incineration capacity could practicably be reduced depends on the lengths to which society, industry, and Government are prepared to go in order to reduce waste production or to re-use or recycle wastes. This may involve considerable investment or regulation which local and national

governments are often reluctant to impose. For example, European legislation could be needed to force improvements in the recyclability of products at the end

of their lives. As discussed below, one of the objectives of a local incinerator campaign is to persuade the local authority that incineration is unnecessary and that the waste could be managed some other way.

Further Information: For more information on waste management see *Don't Bury it or Burn it* (appended) on alternative waste management techniques, *Turning Waste into Resources*, and numerous other documents produced by FOE, which are listed in the Annex 7 Reading List.

¹⁷ European Commission, DGX1 (1997). *Cost-benefit analysis of the different municipal solid waste management systems: objectives and instruments for the year 2000*. A report by Coopers & Lybrand/CSERGE. Luxembourg, Office for Official Publications of the European Communities.

Section 4

The Environmental Problems of Waste Incineration

This section -

- *provides an overview of the environmental problems associated with an incinerator, including:*
 - *air pollution*
 - *the production of toxic ash*
 - *water pollution*
 - *the destruction of valuable resources*
 - *cutting off options for alternative waste management strategies*
 - *lost job potential*
 - *noise, traffic and loss of amenity.*

Here we summarise the problems of incineration, apart from the question of relative energy efficiency and greenhouse gas/global warming issues, to which we devote an entire annex (Annex 4). More detail on air pollutants is given in Annex 2.

Air pollution from incinerators and human health

Incinerators emit a range of polluting substances which may damage human health, with many of the effects occurring even at very low levels. The limits which are set for the levels of pollutants in emissions from incinerators are not necessarily based on the likely health effects of those pollutants, but are set to reflect the best which is reasonably achievable using the available technology (*and see Section 10 on pollution control permits*). As a result of European legislation, emission limits have become considerably tighter recently, and many old incinerators forced to close down¹⁸. Some typical emission limits are given in Annex 3.

There are no legal standards for the levels of most pollutants in the atmosphere. At present, legal or recommended standards exist for nitrogen oxides, sulphur dioxide, ozone (formed from other pollutants during smog episodes), carbon monoxide, lead, particulates, benzene and 1,3-butadiene, but even for many of these, the levels are targets for the year 2005. Note that these air quality standards are not those that

apply to the emissions as they emerge from the incinerator but are the recommended levels for general air concentrations. Incinerator emissions from the stack (chimney) will be diluted in the air to varying degrees. In Annex 2, we list the current or proposed standards for air pollutants, and give some typical background concentrations. All of these pollutants are also released from other sources such as vehicles, other industrial processes and power stations. It has been estimated that a modern incinerator would increase exposure to dioxins by about 1%, up to 20% in a worst case scenario¹⁹.

For some of these pollutants, it is likely that there is no "safe" exposure limit, i.e. there is no limit below which adverse health effects will not occur. These include pollutants such as dioxins and particulates, which may damage health even in minuscule quantities, and those such as metals (and dioxins again) which tend to accumulate to toxic levels within living tissues over prolonged periods of exposure. More detail on the health effects of these are given in Annex 2, and we have noted some air pollution levels at which extra cancers might be risked.

Check background levels in your area

¹⁸ Note that this also means that older texts which estimate emissions from incinerators may be using out-of-date figures. Directive on the Prevention of Air Pollution from new Municipal Waste Incinerators, 89/369/EEC, OJ L163, 14.6.89.

¹⁹ Environment Agency (1996). *Risk assessment of dioxin releases from municipal waste incineration processes*. Bristol, Environment Agency.

Question assumptions about air quality and if possible find out what is known about the current air quality in your area and the predicted impact of incinerator emissions. In some areas, it is quite likely that levels of pollutants in the atmosphere are a cause for concern already, and that additional exposure would be unacceptable. It would be worth looking for figures for existing background levels in your area, and arguing against any increase in these. If there are no figures, then call for background measurements to be taken and argue that a proposal should not go ahead if there is any uncertainty about the effects on air quality in the vicinity. If the incinerator gets to the licensing stage (*see Section 10*), then this information should also help you call for tighter emission limits²⁰. If air pollution data exists or if a model of air pollution impacts is available (maybe in an environmental impact assessment submitted by the developer), the figures in Annex 2 might help you to put the figures into context.

Many pollutants will have other sources - traffic is an obvious example, but point out that further exposure cannot be good. The precautionary principle ought to be observed.

If necessary, it is also worth trying to get very specific monitoring requirements into the operating licence so that in the future you can keep an eye on the achievement of emission limits. Request that individual chemicals are monitored and reported (both as concentrations - i.e. mass per volume - and as a mass per unit of time). Watch out for licence conditions which permit measurement of groups of chemicals such as "volatile organic compounds", which will cover a number of different chemicals of different toxicities and request that more specific measurements are required in addition. For example, some metals might be measured as a group (such as lead, chromium, copper

²⁰ The UK National Air Quality Strategy states: "*However, where air quality is clearly a major consideration informing the regulator's judgment, and where already existing statutory air quality limits are likely to be exceeded the regulator is required by the legislation to consider what contribution regulated industry might make to achieving them. This might involve... tighter conditions on an individual plant than would have been imposed had BATNEEC and BPEO been the sole considerations.*" (DOE/WO/SO, March 1997, available from The Stationery Office).

and manganese), but more specific information on each metal would be preferable in order to better understand the impacts.

Landfill is still needed

Incinerators do not "destroy" everything with fire. Waste is converted into other forms and substances, much of which goes into the air as gases. But incinerators also produce considerable quantities of ash - which needs further disposal. For a municipal waste incinerator (with no pre-sorting for recycling) this will be approximately 30% of the incoming waste²¹ - i.e. an incinerator handling 100,000 tonnes of waste will produce 30,000 tonnes of grate or bottom ash for disposal! There are limited opportunities for re-using this, and landfill is a highly likely destination, although some countries (e.g. the Netherlands) have been using incinerator ash as an aggregate for road construction projects, and SELCHP removes metals from the ash for recycling. Such an incinerator would also produce around 2,500 (2.5%) tonnes of more toxic fly ash, which is finer dust filtered out from the gases generated during combustion.

One tonne of incinerated waste produces approximately:

300 kg of bottom ash
25 - 40 kg of fly ash²².

Landfill volume

It is often suggested that incineration offers the advantage that the volume of material (i.e. ash) requiring final disposal to landfill is greatly reduced.

²¹ Environment Agency (1996). *IPC Guidance Note S2 5.01: Waste Incineration*. London, The Stationery Office.

²² You may come across references to other types of ash, particularly "APC" (air pollution control) residues or "gas cleaning" residues; the term fly ash is often used to include APC ash, and a typical MSW incinerator might produce 20 kg of fly ash and 15 kg of APC ash [Warmer Bulletin, November 1997]. Texts are not always clear on exactly which ash fraction is being discussed, so if necessary ask for clarification.

	Bottom ash	Fly ash	Reference
Dioxin ²³	12 - 72 ng/kg 19 - 30 ng/kg	810 - 1,800 ng/kg 191 - 1,820 ng/kg	Environment Agency 1997 ²⁴ ETSU ²⁵
PCBs	<1 - 8.9 ug/kg	<1 - 23 ug/kg	ETSU
Cadmium	0.3 - 61 mg/kg 5 mg/kg <1.5 - 8	50 - 150 mg/kg 4.4 - 82 mg/kg	WRF ²⁶ Knights and Johnson ²⁷ ETSU
Lead	98 - 6,500 mg/kg 715 mg/kg 685 - 2,850 mg/kg	5,300 - 26,000 mg/kg 585 - 4,560 mg/kg	WRF Knights and Johnson ETSU
Arsenic	7 - 61 mg/kg	32 - 203 mg/kg	ETSU
Mercury	not detectable	0.5 - 26 mg/kg	ETSU
Zinc	922 mg/kg 2,760 - 7,250	7,370 - 8,440	Knights and Johnson ETSU
"Heavy metals"	8,000 mg/kg	10,000 mg/kg	Cremer & Warner/SELCHP ²⁸

Table 1. Some components of bottom ash and fly ash as quoted by various sources. Reasons for the wide range of figures will include differing sources of wastes, different combustion conditions, heterogeneity of the ash, different filtration/clean-up devices.

²³ For a 100,000 tonne per year incinerator, this equates to 0.35 - 2.1 g TEQ dioxins per year in bottom ash and 3.1 - 7 g TEQ in the fly ash. [From the Environment Agency reference below.]

²⁴ Environment Agency (1997). *A review of dioxin releases to land and water in the UK*. A report by AEA Technology plc. Bristol, Environment Agency.

²⁵ ETSU (1996). *Properties and utilisation of MSW incineration residues*. Report B/RR/00368/REP. ETSU/DTI. This report carefully defines the ash fractions and types of incinerators so would be worth consulting if more information is required.

²⁶ World Resource Foundation (1995). *Ash handling from waste combustion*. Technical Brief from the publishers of *Warmer Bulletin*. Tonbridge, WRF. See Reading List for contact details.

²⁷ Knights, B. and Johnson, K.E. (1995). *Bench Testing of MSW Incinerator Bottom Ash and Stabilised Products*. *Journal of Waste Management and Resources*, Vol 2(3), 123-131.

²⁸ Cremer & Warner (1991). Addendum No 2 to the SELCHP Environmental Impact Assessment.

However, the figure of 90% volume reduction which is often quoted by the proponents of incineration is not strictly fair. This figure is based upon a crude comparison of the volumes of municipal waste requiring disposal and that of the ash generated per tonne of waste incinerated. No account is taken of the fact that non-incinerated wastes are usually compacted during landfilling in order to reduce volume, reduce water infiltration and increase stability. The actual volume reduction achievable by incineration is in fact only about 45%²⁹. Further, no account is taken of the "down-time" - the times during which an incinerator is not in operation for maintenance, with the effect that wastes may by-pass the incinerator and go directly to landfill.

Toxic ash

Both bottom ash and fly ash contain metals and toxic organic substances such as dioxins, although these are far more concentrated in the fly ash. Because of the greater mass of bottom ash, this fraction may contain higher overall quantities of individual substances.

Fly ash needs to be treated with great care. In the UK, fly ash is almost inevitably classifiable as "special waste"³⁰. The fly ash from the SELCHP incinerator in London (South East London Combined Heat and Power, referred to as "sell-chip"), for instance, has to be transported some 70 miles to a landfill site near Cheltenham for disposal. It is increasingly common in other countries (e.g. Japan) to require vitrification (forming a glass-like substance) of the ash which is possibly the only practical way of achieving long term stability of the contaminants. Vitrification consumes a lot of energy and reduces the already poor efficiency of waste-to-energy incinerators to lower levels. It is unlikely that other stabilisation techniques (using cement or bitumen) can sufficiently stabilise contaminants of fly ash³¹. The United States Supreme Court has ruled that incinerator residues should be regulated as hazardous wastes. The results of

²⁹ DOE/WO (1995). *Making Waste Work. A strategy for sustainable waste management in England and Wales*. The Stationery Office, London.

³⁰ Waste which is considered to be "so dangerous or difficult to treat, keep or dispose of" (S. 62, Environmental Protection Act 1990) that further legal regulations apply (the Special Waste Regulations SI 1996 /972).

³¹ EC (1996). *Economic Evaluation of Draft Incineration Directive*. Luxembourg, EC.

incinerator ash analysed by the USEPA has shown that virtually every sample of fly ash ever tested exceeds minimum federal standards defining a hazardous waste, usually for both lead and cadmium. Also nearly half of the combined fly and bottom ash samples tested also exceed the standards, typically for lead. It is important to note that as the filtration on a plant improves, the concentration of contaminants in the residual ash increases.

Further pollution from landfill sites

When disposed of to landfill, pollutants in ash may leach out and contaminate soil and groundwater. The incineration process actually increases the likelihood of pollutants leaching out of the ash, by the formation of soluble compounds such as metal chlorides. Leachate may sit in the landfill for a very long time, some may leak out slowly, or the leachate may be pumped out for further treatment, maybe on-site or at a sewage treatment works³². However, many persistent and undesirable substances, including metals, are not "treated" by such works, but carry on into the liquid effluent (which is discharged into water courses) and/or sludge (which may be spread on land - or even go back into a landfill site or another incinerator!). If you inquire about landfill disposal, then you will almost certainly be informed that these issues would be "taken care of" by a separate waste management licensing system, but it is worth bearing in mind this chain of pollution when you are arguing that incineration is undesirable. Incineration does not simply make waste and all toxic substances vanish.

The problematic nature of incinerator ash for landfilling is an issue which has not yet been adequately addressed in the UK. The Royal Commission on Environmental Pollution noted the toxicity of incinerator ash³³:

"We recommend that HMIP [now the Environment Agency] should use its existing powers to ensure that solid residues are sent for disposal from incineration plants in a form which minimises the risk that toxic substances in the residues will contaminate groundwater."

But such a solution is still needing development. The

³² Also see: Friends of the Earth (1997). *The Landfill Campaign Guide*. London, FOE.

³³ Royal Commission on Environmental Pollution (1993). *Incineration of Waste*. Seventeenth Report. London, The Stationery Office.

following from the Energy Technology Support Unit³⁴:

“The biggest problems reside with APC (air pollution control) residues. Their high leachability, particularly with respect to salts and heavy metals and hence acceptability at landfill, will present severe problems to the industry in the near future. The International Ash Working Group have recommended that a sustainable disposal solution for APC residues should be based on a controlled contaminant discharge strategy with pretreatment of residues. This would involve the removal and possible recovery of the soluble salts followed by stabilisation, vitrification or fixation of the remaining material. Such a strategy should be vigorously pursued by industry. Until such time as this technology is available, disposal of APC residues will have to be based on total containment or containment and collection of leachate.”

In other words, landfill disposal of fly ash is a compromise.

Water pollution

Other liquids used in incineration operations can also become polluted. Liquid effluents from gas-cleaning filter devices and water used to quench grate ash will contain persistent toxics such as PICs and metals. These may be dealt with in several ways - effluents may be re-used on site, subjected to further clean up, discharged to a sewage treatment works via a sewer.

If you are interested in looking at the details of water handling at an incinerator, we would recommend looking at further details in the Environment Agency's Guidance Note on Waste Incineration (S2 5.01).

It would also be worth looking at the vulnerability of nearby water courses or groundwater to a spill or contamination, particularly if an incinerator is likely to handle chemical wastes. In one case, the Secretary of State refused an application for an incinerator because it was to be situated over a vulnerable aquifer (see the 1991 Doncaster case in Annex 5). You can find out from a local Environment Agency office the nature of the rock where the proposal is - ask if any water supplies (in use or potential) could become contaminated if chemicals were spilled at the incinerator.

³⁴ ETSU (1996). *Properties and Utilisation of MSW Incineration Residues*. B/RR/00368/REP. ETSU/DTI.

Destruction of resources

Incineration means less recycling. When materials are incinerated rather than re-used or recycled, natural resources will be consumed in order to replace those materials. A finite world has finite non-renewable resources, and, if we are to achieve sustainable development, we need to conserve resources for future generations, end habitat destruction from exploitation of virgin materials, end production of greenhouse gases, and evenly distribute our resources through the world. It is estimated that reductions in Europe's consumption of non-renewables of the order of 50 to 95% are necessary³⁵ (and see Appendix 1).

Although other measures will be necessary to achieve such a change in material consumption (such as waste reduction/minimisation, producing more durable goods, more repair services, using labour and services instead of goods), recycling of materials will play a large role. Households produce 20 million tonnes of waste per year³⁶, and a new municipal waste incinerator will probably burn at least 200,000 tonnes per year. Of this, around 83% is theoretically recyclable or compostable material, and an estimated 65% recyclable even taking into account economic and practical factors³⁷. So at least 130,000 tonnes of material will be going up in smoke - unnecessarily.

Cutting off the options

Construction and operation of a major incineration plant represents a huge capital investment (in the region of £80 million for a new plant). Such investment programmes will tie the owners into long-term

Sector	Million tonnes pa
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³⁵ Friends of the Earth Europe (1995). *Towards Sustainable Europe: A Summary*. Brussels, FOE Europe. [The complete 240 page report, *Towards Sustainable Europe: The Study*, is also available.]

³⁶ DOE/WO (1995). *Making Waste Work. A strategy for sustainable waste management in England and Wales*. The Stationery Office, London.

³⁷ Waites, Richard (1995). *Household Waste Recycling*. London, Earthscan.

Industrial waste (other than construction and demolition waste)	70
Sewage sludge	35
Agricultural waste	80
Households	20
Commercial waste	15
Mining and quarrying	110
Construction and demolition waste	70
Dredged spoils	35

Table 2: Annual waste arisings by sector in the UK. The last three wastes are unlikely to feature in an incinerator application. [Source: DOE (1995). *Making Waste Work.*]

Material	Approximate % by weight
Paper and Board	33
Plastic film	5
Dense plastic	6
Glass	9
Ferrous metal	6
Non-ferrous metal	2
Textiles	2
Putrescibles	20
Miscellaneous	10
"Fines"	7

Table 3: Composition of household dustbin waste [Source: Waite, R (1995). *Household Waste Recycling.* London, Earthscan.]

(commonly 20-30 years) repayment schedules and will necessarily require a guaranteed supply of waste during and beyond this period. In the case of waste-to-energy (WTE) plants, financial viability is improved by power generation - which is a great disincentive to recycling of those materials of high calorific value - i.e. paper and plastics.

Contracts drawn up with local authorities and industry to guarantee this continuing provision of large quantities of waste usually require that direct financial penalties are paid to plant operators in the event that insufficient feedstock is provided. The potential for

commercially operated incinerators to undermine local authority and industry commitments to "reduction, re-use and recycling" is therefore clear.

This problem was explained very succinctly by the Assistant Director of Environmental Services at Stockton Borough Council. The Council is constrained by a 25-year contract signed by Cleveland County Council, committing to supply 180,000 tonnes per annum for incineration. This is jeopardising the future of two materials reclamation facilities. According to the Assistant Director, the Councils:

"are already constrained by the contracts from doing even a modest amount of recycling"

and the penalty clauses:

"mean that fundamentally we are into waste maximisation³⁸."

The problem is likely to be exacerbated by the replacement of decommissioned incinerators by new, larger facilities which take advantage of the economies of scale and are more likely to incorporate WTE technology. Indeed, this dilemma is recognised in the Government's waste management strategy³⁹, although no suggestions are made as to how it may be addressed.

On the question of economies of scale, a paper from the DETR's Energy Technology Support Unit (ETSU)⁴⁰ made the following assessment:

"At a power value of 2.5 p/kWhr [pence per kilowatt hour], i.e. the current pool price for electricity in the UK, the gate fees needed for municipal solid waste combustion (MSW Combustion) are about £47, £36, and £28 per tonne for the 100,000, 200,000 and 400,000 tonne/Yr plants respectively."

There is therefore a considerable financial advantage to larger-scale incineration plants.

Local authorities may deny that a new incinerator

³⁸ The ENDS Report, November 1996.

³⁹ DOE/WO (1995). *Making Waste Work. A strategy for sustainable waste management in England and Wales.* The Stationery Office, London.

⁴⁰ ETSU (1995). *Municipal Solid Waste Combustion: Economics and projections for energy recovery to the year 2000.* ETSU/Department of Trade and Industry.

would compromise their recycling initiatives, but this is likely to be where a very modest target recycling rate (perhaps less than 20%) is set. With a more ambitious - but realistic - recycling rate, incineration could become unviable. Local authorities cannot support an incinerator if they intend to achieve an ambitious recycling target.

Jobs

Once they have been built, incinerators create few jobs as compared with recycling. Although there are differences in the numbers of created jobs estimated in the following studies (partly due to different treatments of indirect job creation and consideration of certain sectors of the waste stream), *within* each study recycling consistently shows at least three-fold more jobs than incineration.

The following table shows the findings of a 1991 New York study⁴¹.

Type of waste disposal	Number of jobs
Landfill	4 - 6
Incineration	10 - 29
Composting	20 - 30
Recycling	40 - 59

Table 5: Jobs per 100,000 tons of waste processed

More recently, the British Newsprint Manufacturers' Association estimated that recycling of newspapers and magazines created 1200 jobs (directly and indirectly) per 100,000 tonnes as opposed to 400 jobs per 100,000 tonnes if incinerated⁴².

In a study for the London area, it has been estimated that recycling could create 3-5 times more jobs than landfill. Processing 300,000 tons of paper could create 1400 jobs (i.e. 460 per 100,000), including those in re-

manufacturing and related industry activities⁴³. This study also reports US figures of 79 jobs for 100,000 tons of materials collected and sorted, and a further 162 jobs in further processing/manufacturing (241 jobs total) - ten times as many jobs as other disposal alternatives according to the report.

Noise and Traffic

Incinerators can be very noisy affairs. The loading and unloading of wastes and ash, noise from the furnace, and the loud drone of the fans can all be a significant nuisance to people living or working nearby. This can be a very important consideration when planning permission is sought, and is discussed further in Section 8.

The movement of wastes and ash to and from the incinerator may also be a big headache for people living nearby.

The vast majority of waste is transported by road, although a small amount is transported by rail and barge. In general, the impact on local roads from a new commercial incinerator will be severe. Although the number of lorries will vary greatly depending on the size of the site, there will often be problems of noise, dust, vibration, traffic congestion and an increase in the likelihood of accidents.

A large incinerator may require some form of road improvement to provide trucks with access to and from the plant. In addition to the numerous daily traffic movements associated with the plant specifically, road improvements can result in increased use of the route by any road user ("induced" traffic).

The Royal Commission on Environmental Pollution made the following recommendation⁴⁴:

"We recommend that waste disposal facilities should wherever possible be on sites which allow wastes to be moved by rail or water transport rather than by road."

⁴¹ Renner, J (1991). *Jobs in a Sustainable Economy*. Worldwatch. Cited in FOE (1994): *Working Future, Jobs and the Environment*. London, FOE.

⁴² BNMA (1995). *Recycle or incinerate? The future for used newspapers: an independent evaluation*. BNMA.

⁴³ Murray, R (1997). *Towards a London Waste Strategy*. Report CON74. London, London Planning Advisory Committee/Environment Agency.

⁴⁴ RCEP (1993). *Seventeenth Report: Incineration of Waste*. London, The Stationery Office.

Two hundred thousand tonnes of rubbish, at say 15 tonnes per vehicle (try to find out what size is likely), will mean 13,000 lorry loads a year. Again, planners will be very sensitive to issues of increased traffic, so prepare your arguments on this issue (*and see Section 8*).

Loss of amenity

Also bear in mind the potential for inappropriate siting of an industrial facility such as an incinerator. Depending on the proposed site, a new incinerator might be regarded as a bit of an eyesore and this can have a serious bearing on the granting of planning permission. This is discussed further in Section 8.

Section 5

Campaigning on Waste Plans

This section -

- *describes the types of waste plan that are produced*
- *explains their importance with respect to incineration policies.*

If you are campaigning on waste issues in your area, waste plans will undoubtedly be important. You may be able to influence the content if one is under production or review in your area, and you will need to read the relevant plans to learn about current policy if you are opposing any proposals.

What are waste plans? And why do they matter?

The planning system is the main forum in which local developments (including incinerators and landfill sites) are permitted or not permitted. There are two aspects of the planning system:

- **Development planning** - this sets the framework in advance for the way land is used in an area. The Development Plan for an area is made up of several plans covering different levels and areas of detail.
- **Development control** - this is the process by which permission to build or change something is sought. This part of the planning system is the stage where an application for a particular incinerator or landfill site is made (*see Section 7*).

This section is concerned primarily with the development planning stage, as it applies to waste. The importance of development plans is that the policies contained in them comprise one of the major factors taken into account at the development control stage. It will be much harder to get planning permission for a landfill site or incinerator if the development plan policies do not specify it, and if no site is earmarked for it. Conversely, it will be harder to fight an application which is allowed for in the development plan.

Both parts of the planning process are carried out by the Planning Departments of local councils, which exist at both County and District (or Unitary) levels. These council departments may also be known as Local Planning Authorities, LPAs.

Which types of plans are relevant?

Waste issues can come into several of the development plans. We have summarised these in Table 5.

Two tier government: Structure Plans, Local Plans and Waste Local Plans

The **Structure Plans** contain general strategies for all types of land use, including uses relating to waste. They set out the broad strategic planning framework for the more detailed policies in the waste local plan (and other plans). There is a structure plan for each county.

Local Plans contain much detail about specific proposals for siting of developments (e.g. areas for housing), and are drawn up at district level.

However, just to confuse everybody, the siting of waste management facilities is NOT primarily covered by Local Plans. The siting is instead detailed in the **Waste Local Plan**. And the Waste Local Plan is not in fact "local" - it is produced by the county, not district, level.

The other area of development which gets its own plan is for minerals (quarrying or extraction and related activities) - and sometimes the waste and minerals local plans are combined.

Therefore the important plans for waste campaigning are the Waste Local Plan and the relevant parts of the Structure Plan.

Waste local plans were first required in 1991, and should have been completed 5 years later, but in many areas this has not yet occurred. They should cover a period of at least 10 years and should be reviewed every 5 years. In practice, however, review may be much less frequent and regular than this. The process of drawing up the plan takes several years, and the

'emerging' plan has increasing legal weight as it progresses.

This section relates mainly to Waste Local Plans. However, the suggested policies will be useful in campaigning on the relevant parts of Structure Plans and Unitary Development Plans (see below), and the arguments will also come in useful in responding to the 'non-planning process plans' (see "Other types of 'waste plans'" below).

One-tier Government - Unitary Authorities and Metropolitan areas

These areas combine all the different plans mentioned above into a single plan called a Unitary Development Plan (UDP), which is in two parts. Part I contains the strategic policies and is equivalent to the Structure Plan; Part II contains the detailed plans equivalent to the Local Plans. In these areas there is usually no separate Waste Local Plan. (Exception to this rule: currently some Local Authorities are changing from two-tier to unitary structure, and this may throw up a few anomalies in terms of which plans are current, so watch out for this.)

Possible conflict

With all these types of plans floating around, plus national strategies under development, it is not surprising that sometimes plans which should be consistent, actually conflict. The DOE/DETR produces Planning Policy Guidance Notes, known as PPGs, to give guidance. PPG 12, *Development Plans and Regional Planning Guidance*, states which plans take precedence over which in the event of them conflicting⁴⁵.

- The waste local plan or local plan has precedence over the structure plan - unless the structure plan authority has formally stated that the particular local plan is not in conformity with the structure plan. (In this latter case, it may be that amendment of the local plan is under consideration, so we would advise talking to council officers.)
- Where a local plan conflicts with a waste local plan, the more recent document prevails.

PPG 12 also contains more detail on the content of the

types of plans.

Other types of 'Waste Plans'

The various documents referred to below are not part of the land use planning process, but are sometimes referred to as waste plans - so an explanation is given here to avoid confusion. Most of these documents are written not by the planners, but by the parts of the council which deal directly with waste - the Waste Collection Authorities (at District level) and/or the Waste Disposal Authorities (at County level) (see Section 9). Although they are not formally part of the land use planning process, their contents may be given some weight in the deciding of planning applications.

Waste Management/Disposal Plans

The function of these plans is to assess the amount of waste likely to need disposal and outline an overall strategy for disposing of it. They are no longer being drawn up (and were never drawn up at all in some areas of the country), but are included here because the information in them may still be current and relevant. They were drawn up by the former Waste Regulation Authorities, which existed until 1996 when they were absorbed into the new national Environment Agency. You will need to consult the plan for your area if it exists and you are campaigning on waste matters.

The Environment Agency now carries out the function of assessing the amount of waste arising, but exactly how it will carry this out is, at the time of writing, unclear.

Recycling Plans

These should outline the strategy for recycling in a district, and are drawn up by the Waste Collection Authority. The recycling plan may contain information on the area's waste arisings. It is a legal requirement to have a recycling plan, but not to implement what it says. It is likely that recycling plans will be revised during 1998.

Non-statutory waste strategies

Many areas are writing waste strategies which do not have force in law, and consulting local people about

⁴⁵ DOE (1992). PPG12: Development Plans and Regional Planning Guidance. London, The Stationery Office.

Plan -	Produced by -	Content includes -
National Waste Strategy	Secretary of State for the Environment	Has not been produced, although "Making Waste Work" is preparatory (and non-statutory). Required under a 1995 amendment to the EPA 1990.
Waste Disposal Plan	The former Waste Regulatory Authority	Waste management strategy for area - identification of major modes of waste disposal. Statutorily defined in EPA 1990, but duty to produce plan repealed by EA 1995. However, any existing plans remain in force until the National Waste Strategy is drawn up.
Structure Plan	County Local Planning Authority	Wide-ranging, sets out key policies for development and planning.
Local Plan	District Local Planning Authority	Detailed information on general development and planning issues in the locality.
Waste Local Plan	County Local Planning Authority	More detail on waste management planning and policy - should identify locations for waste facilities.
Unitary Development Plan (UDP)	Unitary Authority	As for Structure and Local Plans (Part I and Part II respectively of the UDP). Should also include an equivalent of the Waste Local Plan.

Table 5. Relevant development plans.

them - these may also be called 'plans'. Whilst these do not hold the legal force of the development plans for later applications for planning permission, campaigning around them is very useful, especially as they represent an early stage in the strategic process.

Municipal Waste Management Strategies

At the time of writing, there are draft proposals for yet another type of plan, to operate at county level. These would replace parts of the functions of the Waste Management Plans and the Recycling Plans, and would also contain guidelines for councils drawing up contracts for waste management. They would be drawn up by the Waste Collection and Waste Disposal Authorities in co-operation, to create a single plan at County level, and would have statutory status (legal force). They would work alongside the relevant development plans.

If these plans do come into existence, they will form another important part of the waste policy jigsaw.

Urban Regeneration Budget Plans

Action plans worked up under these can sometimes be used for promoting recycling schemes. This can be a good way of getting money for community recycling projects.

What documents need to be considered in drawing up a waste local plan?

- National Waste Policy - ("Making Waste Work")
- European Waste Policy and Directives - especially the Waste Framework Directive, and the Community Strategy for Waste Management
- Regional or Strategic Planning Guidance - strategic guidance applies to metropolitan areas, and regional guidance to other areas, e.g. South East, East Anglia
- Planning Policy Guidance Notes - the PPGs which form national guidance. PPG 12 (*Development Plans and Regional Planning Guidance*) and PPG 23 (*Planning and Pollution Control*) are the important ones. PPG 23 is currently being revised; the revision will supersede parts of the old PPG

23.

- Structure plan
- Waste disposal plan (if it exists)
- Recycling plans
- Previous planning decisions, such as the Doncaster judgement referred to later (*and see Section 8*).

The most important documents are PPG 12 and PPG 23, and the revision (which contains a summary of relevant policy)⁴⁶.

The other important point here is that the waste plans are supposed to be integrated with the structure plans, but frequently they are not. It is important if possible to get the policies right in both plans as they reiterate and strengthen each other. In unitary areas, it is particularly important to make sure that important policies are in Part 1 (the equivalent of the structure plan), as Part 2 (the equivalent of the waste local plan) can be relegated to appendix status, with most planners referring to Part 1.

Plans can be bought from the local authority, and sometimes if you speak to the right person you may be able to get them free. Additionally, they will be available in libraries.

Wales and Northern Ireland

In Wales, all local authorities are unitary and therefore have Unitary Development Plans. The PPGs no longer apply in Wales. There is a general planning guidance note for Wales, *Planning Guidance (Wales): Planning Policy*, and also a series of Technical Advice Notes. The relevant one is Technical Advice Note 9, *Planning, Pollution Control and Waste Management*. However, at the time of writing this has not yet been finalised, although a draft has been produced for public consultation. (*Also see Box 6, Section 8.*)

Our advice is to:

- ring the Welsh Office (01222 825111) when you start campaigning to find out the current situation;
- still refer to PPG 23, which discusses relevant issues even though it is specifically written for England.

In Northern Ireland there are currently no local plans for waste.

⁴⁶ The PPG 23 revision draft is available free from the DETR; tel 0171 8903852. Other Government documents are available from The Stationery Office or agents around the country. They can be expensive; some may also be available in your library.

UDPs and Waste Local Plans

How do you know when a waste local plan is being drawn up?

Ring the Planning Department of the County Council to find out what stage the process is at in your area, and what the dates are for public comment. If no dates are fixed, you can ask to be notified when a Plan is available for public comment, but it is also worth keeping in touch with the Council about progress of the Plan. The planning process should also be advertised in the local paper, but it can be easy to miss this.

Whatever stage the plan is at, follow up the phone call with a letter requesting that your group is added to the planning authority's consultation database. If the authority do this, you will be consulted automatically at all the important stages.

What can you do?

There are two parts to your involvement:

- joining in the formal process
- campaigning around the formal process

The formal process

The following stages provide major opportunities for comment.

1. **Pre-Deposit Consultation Draft** - letters of objection are needed at this stage. There is no set length of time for consultation, but it is often six weeks. Your letter should contain the name of the plan, identify the parts or policies you object to and briefly say why, and set out briefly what additions or changes you would like to see.

Your letter should be based on the planning arguments outlined later in this briefing.

At this relatively early stage weight of numbers is important - the more letters the council receives the better; they do not all need to be detailed.

2. **Deposit draft** - this is more formal. Objections and registers of support for the plan are submitted on forms to the Council. Despite the official appearance of the forms, submitting an objection does not have to commit you to anything further, and the planning process is supposed to be designed to allow public participation. However, if you are planning to get a consultant to help you in the whole process now will be a good time to get them

involved.

Tips on writing your submission:

- You do not need to respond to the whole plan - it is better to respond to a few points thoroughly
 - Respond to the points you are objecting to in the order they appear in the plan, and label them clearly to correspond to the labelling in the plan.
 - For each objection, as well as explaining why you object, be specific about which words you want deleted, and suggest words to replace them if you can
 - You can ask for whole policies to be deleted
 - You can suggest new areas of policy that are not already included in the plan
 - You can document your support for parts of the plan, as well as your objections
3. The plans are subjected to a formal **Public Inquiry**. We talk more about public inquiries in Section 8, and FOE has produced a briefing on public inquiries (*see Annex 7*).
4. **Post inquiry modifications** - you can object either to modifications, or to the Council's failure to modify where the Public Inquiry Inspector recommended it, but you cannot go back and object to the original plan. This stage is similar to the deposit draft stage in that your objection needs to relate to the specific plan policies and to be submitted on a form which you obtain from the council.

After a UDP is adopted, the authority has to carry out an environmental assessment of the plan; this requirement is likely to be extended to other development plans soon. You may also be able to contribute to this part of the process.

Remember that, whilst sticking with the whole process will be most effective, you can stop at any point.

For more detail on this process, see the reading list. The book *How to Stop and Influence Planning Permission* by Roy Speer and Michael Dade is particularly good for spelling out the steps by which you can influence the process⁴⁷.

⁴⁷ Roy Speer and Michael Dade (1994). *How to Stop and Influence Planning Permission*. London, JM Dent.

Campaigning

The formal waste planning process is just one aspect of your waste campaign. Especially at the early stages you will want to mobilise as much public support as possible - at the consultation stage, the more objections the councillors see, the more they will be influenced. You need to aim to turn public opinion in the local area to your point of view, so that the councillors feel that they will be vulnerable or at least embarrassed if they go against your ideas.

Public support

All the usual campaign techniques can be used - press work, leafleting, questionnaires, petitions, and so on. Two particularly relevant points:

- Use dates like publication of the plan, and the beginning of the public inquiry, as press "hooks", i.e. an event which makes your opinion timely and so newsworthy - if you provide more of a press story by doing a stunt on these dates you are even more likely to get coverage.
- Leaflets with a form for people to fill in and sign are a good way of getting larger numbers of objections to the council.

Lobbying the councillors and officers

As well as sending in your formal objections, it is worth being in touch with the council throughout the process. You can send them written information on your point of view, and/or arrange to meet them. There is more on this in Section 9.

Networking with other groups

It is a good idea to submit a response to a waste local plan as a county- or area-wide coalition of Friends of the Earth groups. You can do this even if there has not been a county network before. It does not mean that the submission has to be written by committee - it may be best if only one or two groups work on it, depending how many are interested. However, it is important that each group sees the submission and has the opportunity to comment.

In any event, if groups within the county do send separate submissions it is important that they do not contradict each other - so some degree of co-ordination is necessary. If groups do contradict each other it does no-one any good apart from the opposition, as they can say publicly that Friends of the Earth does not know what it thinks.

If other groups in your area have similar concerns to yours, it will be worth co-ordinating your campaigning and making sure you are not duplicating effort. Before formally joining forces, however, make sure that none of you are compromising your views.

Networking with neighbouring local authorities and councils

Often neighbouring councils will be involved in the waste plan process, as they will want to ensure that as little waste as possible (including incinerator ash) is exported to their areas for disposal. This applies especially to the surrounds of urban areas, most of which export waste. It is worth writing to neighbouring County Council waste authorities to see what their position is. Their objections may be useful and if your point of view coincides with theirs they may help out informally, for example with objections to lack of plans for waste minimisation and recycling in your area's plan.

Equally, this process may uncover useful information for neighbouring campaign groups' media work.

The arguments to use in your objection

Here we look specifically at arguments to use in the planning process. The general arguments around waste are in other sections here, and in the two briefings appended to this report.

Principles

No two waste plans are the same - and whilst there are many factors which control what should and should not be in the plans, planning law is not a cut and dried process, it is precedent-led. This means that you can have a go at arguing many things.

You are aiming for policies which put emphasis on enabling waste reduction, reuse and recycling, by aiming to:

- Contribute to waste avoidance by considering the waste generation from new developments
- Ensure the supply of sites for recycling and reuse
- Constrain the availability of sites for incinerators and landfill sites.

There may also be specific geographical details in the plans suggesting locations for waste disposal facilities, so also watch out for these. Look at Section 8, which discusses incinerator issues in the context of planning control. If you can keep specific sites out of the plan, then this will be extremely useful later if anyone comes

up with a concrete proposal for an incinerator. A booklet from the Department of Trade and Industry puts the perspective from that of an incinerator developer and notes⁴⁸:

*"...the specific duty on planning authorities to include in their development plans policies in respect of suitable waste disposal sites or installations; **the need for this cannot be over-emphasised** - many authorities fail to do this and this causes problems when planning applications are submitted."*

Model Policies

On the page opposite (*Box 5*) are the kinds of policies that could be suggested for the plan. Model policies similar to these have already been published in the FOE book, *Planning for the Planet (FOE, 1994)*. This briefing provides an update on those policies.

Any of these policies could be used for waste local plans, and many of them for structure plans. Some of them hinge on arguments around the "need" for development, discussed below.

Comments on the Waste Hierarchy policy

The suggested policy on the waste hierarchy may be difficult to get accepted, as it does not actually accord with current national policy. Since *Making Waste Work*, the preparatory national waste strategy, was published in December 1995, the waste hierarchy advocated in that document has been as follows:

1. Waste avoidance
2. Reuse
3. Recovery, which includes recycling, composting or energy recovery
4. Disposal

The Government then argues that for each particular type of waste, and in each particular local area, the "Best Practicable Environmental Option" should be adopted.

Friends of the Earth does not accept the placing of energy recovery on the same level as recycling, as there is a lot of evidence in favour of recycling (*see appended briefing 'Up in Smoke...' , Section 3 and*

⁴⁸ Department of Trade and Industry (1996). *Energy from Waste - Best Practice Guide*. Revised edition.

Box 5: Model Policies

• Overall strategic policy and the waste hierarchy

The Authority will consider proposals for waste disposal and other types of waste management facility within a hierarchy of priorities:

1. Waste avoidance
2. Repair and reuse
3. Material recovery and reuse
4. Energy recovery
5. Disposal with minimum environmental impact

The Authority will set waste reduction and recycling targets in the context of a strategy to reduce waste arisings.

The Authority will apply strict environmental protection standards to all waste treatment, disposal or waste management facilities using planning conditions to implement such standards wherever appropriate.

• Waste Avoidance

The Authority will require all new industrial and commercial development to provide information on the waste production implications involved. The Authority will not normally grant permission for development which cannot demonstrate compliance with waste reduction and recycling objectives.

• Reuse and recycling facilities

The Authority will promote the reuse and recycling of domestic and commercial waste by:

- Allocating sites for recycling, composting and anaerobic digestion operations
- Protecting sites for existing and new recycling and reuse industrial operations
- Requiring new development to make provision for separated storage for collection of recycled waste
- Providing recycling deposit facilities within reasonable walking distance of dwellings.

Sites for recycling facilities are often not allocated adequately. You could argue that if authorities allocate sites for landfills but not for recycling and composting facilities they are in breach of the waste hierarchy.

• Waste transfer facilities

The Authority will expect waste transfer facilities to make provision for separation of recyclable waste from the waste stream and to be located on rail or water transport links where such links exist.

• Landfill sites

The Authority will not permit the development of new landfill capacity unless it can be demonstrated that the waste cannot be managed through measures to promote avoidance, reuse and recycling, and that no recyclable waste will be landfilled.

In any case the authority will not permit the development of landfill capacity above unprotected aquifers, within 3000 metres of watercourses or public supply abstraction points, or within 250 metres of housing or land designated for residential use.

The Authority will apply stringent criteria to the development of landfill capacity and will expect the provision of facilities for recovery of landfill gas at the highest design and operating standards to minimise pollution. The Authority will require an Environmental Impact Assessment of proposed landfills.

• Incineration

The Authority will not permit the development of new incineration capacity unless it can be demonstrated that the waste cannot be managed through measures to promote avoidance, reuse and recycling and that no recyclable waste will be incinerated.

In any case, the Authority will expect incineration proposals to incorporate the highest design and operating standards to minimise pollution. The Authority will require an Environmental Impact Assessment for proposed incinerators.

Annex 4). However, as local development plans must by law 'have regard to' national policy it may be difficult to get a different local version adopted. But it is possible to argue along the lines that a more sophisticated version of the hierarchy would break down the 'recovery' category. The information on policy statements in Section 3 should also be useful.

The new European Community Strategy for waste management puts a slightly stronger position than the UK Government, saying that it recognises:

"As regards recovery operations, that the choice of option in any particular case must have regard to environmental and economic effects, but considers that at present, and until scientific and technological progress is made and life-cycle analyses are further developed, reuse and material recovery should be considered preferable where and insofar as they are the best environmental options."

The draft revision of PPG 23 provides a useful quote:

"Strong emphasis should be placed in planning policies to secure, as far as possible, waste management provisions which are at the top of the hierarchy in preference to those at the lower end" (page 10).

But it also says:

"The waste hierarchy should be used as a guiding framework and does not always indicate the most sustainable waste management options for particular waste 'streams' in different areas. While waste management provisions at the top of the hierarchy should generally be preferred to those lower down, WPAs should recognise that, when considering planning and policy decision, all of the levels in the hierarchy have a place in a sustainable waste strategy."

Need for waste disposal facilities

For most aspects of development, the question of whether the development is needed is not supposed to be relevant ('material') to planning law, unless it can be demonstrated that the development would be harmful. However, there are grounds for arguing that this rule does not apply to waste disposal facilities.

The following quotes from PPGs are useful:

"The Waste Local Plan should address the land-use

implications of authorities' waste policies; it must consider the need for sites and facilities in particular areas, suitable locations and the planning criteria likely to apply, including geological, hydrological or other considerations." (PPG 12, para 3.14)

"Applicants do not normally have to prove the need for their proposed developments, or discuss the merits of alternative sites. However, a number of judicial decisions have established certain categories of development where the duty to consider the evidence of alternative sites may arise. The nature of such developments and national or regional need may make the availability, or lack of availability, of alternative sites material to the planning decision." (PPG 23, para 3.15)

One such decision occurred over a refusal by Doncaster Metropolitan Borough Council to grant planning permission for a quarry and landfill⁴⁹. The developers appealed, but the appeal was turned down. Consideration of need was argued on two grounds - that provision of unnecessary disposal space is intrinsically harmful and therefore need should be considered, and that the "proximity principle" should counteract over-provision of space which otherwise might tend to draw in waste from a wider area. We discuss this in more detail and provide extracts in Section 8.

In order to argue around need, it is helpful to find best estimates of amounts of waste arising in your area, and current amounts of disposal capacity. These will be in the Waste Disposal Plan, if one exists; they may also be in the recycling plans or available from the Planning Authority or Waste Authority.

The argument then is that policies are needed for much higher levels of waste prevention, reuse, and recycling. Some areas of Ontario are recycling/composting over 70% of their waste already. FOE is calling for a national recycling/composting target of 80% by the year 2010. See the FOE briefing, *Don't Burn it or Bury it*, for more on alternatives to landfill or incineration.

Conclusion

Campaigning around the local planning process can be a very useful aspect of your campaigning, especially considering that the development plans for your area are a major consideration when it comes to deciding applications for incinerators and landfill sites.

However, the work can be resource-intensive,

⁴⁹ Planning Ref APP/F4410/a/95/253135

especially at particular times. Having said this, getting the plan right is getting in there early - a basic

campaigning principle. Victories won at this stage will pay dividends later.

Stage of Preparation	Opportunity for action
<i>Draft Plan</i> - District council draws up draft proposal and planning policies	Discuss your concerns and views on development with councillors and planning officers
<i>Consultation</i> - Draft Plan published, sent to official consultees and publicised in the area	Submit comments to council and lobby councillors
<i>Plan revised</i> - Comments and representations considered, Plan altered and approved by councillors	
<i>Deposit and objections</i> - Deposit Plan published and publicised, objections and supporting representations submitted in minimum 6 week deposit period	Submit objection/representation form and lobby councillors
<i>Negotiation and modifications</i> - Planning officers try to overcome objections and put forward modifications to the Plan	Discuss objection with planning officers
<i>Local Plan Inquiry</i> - Inspector hears council's and objectors' cases	Draw up statement and/or speak at the inquiry
<i>Inspector's Report</i> - Report sent to council, which decides what changes to make	Lobby councillors
<i>Modifications and objections</i> - Inspector's report and council's proposed modifications to the Plan published, objections submitted in minimum 6-week period, council considers objections	Submit fresh objection/modification
<i>Further inquiry</i> if necessary, inspector hears objections to modifications and reports to council	Draw up fresh statement and/or speak at the inquiry
Plan adopted - Council publicises intention to adopt Plan formally and after 28 days votes to adopt, when it becomes a statutory plan	

Table 6. Preparation of a local plan. *Reproduced with permission from "How to Stop and Influence Planning Permission" by Roy Speer and Michael Dade (1994). London, JMDent.*

Section 6

Establishing the Facts About a Proposal

This section -

- *identifies the information you will need for your campaign*
- *provides tips on getting the relevant information.*

A good campaign needs to carry out some research before it can begin. This section is essential reading before the campaign is launched.

Before you take any action against an incinerator proposal, you will have to do some research to establish exactly what stage it has reached in acquiring all the necessary permissions and what exactly is being proposed. There is no point working hard on an objection to the planning application, for example, if the application has already been granted.

It is important to move fast when you first hear about a proposal. When a formal application for planning permission is made, you will only have 21 days in which to submit an objection. The amount of detail which you will be able to include in your objection will be limited by the time available.

Right at the outset, you will need to establish:

- the location of the proposed plant
 - the identity of the proposed operator
 - the identity of the proposed developer
 - whether planning permission has been applied for or granted
 - whether planning permission is required
 - whether an operating permit (which sets pollution limits) has been applied for or granted
 - the kind of waste that the incinerator will burn
 - the quantity of waste being proposed
 - how the proposal fits in with waste planning policy
- **Contact the Local Planning Authority (LPA)**

Ask the LPA whether they are aware of the proposal. If planning permission is needed (*see Section 7*), they will be able to give you the location of the proposed site as well as the name and address of the developer (and possibly the operator) and they will tell you the stage it has reached in the planning process.

Even before the application is formally submitted, the LPA is likely to have been in informal contact with the

proposed developer over the proposal. Even before the application is formally submitted, the LPA is likely to have been in informal contact with the proposed developer over the proposal, so contacting the LPA early may give you a head start on your campaign. Talking to councillors should also be very useful as they may know the background, or will know how to find out.

The Planning Register

You have a right to see the full application and supporting documentation free of charge (at the County Hall, Library, or other municipal buildings) and to obtain copies for a reasonable charge. Those documents will give you all the details you need in order to establish the basic facts.

When the planning application is submitted, the developer is required to advertise the proposal in the local newspaper and display a notice at the proposed site for 21 days. Nevertheless, write to the LPA beforehand, expressing an interest in the proposal, and asking them to notify you as soon as the application is submitted. They don't have to notify you but they may well agree to do so.

If planning permission is not required, then the LPA may still be able to give you details since they may have been approached for an opinion on the necessity for planning permission.

- **Contact the Environment Agency or Local Authority Air Pollution Control unit**

The capacity of an incinerator has a bearing on the operating or pollution permit that it needs. Small incinerators need an air pollution permit from the local authority; larger incinerators need an Integrated Pollution Control permit (called an IPC permit or authorisation), which controls emissions to air, land and

water, from the Environment Agency. Municipal waste incinerators will almost certainly be large enough to need IPC authorisation, but some other incinerators (burning less than one tonne of clinical waste per hour for example) might still be on a small enough scale to qualify for local authority air pollution control permits, LAAPC permits.

Your local office of the Environment Agency or District Council should be able to tell you whether an IPC or LAAPC application is underway. They may, however, have difficulty in identifying the application if you cannot give them any details about the exact site or the name of the proposed operator, but someone will know or have an index, so keep asking.

Write to your local Agency office or council (or both if you are unsure of what size the incinerator might be), expressing an interest in the proposal, and asking them to notify you as soon as the IPC application is submitted. Again, they don't have to notify you but they may agree to this.

- **Contact the landowner and/or occupier**

You may be able to work out the identity of the owners or occupiers of the site by paying a visit. Alternatively, your local office of the Land Registry may be able to advise you. Once you have identified the owners or occupiers you can ask them directly about the proposal and who's making it. Once you have your initial information, check with the LPA and the Agency.

- **Contact the would-be developer and operator**

If you have some idea who either of these parties are, it may be worth contacting them directly to get the basic facts. You only need a few details in order to check things out with the Agency or the LPA. Do bear in mind though that the developer and operator are not obliged to tell you anything and they may be very cagey about you asking questions. A degree of tact, diplomacy and persistence may be required.

- **Contact other friendly organisations**

There is a fair chance that other interested organisations such as conservation groups or residents' associations will have taken an interest in rumours of an incinerator proposal, so it's worth contacting them for clues and to share information.

- **Find out whether planning permission is required**

Section 7 lists the circumstances under which an incinerator may escape the need for planning permission.

Contact the LPA and ask them whether the proposal requires planning permission. If you are advised by the LPA that planning permission is not required, ask them to clarify (and confirm in writing) the grounds on which it is not required. You are then in a position to examine the terms of the particular provisions and make your own judgement as to their validity in your case (*see Section 7 for more details*).

Where the LPA has some discretion, you may be able to persuade them to require a planning application, if you can show that there is strong feeling about the matter in the community. Press coverage, letters, petitions, etc should help.

- **Visit the site**

Have a look at the site and its vicinity. In this way you will get a better idea of the impact that an incinerator might have on a neighbourhood. Are there residences nearby? schools? beautiful views? public footpaths? a stream? food factories? Or any other business that might not be keen on an incinerator? A site visit will help you think of campaigning angles.

Getting information out of local authorities

The Local Government (Access to Information) Act 1985 gives the public more rights to find out about Council business and obtain key documents such as reports, minutes and background papers.

With a few tightly defined exceptions, members of the public now have access to all Council committee and Council sub-committee meetings, as well as to agendas, reports, minutes and background papers. Agendas have to be published three days in advance and relevant documents made available to the public.

However there remains no definition of what constitutes a "reasonable" fee for copying documents (with some authorities charging £3.50 a sheet for photocopying!). There is also some leeway as to what actually constitutes a committee, since there is no public access to working party or informal groups' deliberations.

The Environmental Information Regulations 1992 (SI 1992/3240) give the public the right to see environmental information held by the local authority. This includes information relating to monitoring, regulations and activities affecting the state of the environment.

Exceptions to this entitlement include information which is considered commercially confidential, prejudicial to national security if released, or is "unfinished".

For more advice on getting information out of local authorities and government departments, see the FOE briefing *Using Your Right to Know*.

In addition to the planning register mentioned above, local authorities also maintain relevant copies of LAAPC and IPC applications, permits and any monitoring data. These documents must be available for public inspection and form "public registers". A public register is quite simply a collection of files of documents and/or data (and which may be on a computer) available to the public by law. You do not have to have a reason for looking at the files.

The LAAPC register

Local authorities must maintain copies of applications, permits and monitoring data (if any is collected) for any industrial processes under their control. Call the council to find out where the documents are kept. You

do not need an appointment, but it can be useful to inform them ahead of time to ensure that someone is around to show you how the files are organised, find the index, etc. One word of caution - in our experience the files may not be impeccably kept, so if you think something is missing, do ask. Staff usually try to be helpful, but the files do not tend to get many visitors, so lack of experience and priority for such work may be apparent. If necessary, be persistent, polite and point out why you think something might be missing.

The IPC register

An important feature of IPC is the introduction of comprehensive public registers of information relating to IPC applications. The IPC registers contain copies of applications, which should have quite a bit of useful information (and which you can criticise if not), issued permits, monitoring data, correspondence between the company and the Environment Agency.

The registers are held at regional offices of the Environment Agency where they can be inspected and copies obtained of information relating to existing and proposed incinerators. Information should be placed on the registers by the Agency as soon as reasonably practicable after it is received.

A full list of all the matters which should appear on the IPC register is set out in regulation 15 of the Environmental Protection (Applications, Appeals and Registers) Regulations 1991 (SI 1991/507).

Section 7

Who Gives Planning Permission?

This section -

- *describes when incinerators need planning permission (most do)*
- *details who gives the permission*
- *discusses the official guidance given to the decision-makers*
- *looks at the rights of appeal if a planning application is granted or refused.*

This section is essential reading so that the group understands 'the rules of the game' whilst it is campaigning to stop the council giving planning permission for an incinerator. This section should be read in conjunction with the next two sections where we cover the planning process and lobbying in more detail. The section on waste plans also has useful background relating to the planning system.

Incineration operations are subject to regulation from three main standpoints:

- as development subject to **planning control**
- as a source of **air pollution, water pollution and toxic waste** (*see Section 4*)
- as industrial operations with implications for the **health and safety** of the workforce (not discussed here).

Incinerators are also a potential source of **statutory nuisance** to local residents (*see Section 8*).

These areas of regulation therefore affect the design, siting, construction and operation of incinerators and are discussed below.

In addition, a **contract to supply waste** for disposal is likely to be required. Even if planning permission and a waste disposal licence have been granted, the developer must secure contracts for waste disposal in order to ensure that the site will be economic and will attract investment. In the case of sites for municipal waste, that contract is most likely to be provided by the local authority (the Waste Disposal Authority part).

Planning Control

What is planning permission?

Before beginning any building operations or any significant change of the use of land, it is usually

necessary to obtain permission from the planning department of the local authority, known as the Local Planning Authority, or LPA. For projects involving waste management, this occurs at the County Council or Unitary Authority level; in Northern Ireland, the Department of the Environment is responsible. The actual planning permission itself takes the form of a document which will specify the person/company to whom permission is granted, the date it was granted, a description of the site and any number of *conditions* which the LPA thinks appropriate and with which the operator must comply. The conditions attached to the planning permission are intended to prevent the development from causing undue nuisance to the surrounding area. Conditions are often the subject of negotiation between the applicant (the developer) and the planning authority.

The planning system is designed to control the location and siting of the development and focuses on whether the development itself is an acceptable use of land, rather than on the day-to-day control of the processes. The developer is usually the landowner. The site operator, on the other hand is the party to whom the IPC Authorisation is issued, i.e. the people who are carrying out the day-to-day running of operations on-site. The operator and the developer may be different parties.

Given the responsibility of the planning authorities to prevent development from causing undue nuisance, there is a potential overlap between the responsibilities of the planning authorities and the responsibilities of the Environment Agency or Local Authority Air Pollution Control unit in determining the operating licence.

If you want to see what a planning permission looks like, go along to the planning department of your local authority which deals with planning applications and have a look. The LPA is obliged to keep copies of all applications, together with any documents in support, on a register. You can look at the register for free, although you can be charged a reasonable amount for copies. If possible, you should concentrate your efforts on opposing the planning application, for the following reasons:

- The planning process offers an opportunity for members of the public to have formal input, and the opinions must be considered. The process is operated by local government, and, despite considerations of national planning policy, public opinion counts. The consideration of an IPC application is far less subject to public influence.
- The grounds for rejecting an application are wider than those for rejecting an IPC or LAAPC authorisation.
- Planning permission is generally the first stage. It is needed before an application for a licence to operate can be granted, although the different applications can be submitted in parallel and the licence application can be considered immediately after planning permission has been granted.

If you can get the planning permission refused you have won your battle.

Is planning permission needed?

Planning permission will almost certainly be needed for an incinerator proposal, an expansion of an existing incinerator, or even a "change of use" from one kind of waste to another. There are, however, a few exceptions to this rule:

- The Town and Country Planning (General Permitted Development) Order 1995 (SI 1995/418) is a legal instrument defining certain waste disposal activities that do not require planning permission. This applies to development carried out on industrial land and which consists of the installation of additional plant or machinery for the purpose of an industrial process. It applies only if the development would not exceed 15 metres above the ground and would not "materially affect" the external appearance of the building concerned.

- Special Development Orders (SDOs) are, similarly, statutory instruments, which relate to specifically defined geographical regions. SDOs are issued by central Government as legal instruments and may have implications for incinerator developments, that is they may allow development of an incinerator without planning permission.
- Certificates of Lawful Use Or Development (formerly Established Use Certificates) are documents issued by the LPA certifying that the particular use of the land has gone on for a number of years. The Certificate effectively functions as planning permission. It is possible to challenge the Certificate by appeal to the Secretary of State. Similarly, the developer may appeal against the LPA's refusal to issue a Certificate if one is warranted.

Contact the LPA and ask whether the proposal requires planning permission. If you are advised by the LPA that planning permission is not required, ask them to clarify (and confirm in writing) the grounds for this opinion. You will then be in a position to examine the terms of the particular provisions and make your own judgement as to the validity of the decision. Depending on the circumstances, you may be able to challenge the LPA directly, or through the Local Government Ombudsman (a sort of watch-dog for local authorities - contact details can be obtained from your council or local library), or by Judicial Review (a High Court review of the decision-making process, and potentially very expensive) if you feel that you have the necessary resources and a strong enough case.

The Planning Authority

Councils are governed by a system of committees of elected councillors, and run on a day-to-day basis by paid employees of the Council called officers. Generally there is a committee for each service department of the Council as well as an overall policy committee which deals with the wider issues. These are called standing committees, one of which will be the Planning Committee (or equivalent).

Councillors are appointed to the various committees, with the size, composition and membership of the committee decided at the Annual Meetings. Councillors are also referred to as "members of the Authority". The committees can set up sub-committees, working parties or advisory committees to make recommendations on specialised aspects of policy.

Each committee is advised by council officers from the department to which the committee is attached. The role of the officers is to review applications, make recommendations and provide technical and legal advice.

Decisions on applications are therefore reached through a combination of technical appraisal and recommendation by officers in the Planning Department, followed by approval or rejection by the Council's Planning Committee. However, in order to relieve the workload on the Committees, decision-making powers on applications are often delegated by the Committee to the officers. The Committee may choose to retrieve those powers in the event of a particularly contentious or politically sensitive proposal - which an incinerator proposal certainly will be.

There are more details on the structure of local authorities in Section 9.

Development Plans

Authorities cannot make arbitrary decisions about planning, but must refer to the relevant plans (which we have described in Section 5).

The **Local Plan** and the **Waste Local Plan** will be crucial documents. Also a **Waste Disposal Plan** may exist for your area. LPAs will treat them as the most important factors in determining whether or not to grant planning permission. They are under a legal duty to ensure that their decision is in accordance with the development plan unless "material considerations" indicate otherwise. It is essential, therefore, that you see these documents. The plans are public documents and should be available either in your local library or at your town hall/civic centre.

Part of your objections may well be that there are sufficient waste disposal facilities just outside your area (*see Section 8 on "need"*). Investigate this by looking at the local plans of surrounding districts.

Planning decisions

Planning decisions (i.e. the way in which planning applications are determined) are based on a combination of existing national, European and local policy, and on the merits of the individual proposal. The LPA is under a legal duty to ensure that their decision is in line with the Development Plan unless "material considerations" indicate otherwise. In turn, the Development Plan is required to take into account national and regional guidance and the legal

requirements of European Directives such as the EC Framework Directive on Waste⁵⁰.

The LPA's decision on the proposal will therefore be based on:

- central government guidance contained in Department of the Environment Circulars, Planning Policy Guidance Notes (PPGs), Regional Planning Guidance (RPGs) and Waste Management Papers (WMPs)
- existing local and District Council policy about waste management practice, as described in the Development Plan
- the requirements of relevant EC Directives
- previous Court Judgements in relation to Appeals on similar cases
- the merits of the individual proposal as described in the planning application.

Once a planning application has been made by the developer, the LPA is under a legal duty both to advertise it in the local press and either post a site notice in at least one place on or near the land for at least 21 days, or serve a notice on any owner or occupier of any land adjoining the land. There may also be advertisements placed in relevant trade journals.

The LPA is then required to determine the application one way or the other within 8 weeks of the date on which the application was received, or 16 weeks if an Environmental Statement is required (although this period is often extended by agreement between the LPA and the applicant). (*See Section 12 for details on Environmental Statements.*) The LPA can, within 21 days of the application being made, insist that any application be accompanied by an environmental statement⁵¹.

⁵⁰ Council Directive on waste, 75/442/EEC (Official Journal L194/39 of 25.7.1975), as amended by 91/156/EEC (Official Journal L78/32 of 26.3.1991), commonly referred to as the Framework Directive on Waste.

⁵¹ This must fulfill the requirements of the Town and Country Planning (Assessment of Environmental Effects) Regulations, SI 1988/1199.

“Call-in” of an application

In particularly contentious cases, the application may be “called-in” by the Secretary of State⁵². In this case the planning application is taken out of the hands of the LPA and determined by the Secretary of State. In general, the Secretary of State will only call in an application where planning issues of more than local importance are involved. These include, for example, cases which could have wide effects beyond the immediate locality; give rise to substantial regional or local controversy; conflict with national policy on important matters; or involve the interests of foreign governments.

The decision to call in an application is most likely to be made by the Regional Government Office. It is well worth lobbying them from the very start (especially if you are concerned about the LPA’s bias). It is worth finding out the name of the head of planning in the GO and address them personally in letters. It is also worth letting the LPA know that correspondence is being copied to the GO. It keeps them on their toes!

A call-in will result in a public inquiry, presided over by an Inspector from the Planning Inspectorate, to decide the application (or strictly to make a recommendation to the Secretary of State). Inquiries may also be held following an applicant’s appeal against a refusal, and we discuss inquiries further below.

Appeals and Inquiries

If the LPA rejects a proposal, or fails to determine the application within the required time, the applicant (and only the applicant) can appeal to the Secretary of State (via the local office of the DETR) who will then instruct the Planning Inspectorate to hold an Inquiry to decide the issue. The Secretary of State has the power to take over (recover) any planning appeal for his/her personal decision, but only does so in cases of great controversy or national importance.

Appeals by the public

Once planning permission has been granted, members of the public in this country (unlike in Ireland or the Netherlands, for example) have no right of appeal to the Secretary of State (Planning Inspectorate). However, an “aggrieved person” can, within six weeks,

⁵² The Secretary of State for the Environment, Transport and the Regions, or, in Wales, the Secretary of State for Wales.

appeal on legal and procedural grounds to the High Court. A person with a “sufficient interest” can also seek a judicial review (for which they must act “promptly” and in any event usually within 3 months). These are High Court procedures which essentially review the process of the decision-making and whether the duties of and powers available to the decision-makers have been used properly. The High Court decisions can be appealed (by either party) to the Court of Appeal, and thence to the House of Lords, and can be referred to the European Court of Justice for cases involving European law. This can be extremely expensive and, if you lose, you will probably have to pay the other side’s costs. This guide does not cover appeals and judicial review, and a solicitor/barrister would be essential if you are to contemplate such action.

Appeals by the applicant

An appeal against a refusal can only be made on the grounds that:

- the LPA has taken into account decisions which are irrelevant, or
- the LPA has failed to take proper account of matters which are relevant, or
- the decision is so unreasonable that no reasonable LPA could have come to that decision.

Any appeals must be made within 6 months of a decision. When appealing, the appellant first lodges an appeal form and supporting documents with the Planning Inspectorate. Copies of the form and documents must also be sent to the LPA.

The Planning Inspectorate will ask the LPA to advise all interested parties of the appeal. A copy of any written objections that were made to the LPA will be sent to the Inspectorate for consideration. The Inspectorate then notifies the appellant and the LPA of the date of the Inquiry, and appoints the Inspector who is to decide on the case.

The inquiry involves a complete re-hearing of the issues and may take the form of an inquiry “by written representations” which is conducted in private; by an informal hearing; or by a public inquiry. The developer may be offered a choice as to which way the Inquiry will be held, but the LPA may insist on a public inquiry if there is sufficient local interest - and your campaigning efforts should ensure that. Appeals in relation to major decisions such as proposals for a

large incinerator will almost inevitably be held by public inquiry.

A public inquiry offers the best opportunity for opposition views to be expressed and convince everyone of the public antipathy to the project. It attracts more publicity and there is a possibility of costs being awarded against the appellant should they lose. If you are keen to have a public inquiry, then you should write to the LPA and the Planning Inspectorate to press for this.

The Public Inquiry

We do not go into a huge amount of detail here - the substantive issues will be the same whether your objection is to the LPA or at the public inquiry. There are some useful publications, including a FOE briefing on attending a public inquiry, which cover this in more detail if you get to this stage (see Annex 7 for list).

If you submitted an objection to the initial planning application, you will almost certainly be informed about the inquiry.

A public inquiry is a formal affair. There will probably be a pre-inquiry meeting some weeks before the inquiry, which will clarify procedures and may even touch upon the issues that will be under discussion. The merits of anyone's position will definitely not be discussed - the meeting is to lay out the practical arrangements. You will be able to ask questions and even make practical suggestions - e.g. for interpreters or wheelchair access.

Find out the timetables, and note when and where you will be required to submit evidence.

Your main contribution to the inquiry itself will be a *proof of evidence*, essentially a statement describing who you are and why you are interested, and stating your objections. This should be submitted before the inquiry begins - usually three weeks before. You will be able to see other parties' statements of case and proofs of evidence, although not everyone manages to submit everything on time, so keep checking that you have everything. At the inquiry, you will be able to cross-examine the other parties, and they will be able to cross-examine you. Try not to be intimidated by this prospect - you have a right to have your say and your background research will pay off. Also remember that other events may occur which will affect the developer's proposal, so the delay to the planning decision caused by the inquiry procedure may work in your favour.

You may want to take on professional or legal help, but this is not essential.

Appeal decisions (i.e. the decision after the public inquiry if one was held) can be challenged in the Courts, within 6 weeks of the appeal decision. Appeals can only be challenged on legal grounds, not on planning merits or matters of opinion. You will probably need more legal advice than we can give. But by this time, you will probably be an expert in campaigning or may well have an expert solicitor supporting your campaign!

And keep on building public support and lobbying!

Section 8

Objecting to the Planning Application

This section -

- *guides your group through compiling its objection to the planning application.*
- *suggests useful allies who may be able to provide you with evidence in your objection*
- *details the grounds on which you can object to the application*
- *suggests information you will want to include in your objection.*

This section is essential reading when your group compiles its objection to the planning application.

Because of the significance of planning permission in most incinerator proposals, the main focus of your campaign is likely to be persuasion of the Local Planning Authority (LPA) to reject the application. The formal objection that you submit to the LPA is one of the means by which you will hope to do this. But you should also encourage as many people as possible to submit a letter of objection to the proposal since such representations from the public are a powerful influence. The letters need not all be of a technical nature.

Help!?

There may be a "planning aid service" able to help in your area. Get in touch with the Royal Town Planning Institute⁵³, ask for the local contact and then see what sort of help they can give. For example, "Planning Aid for London" is a charity with full-time paid staff whilst other areas tend to have networks of volunteers run by branch members of the RTPI. But it is quite possible that a caseworker would love to take on a local fight against an incinerator and it's always worth asking.

The process

When the planning application has been submitted, the LPA has eight weeks in which to make a decision to allow the development or to reject it (or 16 weeks if an environmental statement has been submitted - *see Section 13*). During that time, they will seek the views of a number of interested organisations ("consultees") in order to obtain the information upon which to base their decision.

Your objection

The LPA will also consider the views of any other group or individual who wishes to object to (or support) the proposal. **Objections must usually be submitted within 21 days of the application being submitted, but the period can be as little as 10 days.** This is not long at all and will limit the detail that you can go into in your objection. Be aware that controversial applications may deliberately be announced at inconvenient times - such as just before Christmas - in order to minimise the level of objection that they might provoke. But the LPA may be persuaded to extend the period of consultation if there is sufficient feeling in the community.

If utterly squeezed for time, you could try submitting an outline of your objections and follow up with more details as soon as possible. Speak to a council officer about this - they may well be sympathetic and give you an idea of what is feasible. But in any case, do not panic! As we noted in the previous section, an incineration application is quite likely to go to public inquiry, and you will have a lot more time ahead to work on your objections.

Your objection should be in writing - type it if at all possible, but it does not need to be in any particular format. Make your points as clearly as possible and of course be accurate to the best of your knowledge. We go over relevant points later in this section.

Submit your objection to the LPA and distribute it to the councillors on the planning committee considering the application. Also, send it, with a press release, to the media.

An important issue to bear in mind when writing an objection is that frequently the planning officer, who is possibly not a specialist regarding landfill, will be

⁵³ Royal Town Planning Institute, 26 Portland Place, London W1N 4BE. Telephone: 0171 636 9107.

summarising the objections in a report. (It varies from LPA to LPA as to whether objection letters are attached to reports.) Make it easy for the officer! By having such things as summary points you can guide the officer towards emphasising the points you want emphasised. Also, campaigners should be aware that it is not unknown for officers to distort or oversimplify objections in their reports, even innocently. It is vital that the objector gets a copy of the report before the committee date (it should be available five working days beforehand), and makes sure that Members are aware of any inaccuracies.

Submit the objection in the name of your campaign group. This may be useful later on, in order to acquire legal standing at a later date should you wish to challenge the planning decision (for example, if you want to challenge the planning decision in the courts).

And while this is happening, remember to continue gathering public support!

Note that if the application is approved by the LPA, you have no right of appeal. The applicant may appeal though, and this is discussed in the next section.

The planning decision

Sections 5, 6 and 7 describes the planning system and the background policies to which the LPA must refer in order to make its decision in relation to a planning application.

The specific criteria and **material considerations** which the LPA is able to consider in coming to its decision about the proposal are covered in national planning policy guidance issued by the Government. Much of this is in the form of Planning Policy Guidance Notes, known as PPGs (to which we refer throughout these sections). There is no "set list" of material considerations: PPG 1 (*General Policy and Principles*)⁵⁴ states that "*material considerations... must be related to the purpose of planning legislation, which is to regulate the development and use of land in the public interest... Much will depend on the nature of the application under consideration, the relevant policies in the development plan and the surrounding circumstances.*" So there is pretty broad scope for raising issues.

Definitely regarded as "material" would be relevant

⁵⁴ DOE (February 1997). *Planning Policy Guidance: General Policy and Principles* (PPG 1) (revised).

legislation and guidance, including *Making Waste Work*⁵⁵, statutory development plans, landscaping, access, impact on a neighbourhood, loss of amenity and sustainable development. "Prematurity" can also be a factor if one can show that granting approval would prejudice a later decision, e.g. a (large) landfill site might pre-empt consideration of alternatives if a local waste management strategy is still being formulated currently.

Impacts on personal matters such as property values or views from a home are not material considerations, nevertheless the level of opposition from the public can have an effect. Try to channel such concerns into related but material considerations such as worries about increased traffic or impact on the landscape in a scenic area. Do think about *all* the potential problems, but then try to express them in terms of the public interest, rather than private interest.

Because pollution issues tend to be regarded as the province of the Environment Agency rather than as planning matters, arguing about pollution can be tricky (and this is discussed further later). Where possible use the terms of the PPGs and planning Acts such as "sustainable development", "amenity" or "residential amenity" which will help justify your arguments as material.

These material considerations should form the basis of your objection. In relation to incinerator proposals, the key considerations include:

- consistency of the proposal with the Development Plan⁵⁶ and waste policies
- consideration of the BPEO, best practicable environmental option
- necessity for the incinerator
- pollution control issues and air quality
- habitat conservation and agriculture at the proposed site
- consistency with local and national transport policy
- visual intrusiveness

⁵⁵ The White Paper, *Making Waste Work*, states: "*This Waste Strategy will be a material consideration for planning authorities in drawing up their development plans and for determining individual planning applications.*"

⁵⁶ In this section, the term "development plan" also includes the equivalent plans (structure, local and waste) of a two-tier local government area (see Section 5).

- potential nuisance.

Some of these are discussed in PPG 1 (*General Policy and Principles*) and PPG 23 (*Planning and Pollution Control*) and its draft revision⁵⁷. If you are in Wales, please read the box later in this section - Wales has its own set of PPGs, but it is still worth reading PPG 23.

Gathering information for your objection

• Obtain a copy of the application

Applications for planning permission must be advertised in the local newspaper and by means of notices at the proposed incinerator site.

You have a right to see applications and supporting documentation (such as the environmental statement) free of charge and to obtain copies for a reasonable charge (reflecting photocopying and distribution costs only). You may be able to obtain free copies from other sources such as friendly councillors.

Usually the application will need to be accompanied by an Environmental Statement (ES), depending on its likelihood of causing environmental damage. The ES will contain much of the information that the LPA requires in order to make a judgement about the acceptability of the proposal in terms of environmental impact. You can refer to helpful passages in the ES in your objection, or, where the ES appears supportive of the proposal, you can criticise the ES itself. For more information on dealing with the ES, see Section 12.

• Find out the views of the consultees

The LPA is legally obliged to consult with a number of organisations (*statutory consultees*) and to take their views into account. Statutory consultees are bodies with some official responsibility for the environment and/or waste matters. You may be able to share resources and information with ones more sympathetic to your viewpoint. A formal objection by a statutory consultee is a very powerful argument against the proposal, so it is worth lobbying them. If any of the consultees have not been consulted, you can demand that the application is not considered until full consultation has taken place. This may also buy you a

little time.

Statutory consultees include:

- **The District Council.** The District Council must advise a Parish Council of any development of land in its area if it has expressed an interest in being kept informed.
- **The Highway Authority/Department of Transport** - if the proposal will affect roads by increased traffic movements. The Highway Authority for trunk roads is the Secretary of State for Environment, Transport and the Regions in England or the Secretary of State for Wales. The Highway Authorities for other roads are the County Councils and Unitary Authorities. The relevant Highway Authority should be consulted if an application includes any alteration to the road network or is likely to result in a material increase in the volume or material change in the character of traffic entering or leaving by road or proposed road or to prejudice the improvement or construction of such a road.
- **Neighbouring planning authorities** - if land in their area may be affected.
- **English Nature or the Countryside Council for Wales** - if it affects a conservation area such as a Site of Special Scientific Interest. In Northern Ireland, the **DOE** has responsibility for Areas of Special Scientific Interest.
- **The Ministry of Agriculture, Fisheries and Food** - if it causes the loss of agricultural land or may affect the quality of food.
- **The Health and Safety Executive** - to examine the risks posed by sites taking hazardous wastes and to examine the potential effects of an accident on the surrounding area.
- **Any other relevant Government Department** - if it could affect a safeguarded area such as an aerodrome.

Contact each of the consultees and ask for a copy of any representation they are making on the proposal. Whether they have made a representation or not, tell these bodies about your concerns and ask them to answer any particular questions you have. If any consultee expresses reservations about the application but does not clearly state that it opposes it, ask outright whether it supports or objects to the proposal. If they do appear unsure, it may well be worth trying to persuade them to come out against the proposal.

⁵⁷ At the time of going to print, it has not yet been decided whether a completely revised version of PPG 23 will be produced, or whether the Revision will be published as an additional document. Call the DETR for the latest information.

Publicise any concerns contained in their representations or replies. This will add authority to your campaign. If any of the consultees is opposed to the proposal then this greatly increases the strength of your case and will boost your campaign. Make public their opposition, use it on your leaflets and when talking to local residents. If a consultee supports the proposal make sure it gives clear reasons why. If these do not stand up to scrutiny, criticise their stance and provide evidence (such as in your objection) and try to convince them to change their stance. The earlier you can do that, the better, since no-one likes changing their mind in public.

The consultees' representations may help you to identify and find out more about the particular problems of the proposal. They may also help you identify potential allies in fighting the application.

If the LPA fail to consult a statutory consultee, then the application should be rejected, although it would likely be re-submitted at a later date.

Non-statutory consultees may be consulted but only at the discretion of the LPA. Often organisations which would have something to say in opposition to a proposal are not aware that a proposal has been made, so make a list of all the local organisations whom you think should know. If the Council is not consulting them, you can:

- write to the Council asking them to consult them
- publish open letters in your local papers warning them and putting your case
- write to or visit them to explain what is happening, put your case and let them know why they should get involved.

• **Obtain copies of the Development Plan**

Development plans detail the local authorities' planning policies (*see Section 5*).

• **Find out about the planning history of the site**

The LPA will be able to give you details of the planning history:

- Has there been planning permission granted before for the site and if so, what for?
- Has the site already been designated for a specific purpose other than waste disposal?
- Does the planning history of the site reveal similar proposals that were rejected? If so, find out from the LPA the grounds on which the proposals were

rejected.

• **Obtain copies of relevant national planning policy guidance**

You will need to get a copy of PPG 23 and the (as yet still draft) Revision, which forms part of the national guidance on planning and pollution control. If you are in Wales, you need a copy of *Planning Guidance (Wales): Planning Policy* (*see box 6*). These may be available in the local library. It may be advisable to view them first and copy only the relevant pages.

Go through all the relevant guidance and note any matters that the proposal must comply with. You can then check whether the application clearly demonstrates that the proposal will comply with the guidance. If there is any discrepancy between the guidance and the application, you may be able to exploit this, but also talk to the LPA about it.

Compiling your objection

The following paragraphs will give you guidance on the kind of information which you should collect and include in your objection. Submit your objection to the LPA and distribute it to the councillors on the planning committee considering the application. **Also, send it, with a press release, to the media.**

In the objection:

- quote the application reference number and the address of the application site
- limit your comments to the current application
- concentrate on the material planning considerations
- make it clear which material considerations each of your comments relate to
- explain clearly why the proposal would be harmful
- refer to national waste and planning policies
- refer to the Development Plan
- base your arguments on known facts and expert advice as much as possible
- refer to the concerns of the statutory consultees
- refer to other relevant evidence or documents, explaining their relevance
- refer to any relevant planning history of the site
- make your points brief and concise.

Type the objection if at all possible and use a clear structure and layout. Bear in mind that you have limited time in which to submit your objection, so you may wish to prioritise and limit the grounds on which you object in detail, but try to gather as much relevant information as you can to help you develop the

Box 6: Planning Policy in Wales

This is a specific note about the status of Planning Policy Guidance Notes, PPGs, in Wales.

There are some references to PPGs in the text, and we have provided a relevant list in Annex 7. For England, a number of PPGs exist, some of which have been or are being updated. Recent PPGs for England do not apply to Wales, even when an earlier version did. For example, the PPG 13 on transport of 1994 which, in England, superseded the 1988 version, did not apply in Wales which meant that the 1988 advice was still relevant in Wales. Since then, a note from the Welsh Office, *Planning Guidance (Wales): Planning Policy* (the Welsh Planning Guidance), has been produced (1996). This consolidates into the Welsh context much of the PPGs which were formerly issued jointly with the DOE, but with a few exceptions which are listed in the Welsh Planning Guidance. An example is the appendices of the 1988 PPG 13. (And these may be superseded in the future by WO "Technical Advice Notes".) There is also a WO Technical Advice Note 5 on Nature Conservation and Planning which is relevant.

This also means that PPG 23 on pollution control and planning and PPG 9 on nature conservation have been issued for England only. Our advice though is to

- a) call the Welsh Office and check exactly what Circulars, PPGs and Technical Advice Notes might be relevant and current when you begin to campaign, and
- b) still refer to PPG 23 and PPG 9. It is always worth comparing the Welsh advisory notes to any relevant English ones - different interpretations may come to light; an issue may be covered in one version but not the other; and you could quote the official English advice if relevant. Remember that much of the law applies to both England and Wales, and the PPGs also cover issues of international law, such as the EC Waste Framework Directive, which are obviously relevant in Wales.

arguments.

Below, we discuss some of the issues in more detail.

1. Does the application contain all the relevant information?

The information that a application must contain is detailed in the following legislation:

- The Town and Country Planning (General Permitted Development) Order 1995 (SI 1995/418)
- The Town and Country Planning (General Procedures Order) 1995 (SI 1995/419).

The first thing to check is whether the application is complete. It must include information on a range of issues, so compare the information required by the legislation with that in the application. If this information has not been provided then you can call for the application to be thrown out on the grounds of insufficient information. It may be re-submitted at a later date, but this will give you more time to develop your arguments and build your campaign. The required information includes:

- the nature of the waste
- the amounts of waste to be treated or disposed of

- access to the site and the timescale of the operations
- an up-to-date and accurate map showing the proximity of the proposed site to residential areas.

Also check if an environmental statement has been submitted, or required to be submitted, and get hold of that.

2. Plans and policies

Go through the Development Plan carefully and highlight any contradictions between the plan and the application, and between the plan and waste policy (*see Section 3*).

Read all the components of the plans and ask yourself the following questions:

- Is the Structure Plan adequately reflected in the Local Plan?
- Is the Waste Local Plan in harmony with the Waste Disposal Plan?
- Is the proposal in line with all relevant provisions of the Structure Plan, Local Plan and, especially,

the Waste Local Plan? Does the Waste Local Plan accept the need for a new incinerator?

- Check the Waste Local Plan designation of the land - is it already designated for waste disposal ?

When preparing your objections, quote verbatim (and reference) any passages from these documents that support your arguments.

There may be weaknesses in the component plans which you can criticise. For example:

- some of the component plans may not have been written
- the different plans may conflict with each other
- the plans may be of poor quality or out of date.

In these cases, you can call for the planning application to be rejected on the grounds that there is no comprehensive planning strategy for waste disposal in the area. If any of the plans are out of date, then their value is reduced. If so, try and make the Council compare the application with the planning guidance note, not their plan.

A recent appeal⁵⁸ against a failure to decide within the prescribed period an application for planning permission for a waste incinerator in Surrey was dismissed by the Secretary of State for the Environment. The appeal was dismissed because the County Council's overall waste strategy was still to be considered at an Inquiry into the waste local plan. The Secretary of State took the view that the appeal proposal was so significant that to give permission would pre-determine the decisions about the scale and location of development which ought properly to be taken in the development plan context (i.e. it would be **premature** to give the incinerator the go ahead before the Development Plan had been completed).

3. Best Practicable Environmental Option, BPEO

Has the developer or the LPA shown that, for each individual waste stream, incineration is the BPEO? Argue that an analysis of the BPEO for the waste streams should have been presented, as according to *Making Waste Work* (see Section 3) and the Waste Framework Directive. The BPEO principle, if properly implemented, would dictate that the potential for recycling that waste should be considered. Since the

⁵⁸ Appeal decision APPB3600/A/95/250539 reported at [1996] JPL 1069. As reported in *Wastes Management*, February 1997.

pollution control regime does not include consideration of how polluting discharges could be better managed (i.e. reduced) through better management of incoming feedstock, this should be handled at the planning stage.

4. The question of "need" for an incinerator

The need for an incinerator should be considered in two ways - with respect to waste generated and achievement of at least the 25% recycling target, and with respect to availability of alternatives - including any other incinerators or landfill sites in the region (*also see Section 5*).

FOE believes that a new incinerator for municipal wastes cannot be justified if the local authorities have failed to include ambitious recycling provisions which would contribute to the 25% recycling target for household waste, and have failed to consider alternative waste management options (and Friends of the Earth believes we need to recycle at a much higher rate than the 25% target the Government has set - see Section 3 for more details). Check whether an incinerator would conflict with the 25% recycling target by having such a capacity for waste that recycling options would be effectively thwarted.

Whilst most planning applicants do not normally have to prove the need for the development or any alternatives except where other material considerations act against the proposal - such as the need to protect designated nature conservation sites - proposals for waste management facilities appear to have become something of an exception and are required to prove need.

Paragraph 3.15 of PPG 23 states that:

"Applicants do not normally have to prove the need for their proposed developments, or discuss the merits of alternative sites. However, a number of judicial decisions have established certain categories of development where the duty to consider the existence of alternative sites may arise. The nature of such developments and national or regional need may make the availability, or lack of availability, of alternative sites material to the planning decision."

The Doncaster judgement

One such judicial decision is that in relation to the dismissal of an appeal over the refusal by Doncaster Metropolitan Borough Council to grant planning

permission for a quarry and landfill⁵⁹ (see Box 7 for more details).

Although the judgement concerned a landfill site, several principles were established, and it is reasonable to take the position that these principles should apply equally to incineration capacity.

In the context of incineration, two important points were established in relation to "need":

- Lack of proven need *may be harmful in itself* because excess supply of void space (or incineration capacity) in one area would result in wastes being attracted from elsewhere - i.e. from over a greater distance - and thereby contravening the *proximity principle*⁶⁰. Therefore, need should be demonstrated in order to overcome that harm.
- Waste disposal is an intrinsically harmful activity (due to nuisance, pollution threat etc - and which FOE would insist is self-evident), and therefore "need" should be demonstrated in order to overcome that harm.

Irrespective of the Doncaster decision, if the developer advances arguments about need in support of the application, counter-arguments are able to be taken into consideration.

Your objection should aim to prove that there is no need for the incinerator and press for waste minimisation and recycling. Make the following enquiries about waste production and disposal in the area and use the information you have collected, together with background information about waste reduction and recycling, to highlight the lack of proven need for the incinerator. If you fail to get a satisfactory responses to your enquiries, then highlight the fact that no proven need has been identified for the proposed incinerator.

- **Find out how much waste is produced in you**

⁵⁹ Planning reference number APP/F4410/a/95/253135

⁶⁰ The "proximity principle" originates in the EC Framework Directive on waste, placing a duty on planning authorities to establish a network of facilities for waste management which cater for regional needs. It appears in the White Papers, *This Common Inheritance* (1990) and *Making Waste Work*.

area

Figures for the waste which is produced, imported into and exported out of a particular area should be contained in the Waste Disposal Plan. However, this information may be out of date, so ask the LPA for its most recent figures.

If the developer is claiming that the site is justified on the grounds of projected population growth/employment expansion, check that they have supplied credible data to support the claim

- **Find out how waste is disposed of in your area**

Ask the Agency how much waste is landfilled, recycled or incinerated. These figures should also be available from the Waste Disposal Plan or recycling plans.

If the proposed incinerator is to take municipal waste, ask the District Council(s) in the areas where the waste is to come from. and what plans they have for reducing waste.

If the area is a net importer of waste, ask the Agency to justify this and state in your objection that this is in contravention of the proximity principle.

- **Find out what type of waste is intended for disposal at the site**

General information about the types of waste to be accepted will be contained in the application or planning permission. More specific information will be contained in the waste disposal licence application.

- **Find out about existing incineration and recycling capacity**

Find out what capacity the existing incinerators and recycling facilities have in your area and whether these are alternatives to the new incinerator. Remember that you will need to break this down by the type of waste. If the area has sufficient capacity for the amount of waste being produced, then the incinerator is not needed.

- **Find out where the waste is to come from**

Ask from what areas domestic or commercial waste is coming. If it is industrial then ask from which companies it is coming. (The LPA or the Agency may also be able to provide information on the source of the waste, although the public have no right of access to this information.)

Box 7: The Doncaster judgement

This concerned a proposal for a landfill in a quarry. Several closed landfill sites were already located in the vicinity and no convincing arguments were put forward as to why these could not be re-opened. The Inspector's report recommended dismissing the appeal, concluding that "*there is insufficient demand for void space at present*", and citing the **proximity principle**, i.e. that waste should be dealt with as close to its source as possible.

The Inspector's report made the following comments:

"Over-provision of void space would fail to take account of the principles of sustainable development, and would be harmful in itself" (para 83);

"The greater the concentration of disposal facilities within one borough, the greater the amount of cross-boundary movements will be [and] overall travel would generally increase" (para. 139); and

"I do not accept that need for waste disposal sites can only be considered when some harm has to be overcome. Indeed, if the proximity principle were to be compromised by permitting a site for which the need was not established, the lack of need may be harmful in itself. Furthermore, a lack of need for waste disposal may equate to doubt over the ability to satisfactorily reclaim the site" (para. 143 - our emphasis).

The Inspector summarised:

"I do not consider that the benefits of this proposal in... the ability to satisfy markets for aggregates and waste disposal are sufficient to outweigh the harm which this proposal would do to the policies for sustainable development, particularly in terms of the proximity principle; to the amenity of nearby residents; or to the enjoyment of users of the Doncastrian Way."

Most significantly, the Secretary of State accepted the Inspector's summary in his Decision letter and turned down the appeal.

If one particular company, or a small number of companies, will be a significant user of this site then you may be able to show that the site is unnecessary because the companies have failed to implement "cleaner technologies" which eliminate much of the waste generated by industry.

Bear in mind that this approach may be very time consuming and many of the companies you contact will not be very helpful.

- **Compare the local recycling rate** with the higher levels achieved by some other local authorities (whilst being careful to say that none of these authorities are perfect - see Appendix 2 for what local authorities could achieve).

If the waste is coming from a district which has a lower recycling rate than its neighbours, highlight this shortcoming.

5. Pollution control issues

The polluting effects of incinerators are described in Section 4 and Annex 2, but before you start to work

on highlighting the potential of the proposal to cause pollution, it is important to grasp the relationship between the application for planning permission and the IPC/LAAPC application. The two systems are designed to be complementary, but do overlap. Both deal with the same problems - preventing damage to the environment - but cover different aspects. The planning stage controls development and the appropriate use of land "in the public interest". That function may well include consideration of pollution. The IPC/LAAPC authorisation stage covers the prevention of pollution from activities on the site. The dividing line is not always clear and the Government has issued planning guidance to help resolve the overlap.

Paragraph 1.33 of PPG 23, *Planning and Pollution Control*, states that:

"[The planning system] assumes that the pollution control regime will operate effectively."

and Paragraph 1.34 states that:

"Planning authorities should work on the assumption that the pollution control regimes will be properly

applied and enforced”, and that:

“They should not seek to substitute their own judgement [for that of the Regulators].”

Proponents of polluting developments try to interpret these clauses as meaning that pollution control issues are of no relevance to applications. Planning authorities may also be of this view, and it is therefore important to **make clear why pollution issues are indeed of relevance**. The following quotes from the environment White Paper, *This Common Inheritance*, PPG 23, and the Court judgement in relation to the Gateshead case (see below) support the view that planning authorities should indeed take pollution issues into consideration.

The following points may be made to support your case.

- **The scope of the regime**

The White Paper, *This Common Inheritance*, states:

“Planning control is primarily concerned with the type and location of new development and changes of use. Once broad land uses have been sanctioned by the planning process it is the job of pollution control to limit the adverse effects that operations may have on the environment. But in practice there is common ground. In considering whether to grant planning permission for a particular development a local authority must consider all the effects including potential pollution; permission should not be granted if that might expose people to danger.”

PPG 23 states that:

“Matters which will be relevant to a pollution control authorisation or licence may also be material considerations to be taken into account in planning decisions. The weight to be attached to such matters will depend on the scope of the pollution control system in each particular case” (paragraph 1.34);

“The impact of these emissions should only be taken into account by planning authorities to the extent that they have land-use implications, and are not controlled by the appropriate pollution control authority. Given the new emission standards which incinerators will be required to meet, it is unlikely that planning authorities will find such considerations necessary. Where they are, planning authorities should have regard not only to the impact of individual incinerators but also to the cumulative

impact where an incinerator is built in close proximity to other sources of pollution” (paragraph 5.18).

You should therefore indicate how pollution from the plant falls outside the scope of IPC /LAAPC and should be considered at the planning stage.

- The limits set for the quality of most polluting emissions are not based on the health impact of those emissions. The prescribed limits are based simply on the likely emissions resulting from the operation of the incinerator and pollution abatement technology to specification. That technology is required only to comply with the “BATNEEC” principle - *best available techniques not entailing excessive cost* (see Section 10) .
- There are no prescribed standards for ambient concentrations of most pollutants (e.g. dioxins, other volatile organic carbons, PM_{2.5} - see Annex 2) and so the *cumulative* or *synergistic* impact of all the sources of those pollutants present in the vicinity of the plant is not taken into consideration within the IPC/LAAPC authorisation process. For pollutants for which there is no prescribed standard for ambient concentrations, the cumulative impact can only be regulated through the planning system.
- Furthermore, there are no safe limits for some pollutants such as particulates and some other organic compounds. Regulating pollution from the point of view of the health implications can therefore only be the responsibility of the planning authorities.
- Once planning permission has been granted and the authorisation issued, it is unlikely that pollution control legislation could be used to close the plant down *even where authorised emissions are shown to be harmful*. This shortcoming in the regulatory regimes was highlighted by a Ministerial statement in response to a request from a Member of Parliament for the appropriate Minister to use his powers to bring about closure of an incineration plant on the grounds of the pollution nuisance which it represented:

“I should make it clear to the House that I will not permit pollution control legislation to be used to close an industrial site which local residents feel is

Box 8: The Gateshead Judgement

The question of allocating responsibility for pollution issues between the planning authority and the pollution regulators was at the heart of an appeal over the granting of planning permission for a clinical waste incinerator at Gateshead in 1993 (Gateshead Metropolitan Borough Council vs Secretary of State for the Environment and Northumbrian Water plc).

The original application was refused by the LPA (Gateshead MBC). The subsequent public inquiry resulted in the Inspector's recommendation to refuse planning permission on the grounds of concern over the additional pollution impact from the proposed plant where existing levels of pollution were already high. However, the Inspector's recommendation was overruled by the Secretary of State who considered that pollution could be satisfactorily managed (under the Integrated Pollution Control regime).

Gateshead MBC appealed against the Secretary of State's decision by Judicial Review in the High Court, claiming that the pollution control system did not take account of cumulative impacts and health effects. This logic was, however, rejected and the Secretary of State's decision was upheld by the High Court. The final stage was an appeal to the Court of Appeal which also upheld the Secretary of State's decision.

However, the judgement of the Court of Appeal stated that: "*[T]he extent to which discharges from a proposed plant will necessarily or probably pollute the atmosphere and/or create an unacceptable risk of harm to human beings, animals or other organisms, is a material consideration to be taken into account when deciding to grant planning permission.*"

This means that the planning authorities must consider the extent to which pollution will be caused, suggesting that a full assessment of the impacts is required.

Furthermore, the judgement stated that HMIP [now part of the Agency] were empowered to take cumulative pollution and health impacts into account and had a duty to do so. (This was despite the fact that HMIP had - to-date - only ever refused an authorisation on these grounds on one previous occasion.) The power lies in Section 7 of the EPA1990: "*There shall be included in an Authorisation...such specific conditions as the enforcing authority considers appropriate...for achieving...compliance with any...quality standard or quality objectives prescribed by the Secretary of State*".

Despite the unfortunate outcome in this case, the judgement of the Courts was something of a double-edged sword. Most significantly, the Court's view was that:

"If it had become clear at the inquiry that some of the discharges were bound to be unacceptable so that a refusal by HMIP to grant an authorisation would be the only proper course, the Secretary of State following his own express policy should have refused planning permission."

"Unacceptable" discharges therefore were taken to be any which would cause a breach of prescribed environmental quality standards, that being the limit of the Agency's authority. The judgement means that, if it can be shown that the impact of the proposed discharges will cause a breach of those quality standards that exist (*see Annex 2*), then *planning permission must be refused*.

The implication here is clearly that the necessary studies must be carried out, before planning permission is granted, through the Environmental Impact Assessment, in order that the implications of the proposal for air quality standards can be made clear to the planning authority or the inquiry. Fortunately, the judgement did stress that the *extent* to which pollution might occur was a material consideration.

The High Court also stressed that, despite the fact that the Secretary of State's decision was upheld in this particular case, the judgement should not be taken as *carte blanche* for applicants for planning permission to ignore the pollution implications and leave it all to the IPC regime.

A judgement of the Courts - such as this one - has greater legal standing than PPG 23, which is "only" guidance.

sited in the wrong place”⁶¹.

- **Effect on land use**

PPG 23 states that:

“Pollution can arise from a variety of sources.....it can also arise from waste storage, treatment and disposal facilities. Polluting substances can enter air, water or land, or any combination of them. This PPG is concerned with how the possibility of such polluting substances is to be taken into account in the planning system. It advises that the planning interest must focus on any potential for pollution, but only to the extent that it may affect the current and future uses of land” (para 1.9);

“The planning system controls the development and use of land in the public interest. It has an important role to play in determining the location of developments which may give rise to pollution. The potential for pollution affecting the use of land, e.g. for other development or for agriculture, is capable of being a material consideration in deciding whether to grant planning permission” (para 1.31);

“...Material considerations are likely to include...the risk and impact of potential pollution insofar as this might have an effect on the use of other land” (para 1.33);

“The impact of these emissions should only be taken into account by planning authorities to the extent that they have land-use implications...” (para 5.18).

You should therefore indicate how future land-use in the area would be affected by pollution.

There will inevitably be concerns about potential health effects within the vicinity of an incinerator. Pollution problems, real or perceived, associated with emissions from the incinerator are very likely to affect the desirability of future development in the area around the incinerator⁶². Property prices in the area

⁶¹ Statement by Mr David Maclean, (former) Minister for the Environment and Countryside. House of Commons Hansard, January 11th, 1993.

⁶² Decision by the Secretary of State for the Environment, November 2nd, 1992, in relation to Public Enquiry at Howden, Portrack and Seal Sands. DoE Refs APP/K9530/A/89/145489; APP/X9520/A/90/157387; APP/VO700/A/89/137357.

are also likely to be affected - especially as the state of knowledge improves on the health effects of the pollutants being emitted. Existing businesses could well be damaged, with food processing particularly vulnerable (*see Annex 5*). Further, there have been incidences where the suitability of adjacent land for agricultural and dairy use has been of concern as a result of pollution from incineration plants.^{63 64 65}

Check if the LPA have background data on existing levels of heavy metals, dioxins and other persistent pollutants from soil samples in the vicinity, and check if they have modelled the likely impact of further incinerator emissions on surrounding land.

One incinerator application has been turned down because of fears of groundwater pollution by liquid wastes being handled at the site (*see Annex 5*).

- **Cumulative impact**

Paragraph 5.18 of PPG 23 states that:

“...planning authorities should have regard not only to the impact of individual incinerators, but also to the cumulative impact where an incinerator is built in close proximity to other sources of pollution.”

You should therefore highlight the need for the application to take proper account of ambient air quality standards and other pollution sources in the area and show that the cumulative impact of pollution will be a threat to health or a nuisance .

- Draw attention to the cumulative impacts of pollution, including synergistic effects, and argue that these should have been taken into account in the application. If they have not, then argue for the proposal to be rejected. As discussed above, the IPC authorisation does not take account of

⁶³ Welsh Office (April 1993). *Polychlorinated biphenyls, dioxins and furans in the Pontypool environment* (Fourth Report).

⁶⁴ Eitzer, B.D. (1995). *Polychlorinated dibenzo-p-dioxins and dibenzofurans in raw milk samples from farms located near a new resource recovery incinerator*. *Chemosphere* Vol. 30, No. 7, 1237-1248

⁶⁵ Liem, A.K.D. *et al.* (1990). *Levels and patterns of dioxins in cow's milk in the vicinity of municipal waste incinerators and metal reclamation plants in the Netherlands*. *Proceedings DIOXIN '90, Organohalogen Compounds*, Vol. 1, 567-570.

cumulative impacts for most pollutants.

- **The Environment White Paper, *This Common Inheritance***

Government policy is set out in the White Paper on the Environment, *This Common Inheritance, Britain's Environmental Strategy*. Paragraph 6.39 reads

“Planning control is primarily concerned with the type and location of new development and changes of use. Once broad land uses have been sanctioned by the planning process it is the job of the pollution control to limit the adverse effects the operation may have on the environment. But in practice, there is common ground. In considering whether to grant planning permission for a particular development a local authority must consider all the effects including potential pollution; permission should not be granted if that might expose people to danger” (our emphasis).

The White Paper also endorses the **precautionary principle**:

“Where there are significant risks of damage to the environment, the Government will be prepared to take precautionary action to limit the use of potentially dangerous materials or the spread of potentially dangerous pollutants, even where scientific knowledge is not conclusive, if the balance of likely costs and benefits justifies it. This precautionary principle applies particularly where there are good grounds for judging either that action taken promptly at comparatively low cost may avoid more costly damage later, or that irreversible effects may follow if action is delayed” (para 1.18).

- **The Ministerial Declaration of the Fourth North Sea Conference**

Ministers agreed the following at the Fourth North Sea Conference (held in Esbjerg, 1995).

III. THE PREVENTION OF POLLUTION BY HAZARDOUS SUBSTANCES

17. The Ministers AGREE that the objective is to ensure a sustainable, sound and healthy North Sea ecosystem. The guiding principle for achieving this objective is the precautionary principle.

This implies the prevention of the pollution of the North Sea by continuously reducing discharges, emissions and losses of hazardous substances thereby moving towards the target of their cessation within

one generation (25 years) with the ultimate aim of concentrations in the environment near background values for naturally occurring substances and close to zero concentrations for man-made synthetic substances.⁶⁶

Given that waste incineration is a major source of substances such as PICs and metals which are toxic, persistent and liable to bioaccumulate, this Declaration would have serious implications for the expansion of waste incineration if taken on board by the Government. Some part of the persistent substances discharged from an incinerator will eventually reach the marine environment because contaminants in the sewerage system will be discharged into rivers from sewage treatment works, and airborne pollution will be deposited as the air passes over the surface of the sea.

Highlight the fact that the inevitable release of dioxins and other PICs from the plant will be at odds with the Governments's commitments under the North Sea declaration to eliminate discharges and emissions of substances which are toxic, persistent and liable to bioaccumulate.

Once you have made a case for the need for the planning authority to consider the effects of pollution from the site, you can then draw attention to the potential health effects (discussed in Annex 3), particularly those for which the greatest uncertainties exist, i.e. dioxins and fine particulates.

- **Request baseline surveys**

Ask for:

- A thorough soil survey to establish levels of dioxin and metals in the soil at a significant number (at least 50) locations within one to two miles from the plant, and at 10 - 20 locations around the perimeters of the borough. These test locations must be precisely marked on a map in such a way that it will be easy to test at exactly the same locations again at periodic intervals to see if the levels have changed. The locations should be selected so as to be likely to be available for re-testing over following years.

⁶⁶ At the time of the declaration, the UK inserted a footnote to this declaration, to the effect that it agreed with the aims, but did not think they were practicable! However, the new Government has recently signalled that it is to be more positive about prospects for achieving prevention of pollution.

- Retesting of the soil at each of the testing points to be undertaken periodically (for example, every three years), or more frequently if there is cause for concern, as part of the ongoing monitoring for dioxins.
- A comprehensive epidemiological survey of residents in the vicinity. This study should be repeated regularly if the incinerator is commissioned.

6. Conservation and agriculture issues

An incinerator development could affect nature conservation through visual intrusiveness, noise, traffic, litter, and air quality, or it might be near or on agricultural land.

PPG 1 *General Policy and Principles* states that “*In accordance with the principles of sustainable development, the best and most versatile agricultural land is a national resource for the future. Considerable weight should be given to protecting such land against development.*”; and “*Nature conservation objectives...should be reflected in regional planning guidance, structure plans, unitary development plans and local plans.*”

PPG 9, *Nature Conservation*, gives guidance on conservation and heritage considerations in planning. It states that: “*Nature conservation objectives should be taken into account in all planning activities which affect rural and coastal land use, and in urban areas where there is wildlife of local importance*”; and that plans must take account of the “*environmental implications of development - for example, the impact on landscape quality, wildlife conservation...*”.

Local authorities may prepare a “Nature Conservation Strategy” which may inform you about nature conservation issues which affect the proposed site, and may be taken into consideration by the LPA. In Northern Ireland, however, local authorities do not usually take an active approach to nature conservation.

Approach the statutory conservation agencies, DETR, MAFF and other interested groups (particularly the county-based Wildlife Trusts) and ask them whether the proposed site would affect any designated areas. The various designations are made under various statutory provisions by various institutions, and the degree of protection varies. They include:

- Sites of Special Scientific Interest - SSSIs (*English Nature/Countryside Council for Wales -*

CCW);

- Areas of Special Scientific Interest - ASSIs - in Northern Ireland (*DOE (NI)*)

SSSIs include all the following designations:

- National Nature Reserves (*English Nature/CCW*)
- Special Areas of Conservation (*English Nature/CCW*)
- Special Protection Areas (*English Nature/CCW*)
- Ramsar Sites (*English Nature/CCW*)

Other designations include:

- National Parks (*National Parks Authority*)
- Heritage Coast (*Countryside Commission/Local Authority*)
- Sites of Importance for Nature Conservation (*Local Authority/Local Wildlife Trust*)
- Areas of Outstanding Natural Beauty (*Countryside Commission/Local Authority*)
- Country Parks (*Local Authority*)
- Local Nature Reserves (*Local Authority*)
- Green Belt (*Local Authority*)
- Areas of Archaeological Interest (*Royal Commission on Historic Monuments*)
- National Trust Sites (*National Trust*)
- County Wildlife Sites (*Local Authority*)
- Tree Preservation Orders (*Local Authority*)
- Listed buildings (*National Heritage/Local Authority*)
- Scheduled Ancient Monuments (*English Heritage/CADW*)

If any of these sites are affected, highlight that in your objection. Direct and indirect impacts should be considered - e.g. emissions and possible impact on food quality or contamination, visual intrusion, traffic generation and disturbance of the site.

See also the Friends of the Earth briefing, *Wildlife, Planning and Developments*.

7. Transport movements

PPG 13 (*Transport*) states that, as a broad guide, the Department of Transport (now the DETR) would regard an increase in traffic in the order of 5% as material in most cases, though where the capacity of a road is near to being exceeded, a smaller percentage increase may well be material.

The local authority is required to produce an annual document called *Transport Policies and Programmes (TPP)* which details the authority's planned transport

developments over the following year. Notwithstanding the rather short-term nature of the TPP, you should check for the transport requirements of the proposal is consistent with the TPP.

It is worth asking for a "Transport Impact Assessment" (using PPG 13 as guidance) to be carried out. These are increasingly common and local authorities may use the results to ask for highway improvements as a condition of the planning permission - which may make the development uneconomic.

The movement of waste

The transport of waste to the proposed site, particularly by road, may pose considerable risks to the surrounding area. These risks should be borne in mind when criticising the application.

Waste may be transported in municipal collection vehicles (used mainly for household waste), in tipper lorries or skips (used mainly for commercial and dry industrial waste) or in tankers (containing liquid wastes). The roads serving an incinerator site may not be suitable either for the size or the number of lorries. This may cause traffic congestion problems and so lead to delays, increase the risk of accidents with other vehicles or pedestrians, as well as causing damage to the road itself.

The transport of waste may also adversely affect developments along the route (e.g. residential housing, schools, hospitals) through the noise, smell and dust generated, as well as increasing the risk of accidents. Vibration from heavy lorries may also damage nearby property.

Depending on the types of waste deposited at the site, there may be problems of spillage of waste material and ash *en route*. This may occur either through day-to-day operations (e.g. spillage from the top of an open lorry) or through an accident leading to release of the waste (e.g. rupturing of a tanker container).

Increased traffic movements in residential areas may also be considered a "nuisance" to residents.

PPG 23 states that waste planning authorities should encourage the movement of waste by rail and water rather than by road "*wherever economically feasible and environmentally beneficial*".

The Royal Commission on Environmental Pollution recommended "*that waste disposal facilities should wherever possible be on sites which allow wastes to be moved by rail or water transport rather than by road.*"⁶⁷

8. Visual impacts

Consider whether the proposal will have an effect on the character of a neighbourhood or open space. An incinerator is a bulky affair with tall chimney stacks. A new MSW incinerator might need 2 - 3 hectares of land, be 30 - 45 metres in height with a 80 m chimney⁶⁸. If this could wreck a view across a valley or dominate a small row of terraced houses then this is certainly something that planners will wish to consider.

PPG 1 states: "*The appearance of proposed development and its relationship to its surroundings are therefore material considerations...*"; "*Particular weight should be given to the impact of development on existing buildings and on the character of areas recognised for their landscape or townscape value...*"

9. Nuisance

The potential for the incinerator to cause or increase nuisances such as **smell, dust, litter and noise** should be highlighted in the objection. The developers will attempt to show how these nuisances will be controlled, but you may be able to undermine their assurances if you can find examples of other incinerators where the suggested control measures have failed.

If planning permission is granted, drawing attention to nuisances will help to ensure that measures to control nuisances are likely to be included in the conditions. It is important, then, to identify as many potential nuisances as you can.

⁶⁷ RCEP (1993). *Seventeenth Report: Incineration of waste*. London, The Stationery Office.

⁶⁸ DOE/WO (1994). PPG 22 Annex: *Renewable Energy*.

Section 9

The Local Planning Authority and How to Lobby Them

This section -

- *explains how local authorities work*
- *provides tips on influencing their decisions.*

This section is useful background reading when you're campaigning against the planning permission.

How local authorities work

What may conveniently be referred to in everyday speech as "the Council" could be any one of several different organisations, each with different powers, responsibilities and functions. This section is intended to help clarify the distinction between different kinds of local authority and show how they are supposed to operate.

Council structure

The basic structure of local government differs between different areas. Some areas have one tier of local government - unitary authority - whilst others have two tiers, at county and district level. Planning applications for waste facilities are handled (at least initially) at the County Council level in a two-tier area, and by the unitary authority in a single-tier area.

Unitary Authorities. These areas consist of the Metropolitan District Councils (London, Greater Manchester, Merseyside, South Yorkshire, Tyne and Wear, West Midlands and West Yorkshire) and some other urban councils that have been hived off from County Councils (e.g. Derby City Council). In these areas there is a single tier of local government.

Confusingly, none of the Metropolitan district councils is actually called such. These councils are known by a variety of names; there are the London Boroughs (e.g. the London Borough of Islington), the City Councils (such as Leeds City Council), and the rest are called Metropolitan Borough Councils (such as Solihull MBC). Again, rather confusingly, the name City Council is also used for some examples of a different kind of authority - District Councils.

Non-Unitary Authorities. Outside the unitary authority areas, there are two tiers of local government

- County Councils and District Councils, which are separate organisations and have different responsibilities. Some District Councils are known as City Councils (e.g. Cambridge City Council) and some as Borough Councils (e.g. Brighton Borough Council). The boundaries of District Councils always fall within the boundaries of a single County Council.

Districts are further sub-divided into parishes, many with their own councils. Whilst these councils have very little formal power, the actual influence varies greatly. Parish councils are not further discussed here, but you should try to get their support and help if possible.

The structure of individual authorities

Local authorities are organised into a number of departments with all the major decisions being the responsibility of committees of elected councillors. The day-to-day running of the council is in the hands of salaried staff known as Officers who work in different departments, each of which is headed by a Chief Officer. The departments tend to be either administrative (such as the legal, personnel and Chief Executive's departments) or actual service departments (such as planning and education). The overall head of the council is known as the Chief Executive. The Chief Officers and Chief Executive usually form a management team which ensures effective communications between the departments and develops an overall strategy for the authority.

Council committees

The major decisions of the council, such as decisions on the granting of planning permission, are made by committees of councillors (often called members) who are elected by local residents.

Generally there is a committee for each service department as well as an overall policy committee which deals with the wider issues. These are called standing committees.

The committees can set up sub-committees, working parties or advisory committees to deal with specialised

aspects of policy. These committees may have decision making powers delegated by the main committee but more usually merely make recommendations. Sometimes, decision-making powers are delegated to Officers.

Councillors are appointed to the various committees, with the size, composition and membership of the committee decided at the Annual Meetings. Each committee is served by a clerk from the Chief Executive's department and is advised by Officers from the department to which the committee is attached. The role of Officers is to prepare agenda papers and reports and advise committees, but the final decision rests with the councillors themselves.

Decisions taken by committees are subject to approval by the full Council which can overturn them and refer the matters back to the committee for reconsideration.

Local authorities usually transact business in cycles of meetings. Each of the main committees and the full Council will generally meet once during a cycle which is usually about one to two months long. Informal discussions are likely to take place before a matter reaches an agenda paper for a committee meeting. These may include discussions amongst members of the committee (especially the Chair) and council Officers, and discussions between the councillors representing a particular political party. The Chair of the committee and their deputies - who are usually members of the majority party - tend to have the most power and are usually involved in close discussions with Chief Officers about day to day issues and longer term policies.

The rules by which a council operates are detailed in its *Standing Orders* which are defined and approved by full Council.

How committee decisions evolve

Before a proposal reaches an agenda paper at a committee meeting, there may have already been many stages of informal discussion. This may include pre-committee discussions between members of the committee (especially the chair) and council officers as well as discussions between councillors of a particular party. However the first formal discussion comes at the committee meeting.

In reality, the actual decision about a contentious planning application would be made during these informal discussions between councillors of the majority party which take place outside of the committee meetings. The members of the majority

party will agree to use their majority to determine this pre-agreed outcome in Committee.

A limited number of opposing votes may be permitted within the majority party if particular councillors feel politically vulnerable on the issue, but the preference of the majority will determine the outcome nonetheless.

Getting information out of local authorities

The Local Government (Access to Information) Act 1985 gives the public rights to find out about Council business and obtain key documents such as reports, minutes and background papers.

With a few tightly defined exceptions, members of the public now have access to all council committee and council sub-committee meetings as well as to agendas, reports, minutes and background papers. Agendas have to be published in advance and relevant documents made available to the public.

However there remains no definition of what constitutes a "reasonable" fee for copying documents (with some authorities charging £3.50 a sheet for photocopying!). There is also some leeway for what

actually constitutes a committee, since there is no public access to a working party or informal groups.

The *Environmental Information Regulations 1992* give the public the right to see "environmental" information held by the local authority. This includes information relating to monitoring, regulations and activities affecting the state of the environment.

Exceptions to this entitlement include information which is considered commercially confidential, prejudicial to national security, or still in the course of completion. These exceptions can be abused by the holder of information and it is often worth challenging a refusal. For more information, see the FOE briefing *Using Your Right to Know*.

Lobbying

The most important decision-makers in relation to a proposal for an incinerator are likely to be those within the local authority who are responsible for

Box 9: Waste Authorities

The *Waste Collection Authority (WCA)* is normally part of the district level local authority. It is responsible for refuse collection, and also for drawing up recycling plans, and sometimes for ensuring recycling takes place. In different authorities it will be part of different departments - for example, it could sit in environmental health, or technical services.

The *Waste Disposal Authority (WDA)* exists at county level and is responsible for directing disposal of waste to landfill or incineration, and sometimes for some recycling.

In unitary authorities the above two functions may be combined. Sometimes the disposal authority will cover several unitary authorities, especially in large towns. For example, there is a Greater Manchester Waste Disposal Authority, but Greater Manchester comprises several unitary authorities.

Until recently, the above authorities would physically carry out their functions - for example, council employees would actually be doing the refuse collection, or running the landfill site. However, authorities now have to allow the private sector to compete to carry out these function, under "compulsory competitive tendering". Not all authorities have yet done this. The letting of local authority waste contracts provides a campaigning opportunity (*see box this section*).

The previous local authority set-up can still carry out the functions, but has to be set up as a limited company to do so, and has to compete with private sector companies. These "arms-length companies" set up for waste disposal are known as *Local Authority Waste Disposal Companies* or *LAWDCs*.

At the time of writing there are proposals for new municipal waste strategies, to be drawn up by the Disposal and Collection authorities jointly. These strategies would be "informed" by the development plans for waste. However, this sensible proposal may not be put into effect for some time.

Also see Section 5, Campaigning on Waste Plans.

determining the outcome of the planning application (the planning department and planning committee). If the facility is intended for municipal waste, then those within the local authority with responsibility for awarding **waste disposal contracts** (the waste disposal authority - WDA) may also be of potential significance (*see Boxes 9 and 10*).

Attempting to influence directly those decision-makers and persuade them that the application should be rejected is likely to be an important aspect of your campaigning.

- **Identify which people will make the decision**

Your overall objectives in attempting to influence the local authority are to:

- convince the councillors on the Planning Committee/WDA that the "cost" (either politically or because of potential pollution) of supporting the application is too high.
- convince the Planning Department Officers that the proposal should be rejected on the grounds of existing planning policy.
- convince the relevant Officers that there is no overriding urgency in awarding a long-term waste disposal contract.

- **Make yourself known to the decision makers**

It is important to be more than just a signature on a piece of paper - however well-reasoned your arguments are. Your influence will be greater if you meet with the decision-makers (and those who influence them) and explain your case. At least try to talk to them on the telephone.

- **Find out which council officer(s) will deal with the application or contract.**

Specifically identify the officer(s) handling the application/contract and the Chief Officer with overall responsibility for the department. Ask the LPA which is the relevant council department responsible for handling the planning application and/or waste disposal contract. Each planning application is assigned to a planning officer (or officers), who compiles a report on the case for the relevant planning committee, recommending what decision should be made.

- **Find out which Committee will be making the decision**

Get the details of the relevant committee that considers the planning application/disposal contract. Identify the councillors who sit on these committees (particularly the Chair and the vice-Chair). These are the key individuals to lobby. You will be able to find out their names, addresses, area represented and political affiliation from the Council. Remember that a committee can delegate the decision to a sub-committee or officers. Find out who is considering the proposal and when.

- **Get as much background information as possible**

This may include agendas, minutes, reports and background papers for both previous and forthcoming committee meetings which discuss the proposal. This will give you an indication of the level of support in the committee and the specific aspects of the proposal which are of particular interest.

Tips on lobbying Councillors and Council Officers

- **Lobby the councillors**

Challenge the councillors to state whether they support or oppose the proposal. This gives you an insight into whether the proposal is likely to be accepted or rejected and enables you to identify sympathetic councillors. This survey may also represent a good way of getting media attention.

Identify which wards the key councillors represent and concentrate your efforts at building up support for your campaign in those wards. Try to present your arguments in terms of votes for the councillors, and remember that councillors will be more impressed with the greater personal effort that is required for people to express their views in a letter than simply by signing a petition.

- **Lobby the relevant officers**

Meet with the decision-makers in the planning department and explain your concerns about the proposal. Also, discuss your case with the relevant scientific officer in the environmental health department; the planning department/WDA will consult with that department on pollution and health issues.

- **Keep councillors and officers in touch with your campaign**

Throughout the campaign keep the councillors briefed with the progress of the campaign. Be prepared to meet with them to discuss the issues.

- **Use friendly councillors**

Certain councillors may be very sympathetic to the aims of the campaign. This is particularly useful if the councillor is on the relevant Committee considering the proposal/contracts.

Use friendly councillors to bring up points during the consideration of the proposal, but be aware that if those councillors are within a minority party, their views may be deliberately ignored (irrespective of the merits of those views). Friendly councillors may also be able to give you a great deal of "off the record" insight into the progress of the proposal and the weak points to concentrate on.

A friendly councillor (or MP) can be helpful if you are having difficulties obtaining information from the operators or developers, or even the local authority.

You may find friendly councillors within other committees. Members of the Environmental Health committee may be helpful and supportive.

- **Avoid being associated with one particular political party**

The proposal or contract may become something of a political football. Friends of the Earth would strongly recommend that your group doesn't become associated with one particular party since this may lead to your campaign being pigeonholed and marginalised, and the campaign can be in danger of being labelled "political", rather than community- and environment-led.

- **Exploit forthcoming elections**

Exploit any forthcoming elections as an opportunity to make the proposal an issue. Challenge the candidates to clearly state whether they support or oppose the proposal/contract (and don't let them get away with a general non-committal response).

You may be able to use this information as an opportunity for media coverage.

Box 10: Waste disposal authorities and contracts

If the proposed incinerator is to accept municipal waste and the developer cannot find a local authority to agree a contract to supply waste to the facility, then the construction of the facility is unlikely to take place. If an incinerator proposal has been particularly unpopular in the area, then it is worth pursuing the option of lobbying the local authority not to use the site. The Waste Disposal Authority (WDA) section of the council will be your primary target.

Even if planning permission is (or has been) granted, it is still worth using many of the same arguments in relation to the disposal contract because:

- you will be dealing with different councillors and officers
- continued public support for your campaign may result in increased interest in your arguments within the authority
- in Northern Ireland, campaigning against the waste disposal contract is of particular significance because there are limited opportunities for public involvement in the process (*see Section 14*).

If there is a pressing need to award a waste disposal contract (i.e. they are up for renewal) and the WDA propose to award a long-term contract (e.g. 25 years, you could try to persuade them to award only a short-term (e.g. 5 years) contract using existing facilities pending proper evaluation of alternative waste management options.

- **Try and identify any contacts between your local authority and the proposed operator or developer**

Whilst it may not be very easy, try and find out if

there are any links between the pro-incineration lobby and any councillor (or officer) who may be championing the proposal. Ask whether it is sensible for somebody with a close connection with the proposal to be involved in the decision about whether

it should be given the go-ahead. The media will be very interested in any possible conflict of interest.

- **Use your MP**

Identify the MP for the area, his or her political affiliation and majority. Keep them in touch with the progress of the campaign.

Challenge the MP to state whether he or she supports or objects to the proposal/contract. The support of your local MP would be very useful for your campaign.

As stated earlier, a forthcoming election tends to concentrate the minds, and so it may be a particularly fruitful time to extract support from the various candidates. In challenging the candidates, make it clear that you intend to make the results available to the local media.

Your MP may also be able to help your campaign by getting answers to questions you have raised with your local authority, interested bodies or the proposed operator, and will probably help in this regard irrespective of his or her own position with respect to

incineration.

Northern Ireland

Although local authorities in Northern Ireland do not have responsibility for planning, it may still be worthwhile lobbying councillors and the local authority to attempt to influence the planning process indirectly. Local authorities are statutory consultees and the Department of the Environment Planning Service must consult the appropriate council before deciding any planning application and must take their views into account. If a council does not agree with the Department's view on a particular application, it can request a deferment so that the application can be discussed in more detail. The Department does not have to alter its recommendation, but if it does not, the Council can refer the application to the Planning Directorate which has the power to overturn the divisional office's recommendation.

Because of the relatively limited scope for influencing the planning process in Northern Ireland, influencing the waste disposal contract is of greater significance than in England/Wales.

Section 10

Who Gives Incinerators Licences to Operate?

This section -

- details what licences are needed by an incinerator before it can operate
- describes the procedure for applying for a licence
- identifies the opportunities to object to the licence application.

This section is essential reading for the group so that it can understand "the rules of the game" when campaigning against the granting of a licence to operate. Information from this section may also be useful when you are campaigning against incineration in general.

Pollution Regulation

Incinerators have the potential to create pollution through air emissions to the atmosphere, through discharges of liquid effluents to sewer (and to controlled waters), and through the disposal of contaminated ash to landfill. Each of these are subject to some regulatory control under various schemes.

The Environmental Protection Act 1990 (EPA 1990) set up two parallel systems for regulating most of the polluting emissions from certain *prescribed* industrial facilities by means of specific authorisations. The relevant processes are defined within statutory regulations⁶⁹. The two regulatory systems are:

- *Integrated Pollution Control (IPC)*, administered by the Environment Agency and covering the larger and more polluting processes (often referred to as "*part A*" processes). Emissions to land, air and water are considered⁷⁰.
- *Local Authority Air Pollution Control (LAAPC)*, administered by the Local Authority and covering the smaller facilities ("*part B*" processes). Air emissions are regulated. This guide will not cover the LAAPC system, but the principles are the same as for IPC, except that the local authority only has to consider air pollution.

⁶⁹ The Environmental Protection (Prescribed Processes and Substances) Regulations (SI1991/472) and several amendments.

⁷⁰ The IPC system of authorisation is usefully described in the DOE/Welsh Office publication *Integrated Pollution Control - A Practical Guide* (1996).

IPC processes include:

- any plant with a design capacity of more than 1 tonne/hr
- any plant, of any size, burning certain waste chemicals prescribed under the Regulations
- all waste-burning plants with energy generation facilities ("combustion" processes), with a net rated thermal input⁷¹ of 3MWth or more.

The terms of the IPC authorisation will include details of the quantity and quality of discharges to sewer and to controlled waters (rivers, streams, underground waters), and the quantity and composition of ash requiring disposal. For discharges to sewer, a *trade effluent consent* from the sewage undertakers (the private water companies) may also be required, specifying conditions relating to the quantity and composition of the effluents being discharged.

Under the EPA 1990, all prescribed processes (IPC and LAAPC) are required to adopt the BATNEEC principle (best available technique not entailing excessive cost) to minimise polluting emissions and to render harmless all releases which do occur. The regulating authorities are under a duty to require that the BATNEEC principle is reflected in all authorisations. The EC are working on a programme whereby "Best Available Techniques" can be identified and defined, giving official guidance on the technologies or techniques to be employed in given

⁷¹ "Thermal input" relates to the calorific value (energy content) of the feedstock.

circumstances⁷². Importantly, BATNEEC does not depend on the financial circumstances of the operator in any given instance - that is to say that the operator cannot plead poverty as grounds not to implement the required technology if most similar plants in the industry are able to afford it. Additionally, IPC plants discharging to more than one medium are required to do so in such a way as reflects the BPEO principle - the "best practicable environmental option". That is to say, pollutants which *are* produced should be distributed between air, land and water in such proportions that the overall impact on the environment is minimised.

European standards for some air emissions are defined in various EU Directives which individually cover each waste category and size of plant.

The UK emission standards for IPC processes are discussed in *Process Guidance Notes (PGNs)* issued by the Agency⁷³. In Annex 3, we show examples of emission limits for reference.

The emission standards for new incinerators have recently been updated. The new standards are derived from European Directives⁷⁴ and, for dioxins, Directions from the Secretary of State for the Environment have been issued. Details are in PGN S2 5.01, *Waste Incineration*.

Applications for IPC authorisation

Requirements for the application, appeal, and public access to information are given effect by the *Environmental Protection (Applications, Appeals and Registers) Regulations 1991*⁷⁵.

All information submitted in support of an IPC application is available for public inspection and comment, unless that information is classified by the

Agency as being commercially confidential⁷⁶ or prejudicial to national security.

An application must be placed on the public register as soon as possible after it is received by the Agency. The application must then be advertised in a local newspaper and the *London Gazette* at some point during a 28 day period beginning 14 days after the application was made. Only a single advertisement need be placed in each paper. The application will be determined by the Agency within four months, unless an extension is agreed with the applicant.

However, the proposed design and operation of a large incinerator is likely to be developed during a prolonged period of liaison between the applicant and the Agency. In this way, information about the proposal can be made available to the Agency in several stages as details as the process plans are progressively agreed (but not "authorised" as such). The completed development is then far more likely to be presented in a form that would enable authorisation to be granted immediately the plant is ready to be brought into commission.

Each tranche of information which is presented to the Agency as part of the staged application is available for public scrutiny and comment, subject to the confidentiality provisions. The intention is that public objection can be taken on board at an early stage and the grounds of those objections mitigated where possible. If public objections are sufficiently forceful and fundamental, it is possible that the applicant will abandon his plans at this early stage.

When determining the application, the Agency are obliged to "consider" any representations it receives from the public. After the application for authorisation has been made, there is likely to be a great deal of correspondence between the Agency and the applicant, all of which should be placed on the public register (subject to confidentiality provisions).

A number of *statutory consultees* must be notified of the application within 14 days, and they are given a period of 28 days in which to make a response. The statutory consultees are: District Council, Health & Safety Executive (HSE), English Nature and the Ministry of Agriculture, Fisheries and Food (MAFF).

⁷² The Institute for Prospective Technological Studies has recently been set up to research and produce "BATNEEC Reference Notes" (BREFS).

⁷³ Environment Agency (1996). *IPC Guidance Note S2 5.01: Waste Incineration*. London, The Stationery Office.

⁷⁴ Directives 89/369/EEC for new Municipal Waste Incinerators, and Directive 94/67/EC for Hazardous Waste.

⁷⁵ Environmental Protection (Applications, Appeals and Registers) Regulations, SI 1991/507.

⁷⁶ "Commercially confidential" is defined in the Applications, Appeals and Registers Regulations as information that "will prejudice to an unreasonable degree the commercial interests of the applicant".

Notification of statutory consultees can be delayed by up to 28 days if the applicant requests that part of the application should be withheld on the grounds of commercial confidentiality. The comments of the consultees should also be placed on the public register (subject to confidentiality provisions).

The IPC authorisation is independent of planning permission, but because of the potential overlap between the two systems on the matter of pollution control, there will be liaison between the Agency and the LPA over the two applications. The exact design of the plant may be affected by IPC considerations. For this reason, IPC and planning applications may be made at the same time.

Conditions

Authorisations are granted with conditions with which the operator of the plant must comply. The purpose of conditions is to ensure that every aspect of the plant's operation is carried out in an approved way and to an acceptable standard. Conditions can be applied to any aspect of the plant's operation that the Agency considers appropriate.

Conditions will therefore be used to define the composition and quantity of all polluting emissions, sampling requirements, the nature and quantities of the waste accepted at the plant, and any other operational matter. Conditions will be based on the relevant process guidance note and on the comments of the consultees (see below).

Some conditions, such as the nature of polluting discharges, will be based on statutory requirements, but many are based on the opinion of the Agency and may be subject to negotiation between the applicant and the Agency.

The Agency may refuse an authorisation outright if they consider that the applicant will be unable to comply with adequate conditions. However, in light of the long consultation process between the Agency and the applicant, a refusal is unlikely.

The Secretary of State has reserve powers to direct the Agency whether or not to grant an authorisation, and to make directions as to the conditions which are or are not to be included in an authorisation.

Appeals

Operators have the right of appeal to the Secretary of State against the refusal to grant an authorisation; a decision to revoke (cancel) an authorisation; the

conditions attached to an authorisation; or a determination that certain information is not commercially confidential.

An appeal against a refusal to grant an authorisation, or against the nature of the conditions imposed, must be brought within six months of the date of the refusal. An appeal against a determination that information is not commercially confidential must be brought within 21 days. The appeal must be made in writing to the Secretary of State and must be accompanied by the documents specified in the Regulations (SI 1991/507).

The appellant must state whether he wishes the appeal to be held by written representations or by a hearing. A hearing will be held if either party requests it, or if, exceptionally, the Secretary of State determines that a hearing is appropriate.

Within 14 days of receipt of an appeal, the Agency must notify all statutory consultees and all parties who made representations on the application. If the appeal is to be dealt with by a hearing, the Secretary of State shall advertise the hearing in a local newspaper at least 21 days in advance of the set date.

The public have no right to appeal against the granting of an authorisation .

Waste management - the Duty of Care

The Duty of Care, introduced by the Environmental Protection Act 1990 and brought into force in April 1992, attempts to place greater responsibility on those in the waste chain (from initial producer to final disposer) to ensure that the waste they handle does not harm human health or pollute the environment. The Duty of Care will therefore apply to the incinerator operator and employees in relation both to the incoming wastes and the ash. The Duty of Care provisions are, however, only of relevance once the plant is up and running, and do not offer any opportunity for public involvement beforehand.

Breach of the Duty of Care is a criminal offence; conviction in a Magistrates Court can result in up to six months imprisonment and/or a fine of up to £20,000. In a Crown Court, conviction can result in up to two years imprisonment and/or an unlimited fine.

Section 34 of the EPA 1990 imposes a duty on all waste "holders" (anyone who produces, imports, carries, keeps, treats or disposes of controlled waste)

to take all "reasonable" measures to:

- prevent the unlicensed keeping, treatment or disposal of waste by any other person, or the keeping, treatment or disposal of waste in a manner likely to cause pollution of the environment or harm to human health
- prevent the escape of the waste from his control
- ensure that the waste is transferred to an authorised person (such as the holder of an appropriate waste management licence or a waste carrier registered under the Control of Pollution (Amendment) Act 1989) and
- ensure that an adequate written description of the waste is transferred with it.

A code of practice, explaining to waste holders what the Government regards as "reasonable", underpins the Duty of Care. A Government Circular^{77, 78} details how the Duty of Care is to be enforced by the Agency. The Government has also issued a code of practice, and regulations⁷⁹ on the documentation requirements imposed on waste holders.

⁷⁷ DOE (1991). Circular 19/91:
Environmental Protection Act 1990, Section 34, Duty of Care.

⁷⁸ DOE (1991). *Waste Management: the Duty of Care: A Code of Practice.*

⁷⁹ Environmental Protection (Duty of Care) Regulations 1991, SI 1991/2837

Nuisance

A *statutory nuisance* (i.e. a nuisance which can be acted against in law) could be caused by smoke, fumes, gases, dust, steam, odour, effluents, flies, rodents, noise, leachate, gas or litter. Under Section 79 of the EPA 1990, the local authority is obliged to investigate if complaints alleging a statutory nuisance are received from the public. If the local authority considers that a statutory nuisance exists or is likely to occur, they are under a duty to serve an *abatement notice* on the operator. The abatement notice can specify the particular actions which must be undertaken to prevent the nuisance from recurring and the time within which action must be taken.

If the operator fails to comply with an abatement notice, he is guilty of an offence and liable on conviction to a large fine. In addition, the local authority has the power to abate the nuisance itself and recover the costs from the person responsible for the problem.

To date, these powers have been relatively little used by District Councils. This may be due to lack of resources or it may be due to confusion over whether responsibility for monitoring potential problems from incinerators lies with them or the Agency.

Section 11

Campaigning Against the IPC Application

This section -

- *details grounds for opposition to an application for a licence to operate.*

This section is essential reading when your group compiles its objection to the granting of a licence to operate.

The IPC system is supposedly designed to allow a high degree of public involvement in the decision-making procedure for granting applications. In practice, however, the Agency are far less likely to be persuaded by public opposition than the planning authorities are. The Agency will not be interested in arguments about the necessity or desirability of the incinerator. The question of the appropriateness of the incinerator existing in a given location is within the realm of the planning authority.

The Agency will therefore only consider comment on matters relating to the operation of the plant. These are likely to be technical matters and the Agency will be reluctant to accept that the public are better qualified than themselves to comment on such matters! There is no "democratic accountability" here as there is in the planning process.

There are, however, a number of useful points that could and should be made through the opportunity offered by the IPC consultation process. At the very least, your representations are likely to result in tighter conditions within the authorisation, and will also serve to highlight the shortcomings in the IPC system itself. Historically, IPC applications have frequently been of very poor quality; the more you are able to highlight shortcomings in the application, the more expensive and difficult it will be for the applicant.

Your representation to the IPC authorisation should be made within 28 days of the application being advertised. As with controversial planning applications, the IPC application may deliberately be announced at an inconvenient time - such as just before Christmas - in order to minimise the level of objection that it might provoke. In the case of staged applications, you should submit your representation as early as possible after the relevant tranche of information is made available. By submitting your representation in the name of your group, you will ensure that your group is given status as an "interested

party" should there be an appeal.

The application should be determined within four months, although the period may be extended by agreement between the applicant and the Agency. The Agency are unlikely to request extra time in order to wait for unsolicited information from campaigners.

- **Obtain a copy of the application.** Current IPC applications are on a public register held by the Agency.
- **Find out who will make the decision and when.** Find out the name of the Environment Agency Officer who will be making the decision.
- **Get a copy of the Local Planning Authority Officer's Report.** This is produced in relation to the application and may be available at the time that the IPC application is made.
- **Obtain the views of interested bodies** Ask the Agency for a full list of those consulted (or being consulted) with regard to the application. The comments of the statutory consultees (and the general public) should be available on the public register.

For further information on what the IPC authorisation might and should cover, see Process Guidance Note S2 5.01, *Waste Incineration*.

Compiling your representation

- If the BPEO principle is to be properly observed, as suggested by RCEP, then the potential for managing the incoming waste through recycling should be fully explored.
- Insist that the IPC authorisation should take into account the cumulative and synergistic impact of all polluting emissions from the plant and

existing sources of pollution in the area, as required by Section 7 of the EPA 1990. Insist that this involves monitoring of air, soil, vegetation and a thorough epidemiological study.

- Insist, therefore, that the application should provide information about existing ambient pollutant concentrations.
 - Insist that the application provide an assessment of the alternatives that have been considered for plant specification and pollution control technology.
 - If emission standards are less stringent than could be possible (*Annex 3 provides some indication*), argue that the “best available techniques” should be considered where higher standards are achieved elsewhere.
 - Insist that the application provides justification for claims that the technology employed is indeed the best available *not entailing* excessive cost.
 - If the contents of the IPC application are not consistent with the planning application or any environmental statement that has been carried out, then demand that the IPC application be rejected.
 - Highlight any inconsistencies between the IPC application and the requirements of the Process Guidance Note from the Agency.
 - Draw to the attention of the Agency any sign of pollution at other sites run by the proposed operator. Highlight these as a reason why the company should not be allowed to operate the proposed plant.
- **Has the company caused pollution elsewhere?**

A critical examination of the history of the proposed operator may reveal a lack of experience or expertise in incineration, problems at other sites run by the same operator, convictions for waste disposal offences and a less than open attitude towards the public - this will enable you to raise the question of the applicant's competence.

You can check with the regulatory authorities for performance difficulties at any or all of the company's other sites.

Contact the relevant regional Environment Agency offices. Ask for information on breaches of

authorisation conditions at other sites operated by the applicant (open and closed). This information is held on the public register, and although it may involve a lot of work, it can be a very useful exercise.

• **Ask the company directly about performance problems at its other sites**

You are unlikely to get very much information from the company itself about pollution from its sites. However, asking for this information and publicising its inadequate replies will enable you to expose the company as failing to “come clean” about its record. This may make an even better story if you have already found out some relevant information from the regulatory authorities.

If the company fails to reply, refuses to tell you about its other sites or refuses, in principle, to make available monitoring information, highlight the fact that it is failing to come clean about its pollution record.

If the operator has agreed in principle to allow you to examine its monitoring results for all other sites (not just the best ones!), you may wish to take them up on this. Make sure that you choose which site(s) you research, that you are seeing the raw monitoring information and not merely a sanitised version, and that you can photocopy and take away any relevant results.

Using the consultees

Check that the Agency has consulted all the statutory consultees.

The Agency is obliged to contact:

- The Health and Safety Executive (HSE)
- English Nature
- The District Council
- MAFF.

If they have not contacted these bodies then demand that the proposal is turned down because of insufficient consultation.

Contact these bodies and ask if they are making a representation to the Agency with regard to the application. If so, ask for a copy of their representation.

In addition, express your concerns and ask them to answer particular queries you have with regard to the proposal (whether they have made a representation or

not). Highlight any concerns contained in any of their representations or replies. The views expressed in these representations may help you focus on the particular problems of the proposal and may identify potential allies in fighting the application.

If you feel that a body is expressing reservations about the application but is not clearly stating that it is against the application then ask the body directly whether they support or object to the present application.

Stringent conditions

If the Agency decide to grant the authorisation, they will include a number of conditions with which the operators must comply. The purpose of the conditions is to ensure that plant is operated to a standard which the Agency feels will adequately protect the environment. Highlighting the matters which you feel should be the subject of conditions may help the Agency to come to the conclusion that the application has failed adequately to address environmental concerns.

Even if the Agency approve the application, the matters that you have raised may translate into onerous conditions which will improve environmental standards. Also, breaches of these conditions could form the basis for a future campaign to get the site closed. Stringent conditions may even deter some operators from going ahead with the proposal.

As with planning conditions, you must be very careful about how you press for IPC conditions. If you request outright that certain conditions are necessary, your critics may deliberately misinterpret this saying that you *approve* of the facility as long as the conditions are met.

The Process Guidance Note S2 5.01 details numerous matters which could be the subject of conditions. In particular, the following matters should be highlighted, drawing attention to any failure in their being addressed in the application. Remember that BATNEEC does not depend on the financial circumstances of individual operators.

Feedstock. Insist that the feedstock is properly sorted and analysed in order that optimum combustion conditions can be reliably maintained.

Ash analysis. Insist on a requirement for a proper analysis of the ash prior to being sent for landfill. Despite the suggestion in the PGN for thorough analysis, an assessment only of the organic content is usually required. Better analysis may reveal levels of contamination that would mean that the ash should be treated as special waste.

Working Hours. Check whether the working hours are specified so as to limit disturbance early in the morning, in the evening and at weekends.

Fencing and Gates. Check whether there is to be effective fencing and gates around the site, and that the licence contains a clear obligation to mend broken fences within a specified time.

Records. Check whether the application unambiguously states that the operator undertakes to keep accurate records of the amounts, types and source of waste accepted and the time and place of disposal.

Adequate storage facilities for incoming waste and ash. Check that there is enough space and secure facilities for storage. The PGN goes into great detail about the management of incoming waste and outgoing ash.

Types of Waste. Check whether there is a clear list of the types of waste that can and cannot be accepted at the site. If hazardous waste is to be accepted, make sure that the types that are acceptable and unacceptable are clearly defined.

Pollution testing. Insist that testing for dioxins and metals in the gaseous, aqueous and solid wastes from the incinerator, must be performed at least every two months. These tests, and all other monitoring, should be requested by the regulatory body at random intervals and samples to be taken within 24 hours of each request.

Section 12

The Environmental Statement

This section -

- describes when an environmental statement is needed
- describes what an environmental statement is
- suggests how to examine an environmental statement.

This section is essential reading when your group is examining an environmental statement.

A formal statement of the environmental impact of the proposed development is likely to be submitted along with the planning application, the IPC application, or both. The purpose of the environmental statement (ES) is to help the Local Planning Authority (LPA) and/or the Environment Agency (the Agency) to decide whether the proposal is acceptable on environmental grounds. An "environmental impact assessment" (EIA) is the process by which information for the ES is collected. You will need to consider the ES in your criticisms of the application and the IPC application.

If the ES is in any way critical of the proposal, then it can be used to help your campaign. If it supports the proposal in any way, then the ES itself will need to be scrutinised. If a proper ES has not been required by the LPA or the Agency, then calling for one to be submitted will be an important way of putting pressure on the developers and operators and drawing attention to the lack of scrutiny by the regulators.

In the case of applications, an ES is not required for all incinerators, the requirement depends on the seriousness of the likely environmental impact. Schedule 1 of the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988 (SI 1988/1199 - the Regulations referred to in this section) lists the kinds of proposals that will definitely need an ES. As a rule, incinerators with a capacity of 75,000 tonnes per year are usually large enough to make an ES clearly necessary. Schedule 2 of the 1988 Regulations lists the kind of proposals where the LPA is allowed discretion.

The Regulations are based on the requirements of the EC Directive on environmental assessment

85/337/EEC⁸⁰. Development on all sites designated under the Habitats Directive 92/43/EEC will also require an ES⁸¹.

Planning authorities must notify the developer within three weeks of an application if they consider the application is subject to an EIA.

The scope of the EIA

The most fundamental problems with the EIA system are that the information that must be included is very scantily defined (in Schedule 3 of the regulations) and that the assessment is usually carried out by the developer themselves, or someone acting on the developer's behalf (such as an environmental consultancy). There is obviously a potential therefore for information which is unhelpful to the proposal to be omitted, but it is possible for campaigners to request involvement in "scoping" the EIA⁸². Sometimes the ES is commissioned directly by the LPA or the Secretary of State, in which case it is likely to be more impartial.

- Write to the LPA before an application is submitted and demand to be included in the scoping discussions.
- Write a list of key issues, which could include a

⁸⁰ 85/337/EEC on the assessment of the effects of certain public and private projects on the environment (OJ L175/40 5.7.1985)

⁸¹ 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (OJ L206/7 22.7.92)

⁸² This will become more formalised in 1999, under the revised environmental impact assessment Directive, 97/111/EEC (OJ L73/5, 14.3.97).

much wider range of issues than are normally selected - alternatives to landfill, the issue of pollutants and their effects on health, water and agricultural land, the chances of liners failing, indirect and incremental effects such as additional air pollution. Use examples where possible to show why particular issues should be covered.

- Try to force the developer to pay for an "independent" consultant chosen by the LPA. This should result in a much better quality ES.
- Make your request in writing, and justify your involvement - for example, your campaign group may represent a number of local concerned residents.

The Assessment

When carrying out the EIA, the developer may consult those bodies with legal responsibility for environmental protection. These might include:

- Environment Agency
- Countryside Commission
- English Nature or Countryside Council for Wales
- District Council
- Highways Authority.

These bodies must provide any relevant information in their possession but they are not required to undertake new work on behalf of the developer.

The full results must be made available to the public. The statement should be available for inspection locally and at reasonable hours, and the developer is required to publish a notice in the local paper indicating where and when the environmental statement may be inspected. The developer should also make a reasonable number of copies of the statement available for sale to members of the public at a reasonable charge (reflecting printing and distribution costs only).

How to deal with the Environmental Statement

- **Find out whether an ES has been submitted for the proposal**

Contact the LPA and the Agency. In the case of the LPA, be clear that you mean an ES as specified in the Town and Country (Assessment of Environmental Effects) Regulations 1988 (SI 1199), since a developer or planning authority may have produced an assessment of the likely environmental impact in the documentation supporting the application, but something less rigorous than is required by the regulations.

- **If an ES has not been submitted, call for one.**

Find out whether the proposal absolutely requires an ES (Schedule 1 of the regulations) or if it is merely discretionary (Schedule 2).

If it is a Schedule 1 project then demand that an EIA is performed and that a planning decision without one would be against EC and UK law.

If it is a Schedule 2 site (and meets the Government's criteria) then state that an EIA is recommended in both EC and UK law and should be performed before any planning decision to fully assess the possible risks to both human health and the wider environment.

Even if the proposal is Schedule 2 and doesn't meet the Government's criteria, then state that an EIA is recommended in EC law and should be performed

before any planning decision to fully assess the possible risks to both human health and the wider environment.

Calling for an EIA allows you to adopt the moral high ground by calling for independent scrutiny of the proposal and also gives you more time to organise your campaign. Since the proposed developer is footing the bill for the EIA then it is important to remember that this EIA will cost them time and money.

- **If the planning authority refuses to require an EIA, appeal to the Secretary of State**

If the planning authority refuses to require that the developer submits an ES, write to the Secretary of State (at the local offices of the DETR) and ask him or her to intervene and require an ES.

- **Call for a high quality ES**

If the LPA or Agency agrees to an ES being required, then call for it to be carried out by a reputable firm of environmental consultants. Call for the full results to be made available to the public, and the cost to be paid for by the developer.

However, given the variable standard of many ESs, it is important not to commit yourself in advance to the findings of the assessment.

- **If an ES has been submitted, get a copy**

The planning authority is obliged to make a reasonable number of copies of the proposal available for sale to members of the public at a reasonable charge. They are also obliged to make the ES available to the public in the locality at reasonable hours. (You may also be able to get a copy from the developer or the District Council.)

- **Criticising the ES**

If the ES is generally supportive of the proposal, you will need to examine it for thoroughness, quality and objectivity. Alternatively, even if the ES is not generally supportive, the developer or operator may refer to isolated helpful passages. The following enquiries will help you to challenge the ES if and where it appears to support the proposal.

- **Find out the general background of the EIA**

The first step is to get a feel for how professional a job the EIA is likely to be. Find out who commissioned the EIA. Was it the developer, the LPA or the Secretary of

State? Find out who carried it out. Was it the developer or an environmental consultant? If it was commissioned or carried out by the developer there is obvious potential for a conflict of interests, which you can highlight.

Find out whether the proposed developer or environmental consultancy is a member of any relevant trade body or association. If they are not, then this casts doubt on their credibility to carry out an EIA.

- **Critically examine the overall contents of the ES**

Use the following check-list to examine the ES:

- Does it include all the information required by the regulations?
- Does it clearly identify and provide references for all the sources of information?
- Are there any areas which are not covered at all by the ES or which are not covered in sufficient detail?
- Does it look critically at the proposed sources of the waste to be incinerated at the site, and at alternative ways of dealing with it?
- Does it look at whether the producers of industrial waste intended for the site are using state of the art waste reduction technologies?
- Does it acknowledge the many questions that remain about process control, emissions monitoring, deposition and toxicity?

If any of these issues have not been adequately addressed, state that the failure of the EIA to look at all aspects of the proposal, in context, severely limits its usefulness.

The planning authority can call for additional information to be supplied by the developer if it feels that an environmental statement contains insufficient detail to form the basis for a decision. Demand that the planning authority does so on the basis of the weaknesses you have identified.

On the other hand, some developers/operators try to blind the regulators with science, submitting huge, highly technical statements. If this happens, call for another ES to be required that is more easily understood.

If the EIA was carried out by environmental consultants, ask the consultants whether the published

report is an unedited version of their findings. Similarly, ask the developer/operator whether the published report was an unedited version of the findings. If the report was edited, demand to see the full unedited version.

Ask the developer/operator or consultant who carried out the EIA whether they consulted the Environment Agency, Countryside Commission, English Nature or Countryside Council for Wales, District Council, Highways Authority. These are all *statutory consultees* to the planning process and if the views of any of these bodies was not considered, state that the lack of consultation severely limits the value of the ES.

If any of these bodies made representations, obtain a copy and check that their comments were adequately reflected in the ES. If they were not, highlight the biased and misleading nature of the final report.

If you are unhappy with the quality or thoroughness of the ES or if you feel that it is biased, call on the planning authority to demand that a second EIA be carried out. Again, however, it is important not to commit yourself in advance to the findings of a second ES in case it still fails to address the shortcomings in the first.

• **Computer simulations**

Computerised simulation models are used in an attempt to demonstrate the likely rate of pollution dispersal and deposition from a proposed site. Despite the fact that these programmes are apparently highly sophisticated and the findings are often taken as unchallengeable, these models can be manipulated to a great extent to support whatever outcome is desired by the user.

For example, a model is dependent upon the numerous assumptions that are made about the composition of the emissions, and of atmospheric and meteorological conditions. The model will inevitably use simplified data which may fail to represent reality properly. Some models will never reflect reality because of fundamental flaws in the programmes themselves. Studies of the Rechem incinerator at Pontypool showed high levels of ground contamination within 500 m of the plant, proving that the dispersal of the plume did not occur as predicted. The model had failed to account for the release of dioxins back into the atmosphere from contaminated soils, and also for "fugitive" releases (leaks) from

various points around the plant⁸³. Plume dispersion models are also unlikely to account for unusual meteorological conditions, such as temperature inversions, which can greatly increase the ground level exposure and deposition rate.

Certainly, the mathematics of these models will appear incomprehensible to the lay-person and most people are understandably reluctant to challenge the findings because they do not feel that they have the necessary expertise. It will certainly be helpful if you can acquire the services of an expert to criticize the model, but there may nevertheless be opportunities for you to usefully criticise the findings of the model even without being a mathematical genius.

Firstly, check that it has been verified by peer review. If the results are to be taken seriously, the model will have to have been examined for its accuracy by professionals. The ES should make clear exactly what model has been used. If it has not been verified, point this out.

Secondly, check all the assumptions that have been made. Assumptions may be clearly listed, or they may be disguised in the numbers that are fed into the model to represent flow rates, volumes, permeation rates etc. Process Guidance Note S2 5.01 states that all the assumptions used for modelling exercises should be clearly listed. Check that they are listed and that the figures used are realistic. Check also for more "common sense" assumptions too - for example if you live in a hilly area, has the model taken account of hills or is it working to a flat landscape?

Thirdly, check for mistakes. With a limited amount of mathematical expertise, you can check to see whether they have managed to put the decimal point in the wrong place here and there. This does happen, and can distort the results hugely.

Deposition modelling

Deposition is the process by which airborne particles settle onto surfaces such as water, soil, plants or structures. The rate at which deposition occurs will determine the rate at which pollution builds up in the environment and, for persistent substances, even slow rates of deposition can result in substantial build-up of the substances in surface dusts and soils. Deposition is therefore likely to be the subject of a modelling

⁸³ Welsh Office. *Polychlorinated biphenyls, dioxins and furans in the Pontypool environment*. (7 reports)

exercise and the absence of any calculation of deposition rates is a serious omission from the environmental impact assessment.

As a result of deposition, the most significant potential for exposure to metals and persistent organics occurs after they settle out of the air rather than during the relatively short period of time they are suspended in the air. After deposition, uptake of the substances by animals or plants within the local environment occurs. Some substances are poorly absorbed, others are readily accumulated. For example, some fish can "bioconcentrate" dioxin about 50,000 fold or more, meaning that dioxin is present in the fish at levels 50,000 or more times higher than the surrounding waters. Milk, via grazing cattle is another major pathway. In general, plants do not bioaccumulate most substances as readily as animals; however, deposition of contaminated dusts and soils on leafy surfaces may result in substantial contamination of these parts of plants, so that locally-grown agricultural and

horticultural produce, for instance, may be contaminated. All these factors should be effectively modelled if complete information is to be available about the potential impact of polluting discharges.

There is, however, a great deal of uncertainty over the deposition rates that apply in practice to given rates of emission. This uncertainty was clearly illustrated by a study carried out by HMIP of actual deposition rates around incinerators in Hampshire. It was shown that there was a substantial difference between actual deposition rates and those predicted by mathematical models⁸⁴.

⁸⁴ *Determination of polychlorinated biphenyls, polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans in UK soils* HMIP 2nd technical report December 1995.

Section 13

Campaign Case Histories

This section -

- *gives concluding remarks*
- *highlights three examples of incinerator campaigns.*

This section is useful reading before starting to campaign or when it is feeling like an uphill battle.

Here we present three case studies, which are interesting in their own right, but which also help explain various aspects of incineration campaigns, and, we hope, provide inspiration and share lots of experience. Although unsuccessful at stopping an incinerator, Phil Davis's campaign for waste reduction and recycling continues; Frances Browne's story shows how a waste disposal authority might become susceptible to public opinion and re-consider a pro-incineration stance; John Scovell's story is probably a text-book example of successful opposition to a planning application. In Annex 5, we have reproduced the Environment Secretary's decision in this last case.

At the outset it may seem that you have a mountain to climb, but remember that you have an advantage by starting on the moral high ground! You are also local people and your local councillors have to listen to you.

We hope that this manual will help arm you with the information you need to win the arguments and not feel like the "experts" or "authorities" know best. The alternatives make sense, and local feeling against incineration will be hugely important.

Good luck in your campaigning!

Tyseley Waste Incinerator (Birmingham) *Phil Davis of Birmingham FOE⁸⁵*

December: month of Christmas shopping.. office parties... putting up decorations... and dodgy planning applications. Funny isn't it how planning applications for things like incinerators always seem to go in just before Christmas when it's most difficult for objectors

⁸⁵ Phil Davis has since moved to London and joined Camden FOE, but Birmingham FOE are still active on this issue.

to organise opposition?

Anyway, there we were, a group of FOE members in early December 1993 taking a coffee break in the cafe in Birmingham FOE's Warehouse building, when Chris, Campaigns Co-ordinator, perusing the small ads in the local paper (as you do), said: "*What's an EFW?*" "*An EFW? Haven't got a clue*" replied some experienced campaigners. "*Well, apparently Birmingham City Council have just put in a planning application for an EFW in Tyseley in Birmingham. Must be big whatever it is. There's a notice in the paper stating that the Environmental Statement is on view.*"

Some casual follow-ups revealed to us the horrible truth. Birmingham City Council, in a joint venture with a French waste disposal company, were proposing to build a massive (350,000 tonnes per annum) municipal waste incinerator, with, as the icing to the cake, a clinical waste incinerator added for good measure. We had until the end of February to try to stop it. However, apart from the vague knowledge that "incineration is a bad thing" none of us knew anything about the issues, the technology involved, the procedures, or how to stop one. Worst of all, with Christmas in the way, at least one month of campaign time was effectively lost (as the applicants well knew).

After the New Year, we decided that there was nothing to lose by getting stuck into an aggressive campaign against the proposal, despite the fact that we recognised that we had little chance of success. We got a copy of the Environmental Statement which provided a wealth of information on the technical background to the proposal. We noted that it was big enough to burn all of Birmingham's municipal and commercial waste, despite the supposed 25% recycling target set by the government. When challenged on this, we were told that "the natural rate of growth in waste will allow the City to reach its target". So much for waste minimisation. There was

also an interesting list of all the consultees for the ES which included the Countryside Commission and Warwickshire Archaeological Trust. Any organisation that might have been expected to raise awkward questions had been ignored, while numerous seemingly irrelevant organisations, with no connection with inner Birmingham or waste issues, had been included to provide a sheen of "consultation".

With a desperate shortage of hard information to help us, the FOE network came to our rescue. Reports written by Reigate FOE and Devon FOE were quickly obtained, cut & pasted, and rewritten first as an objection to the planning application, and then as a "Report" which we sent directly to every MP, MEP and Councillor on a relevant committee by the end of January 1994. By this stage Brum FOE's office in the Warehouse building had become a hive of activity every Monday evening as dozens of letters, and copies of the report, and press releases were sent out to everyone we could think of. We debated trying to build up opposition in the Tyseley area, but decided that given the short timescale it was beyond our resources to do so. The area is (like many incinerator sites) characterised by low incomes with a large ethnic minority population, with multiple environmental problems, most notably some of the busiest roads in Birmingham. Many locals seemed to welcome the arrival of a "cleaner" replacement to the existing 1960's 100,000 tonnes per annum incinerator on the same site. We therefore restricted ourselves to sending copies of our report to local community groups to see if any would take on the issue themselves. None did.

Just after the first report was circulated, the *Ecologist* magazine did an excellent article on incineration⁸⁶. This in turn was rejigged into a second follow-up report which, along with an analysis of the many inadequacies of the Environmental Statement, was circulated to councillors, MPs and the media. In the meanwhile, we were discovering some interesting things, such as the fact that the City Council had almost certainly signed the disposal contract with the operators (a joint venture with the Council) before the planning application had been submitted. Attempts to obtain a copy of the contract failed - commercial confidentiality was claimed.

Come late February and the Planning Committee date,

⁸⁶ P Connett and E Connett (1994). *Municipal Waste Incineration: Wrong Question, Wrong Answer*. The *Ecologist*, Vol 24 (1) January / February 1994.

we found out that we were the only objectors. To rectify this, we hit the streets of Central Birmingham on the Saturday before with objection cards. Not a single person we talked to was aware of the plans by the Council. Most were horrified. The Council refused to accept the cards because we had "missed the consultation period". The officer's recommendation for acceptance was passed through with scarcely a murmur of dissent. One councillor described us as "troublemakers" which cheered us up no end.

But we fight on!

We had to accept our defeat, but we still decided to raise incineration as an issue at every opportunity. At the official start of work on, appropriately enough, April the 5th, 1995, we had an "April Fuels" day, involving a picket at the entrance to the plant to highlight the dioxin issue. We successfully lobbied the Waste Regulatory Authority (as it then was) to include a commitment in the Waste Disposal Plan to investigate further the disposal implications of fly and bottom ash from the plant and the other incinerators in the West Midlands. The visible smoke emissions following the test burns in late 1996 gave the opportunity to start up the long haul of raising awareness in the local area of the implications of the plant. The interest of the local media was finally awakened when it was discovered that surrounding county councils, most notably Warwickshire, were seriously considering exporting their waste to Birmingham for incineration in the plant, which of course confirmed our suspicions that it had a greater capacity than was officially claimed. This additional capacity of course meant that recycling in Birmingham was doomed for the 25 year contract period.

The lessons

In the aftermath of the campaign, the biggest question we had to ask ourselves was how did we, supposedly one of the biggest and best organised FOE groups in the country, not realise that the City Council was planning an incinerator? We were involved at the time in regular liaison with the Recycling officer for the Council, who claimed to have been kept in the dark himself over the development. When the Council's Unitary Development Plan had been adopted the year before, Brum FOE had been involved in making comments, but nowhere had anyone realised that a site had been allocated for this plant. A more careful reading later revealed an almost casual comment tucked away in one of the area statements revealing that "energy from waste was one option" for the Tyseley site. The site wasn't marked as such on the

proposals plans which accompany every UDP, and although the statement was effectively missed by everyone who looked at it, those words were sufficient for the applicants to claim that the proposal was in line with the UDP, making it even harder to fight it on planning grounds. The reality is that had we been less naive and more "clued in" we could have fought the proposal from the beginning and quite possibly could have won. The main lessons to be learnt from our failure can be summarised as follows:

- Don't expect your local Council to tell you if they are considering incineration as an option, even if you have good relations with them. Keep monitoring the UDP (or Structure Plan in a County Council) for sites allocated for such uses, note the options kept open in the Waste Management Plan, read the Recycling Plan, monitor the agendas to your Environmental Services Committee.
- It's never too early to start campaigning against an incinerator. By the time the planning application is submitted, if you haven't started, it's probably too late.
- Guide the local media carefully through the issues. We made the mistake of bamboozling them with over-technical arguments which gave them the excuse not to bother with the story. They only became interested when it became clear (too late for the campaign) that the operators were going to import waste from outside the City.
- No matter how urgent it is to start up a campaign, make time to think through a proper strategy for raising awareness with the public and the media. By rushing in to object on technical grounds Brum FOE lost the opportunity to get public backing through such things as stalls, imaginative stunts, and a more considered approach to getting the media to recognise it as an important story. With hindsight, focusing on a single issue - for example the clinical waste plant that was being sneaked in with the application - could have been more fruitful.

However, being good optimists, we recognised that there were positive aspects to having campaigned against the plant. Despite failing to stop it, the fact that we did mount a good campaign energised the local group, and raised awareness about the threats to recycling. Many members on the periphery of the group became "empowered" by the feeling that we were actively doing something worthwhile, and subsequently became much more involved. The local media increasingly came to see us as an important independent voice in Birmingham on waste and

planning issues. The City Council cancelled its PR campaigns, including a bizarre proposal to have an artists' competition to design the paint scheme for the stack! Valuable lessons were learnt which were passed on to other groups at an early stage in their campaigns. Had we just said "it's too late, let's not bother doing anything", we would have missed a great opportunity to learn about the issues and be in a position for campaigning later on. We showed our spirit and idealism, and FOE is all the stronger for it.

West London Friends of the Earth Waste Campaign

Frances Browne of Ealing FOE

Our story begins two years ago and still goes on! We spotted an incinerator coming down the track early on, and have managed so far to delay considerably its progress. Despite the complexities of the situation, it was well worth getting stuck in, and we've helped recycling initiatives to get more breathing space.

The story

The statutory Waste Disposal Authority for our area is the West London Waste Authority (WLWA, also known as West Waste), controlled by a Board of six local councillors, one from each of the six constituent London Boroughs of Brent, Ealing, Harrow, Hillingdon, Hounslow and Richmond who are the Waste Collection Authorities (WCAs).

The WLWA was (and still is) needing to separate out its operational side under one of the options available under the Environmental Protection Act 1990. The route chosen was to set up a LAWDC⁸⁷, selling off a majority of the LAWDC and appropriate assets. The LAWDC would be offered as part of a waste disposal contract for which private companies would tender bids.

Making incineration an issue

In Spring 1995, Ealing FOE, which sits on Ealing Council's Environment Advisory Committee, heard that the Authority was not intending to preclude any disposal option and, for example, would not exclude incineration on environmental grounds. Ealing FOE supported a recommendation that the Council pass on

⁸⁷ The LAWDC (Local Authority Waste Disposal Company) exists as an "off the shelf" notional company, West London Waste Company Limited, but is not yet an operating concern.

concerns about this to WLWA.

That summer WLWA was still moving towards the tendering process. Ealing FOE sent a letter of concern about incineration options and got coverage in the local paper. We also became part of a new waste network of several West London FOE groups, which meets about once a month or as needed.

In early 1996, seven bidders for the waste disposal contract were short-listed and we stepped up the press and publicity campaign and increased our lobbying of WLWA members. We sent a special briefing on waste and incineration to all local councillors of the six boroughs.

A Council review of incineration

In March 1996, Ealing Council held a "Members' Review" of incineration as a waste disposal option. Councillors heard evidence from interested parties and speakers included representatives from the Energy from Waste Association, FOE's Industry and Pollution team, the Women's Environment Network, National Recycling Forum, Ealing FOE, West London FOE and local residents. The review concluded that incineration was an acceptable option, but only if subject to a number of conditions, such as ensuring that the capacity did not overlap with likely waste minimisation targets, exploration of all recycling options, excluding minimum tonnage and calorific value from any contracts. The Council also endorsed a proposal that energy from waste schemes should be ranked below recycling in a waste hierarchy.

We continued to call for public consultation on the issues of waste management and waste disposal for West London which had not taken place. Part of the campaign strategy was to keep the issue live so a lot of press work was undertaken on waste, including a one page "Viewpoint" in a local paper.

In June 1996, the WLWA met to progress its options. Due to changes in Brent Council, the balance of power had tilted in Labour's favour. A motion was passed which included a proposal for wider public consultation and a review of the tendering process.

Fending off the DOE

By this time, the WLWA were under considerable pressure from the Department of the Environment to speed up the divestment process and were advised that they could be liable to surcharge if they delayed the process further. However, the Authority maintained its position on review and consultation and advised the DOE accordingly. The then Minister, Clappison, wrote to the Authority's Members raising his concerns

and said that he considered that Members discussing proposals with their constituent Borough Councils constituted public consultation! We therefore also wrote to the DOE applauding West Waste's decision to consult more widely.

In the meantime, recycling was gaining ground - the London Pride Initiative was developing proposals for funding for extensive recycling schemes and most London Boroughs, including the six of the WLWA, had signed up to the initiative.

Maintaining pressure for public consultation

The WLWA's consultants, Coopers and Lybrand, had been asked to review their recommendations and bring them back to the WLWA's autumn meeting. The item was to be heard in private! We put out a press release about this secrecy and lobbied local councillors. The item on public consultation was agreed - in public! - but we believe that the decision to go out to wider consultation only went ahead because of the bad press we would have got them otherwise. WLFOE were mentioned several times and it was noted that we had made "extremely useful and relevant comments".

WLFOE members were at the meeting and immediately press released the agreement on public consultation. We prepared a four-page briefing which covered the issues plus an A5 flyer for wider distribution. These were sent to local papers and made available to the public. We even achieved coverage in London's listings magazine, *Time Out*.

In November, we held a "Waste Day of Action" across the area and several local groups held stalls, handed out flyers and briefings and carried out a survey using a questionnaire about people's preferences for waste disposal. The results were press released and it was clear that almost everyone wanted increased recycling but many people were not sure what they wanted to happen to any residual waste as they were unclear about the impact of incineration. Most people simply considered that once burnt there were no residues or emissions.

The consultation

We were invited to attend a meeting with WLWA and their officers to discuss a draft consultation document. This was an opportunity for us to influence the information that would be presented to the public and the questions that would be asked. We had put in a tremendous amount of time and effort but decided at this point to call in our own consultants. Nigel Kersey and Alan Watson (now consultants who have both worked at FOE) commented on the draft consultation

Box 11: West London FOE's Tips

Keeping the issue live was most important.

Good networking - we keep in touch by phone and some of us are also lucky to have good IT facilities either at home or work, some of us can e-mail and fax each other too.

The larger base of the network means we could have more clout and also allowed us to streamline press release work.

Trust and delegation were important. Inevitably someone will be the prime mover on this - but you have to be able to also trust others to speak or write the group's viewpoint - one reason why the agreed flyer and briefing document were valuable. They could be used by any of us to answer questions or brief journalists.

Public meetings - were very useful for promoting our viewpoint especially if you make sure you know the answer before you ask the question. For example, fly ash (toxic) from incineration is buried in "special waste" sites. Having been corrected at a public meeting when we referred to the waste as "toxic waste" we bided our time then asked the question - what makes special waste special if it isn't toxic. The local council's Environmental Health Officer then read out the definition of how a few grams of this "special waste" would kill a child of a certain age and size and, well, all we could do was thank them for their explanation - you can imagine the look on the public's face.

We learnt to capitalise on opportunities and lucky breaks, e.g. the shift in political power on WLWA, media opportunities, local council members' review.

Make contacts with local councillors/officers - both sides learnt that openness was the best way forward.

Professionalism pays off - producing our own written material, coupled with the ability to politely but firmly counter arguments every step of the way proved influential.

You don't have to be an expert to start with, by the time you've got into the swing of the campaign you become one.

A multi-faceted approach works well and allows for different people to participate - make the most of each individual's strengths. If you have a natural "soundbiter" feed them to the media, if one of you is good at phrasing letters to politicians, let them focus on that. Others can do research, invent visual stunts, devise questionnaires, etc.

It is vital that when the authorities make good decisions you say so, and publicly support them so that you are not always simply seen as complaining and being opposed to everything. This makes them more inclined to listen to you too. We developed good, open relations with some of the local politicians and officers, although they knew that we would not hesitate to criticise their decisions if needs be.

Press releases were sent out as often as possible to keep the issues alive - we are indebted to the FOE Local Group Development Officer for London (Paul de Zylva) for his efforts on our behalf. Faxing around 20 press contacts would have really been beyond our resources as individuals.

Campaign successes don't necessarily have to be absolutes. Success is usually achieved incrementally and this is what has been happening in West London. Whether or not incineration will be an option for West London's waste disposal has still not been determined, but we have certainly raised the issue publicly and shown that we can mobilise opposition whilst at the same time work with the waste authority. This combination of co-operation and confrontation works well.

document, came to the meeting with WLWA, and provided us with overhead projector slides and speaker's notes for our presentations to the Authority and the public. Although by no means all of our comments and criticisms of their draft document were taken on board we were able to influence some of the text and questions. It also gave us early warning of their slant - for example the only waste disposal option that was described as gaining energy from waste was incineration; landfill and anaerobic digestion were ignored in energy production terms.

At our meeting with the WLWA we also called for public meetings across West London. The Authority refused to hold one in each of the six boroughs but agreed to three across the region.

The public's voice is heard - at Christmas time

In the end the consultation document was not published until December 1996 with a deadline for responses of the second week in January 1997. This was of course a totally inappropriate time for public consultation and even getting press coverage was difficult. The WLWA published the text of the consultation documents in the local free press across the region and distributed the leaflets through each of the boroughs. We were given a platform at each of the meetings and, unlike the WLWA Chair and his Technical Officer, WLFOE's talk was bright, clear, informative and interesting and received applause! The discussions which took place at every meeting showed that the public were clearly against incineration and at one meeting residents came "armed" with nine local councillors.

In late January, the results of the public consultation were published. The WLWA had received 900 responses, which, given the timing, was a very high level of response. The majority of respondents were in favour of waste minimisation and increased recycling although many wanted incineration of the waste left over after recycling.

The London Pride Initiative recycling bid had been successful. WLWA were also looking at Private Finance Initiatives for waste disposal. Both of these were seen as legitimate reasons for further delay by the DOE and no further decision was made on the tendering process.

We received a letter from WLWA thanking us for a valuable contribution to the process.

With a change in government we do not know yet whether the WLWA will need to continue the divestment process. It is hoped that since most of the local councils are opposed to this that there will be a

decision not to go ahead. This will allow the Authority time to assess the success of waste minimisation and recycling schemes before their current landfill contracts run out in 2004/5.

But incinerator developers still at work

In March 1997, the Department of Trade and Industry announced the successful bidders in the current round of Non-Fossil Fuel Obligation bids for Waste to Energy schemes. Two companies intending to build incinerators in London were given NFFO awards - one of them was for energy from an incinerator in Alperton, West London. The company, United Waste, is part of a consortium originally short listed by WLWA in January 1996. Very little information, other than an Ordnance Survey grid reference is available, and the planning authority has received no planning application. The government agencies responsible for awarding and monitoring NFFO are not giving any information out. This secrecy and lack of access to information will form part of our next thrust of campaigning.

It's still an incinerator!

John Scovell of Reigate FOE

In 1993 the European Development Corporation (EDC) submitted a planning application to construct a "recycling and biothermal waste to energy plant" on a green belt site close to the town centre of Redhill, Surrey. The plant would burn 300,000 tonnes a year of municipal solid waste together with 100,000 tonnes of straw and would produce approximately 40 mega watts of electricity.

Our local FOE group was first alerted to the plan when a headline appeared in the Reigate Independent with the headline "We have got the power!" The article put forward a positive view of the proposal - based on a press release produced by EDC. The article stressed that the plant was not an incinerator (!) and posed no threat to human health as emissions from the plant would all be within the latest EC standards.

We were approached by the East Redhill Residents Association (ERRA) who were concerned about the proposal and asked us for our help. At the time some of our group members thought the plant might be a good idea so we decided to talk the issues over with Benedict Southworth from FOE Industry and Pollution campaign. As a result of a meeting with Benedict we decided to campaign against the proposal.

In the meantime of course EDC had been conducting a PR campaign, including a site visit by councillors to view a model of the site. As a result some councillors thought the scheme a good idea, with one being quoted in the local paper as saying “*the scheme is good in principle*”. It was therefore imperative that we hit back in the PR battle.

A public meeting

We joined with ERRA who were arranging a public meeting to “examine the issue from all sides”. EDC were invited to put their case forward. Dr Vyvyan Howard, a pathologist from Liverpool University, discussed the medical aspects alongside another speaker who had been involved in a campaign against an incinerator in Kent, and Benedict Southworth also came along.

Publicity for the meeting included door-to-door leafleting, street stalls, handing out leaflets at local railway stations and we got local newspaper and radio coverage.

The meeting attracted over 500 people, a great turnout. EDC put their case to an unimpressed audience. Then it was the turn of the speakers against the plant - who each received thunderous applause. The claim the plant was “state of the art” was rebutted by Dr Howard who outlined the medical implications of the plant to a horrified audience.

Benedict Southworth of FOE also attacked the claim that the plant was not an incinerator and emphasised the need for a national waste policy based upon reduce, reuse and recycle. Someone from ERRA said afterwards “I had never thought of that”. But after that, everyone was saying it, and members of ERRA spoke at meetings, calling for waste to be recycled.

This meeting really was crucial. It ensured that EDC lost any support they may have had amongst councillors and set local people against the plant. After the speakers had finished it was clear that there was overwhelming opposition to the plant. As a result councillors did U-turns! As one councillor told me later, “*even if we thought it was a good idea we would have had to have spoken against it or we would have lost the ward*”. The front page of the local newspapers all carried reports of the meeting.

The fact that the ERRA was so involved was an important factor. They had more resources than us and carried a lot of political clout as they represented the more local people, the people who vote and buy local newspapers.

More publicity

After the meeting we continued to campaign and looked for opportunities to keep the issues in the local press to keep the pressure on and encourage people to write letters objecting to the proposal. For example, when the US EPA produced its draft report on dioxins which concluded that there were “no safe levels”, we immediately faxed a press release to the local press which made the front pages with a headline which read “Incinerator sparks new health scare”.

As the campaign continued, more people came out against the proposal, such as our local MP, the Chamber of Commerce, the local shopping mall, and the boss of Harrods. This all provided more publicity with headlines such as “Opposition grows”.

We also continued to emphasise the alternatives to incineration.

The planning application

The planning application was considered by Reigate District Council. They did not have the power to accept or reject the plant but would simply decide their position. This was important in terms of putting pressure on Surrey County Council and also provided an opportunity to gain further publicity.

On the night when the proposal was to be heard, people gathered outside the Town Hall waving placards and children had balloons with “NO INCINERATOR” printed on them. We were there dressed up in gas masks and white protective suits provided by national FOE.

Councillors were left in no doubt about the anger of local people. Inside the council chamber was packed by concerned residents and there were visible signs of relief when the council voted to reject the plan.

Again this received front page coverage in the local press. EDC commented that “*It is a hollow victory and the plan will be accepted at County Hall.*”

Again we continued to keep on the pressure and finally the day came when it was time for County Hall to consider the plan. ERRA arranged coaches to transport people to attend the meeting.

On the day came a dramatic development! EDC withdrew their application as they had discovered that planning officers had recommended rejection. This news was greeted with jubilation by protesters. However we knew that EDC would be putting another application in.

It was no surprise therefore when, a few months later EDC submitted another application in an attempt to get round objections. We were ready for this and faxed a press release accusing EDC of manipulating the planning system and playing cynical games. Once again we turned EDC actions against them in the PR battle.

So the campaign continued. We judged however that officers would still recommend rejection so this time the campaign was a more low key affair.

We were proved right and a few months later Surrey County Council voted to reject the plan. EDC then appealed to the Department of the Environment convinced they would win.

The public inquiry

We decided to divide the evidence between ourselves and ERRA. We would look at the health implications and the technical aspects of the plant and argue alternatives. Dr Vyvyan Howard agreed to produce a written proof of evidence and Alan Watson, then Senior Campaigner at FOE, would give oral evidence.

We wrote to FOE national members in the area and asked them to write to the inquiry inspector objecting to the plan.

It was important that a large number of people attended the opening day of the enquiry and to remind people a member of Reigate FOE dressed up in a grim

reaper outfit - which again resulted in front page coverage in the press.

The inquiry was packed every day and lasted about 3 months. One of the highlights was the evidence from Alan Watson, and in July 1996 the inspected rejected the plan!

That is not the end of the story! In August 1997, Reigate Council introduced a borough-wide kerbside collection recycling scheme and the agenda papers cited opposition to incineration as a major factor.

I think that the most valuable part of the campaign was not so much defeating the incinerator but the awareness we created in the need to reduce, reuse and recycle. I believe that we have helped change attitudes and thinking concerning waste.

Summary

- Work with residents association
- Hold public meeting with good quality speakers
- Make the best possible use of the media - use stunts etc and remember that timing of events is important in obtaining the maximum publicity
- Make sure decision makers are aware of the strength of feeling against the plant
- Emphasise the effects of the plant on health, property prices, traffic levels
- Emphasise alternatives to the incinerator.

Section 14

Northern Ireland - Planning and Waste Disposal Licensing

This section aims to

- *provide details on waste management planning and licensing in Northern Ireland*
- *identify opportunities to campaign on the granting of them.*

This section is essential reading for campaigners in Northern Ireland.

In Northern Ireland, planning is the responsibility of the Department of the Environment Town and Country Planning Service. The opportunities for lobbying councillors and planning committees on the issue of granting planning permission therefore do not exist in Northern Ireland because local authorities in Northern Ireland do not have responsibility for planning.

Northern Ireland has 26 local authorities ranging in population size from Belfast with a population of 296,700 down to Moyle with 15,100. At the present time, each local authority is individually responsible for waste collection and disposal, regulation and waste policy planning within its own area. This structure of 26 local authorities was originally created to operate in conjunction with an elected regional tier of government similar to the County Council system in Britain, but the dissolution of the Northern Ireland parliament at Stormont in 1972 meant the proposed regional bodies never materialised. This has resulted in local authorities in Northern Ireland having a limited range of responsibilities such as waste management, cemeteries, recreational facilities and economic development. The functions which were originally intended to be carried out by the regional tier of local government have been split between the DOE(NI) (planning, roads, water, sewerage, conservation) and appointed boards or quangos (housing, education, social services, health).

There are six divisional planning offices at Belfast, Ballymena, Londonderry, Downpatrick, Portadown and Omagh with a further two sub-offices at Coleraine and Enniskillen. The operation of this system has been described as follows:-

“The essential components of this system which combine to distinguish it from others, are that planning is administered by central Government on a regional basis, as opposed to being a local

government function, and appeals are made to an independent body, the Planning Appeals Commission⁸⁸.”

Incinerators and the planning system in Northern Ireland

Although the administrative system is different in Northern Ireland, planning law is similar to that in Great Britain. Planning permission is required for development as defined in Article 11 of the Planning (Northern Ireland) Order 1991 (which corresponds to the definitions in section 55 of the TCP Act 1990). Planning permission would normally be required for the construction of a large incinerator unless an exemption applies under the Planning (Use Classes) Order (Northern Ireland) 1987 or the Planning (General Development) Order (Northern Ireland) 1993. An Environmental Assessment will be required for any incinerator which is likely to have a significant environmental impact under regulation 2 and paragraph 11(c) of Schedule 2 to, the Planning (Assessment of Environmental Effects) Regulations (Northern Ireland) 1989. In the case of incinerators burning domestic or municipal waste, the economies of scale required to operate the incinerator profitably will mean that all such proposals will require an Environmental Assessment to be carried out and an environmental statement written.

In Northern Ireland, all planning applications are advertised and planning appeals are determined by the independent Planning Appeals Commission. Requests for advice or applications for planning

⁸⁸ Dowling, J.A. (1995). *Northern Ireland Planning Law*. Dublin, Gill & Macmillan. Another useful book is: Turner, S. and Morrow, K. (1997). *Northern Ireland Environmental Law*. Dublin, Gill & Macmillan.

permission in Northern Ireland should be addressed to the appropriate Divisional Planning Office.

Waste management legislation in Northern Ireland

The legal situation for waste management in Northern Ireland differs from that in Britain. Environmental legislation which has been introduced in Great Britain is often delayed by a number of years before its introduction into Northern Ireland. At the present time (April 1997), the relevant legislation in Northern Ireland is the Pollution Control and Local Government (NI) Order 1978.

The equivalent legislation to Part II of the Environmental Protection Act 1990 (Waste on Land) has yet to be introduced in Northern Ireland. Draft proposals were released by the DOE(NI) in January 1996 which should result in an Order being introduced at the end of 1997 (see below).

Waste Disposal Licensing (Northern Ireland)

Under Article 5 (1)(b) of the Pollution Control and Local Government (Northern Ireland) Order 1978, and the Waste Collection and Disposal Regulations (Northern Ireland) 1992, a disposal licence is required for the operation of an incinerator disposing of controlled waste. This licence is issued by the District Council.

In addition, a certificate of registration under section 9 of the Alkali & Works Regulation Act 1906 must be obtained before any operations are carried out at incineration works where the works are capable of incinerating 1 tonne or more of waste per hour. A certificate of registration is issued only if it can be demonstrated that the Best Practicable Means (BPM) will be used to prevent the escape of noxious and offensive gases. An application for certificate of registration must be made to the Alkali Inspectorate.

A Future Strategy for Waste Management in Northern Ireland

In 1993 the Government published its proposals for waste management in Northern Ireland. It stated as its strategy objectives:-

- the improvement of standards of practice, which the Government will achieve by introducing new controls to provide legislative parity with the rest of the UK, and the flexibility to respond to emerging European

Directives;

- the revision of administrative arrangements, by creating a separate, centralised regulatory body; and
- the opportunity for market forces to determine the best practicable environmental option (BPEO), using the new centralized waste regulatory body to provide an assurance to industry of uniformly enforced standards.

The strategy went some way to acknowledging the limitations of the local authority system in Northern Ireland by proposing to allow the councils to remain as unitary authorities, responsible for waste collection and disposal. However, the strategy did propose removing responsibility for regulation from the councils.

Draft Waste and Contaminated Land (Northern Ireland) Order 1997

The DOE(NI) has stated that this Order should be in force by spring 1997. The order contains the proposals for the implementation in Northern Ireland of Part II of the Environmental Protection Act 1990 and the Environment Act 1995. The DOE(NI) guidance to the above order states:-

*"The principle difference between the provisions which apply in Great Britain and those proposed for Northern Ireland relates to the reorganisation of waste regulation, collection and disposal functions. Proposals for independent regulation in Northern Ireland will be achieved by setting up a new centralised inspectorate within the Department's Environment Service which will exercise powers similar to those granted to the Waste Regulatory Authorities in Great Britain. Responsibility for waste collection and disposal will remain with district councils."*⁸⁹

Proposal for a Draft Industrial Pollution Control (Northern Ireland) Order

Part I of the 1990 Environmental Protection Act introduced a two-tier system comprising Integrated Pollution Control (IPC) and a new system of Local Authority Air Pollution Control (LAAPC) in Great Britain. Under this system a single authorisation is

⁸⁹ DOE (Northern Ireland), 1996. Telephone 01232 254754

issued which takes account of the total environmental effect of the polluting capacity of a process and controls emissions to the three environmental media - air, water and land. The Order would create a similar pollution control system for Northern Ireland but would provide a three tier rather than a two tier categorisation of processes. The Alkali Inspectorate will be located in the new Environment and Heritage Agency and will administer an IPC system with regard to the first category of processes with high pollution

potential, and will also administer a system of air pollution control with regard to the second category of processes with the potential to cause serious air pollution. District councils will be given new powers to administer a system of air pollution control with regard to the third category or processes with significant but less potential for air pollution.

Annex 1

The Arguments

During the course of your campaign, you will inevitably find yourself in situations where you are expected to make your case against the proposal, and to counter the arguments that the proponents will offer against your concerns. Such situations might include public meetings, press interviews, and discussions with councillors and council officers. Whilst many of the following points will have been made in the preceding sections of this guide, you may find it useful to have these following arguments and counter arguments brought together here under a single heading. This section does not cover all the points that may be raised, just the most common. (Note that some of the information here is not repeated in other sections.)

- *It will be subject to regulatory controls*

Emission standards may be inadequate - for most pollutants, the IPC system takes no account of the cumulative or synergistic impacts of each additional source of pollution. Ambient air quality standards exist for only a few pollutants. Inspection rates achieved by the regulatory authorities are very low, averaging less than two programmed inspections per industrial process each year⁹⁰.

Regulatory controls still do not consider alternative waste management possibilities sufficiently.

- *It is a necessary waste disposal facility*

The necessity for any incinerator depends entirely on the lengths to which the waste producers are prepared to go to manage their wastes differently. A great deal of commercial and industrial waste could be avoided through waste minimisation techniques and clean technology. The main barriers to their implementation are simply lack of awareness of the alternatives; the lack of appreciation of the potential financial benefits; and a lack of forcing legislation. Despite the benefits, simple inertia prevents many organisations from reducing the amount of waste that they produce. Furthermore, waste minimisation techniques in industry improve efficiency and competitiveness.

The proportion of waste in the UK which is managed through re-use, recycling and composting falls a long way short of what has been achieved in the USA and elsewhere in Europe.

- *It will create jobs*

Incineration creates very few jobs compared to the alternative waste management options of recycling and composting (see Section 4). This applies to mixed municipal wastes as well as specific waste streams. In general, the number of jobs created increases with the degree of processing. Incineration involves very little processing compared to the alternatives higher up the waste hierarchy.

Several studies have shown that recycling creates about three times as many jobs as incineration on a per tonne basis.

- *It will create energy*

Some energy is recovered by burning wastes in waste to energy (WTE) plants, but far more energy is actually saved by recycling those materials rather than burning them. This is because much more energy is required to produce virgin materials than to recycle. Energy recovery in WTE plants is also very inefficient - only about 20% of the energy can be converted into electrical power and heat generated may not find a use. On average, using recycled materials saves 2-5 times as much energy than can be recovered by incineration.

- *Paper recycling is environmentally harmful and consumes more energy*

Many studies show that paper recycling is preferable in terms of energy use - including the British Newsprint Manufacturers Association' study. The Inter-Governmental Panel on Climate Change has stated that paper recycling can help store carbon and prevent release of the greenhouse gas, carbon dioxide.

Even if a tree is planted for every tree chopped down, forestry maintained for relatively short term harvest does not help replace the original ancient woodland and its biodiversity. In addition, tree-planting in

⁹⁰ The ENDS Report 268, May 1997

previously non-forested areas can be controversial, by damaging other types of habitats.

Recycling of paper saves on paying for importation of virgin fibre from other countries. *See Annex 4 for more detail.*

- *Plastic recycling consumes more energy than it saves*

Life-cycle analyses have given mixed results - for example the Canadian study cited below (*see Table 15*) reports a net energy saving for all types of plastic considered. The Coopers & Lybrand report estimated that recycling was generally favourable, except for plastic film (which is not dense, pushing up associated transport costs)⁹¹.

A paper from the Warren Spring Laboratory (a former government-funded research lab) concluded that it has been shown: "*that despite the opportunity for substantial gains from energy recovery from waste plastics, it is still energetically more sensible to carry out materials recycling of plastics wherever it is possible to do so without energy over-intensive collection methods.*"⁹²

- *Composting is expensive and household putrescible waste is contaminated with heavy metals*

Home composting isn't expensive and many municipal schemes produce usable compost. Heavy metals are undesirable, but those should be tackled too. Keeping the green waste separate helps. Friends of the Earth believes that centralised composting is better carried out with waste that has been separated by the householder, rather than mixed in with other waste before re-separation at the composting facility.

⁹¹ European Commission, DGX1 (1996). *Cost-benefit analysis of the different municipal solid waste management systems: objectives and instruments for the year 2000*. A report by Coopers & Lybrand/CSERGE. Luxembourg, Office for Official Publications of the European Communities.

⁹² Ogilvie, S.M. (1992) (Warren Spring Laboratory). *A review of the environmental impact of recycling*. Department of Trade and Industry; citing work by Clark, H. and New, R. (1991). *Current UK Initiatives in Plastics Recycling*, Paper No W91002. Stevenage, Warren Spring Laboratory.

In the Netherlands, 90% of green waste in municipal waste is composted⁹³.

- *Incineration is compatible with recycling*

Incinerators create a demand for waste over 25-year time periods and this can be at odds with developing programmes for recycling or waste minimisation. We want lots less waste to be produced, and we want a recycling target of 80%.

- *Taking out the newspaper/plastics for recycling reduces the calorific value and so recycling is incompatible with incineration*

Since metal and glass have very little calorific value, in a theoretical scenario, recycling 100% of paper, plastic, textiles and putrescibles leaving only metal and glass would reduce the calorific value (CV) significantly (*see Table 7*). This is of course a totally unlikely scenario. Conversely, recycling the metal and glass only would increase the CV.

Given a range of scenarios though it has been calculated that recycling is not going to seriously affect the energy content of the remaining waste. The Department of Trade and Industry booklet on waste-to-energy schemes states⁹⁴: "*Numerous studies have shown that while recycling may reduce the amount of waste to be disposed of, the CV of the remainder is usually little changed*".

If this argument comes up, it is probably really about the quantity of material available and the economics of the project. The more is recycled, the less can be burnt, which affects the quantity of any heat and power for sale, affecting the necessary capacity of the incinerator, affecting the necessary gate fee for the remaining waste and affecting the economics of the operation.

- *Landfill is an undesirable alternative*

Quite so, but landfill is more flexible than incineration, since the capital costs are not so high and it does not demand waste in the way that incineration does i.e. recycling schemes are more

⁹³ European Commission, DG XI (1997). *Composting in the European Union*. Report produced by DHV Environment and Infrastructure, Amersfoort, The Netherlands.

⁹⁴ DTI (1996). *Energy from Waste: Best Practice Guide*. Harwell, ETSU/DTI.

	Approximate Gross Calorific Value
Paper	12 Gigajoules/tonne
Wood	10 - 12
Plastics	20 - 40
Putrescibles	6
Textiles	15
MSW	5 - 10
Coal	30
Tyres	32
Tonne of oil equivalent	42

Table 7: Gross calorific value of some materials; glass and metals have negligible calorific value. The tonne of oil equivalent is a standard unit of energy measurement. [Sources: *Digest of UK Energy Statistics*; *Warmer Bulletin 54*, May 1997; *RCEP 17th Report*; *WSL 1987*⁹⁵.]

compatible with landfill.

- *Incineration saves carbon dioxide emissions*

Recycled goods take less energy to produce than extraction of and manufacture from virgin materials. But the picture may be more complicated by consideration of different types of energy sources and displacement of generated CO₂ emissions from

⁹⁵ Woodfield, M. (1987) (Warren Spring Laboratory). *The Environmental Impact of Refuse Incineration in the UK*. Stevenage, WSL.

say coal or gas-fired power stations. See Annex 4 for more details.

- *Chlorine bleaching of recycled paper produces dioxins*

Chlorine bleaching is not necessary - there are alternatives. In any case, we are not building an incinerator because chlorine bleaching is going on.

- *There are very high standards for emissions and these are only a small percentage of total pollution; traffic is much worse.*

For particulates, even official documents have stated that there is no safe level; dioxins are already present at uncomfortably high levels in the environment, so any further exposure is still undesirable. An incinerator will probably add a large amount of traffic to the vicinity. And of course, FOE is also working on reducing traffic and its pollution.

- *The dioxin levels are now safe*

Worryingly, some of the health effects are estimated to occur in people at levels of dioxin not much higher than the amount in many peoples' bodies anyway. This does not prove that the dioxin is *definitely* causing the health effects. But it should not be necessary to wait for definite proof - the "precautionary principle" should be applied and no more avoidable dioxin should be added to the environment. (*And see Annex 2.*)

Annex 2

Air Pollution and Health

When faced with proposals for the building of waste incineration facilities, many communities worldwide have expressed their concerns about the potential implications. Such concerns are usually expressed as questions about the associations between incineration of wastes and possible health effects. Some of the substances released in the air emissions from incinerators are carcinogenic, and there may be an extra risk involved if air levels of certain substances are predicted to rise in your neighbourhood.

Particulates are the very fine particles of invisible soot which are released whenever combustion occurs. Exposure to particulate pollution has been associated with the exacerbation of chronic lung and heart diseases, such as asthma (especially in children), emphysema and types of heart disease. It has also been linked with increased incidence or severity of lung infections such as bronchitis or pneumonia, even where no chronic disease is underlying. Exposure can increase relatively minor respiratory symptoms - coughs, colds, sinusitis⁹⁶. Some researchers have found particulates to be associated with increased risk of lung cancer⁹⁷ and the promotion of some allergic disorders - asthma, eczema and hay fever⁹⁸.

Dust in the natural environment is relatively large and the human body has evolved mechanisms for protecting the lungs against these particles. Incineration (and other combustion processes) produces much finer particles, usually measured as "PM₁₀s", i.e. particulate matter around 10 micrometers in diameter. Even smaller particles are now under scrutiny - the "PM_{2.5}s", particles of less than 2.5 micrometers in diameter. The smaller the particles, the greater is the extent to which they are able to penetrate the lungs and get into close contact

with the blood stream. Their presence there may itself initiate an allergic reaction but will also facilitate the migration of toxics which are on and in the particles (e.g. metals and PICs) into the blood stream.

The air quality standard for particulates applies to PM₁₀s and it may be that a further standard will be needed for the PM_{2.5}s - which "*may eventually prove to be of greater health significance*" according to the Expert Panel on Air Quality Standards (EPAQS)⁹⁹. At times, the air in many cities exceeds the recommended PM₁₀ level of 50 µg/m³ (micrograms per cubic metre) (24-hr average), and in any case it is unlikely that there is a safe level¹⁰⁰.

The Institute of Environmental Health (IEH, at Leicester University) , in a recent review¹⁰¹, concluded that "*the link between adverse health effects and PM₁₀ exposure is now widely accepted as causal*" i.e. PM₁₀s can cause health problems. The review goes on to say "*It has been estimated that a 10 µg/m³ increase in daily PM₁₀ levels is associated with a 1% increase in daily mortality, as well as increases in various morbidity endpoints.*"

Dioxins (including **furans**) are toxic to humans in a number of ways, and no safe threshold level has ever been demonstrated for exposure. Dioxin exposure in humans is associated with cancer¹⁰²; reduced male

⁹⁶ Dockery, D.W. and Pope, C. (1994). *Acute respiratory effects of particulate air pollution*. Annual Review of Public Health, 15, 107-32.

⁹⁷ Cohen, A. J. and Pope, C.A. (1995). *Lung cancer and air pollution*. Environmental Health Perspectives, 103, 219.

⁹⁸ Department of the Environment Expert Panel on Air Quality Standards 1995. *Particles*.

⁹⁹ Expert Panel on Air Quality Standards, quoted in the UK National Air Quality Strategy (DOE/WO/SO, 1996).

¹⁰⁰ Department of the Environment Expert Panel on Air Quality Standards 1995. *Particles*.

¹⁰¹ Institute for Environment and Health (1997). *Health Effects of Waste Combustion Products*. Report R7. Leicester University, IEH. This report summarises several studies and we refer to it several times in this annex.

¹⁰² The World Health Organisation's International Agency for Research on Cancer has recently classed the most toxic dioxin, TCDD, as a known human carcinogen. ENDS Report 265, February 1997.

Box 12: What are dioxins and furans?

You may see several terms when looking at references to dioxins/furans. Dioxins and furans are a large group of some 210 different but related substances ("congeners") - technically known as polychlorinated dibenzo-p-dioxins or PCDDs and polychlorinated dibenzo-p-furans, PCDFs. The compounds contain carbon, hydrogen and chlorine, and are persistent - they do not break down in the environment or bodies very rapidly.

Often the term "dioxins" is used to refer to both dioxins and furans. The most toxic dioxin is thought to be one called 2,3,7,8-tetrachlorodibenzodioxin, TCDD, and the toxicity of a mixture of dioxins is calculated using a "toxic equivalent" factor, TEQ (or sometimes TEF), by reference to this most toxic dioxin. TCDD is assigned a TEQ of 1, and so a pure sample at say 1 mg/m³ would have a TEQ of 1 mg/m³. The same concentration of a dioxin of one tenth of the toxicity would have a TEQ of 0.1 mg/m³. Operating permits for incinerators and other combustion processes often set limits for dioxins in terms of TEQs.

Box 13: Do incinerators produce or consume dioxins?

Some incinerator operators have been claiming that the new incinerators actually destroy more dioxins than are re-formed during the combustion process. Recent research shows that this is unlikely in the UK. A scientist at the Energy Technology Support Unit has used available data and calculated a mass balance for a "typical" EFW incinerator. Even at an optimistic view using the maximum figures for input of dioxins and the minimum output of dioxins, the output of dioxin in the combined ash and air emissions is higher than the input by 59%.

Source: Burnley, S. (1997). *Dioxins: Energy from Waste - a source or sink?* Warner Bulletin 57, p18.

sex hormone; reduced sperm production; suppression of immune response; endometriosis (a painful, debilitating disease of the uterus); chloracne at very high exposure levels (a serious skin complaint); and diabetes. Behavioural effects and learning disorders associated with damage to the central nervous system have been identified in dioxin-exposed monkeys.

All of the above effects have been shown to result from body burdens less than a factor of ten greater than those typical of individuals in industrialised societies¹⁰³. This is therefore an unacceptably narrow margin of safety and for this reason any additional exposure cannot be tolerated.

Due to the stability of these compounds, dioxins tend to accumulate in the environment resulting in exposure via a number of routes (mainly via food). The immediate exposure route to atmospheric dioxins is by the inhalation of fine particulates to which dioxins (and other potentially toxic PICs) are adsorbed. Their chemical stability also results in the accumulation of dioxins in body tissues.

¹⁰³ United States Environmental Protection Agency (1994). Health Assessment Document for 2,3,7,8 - tetrachlorodibenzo-p-Dioxin (TCDD) and related compounds.

There is considerable controversy over the limits that the Department of Health have defined as "acceptable" for dioxin intake in terms of the risk of causing cancer. The "Tolerable Daily Intake" (TDI) has been set at 10 pg/kg body weight/day¹⁰⁴ in the UK, whereas, in the USA, TDI is set at 0.01 pg/kg/day. The US figure is therefore 1000 times more stringent than the UK figure. The US uses a different method for determining carcinogenicity than is used for the UK TDI.

There are further points of contention over the uncertainties in interpreting the effects on laboratory rats in terms of the effects on human beings, and in accounting for the lack of knowledge about "non-cancer" effects. Reproductive disorders, for example, occur at far lower levels (100 times less) than cancer effects¹⁰⁵.

¹⁰⁴ 10 picogrammes per kg (body weight) per day. 1 picogramme = 1 x 10⁻¹² grammes or one million millionth of a gramme.

¹⁰⁵ United States Environmental Protection Agency, 1994. Health Assessment Document for 2,3,7,8 - tetrachlorodibenzo-p-Dioxin (TCDD) and related compounds

Pollutant	IEH comments include	Background level
Cadmium	"Environmental exposures are unlikely to result in these effects [lung and kidney] although a very small increase in risk of lung cancer cannot be excluded"	5.3 ng/m ³
Mercury	"...uncertain relevance"	0.25 ng/m ³
Arsenic	"Any increase in cancer risk at environmental exposure levels is likely to be small and difficult to determine"	16 ng/m ³
Chromium	"...small increase in lung cancer risk cannot be excluded "	3.6 ng/m ³
Nickel	"... a small increase in risk [of lung and nose cancer] at environmental levels is possible. Nickel can cause allergy known as nickel sensitisation."	1.2 µg/m ³
Dioxins	"...May affect metabolism, development and reproduction at levels less than ten times average levels in the body. Dioxins may also cause cancer."	0.0068 ng/m ³
PAHs	"it is not possible to estimate cancer risk at environmental exposure levels"	130 ng/m ³
PCBs	"Few adverse effects definitely associated with long-term low-level exposure. Subtle developmental effects reported in children resulting from exposure in the womb or through breast-feeding. Evidence for ability to cause cancer is inadequate."	0.70 ng/m ³
PM ₁₀	"Increased short- and long-term health effects and mortality in the general population, particularly in susceptible subgroups such as the elderly or sick"	20 - 34 µg/m ³
SO ₂	"...longterm environmental exposure is associated with increased heart and lung disease and mortality..."	1 - 50 µg/m ³

Table 8: Extract from IEH Report on Health Effects of Waste Combustion Products (Report R7). Background air data was taken from figures from *A to Z: A Directory of Air Quality Data for the United Kingdom in the 1990s*. The Meteorological Office (1995). There may well be considerable variation from these figures at any particular location and at any particular time, but the figures give some idea of the range expected.

Recent studies by MAFF have shown that dioxin intake in the UK population is in the order of 1-2 pg/kg/day¹⁰⁶. This is uncomfortably close to the UK TDI, and is 100 times the US TDI. Given the controversy over the TDI in the UK, this should be cause for serious concern. According to the USEPA, non-cancer effects *"have been observed in laboratory animals and humans at or near to levels at which the general population are exposed."* Any increase in emissions must therefore be considered

unacceptable.

A recent report¹⁰⁷ from the World Health Organisation (WHO) on levels of PCBs, dioxins and furans in human milk concluded that:

"a wealth of new information has become available since the last assessment of possible risks to infants associated with exposure to PCBs, PCDDs and

¹⁰⁶ ENDS Report 255, April 1996. *"Department of Health savaged over dioxin safety."*

¹⁰⁷ WHO Europe (1996). *Levels of PCBs, PCDDs and PCDFs in human milk*. Environmental Health in Europe No.3; Ref. EUR/ICP EHPM02 03 05.

PCDFs. Several studies have demonstrated that persistent neurobehavioural, reproductive and endocrine alterations can be observed in experimental animals following in utero [womb] and lactational [breast-milk] exposure to PCBs, PCDDs and PCDFs. The lowest observable adverse effect levels (LOAELs) for developmental neurobehavioural and reproductive endpoints [the criteria], based on body burdens of TEQ [a measure of dioxins] may be in the range of current background human body burdens in certain segments of the population." (our emphasis and notes).

In other words, levels already present in the bodies of some sections of the population may be sufficient to cause serious adverse health effects. Again, therefore, any increase in emissions to the environment cannot be considered acceptable.

Young children may be particularly at risk during critical stages of development.

Arsenic Inorganic arsenic is an established human carcinogen - lung cancer may follow inhalation, or skin cancer from oral exposure. According to the World Health Organisation, there is no known safe threshold. The US EPA has estimated an increased cancer risk of 1 in a million at a level of 0.2 ng/m³. At some locations, air concentrations may be well above this in the UK¹⁰⁸.

Cadmium Cadmium can affect the kidneys and lungs. No threshold has been demonstrated for respiratory effects - leading the IEH to conclude that "it is possible that such effects could occur at environmental exposure levels". There is also evidence that long-term occupational exposure to cadmium may contribute to the development of lung cancer¹⁰⁹, and it is classified as a human carcinogen by the International Agency for Research on Cancer. US agencies have estimated that air concentrations of around 1 ng/m³ increase the risk of cancer over a lifetime by 1 in a million¹¹⁰.

¹⁰⁸ Institute for Environment and Health (1997). *Health Effects of Waste Combustion Products*. Report R7. Leicester University, IEH.

¹⁰⁹ World Health Organisation (1992). *Cadmium*. Environmental Health Criteria 134. Geneva, WHO.

¹¹⁰ Institute for Environment and Health (1997). *Health Effects of Waste Combustion Products*. Report R7. Leicester University, IEH.

Chromium A classified human carcinogen in a form known as chromium (VI) (i.e. "chromium six"), with concerns focussing on lung cancer. WHO considers that there is no safe threshold and the IEH concluded that at environmental concentrations a "small increase in lung cancer risk cannot be excluded". For new incinerators, a benchmark level for total heavy metal emissions (other than cadmium and mercury) is 1000 µg/m³.

Lead Chronic lead exposure appears to affect neurological development in children, and increase blood pressure and anaemia in adults. Other sources include vehicle emissions and drinking water that has passed through lead pipes. The current statutory air quality standard is 2 µg/m³, but it is proposed to tighten this to 0.5 µg/m³.

Mercury In some forms, mercury may be carcinogenic¹¹¹ but this is not so well established as for cadmium, arsenic and nickel. At high exposure levels mercury is distinctly toxic, damaging kidneys and the nervous system (leading to behavioural abnormalities). WHO has suggested an indoor air limit of 1 µg/m³, but did not propose an outdoor air standard. New incinerators are expected to have emissions of 100 µg/m³ or less (*and see Annex 3*).

Nickel Nickel compounds have been classified as carcinogenic, and WHO has not recommended any safe level. The EPA has estimated the extra lifetime cancer risk of 1 in a million for nickel in air at 4 ng/m³.

Thallium The draft incineration directive (20 August 1994) includes limits for thallium, a toxic metal.

Hydrogen chloride Hydrogen chloride is a respiratory irritant and an eye irritant and is capable of having a corrosive effect on masonry and other materials in the vicinity of the incinerator.

Polycyclic aromatic hydrocarbons, PAHs A large group of chemicals, with varying toxicities. Some are thought to be carcinogenic. One of the most studied PAHs is called benzo[a]pyrene¹¹².

¹¹¹ Methyl mercury has been classified as "possibly carcinogenic" by the IARC.

¹¹² World Health Organisation (1993). *Guidelines for Drinking Water Quality*. Geneva, WHO.

Pollutant	Standard concentration	Measured as
Lead	0.5 µg/m ³	annual mean
Particulates (PM10s)*	50 µg/m ³	24-hour mean, 99%
Nitrogen dioxide*	150 ppb (285 µg/m ³) 21 ppb (40 µg/m ³)	hourly mean annual mean
Sulphur dioxide*	100 ppb (265 µg/m ³)	15-minute mean, 99.9%
Carbon monoxide	10 ppm (11.6 mg/m ³)	8-hour mean
Benzene	5 ppb (16.2 µg/m ³)	annual mean
1,3 butadiene	1 ppb (2.4 µg/m ³)	annual mean
Ozone*	50 ppb (100 µg/m ³)	8-hour mean, 97%

Table 9. Summary of national air quality standards. These are under review, and it is possible that there will be changes. Where a % figure is shown, only that percentage of the values measured during the year need to meet the standard. [Source: DOE/WO/SO (1996). *The United Kingdom National Air Quality Strategy*. London, The Stationery Office.] Conversion factors from ppm/ppb can be found in the 1997 *Pollution Handbook* of the National Society for Clean Air and Environmental Protection (Brighton, NSCA).

* - provisional objectives

Institute for Environment and Health summary

The Medical Research Council Institute for Environment and Health (IEH) at Leicester University identified ten "key" pollutants from incineration processes¹¹³: five metals (cadmium, mercury, arsenic, chromium and nickel), fine particulates, sulphur dioxide, and organic compounds - dioxins/furans, polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs). They concluded that epidemiological studies around incinerators had failed to show significant effects - either because the studies were not sensitive enough or because there is no effect. They also noted that "few studies have investigated the health effects of low-level exposures to these pollutants..." and that studies in the vicinity of waste incinerators have been "relatively small" and therefore not sensitive enough to pick up small differences in health problems¹¹⁴.

¹¹³ Institute for Environment and Health (1997). *Health Effects of Waste Combustion Products*. Report R7. Leicester University, IEH.

¹¹⁴ Dr Barry Johnson, Assistant Surgeon General at the US Department of Health commented on the lack of epidemiological studies, in evidence to the US House of Representatives in 1994. He stated that his Department was "...often

They also concluded that modern technology would reduce any risks to "below those detectable by any practical study".

unable to answer those questions. Scientific information on the human health impacts of incineration isn't often available because the relevant studies haven't been conducted."

"There are very few data on the impact of incinerator emissions on the health of nearby communities. Epidemiologic investigations have rarely been conducted and few studies of disease and illness patterns have been undertaken. For example, ATSDR [Agency for Toxic Substances and Disease Registry] staff recently searched the 10 most frequently used computerized environmental databases. More than 1 million entries were identified. Approximately 72,000 of the entries dealt with incineration. Of those, only a single entry included information about a population-based study conducted in a community living in the vicinity of an incinerator. That study of residents living near the Caldwell Systems incinerator in North Carolina was conducted by ATSDR".

Annex 3

Municipal Waste Incinerator Emission Limits (to air only)

Pollutant	Current EU ^{1,2} - weekly averages	Current EU - spot/ hourly/ daily average	EU proposal ³ - daily average	EU proposal - half-hour average	UK ⁴ - 95% of hourly av	UK - peak hourly value
Particulates	30 mg/m ³	39 (d)	10	30	10-25	
VOCs		20 (spot)	10	20	10	20
HCl	50	65 (d)	10	60	30	60
HF		2 (spot)	1	4	<1-2	
SO ₂		300 (spot)	50	200	50	200
NO _x			200	400	250-300	500-600
Ammonia			10	20		
CO		100 (h)			50-100	
Mercury		}0.2 (spot)		0.05	0.1	
Cadmium				} 0.05	0.1	
Thallium						
Nickel and Arsenic		1 (spot)				
Other heavy metals (total)		5 (spot)	0.5	0.5	1	
Dioxins/ furans (TEQ) ⁵	see footnote ⁶			0.1 ng/m ³	1.0, target of 0.1 ng/m ³	

Table 10. Some emission limits for releases to air from incinerator plants. All figures are in mg/m³, except for dioxins/furans (ng/m³). For explanations, see the notes on the opposite page.

Notes:

1. Emission limits can be expressed in a variety of ways and inevitable variation in the output means that a range of values may be permitted depending on how long the sampling period is. A weekly average indicates that the average of values recorded over a week is required (and this may relate to several different samples); a spot sample indicates that an individual recording should respect the limit (but note that the duration of the sampling period may vary). In addition, some limits need only be achieved a certain percentage of times - 95% achievement is a common requirement (i.e. 5% can be over the limits). For more details of emission limits, see the IPC Guidance Note, S2 5.01 (which also includes details of hazardous waste incinerator limits.)
2. EU Directive on the prevention of air pollution from new municipal waste incineration plants, 89/369/EEC.
3. EU Proposal of 20 August 1994. This is reproduced in the European Commission's report entitled *Economic Evaluation of the Draft Incineration Directive* (1997). There may be a new proposal in 1998.
4. These limits are "benchmark figures" subject to site-specific BATNEEC and BPEO when framing conditions in an authorisation; i.e. a plant should achieve these levels if they are using "Best Available Techniques". The Environment Agency might authorise different emission limits depending on its consideration of "Not Entailing Excessive Cost" or the "Best Practicable Environmental Option". Deviations from these limits should be very clearly justified - request to see such a justification if more relaxed limits are being proposed for an incinerator. The IPC Guidance Note describe it thus: "*BATNEEC is not concerned with the financial health or resources of a particular operator. Excessive costs are viewed in the context of the process and the industry concerned, and costs of controlling releases should not be disproportionate to the environmental benefits delivered.*"
5. No emission limit is given in the Directive, but "BAT" is specified in terms of temperature, time and turbulence of the incineration operations. According to the European Environment Agency's "Dobris Assessment", Germany and the Netherlands have dioxin limits of 0.1 ng/m³.
6. TEQ=Toxic Equivalent

Other limits

Limits may be also be set for other substances under IPC. By way of an extreme example, the Environment Agency set limits for numerous substances potentially released from the Rechem chemical waste incinerator in Hampshire. Releases to water/sewer: aldrin, aluminium, ammonium nitrate, arsenic, cadmium, carbon tetrachloride, chloroform, chromium, copper, cyanides, dieldrin, endrin, fluorides, hexachlorocyclohexane, iron, lead, mercury, nickel, nitrogen compounds, chemical oxygen demand, oil and oil/solid mixtures, phosphates, trichloroethane, tetrachloroethane, trichloroethylene and zinc; releases to air: cadmium, carbon monoxide, halogens, hydrogen bromide, hydrogen chloride, hydrogen fluoride, mercury, "group 3 metals" (arsenic, chromium, copper, lead, manganese, nickel and tin), nitrogen oxides, particulates, sulphur dioxide, TEQ/dioxins, volatile organic compounds.

Sources

European Commission (1996). *Economic Evaluation of the Draft Incineration Directive* (1997). Luxembourg, European Communities.

European Environment Agency (1995). *Europe's Environment - The Dobris Assessment*. Ed D.Stanners and P.Bourdeau. p581. Copenhagen, EEA.

UK: Environment Agency (1996). *IPC Guidance Note S2 5.01: Waste Incineration*. London, The Stationery Office.

Annex 4

Energy Use and Greenhouse Gases

This section -

- *discusses energy consumption*
- *and greenhouse gas production*
- *and relates this to resource consumption in some cases.*

New incinerators will almost undoubtedly incorporate "waste-to-energy" (WTE) technology, and it will be useful to understand the relative energy consumption/generation figures for various waste management options. Energy considerations do not support incineration! The arguments can get rather complicated, but, generally, recycling is a far better option.

Introduction

Incineration which incorporates WTE technology is being promoted as an "alternative" or even "renewable" energy source, helping to reduce reliance on fossil fuels. However, the claim that energy production from waste incineration plants is of value in conserving global fossil fuel reserves is misleading if one considers recycling as an alternative. The replacement of recyclable materials which have been incinerated almost invariably requires a far higher consumption of energy than is recoverable using WTE technology. This is due to the energy-intensive nature of production from raw materials and the inefficiency of WTE technology. Furthermore, plastics are themselves derived from fossil fuels which dents the claim that waste incineration of household waste represents a form of renewable energy.

It is useful to have some comparative figures for the costs and benefits of various waste options. Below, we look at some of the studies which attempt to quantify the relative energy gains and losses. In energy terms, recycling usually wins hands down! In our view, these arguments against incineration are as strong as the health arguments, and cannot be countered with promises of "techno-fixes" of pollution abatement technology.

Energy recovery

The heat that is generated when material is burnt can be put to use - to generate electricity power and to provide heat directly to homes or other buildings. If the two energy recovery systems are available, the plant is often referred to as a "Combined Heat and Power" (CHP) plant.

Electricity generation at incinerators is only about 20% efficient, which means that only one-fifth of the original material's energy content is captured and turned into electricity. If "waste" heat is put to use as well, then the efficiency could theoretically rise to over 60%¹¹⁵. However, not all CHP plants are actually able to find a market for the heat - for instance, a planned district heating system for heat from the SELCHP plant in London (South East London Combined Heat and Power) is still not set up. If a developer is using CHP as a selling point, it is worth closely questioning these plans - for example, heat is less easy to sell in the summer, so in practice nothing like the maximum theoretical efficiency may be achieved.

Electricity generation should be viewed as a side-line to the waste disposal effort, rather than as a useful part of energy generation. Energy recovery makes waste disposal more profitable or more competitive, but for reasons given below, we do not view it as a renewable energy source¹¹⁶.

¹¹⁵ DOE/WO (1995). *Making Waste Work. A strategy for sustainable waste management in England and Wales*. The Stationery Office, London.

¹¹⁶ SELCHP management informed the Royal Commission on Environmental Pollution that it regarded the sale of electricity as "a method of reducing the cost of waste disposal, rather than an activity undertaken in its own right". RCEP (1993). *Seventeenth Report. Incineration of Waste*. London, The Stationery Office.

Source	Energy production/greenhouse gas emissions
Coal burning power station	Power produced; burning fossil fuel releases CO ₂
WTE Incineration	Produces power and sometimes usable heat. Some CO ₂ released from fossil fuel sources (e.g. as plastics), but some other carbon sources in MSW such as food may be regarded as renewable (<i>discussed in more detail later</i>)
Incineration without WTE	No power, some CO ₂ released from fossil fuel (e.g. as plastics), recycling initiatives likely to be stifled by need to generate waste for the incinerator
Landfill	Produces the greenhouse gases, methane (some of which may be flared to produce CO ₂) and CO ₂ . Slow rotting in the landfill means that some carbon is stored however. Energy production, where practised, is much less efficient than for WTE incineration
Recycling	Energy consuming BUT huge net savings as compared with extraction and processing of virgin material. Savings far outweigh any energy generation from WTE incineration (<i>see later</i>). Relative greenhouse gas emissions partly depend on fuel used in recycling.
Virgin material processing	Energy consuming - much of which will be produced by non-renewable CO ₂ -producing energy sources e.g. gas, coal, although in some cases (e.g. paper production) renewable energy sources may be used. Destruction of habitat to extract raw materials can be an issue in some circumstances.

Table 11. Key energy features and greenhouse gas emissions of various options for municipal waste

Life cycle analyses - net environmental and economic effects

Many studies have looked at the net effects of various waste management options, and, with global warming causing continuing alarm, there is increasing focus on the net greenhouse gas emissions. Table 11 helps give an idea of the energy considerations of some options.

The scope of studies which compare incineration with other options can vary enormously: Some look at greenhouse gas production (carbon dioxide, methane and possibly fluorocarbons and nitrous oxide); some at overall environmental costs, e.g. including acid rain gases (oxides of sulphur and nitrogen) produced by coal-burning and other emissions; some at generalised economic costs combined with costed environmental factors; some may be specific to the locality and have more exact figures for the financial costs of waste disposal, but have little other context or comparisons (such as relative job creation, wider environmental impacts, comparison with recycling).

There are limitations to any of these studies - and these limitations can create a lot of room for argument. The studies may not be "wrong", but typically may not include some factor or a knock-on effect which may be important, particularly for the wider environment, or may use generalisations or estimates which may not apply in particular circumstances. The various approaches can create confusion, and seemingly contradictory opinions may be due to the differing scope of these studies. In addition, there may be arguments about whether a desirable option is actually practical in the short term. If you are accused of being too idealistic, it is worth pointing out that your argument still makes sense, and that tying up resources into incineration for 25 years is hardly going to encourage development of better solutions.

Although we note some of the shortcomings of life cycle analyses, we have done this more to point out the *opposition's weaknesses*. It is far more likely that you will hear pro-incineration arguments based on a very limited viewpoint, and broadening out the debate to the energy and resource advantages of recycling will certainly be to your advantage. The

reports we cite below have been produced by reputable sources, and are as good as it gets. In the energy assessments, recycling "wins" time after time.

Possible sources of the limitations include:

- uncertainties in the figures, e.g. future changes in technology, rates of decay in a landfill site, exact household waste composition
- limited, incomplete or differing assessment of environmental impacts
- only part of the chain of processes might be analysed (e.g. production of new goods might not be included)
- the valuation of environmental impacts - often highly contentious¹¹⁷
- whether subsidies are properly costed
- figures inapplicable to the local circumstances
- uncertain estimates about future changes in technology.

A thorough appraisal of all relevant studies is really beyond the scope of this guide - and in any case we would run into the difficulties and limitations noted above- but we look at a few which we think are key. For more details, see the original sources. Also note that waste reduction and re-use are not normally covered in these studies - as much as we aim at waste minimisation and less consumption eventually, incineration arguments turn more around alternative strategies in the shorter term.

Below we look at some of the studies in this area which we think are useful information, and at the end of this chapter we consider particular waste streams (paper, putrescibles and plastics) to sort out the basic arguments about the value of recycling and contributions to greenhouse gas emissions.

¹¹⁷ Economists attempt to sum the impacts by converting everything into similar (monetary) units - which means that a price has to be assigned to, say, loss of a view, or cancers or accidents caused, acid rain damage to a habitat. Particularly tricky problems may simply be ignored. Suffice it to say here that the methods and valuations are highly contentious.

Environmental costs and benefits

Coopers & Lybrand (1996)

Research for the European Commission¹¹⁸, which costed the net impacts and benefits of recycling as opposed to incineration, found that recycling of materials is far more beneficial than burning them. We consider that the research even under-costed the impacts of incineration and under-valued the benefits of saving resources. Because of "dispute" over dioxin impacts, no cost was attributed to these, and noise and congestion factors were not costed. However this study included, for example, estimated costs attributed to acid-rain gases, fine particulates, greenhouse gases and accidents. The study concluded:

"Recycling offers the most significant net environmental benefits in all Member States although the benefits vary considerably... due to differences in transport costs and energy savings and the mix of recycled products."

"The net environmental benefits of recycling also vary significantly between materials: the largest benefits are associated with the recycling of metals and glass whilst the recycling of plastic film leads to net environmental costs."

The current net *environmental* costs (i.e. excluding for the moment financial costs), assuming mixed refuse collection, a "bring" or blue-box system for recyclable and organic materials, were calculated as shown in Table 12¹¹⁹.

Thus recycling shows a huge net environmental benefit, although as Table 13 shows, this varies with the particular material. Recycling of glass, iron and non-ferrous metals (e.g. aluminium) is particularly favourable.

¹¹⁸ European Commission, DGX1 (1996). *Cost-benefit analysis of the different municipal solid waste management systems: objectives and instruments for the year 2000*. A report by Coopers & Lybrand/CSERGE. Luxembourg, Office for Official Publications of the European Communities.

¹¹⁹ A positive figure indicates a net environmental cost, a negative number indicates a net environmental benefit (i.e. a negative or lower cost).

Management option	ECU/tonne, UK
Landfill - no gas recovery	4.4
Landfill - gas flared	3.8
Landfill - energy generation (displacing coal power ¹²⁰)	3.0
Landfill - energy generation (displacing average EU electricity)	3.5
WTE incineration - (displacing coal power)	-18.3
WTE incin (av EU)	11.2
Recycling - bring	-169.7
Recycling - blue-box	-175.7

Table 12: Net environmental costs. [Source: EC/Coopers Lybrand/CSERGE 1996]

Material	Net cost/tonne (UK)	
	ECUs	£
Ferrous metal	-313	-£219
Non-ferrous metal	-979	-£685
Glass	-207	-£145
Paper	-73	-£51
Plastic film ¹²¹	+18	+£13
Rigid plastic	-51	-£36
Textile	-70	-£49

Table 13: Net environmental costs per tonne.[Source: EC/Coopers Lybrand/CSERGE 1996]

The figures from the Coopers & Lybrand report “focused on the impacts associated with emissions to air and the risk of damage to human health”, omitting water and amenity impacts “because of the absence of suitable data”. But it includes the costs of “avoided emissions from saved virgin material and displaced electricity generation.” For example, it was calculated that to recycle ferrous metal would cost overall £219 per tonne less than incinerating ferrous metal and replacing with virgin material.

The study also estimated the total net *financial and environmental* costs (i.e. economic costs) of various waste management systems (i.e. a mix of options) -

incineration, even with energy recovery, is the most expensive option overall (Table 14).

Bear in mind that new MSW incinerators may incorporate some sorting facilities and divert some of the waste to recycling. Thus the figures given above cannot necessarily be applied to a new proposal, but hopefully it can give you an idea of how to attack the pro-incineration arguments. Always ask for more detail if it is not absolutely clear how any “advantage” has been calculated - the other side may be obscuring useful information.

¹²⁰ This figure incorporates consideration of emissions from power generation from coal; since not all power is generated from coal though, the next figure uses the EU average figure. Nuclear power for instance would not generate the greenhouse gas emissions that coal would.

¹²¹ Recycling of plastic film was estimated to cost more in environmental terms than manufacture from virgin materials. For all other materials, recycling was estimated to create benefits.

Waste management option	ECU/tonne, for the EU
1. Landfill - assuming all MSW is landfilled, with energy recovery	97 to 115
2. Incineration - (assuming energy recovery)	167 to 169
3. "Bring" recyclables (glass, metal, paper) and landfill of remainder	64 to -201
4. Kerbside collection of mixed recyclables and landfill	22 to -177
5. As (4) but recyclables source-separated	69 to -120

Table 14. Current net economic costs, across the EU. [Source: EC/Coopers Lybrand/CSERGE 1996]

Greenhouse gas production

You are quite likely to hear arguments that "incineration saves carbon dioxide/methane emissions" or "causes no net increase". It rather depends on what is being incinerated, whether emissions from, say, coal or nuclear power are displaced, and the fuels used in extraction and manufacture of new materials.

Consider a totally theoretical case. Recycling which depends on energy input from fossil fuel might come out worse in terms of greenhouse gas emissions if compared with manufacture of new goods from virgin materials which depended entirely on wind power energy. The total energy units put into the recycled goods will still be less (this is usually the case), but the CO₂ emissions may be higher. In more realistic cases, even factors like whether the energy comes from coal or gas can make a significant difference to the way the calculations turn out.

The energy savings achievable by recycling over incineration have been the subject of several studies. These studies cover a wide range of materials and have made it clear that production using recycled materials rather than virgin materials saves substantially more energy than can be recovered through incineration. Table 15 (overleaf) is reproduced from a Canadian study in relation to MSW. The "energy conserved" column shows the energy saved by substituting recycled goods for virgin materials. In addition, the table shows how much energy would be generated by incineration of the material. That study concluded that:

"[on] average, ...recycling saves three to five times as much energy as is produced by incinerating

MSW".

Royal Commission on Environmental Pollution (1993)

The Royal Commission on Environmental Pollution looked at incineration and landfill¹²². Various assumptions were made (such as only two-thirds of the carbon in a landfill site being released as gas) and allowed for energy recovery displacing coal-fired electricity generation. Their calculation, which, it is probably fair to say, was a little bit "back of an envelope", estimated that WTE incineration saved the equivalent of 0.35 tonnes carbon dioxide per tonne of waste as compared with landfill (although the estimate seems to have used a low figure for the global warming potential of methane - and so would have underestimated the advantage of incineration).

We mention this study more for the fact that it did **not look at the energy savings of recycling**, a serious deficiency in their study. Since the Royal Commission is a rather authoritative body, which is often cited by supporters of WTE incineration¹²³, it is important to remember this limitation in their analysis.

¹²² RCEP (1993). *Seventeenth Report. Incineration of Waste*. London, The Stationery Office.

¹²³ Whilst concluding that incineration had a role to play, RCEP also made 35 recommendations to the Government, many of which would urge constraint on its use.

Waste Stream Material	Energy Conserved by Substituting Secondary for Virgin Raw Materials (Megajoules/Tonne)	Energy Generated from MSW incineration (Megajoules/Tonne)	Factor
Paper			
Newspaper	22398	8444	2.6
Corrugated Cardboard	22887	7388	3.1
Office	35242	8233	4.3
Other	21213	7600	2.8
Plastic			
PET	85888	21004	4.1
HDPE	74316	21004	3.5
Other Containers	62918	16782	3.7
Film/Packaging	75479	14566	5.2
Other Rigid	68878	16782	4.1
Glass			
Containers	3212	106	30.3
Other	582	106	5.5
Metal			
Aluminium Drink Cans	256830	739	347.5
Other Aluminium	281231	317	887.2
Other Non-ferrous	116288	317	366.8
Tin & Bi-metal Cans	22097	739	29.9
Other Ferrous	17857	317	56.3
Organic			
Food Waste	4215	2744	1.5
Yard Waste	3556	3166	1.1
Wood Waste	6422	7072	0.9
Rubber			
Tyres	32531	14777	2.2
Other Rubber	25672	11505	2.2
Textiles			
Cotton	42101	7283	5.8
Synthetic	58292	7283	8.0

Table 15: Energy savings of recycling.

For comparison, one tonne of coal is equivalent to approximately 10000 GJ usable energy and releases nine tenths of a tonne of carbon dioxide (by weight of carbon). (Annex 8 has conversion factors for energy units.)

The "energy conserved" column shows the energy saved by substituting recycled goods for virgin materials. In addition, the table shows how much energy would be generated by incineration of the material. That study concluded that:

"[on] average, ...recycling saves three to five times as much energy as is produced by incinerating MSW".

Source: Sound Resources Management (1992). *Recycling Versus Incineration*. Canada, Pollution Probe Ontario.

Tonnes of carbon in carbon dioxide per tonne of waste saved		
	Recycling	Waste to energy
Mixed MSW		-0.04
Newspaper	0.65	-0.12
Office paper	1.38	0.63
Corrugated card	0.74	0.12
Aluminium cans	3.98	0
Steel cans	0.58	0.42
High density polyethylene	0.39	-0.5
Low density polyethylene	0.52	-0.50
PET	0.64	-0.38

Table 16: Savings in greenhouse gas emissions: Recycling or WTE incineration vs landfill. A positive number represents a savings. [Source: US EPA 1997]

US Environmental Protection Agency (draft, 1997)

This study¹²⁴ analysed ten different waste streams in terms of greenhouse gas emissions (carbon dioxide, methane, nitrous oxide and perfluorocarbons). Emissions of greenhouse gases were estimated as significantly less for recycling rather than landfill or incineration for all the categories of waste materials that were studied - newspaper, office paper, corrugated card, aluminium cans, steel cans, high density polyethylene, low density polyethylene and polyethylene terephthalate (PET).

The study also compared landfill to incineration with respect to greenhouse gas emissions. In some cases, (mixed MSW, newspaper, plastics), emissions were estimated to be less for landfill, reflecting the assumption that a considerable amount of carbon is stored in the landfill and not broken down. However the study also assumed a rather high rate of methane capture from landfill (80%, whereas 40% seems more realistic here) and a possibly low rate of energy efficiency for incineration (13.6%). Adjustments for these would increase the greenhouse gas emissions from landfill and decrease the emissions from

incineration. At the same time, this would improve the standing of recycling relative to landfill.

Consideration of particular waste streams

This section looks at some of the background considerations, and tries to disentangle the arguments that might be right for one type of waste, but not another. We consider paper, plastics and putrescibles, which, because of their origins as organic material contain a lot of carbon which can be converted into carbon dioxide.

Paper

There is quite a lot of confusion and different views about the desirability of recycling paper. Here we try to look at some of the issues in the paper cycle to help explain why we support paper recycling.

Resources: Globally, much ancient woodland habitat has disappeared already (for a variety of reasons), and remaining old growth forest is still being destroyed for pulp. Even if a tree is planted for every tree chopped down, the rich habitat of ancient woodland is destroyed. Forestry maintained for relatively short term harvest does not provide the rich habitat provided by older and more diverse woodland. And it is worth noting that the UK consumes 9 times as much wood as developing countries on a per capita basis, much of our wood

¹²⁴ EPA (1997). Draft Working Paper: *Greenhouse Gas Emissions from Municipal Waste Management*. The document is available on the Internet at <http://www.epa.gov/epaoswer/non-hw/muncpl/ghg.htm>.

	Greenhouse gas emissions from incineration?	Recycling saves energy?
Paper	Destruction of old-growth forest for paper production causes net loss of stored carbon. Depends on whether new tree growth (C storage) matches paper production (leading to CO ₂ release), but incineration could speed up the rate at which CO ₂ is released into the atmosphere. Recycling contributes to carbon conservation.	Yes
Glass	No (no carbon content)	Yes
Metal	No (no carbon content)	Yes
Plastic	Originates as a fossil fuel - therefore are increasing CO ₂	Mostly
Putrescibles	Probably no net increase in CO ₂ since putrescibles (e.g. organic matter such as food) grow quickly, so release of CO ₂ should be matched by uptake via plant growth. Production of compost should conserve carbon, but data thin.	Home composting efficient, but centralised municipal composting probably inefficient

Table 17. Greenhouse gas and energy considerations for various components of the waste stream.

imported¹²⁵.

Carbon dioxide production: The pro-incinerator lobby often states that carbon dioxide emissions from incinerators do not contribute to a global increase in greenhouse gas emissions. This position maintains that CO₂ in the air is incorporated (as carbon) into organic matter (such as a tree) as it grows, then incineration releases the carbon again as CO₂ in a relatively short cycle, thus there is no net CO₂ production. (This consideration sets aside the issue of the energy used in any harvesting, manufacturing or recycling processes, a separate issue covered below.)

The story is however more complex. Ancient, original forests form a store of carbon in the plant material - when the forest is mature, trees die and decompose, releasing carbon, but this is taken up by growing trees, and the whole system is probably close to equilibrium - i.e. there is no net change in gaseous CO₂ or stored carbon. When the wood is logged and processed into timber or paper, a proportion of the carbon stays "stored" with the paper or wood, but CO₂ is also released, for example, from burning bark for fuel for the processes. If the paper or wood is burned after use, then the remainder of the carbon is converted into CO₂, and so the ancient woodland is lost, the carbon store gone and CO₂ put into the air. It will take a long time for that

CO₂ to be re-converted into a tree, during which time it is of course a greenhouse gas. Logging old forests¹²⁶ and replacing them with plantations intended for timber/paper production results in a net loss of carbon, increasing the amount of CO₂ in the atmosphere.

Where plantations are managed for paper and pulp production, then after the first clearance of original forest (assuming it was there), then it is theoretically possible that future rotations of planting and harvesting will have no net effect on CO₂ levels (or could have a net uptake of CO₂) - a new tree will absorb carbon dioxide, but this will be released when paper is made and burnt. If the (new) equilibrium between stored carbon and atmospheric CO₂ is to be maintained, the faster CO₂ is released into the atmosphere, then the faster trees will have to be planted and grow or the more land will have to be

¹²⁵ FOE (1997). *Forests and Climate Change*.

¹²⁶ Globally, 16% of wood pulp comes from *original* (previously unexploited) boreal forests (northern hemisphere) and temperate hardwood forests (15% and 1% respectively) (IIED1996 (for the World Business Council for Sustainable Development): *A changing future for paper.*). Because of secrecy over sources of pulp and paper, it is impossible to know the exact origins of particular batches of paper, but in 1993 the UK imported over 800,000 tonnes of wood pulp and newsprint from Canada, where original forests are still being logged for pulp (IIED/WBCSD).

taken up for plantations. Recycling paper means that

carbon is stored for longer before release as CO₂ (paper cannot be recycled indefinitely) - which at least means that less land needs to be taken up with plantations and existing original forests will be under less pressure for pulp production.

If this sounds complicated, then take comfort in simply quoting the Intergovernmental Panel on Climate Change, which has stated¹²⁷:

"Paper recycling is another strategy with the potential to reduce harvest levels [of timber] and promote greater carbon conservation."

For more information see the FOE briefings: *Forests and Climate Change* (1997) and *Paper Recycling - Exposing the Myths* (1997).

Does recycling save energy? If we consider the wider implications of incinerating or recycling paper, then the results of all LCAs conclude that recycling paper uses less energy overall than using virgin pulp^{128 129}. This means that all things being equal, overall there will be less emissions of greenhouse gases too.

However, all things may not be equal. Some studies emphasise that fossil fuel is often used in making recycled paper whereas virgin pulp manufacture may use renewable sources of energy, such as bark from the forestry site. In addition, energy from incineration may offset emissions from fossil fuel power generation. Very often the life cycle analysis is incomplete (for example the processes of planting a forest might not be covered) and specific local details may be important, but theoretically recycled paper production may result in more greenhouse gas production from fossil fuel (non-renewable) sources than virgin paper production.

Recycling also saves on the import bill. It has been estimated that recycling of newspaper in the UK

¹²⁷ IPCC (1995). *Climate Change 1995: Impacts Adaptations and Mitigation of Climate Change: Scientific and Technical Analyses*. Watson, R.T. et al (eds). Published for IPCC by CUP, Cambridge, UK.

¹²⁸ A Warren Spring Laboratory review concluded that recycling gave significant savings of energy. Ogilvie, SM (1992). *A review of the Environmental Impact of Recycling*.

¹²⁹ IIED (1996). *Towards a Sustainable Paper Cycle*. London, IIED.

saved £216 per tonne with respect to the balance of payments¹³⁰. According to the British Newsprint Manufacturers Association, 600,000 tonnes of recycled newsprint saved £130 million in 1994.

Studies of other emissions (e.g. SO₂, NO₂, water pollutants) have produced mixed and conflicting results.

Plastic

Resources: Plastics are made from oil. About 4% of the world's consumption of oil is for plastics production.

Carbon dioxide production: Burning plastics definitely contributes to global warming through carbon dioxide release. Plastics are made from fossil fuels, and so the carbon which was stored for the long term in fossil fuels is liberated as carbon dioxide when incineration occurs.

Does recycling save energy? Life-cycle analyses have given mixed results, but are generally favourable. For example, the Canadian study cited above (see Table 15) reports a net energy saving for all types of plastic considered. The Coopers & Lybrand report mentioned earlier estimated that recycling was generally favourable, except for plastic film (which is not dense, pushing up associated transport costs).

A paper from the Warren Spring Laboratory (a former government-funded research lab) concluded that it has been shown¹³¹: "*that despite the opportunity for substantial gains from energy recovery from waste plastics, it is still energetically more sensible to carry out materials recycling of plastics wherever it is possible to do so without energy over-intensive collection methods.*"

Putrescibles

¹³⁰ BNMA (1995). *Recycle or incinerate?* Summary. BNMA.

¹³¹ Ogilvie, S.M. (1992) (Warren Spring Laboratory). *A review of the environmental impact of recycling*. Department of Trade and Industry; citing work by Clark, H. and New, R. (1991). Current UK Initiatives in Plastics Recycling, Paper No W91002.

Resources: Putrescibles consist of organic matter which quickly rots down (e.g. food, garden waste). It can be composted or anaerobically digested, which produces a compost (assuming that it is not too badly contaminated with metals or persistent chemicals). This can be used as a soil conditioner, and replace the use of some of the peat which is still being extracted from dwindling reserves in peat bogs, using up an irreplaceable resource and damaging wildlife habitat.

Carbon dioxide production: As with trees, carbon dioxide is fixed in the growing plant as carbon, and is released again as carbon dioxide if incinerated, resulting in no net gain or loss. However, if putrescible material were to be composted or anaerobically digested, then some carbon would remain fixed in the remaining organic matter (used as a soil conditioner/fertiliser), thus forming a store of carbon for some time. There is however little data on this. "*The impact of such sequestering of carbon on global warming is not well understood. If the compost product also serves to increase vegetative growth, that additional vegetation may absorb more carbon from the air. More research is needed to evaluate these issues.*"¹³²

Does recycling save energy? Home composting is good (and Making Waste Work set a target of 40% of homes with a garden to be composting by the year 2000). But schemes involving delivery of green waste to municipal sites by individual householders are not so favourable because of transport costs¹³³.

Conclusion

If you are faced with proponents of incineration claiming environmental advantages, look carefully at their claims and press for more detail if necessary. If

¹³² Elizabeth Holtzman, Comptroller, City of New York (1992). *Fire and Ice: How Garbage Incineration Contributes to Global Warming*. [If I may be permitted a personal observation at this point, as a keen gardener, I know that I would rather have a mound of rich compost with carbon going in and out of earthworms and other wee beasties than an incinerated heap of ashes. -Ed.]

¹³³ European Commission, DGX1 (1996). *Cost-benefit analysis of the different municipal solid waste management systems: objectives and instruments for the year 2000*. A report by Coopers & Lybrand/CSERGE. Luxembourg, Office for Official Publications of the European Communities.

you've got this far you may not feel that the arguments are simple, but remember that building an incinerator at a cost of £80 million or so hardly looks "environmentally friendly" and most people's instincts would be to support recycling rather than incineration. Simple summaries of our arguments would be:

- burning plastics is burning fossil fuels

- ancient woodland/old growth forest should be conserved for its habitat value, irrespective of recycling/incineration considerations
- making compost could help save our peat bogs and make a usable garden product
- recycling uses less energy
- recycling creates more jobs.

Annex 5

Some Planning Decisions

This section -

- *summarises the reasoning behind some refusals to grant planning permission*
- *reproduces the letter rejecting the proposed Reigate incinerator.*

This section will give you a good idea of the scope of planning decisions. It is well worth reading if you have little background in planning matters, and may well provide some ideas for your objections and campaigns.

Introduction

The following are recent examples of incinerator project applications that were refused permission, although some were ultimately passed on appeal. The range of reasons given by the planning authorities for their opposition to the proposals may provide you with some ideas to campaign on, but it must be stressed these are only a few of the possible grounds for rejection. It is also worth noting that campaigns have scored victories at all stages of the application process, from a company withdrawing its application, in order to amend it before it had even been formally considered (Redhill, Surrey), through to defeating the application on appeal even against the Planning Inspector's recommendation (Saltend, near Hull). In reviewing successful campaigns it also becomes clear how often the local authorities were both impressed and influenced by effective and popular campaigns.

Details of Inspector's reports and other correspondence are held by the relevant local authority planning department. Information on appeals is also held by the Planning Inspectorate, part of the DETR, in Bristol. Documents that are not commercially sensitive or those that are already in the public domain are available, but there may be a charge for photo-copying.

Leigh Environmental, Trafford, Manchester, 1990

Leigh Environmental were refused permission to construct a high-temperature hazardous waste incinerator by Trafford Park Development Corporation (TPDC) in August 1990¹³⁴. The proposal ran into a storm of protest with over 34,000 people signing a petition against it, along with several food

manufacturers registering opposition and two local MPS speaking out against it in the House of Commons. The TPDC's stated reasons for rejection were:

- That Leigh had failed to demonstrate an "acceptably low" level of risk to the environment and human health.
- That the project would prejudice the regeneration of the area by damaging its image and investor confidence.
- Furthermore, the site was likely to prove unsuitable because of the proximity of high-rise flats and hospitals.
- A report was commissioned for TPDC by Environmental Resources Ltd (ERL) on Leigh's environmental assessment of the impact of the incinerator. In it, ERL questioned the claim that there was enough hazardous waste being generated in the area to sustain the plant. In addition it criticised the lack of site selection criteria in the report, and questioned the claim that the plant would meet all foreseeable emission standards.

Leigh Environmental, Kirk Sandall, Doncaster, 1991

When Leigh Environmental proposed building a chemical waste incinerator at Kirk Sandall near Doncaster in 1991, the initial refusal for planning permission was confirmed by the Secretary of State on appeal¹³⁵.

- Primarily the proposed incinerator site lay above

¹³⁴ The ENDS Report 187, August 1990

¹³⁵ The ENDS Report 202, November 1991.

an aquifer of major local importance, from which three boreholes abstracted water. One of these supplied water to a local food business. Although extensive measures were proposed to prevent contamination of the aquifer, the technology was not proven in the combination suggested, and the long-term integrity of the protective membranes could not be guaranteed. The Environment Secretary concluded that there would always be some risk of the protective systems failing, and no matter how small that risk was, it was sufficient reason to reject the application.

- In addition there was the possibility that food produced at seven factories near the site could be tainted by emissions. Several of these businesses' customers had threatened to terminate their contracts if the project went ahead. Hermetically sealing the food production buildings would avoid the contamination risk, but the cost of this would be an "unreasonable imposition".

In summarising, the inspector concluded that the incinerator was likely to cause demonstrable harm to important interests including the local populace, groundwater users and local food processors. It criticised Leigh's site selection procedure, arguing that a "precautionary" approach should be used. Leigh had failed to demonstrate that no better sites were available, or that there were any strong locational arguments in favour of the proposed site.

Integrated Environmental Management, Tyneside and Teesside, 1992

Integrated Environmental Management (IEM), a joint venture by Northumbrian Water's subsidiary Northumbrian Environment Management and the US waste management business, International Technology Corporation, made applications to build two incinerators using technology new to Britain¹³⁶. The plants were to burn sewage sludge and be located next to the Howdon sewage works, serving Tyneside, and the Portrack works on Teesside. These were turned down by the Environment Secretary (2nd November 1992) for a number of reasons:

- The technical assessor deemed the degree of experimentation involved in bringing together several techniques for the first time might mean

that "plant commissioning could be a protracted operation with possibly more unscheduled shutdowns or other problems than anticipated and continuing into normal operation."

- Inadequacies in the proposed gas cleaning system.
- Failure to carry out a thorough site selection study.
- The crucial factor, however, was the siting of the incinerators in urban regeneration areas, in conflict with the local development plans. Prospective investors in these areas would have, as Mr Howard put it, "a wholly negative" perception of an incinerator being sited there.

Northumbrian Water, Gateshead, 1993

Northumbrian Water's application to build a clinical waste incinerator in Gateshead was initially refused planning permission after 16,000 people registered their opposition¹³⁷.

- It was feared locally that such a project would discourage job-creating investment in the area, and the Food and Drink Industry Federation had told the inquiry that the incinerator would make the proposed industrial estate "completely unsuitable" for any food and drink operation because of the perceived risks to the safety of food.
- The Inspector had concluded that although the incinerator could be built to comply with the various emission standards required, the impact on air quality and agriculture in the semi-rural location was insufficiently defined, and the public concern over the potential pollution could not be allayed sufficiently to make the site acceptable.

This decision was overturned by the Secretary of State on appeal in June 1993, causing widespread local outrage. The Secretary of State justified his decision by saying that the IPC authorisation the plant required would ensure that any pollution concerns were satisfactorily addressed, and that the incinerator would be an important regional facility. This was criticised by Joyce Quin, the local Labour

¹³⁶ The ENDS Report 214, November 1992.

¹³⁷ The ENDS Report 221, June 1993 and 231, April 1994.

MP, who said that the area health authority would be

better served by a number of small facilities. A junior Environment Minister responded by saying that that was a decision for the health authority, and that the proposed facility was a "possible solution" for the area's clinical waste disposal problems. In addition, it had not been premature for the company's appeal to be allowed.

International Technology Europe, Saltend, near Hull, 1994

In April 1994 the Secretary of State refused International Technology Europe's (ITE) application for a 46,000 tonnes per year hazardous waste incinerator at Saltend, near Hull, and in doing so ignored the planning inspector's recommendation to approve the development¹³⁸. The important factors were:

- The project's incompatibility with the local development plan - the local plan reserves the area for activities taking advantage of the special potential resulting from the presence of the Humber estuary, something ITE could not convincingly argue was the case for an incinerator.
- Transport issues came into play because 11,000 loads of special waste per year would have to pass close to the centre of Hull on congested roads in order to supply the incinerator, with less than 10% of the waste originating in the Humberside region.
- An official circular from 1988 (Circular 15/88 Environmental Assessment/Welsh Office 23/88) requires any development adjacent to an SSSI to be rigorously examined. ITE argued the presence of the Humber Flats and Marshes SSSI adjacent to the site need not be considered until the IPC stage of the process. This was effectively rejected by the Secretary of State in his letter stating that "*as the area is so important in conservation terms and so little is known about the wider land use impacts of this proposal... this lack of information must weigh against the proposed development.*"

Cory Environmental, Belvedere, 1994

Cory Environmental's proposed municipal waste incinerator at Belvedere east of London was for a 1.2 million tonnes per year project, with electricity

¹³⁸ The ENDS Report 231, April 1994

generating capacity¹³⁹. Both the original application and the appeal to the Trade and Industry Secretary were turned down on 12th April 1994 because:

- The local roads did not have the capacity to cope with the vehicle movements expected and were too narrow;
- and the site was too small for the development not to have unacceptable impacts on neighbouring buildings and footpaths, or to allow desirable landscaping.

White Rose Environmental, Bolton, 1994

In 1992, White Rose Environmental and seven local NHS Trusts applied to build and operate a new incinerator in Bolton. The project was to replace an existing facility, and so did not require full planning permission, but did require a Local Authority Air Pollution Control - LAAPC - permit from Bolton MBC, via the Environmental Health Department. There was extensive local opposition, and the application for authorisation to operate the plant was refused in September 1994 by the Environmental Health and Trading Standards Sub-Committee. Bolton's councillors said that:

- They were not confident of the company's ability to meet authorisation conditions to control emissions to air, reduce them to a minimum and render them harmless, following problems at White Rose's plant in Oldham;
- and that the new incinerator extended 1 metre beyond the space the previous equipment occupied into a building built with planning permission only for handling and storing waste, and thus needed new planning permission.

Planning considerations also led to Bournemouth Council blocking authorisation for a White Rose incinerator, with a decision being deferred on the basis that the local waste plan was not complete. Both these decisions were, however, overturned on appeal¹⁴⁰.

Shell Green, Widnes, 1994

¹³⁹ The ENDS Report 231, April 1994

¹⁴⁰ The ENDS Report 248, September 1995; Waste Planning No 22, March 1997

North West Water's application for a sewage sludge incinerator at Shell Green, Widnes, was refused in October 1994 by Cheshire CC, following receipt of 233 letters and a petition with 6,208 signatures¹⁴¹. The project consisted of two duplicate applications, one in full for the incinerator, the other, in outline, for the filtrate treatment plant. There was uncertainty over the actual level of odour nuisance likely from the filtrate plant, and this was a central and significant issue in determining the application, and it was considered "regrettable" that the applicant had not provided fuller details on odour control. To refuse planning permission on these grounds, in the context of PPG 23, required there to be very real and demonstrably harmful effects on the proper planning of the area resulting from potential odour nuisance. Cheshire CC was advised to approve the proposals, but rejected them. This was overturned by the Secretary of State on appeal.

Hespin Wood, Carlisle, 1994

Cumbria CC refused permission for a poultry litter, municipal waste and tyre incinerator at Hespin Wood near Carlisle in January 1994¹⁴². Councillors referred to the extraordinary amount of local objection, including over 600 letters and a 5000 signature petition. Overall it was decided that the benefits of the development were outweighed by:

- Its environmental impact on the open countryside. The Countryside Commission regarded the Environmental Statement (ES) to be extremely deficient in its evaluation of the site's impact on the nationally important designated landscape of the Solway Coast Area of Outstanding Natural Beauty. Cumbria CC's planning assessment showed the proposal was contrary to both national and local policy objectives seeking to preserve and enhance the open countryside, and would be grossly intrusive on the rural landscape.
- It was also decided that there were at least 8 years landfill capacity in the area, and the ES made assumptions about future restrictions on landfilling tyres and landspreading agricultural waste that might not prove to be correct. Hence the development was not required to meet local infrastructure needs and so was contrary to the Structure Plan.

¹⁴¹ Waste Planning No14, December 1994

¹⁴² Waste Planning No 10, March 1994

- To permit it would set a precedent for industrial development on greenfield sites.
- Noise from the plant and traffic would have an adverse effect.

The overall effect would be an unacceptable loss of amenity to local residents. It was also deemed "understandable" that people were concerned about atmospheric emissions. There was no appeal against the refusal.

Elmstone Hardwicke, Cheltenham, 1995

Proposals to construct a new incinerator building at Elmstone Hardwicke near Cheltenham, on an existing incinerator site, was refused permission by Gloucestershire CC in July 1995¹⁴³. It was considered that the development:

- Would breach the Structure Plan and Local Plan policies designed to protect the open countryside.
- The incinerator was designed to burn clinical waste, and so was not directly related to the rural economy.
- It would be incompatible with its rural setting, and would intensify the impact of an industrial use in a rural location.

This application was also refused by the Secretary of State on appeal, but after a complex combination of new applications and appeals the redevelopment was allowed, but included the imposition of more stringent restrictions on waste types and throughput.

¹⁴³ Waste Planning Nos.17, 19 and 20

Redhill, Surrey, 1994

The story of this campaign is told by John Scovell in Section 13. Planning permission was sought for an incinerator with capacity for 300,000 tonnes of MSW and 100,000 tonnes of straw for treatment, recycling or incineration. It was described as a "bio-thermal waste to energy plant" presumably as reference to obtaining heat from straw. The application was rejected and below we have re-produced the Secretary of State's letter and some extracts from the Inspector's recommendations (*Box 18*).

To summarise, it was considered that:

- The bulk of the building would damage the landscape - the site was in Green Belt
- Increased HGV movements would be significant (360 each working day)
- Despite Surrey County Council's acceptance that incineration would be necessary in the longer term, the application was premature, since the Council was due to embark on consultation and production of a Waste Local Plan
- Its location in Green Belt, away from London, was in conflict with the proximity principle
- HMIP had stated that, in principle, the development at this location could receive authorisation and operate to BATNEEC standards, so harm from air pollution or noise was rejected
- The diversion of waste onto the site would set back the programme of restoration of an adjacent landfill site by several years
- Arguments about national waste policy were not regarded as material considerations
- Award of a NFFO contract in no way implies that planning permission should be granted.

**GOVERNMENT OFFICE
FOR THE SOUTH EAST**

The Barton Wilmore Planning Partnership,
Intercell House,
1 Coldhams Lane,
Cambridge
CB1 3EP

Bridge House
1 Walnut Tree Close
Guildford
Surrey
GU1 4GA

Your Ref: 7516/A3/GT/YE
Our Ref: APP/B3600/A/95/250539

Dear Sirs,

**TOWN AND COUNTRY PLANNING ACT 1990 - SECTION 78
APPEAL BY EUROPEAN DEVELOPMENT CORPORATION PLC
APPLICATION NO. RE94/1073**

1. I am directed by the Secretary of State for the Environment to say that consideration has been given to the report of the Inspector Mr K P Durrant MA BArch RIBA ARIAS MRTPI FRSA who held an inquiry into your clients' appeal against the failure of Surrey County Council to decide, within the prescribed period, an application for planning permission for the erection of a recycling and bio-thermal waste to energy plant on land at the Copyhold Works, Nutfield Road, Redhill.
2. The Inspector, whose conclusions are reproduced in the annex to this letter, recommended that the appeal be dismissed and planning permission be refused. A copy of his report is enclosed.
3. In deciding this appeal the Secretary of State has had regard to Section 54A of the Town and Country Planning Act 1990 which requires him to determine the appeal in accordance with the development plan unless material considerations indicate otherwise. In this case the development plan comprises the Surrey Structure Plan 1994, the Reigate and Banstead Borough Local Plan 1994 and the Surrey Minerals Local Plan 1993. The Secretary of State has also had regard to the other policies which are material as listed by the Inspector in paragraph 206 of his report.
4. It is not in dispute that the proposal is not appropriate development in the Green Belt as defined in Structure Plan policy PER and in PPG2. The Secretary of State has therefore proceeded to consider whether there are very special circumstances that would justify allowing inappropriate development in the Green Belt. In so doing, he has balanced the harm to the Green Belt by reason of that inappropriateness or otherwise on the one hand against any benefits and other circumstances favouring the development on the other hand, and has considered whether there are advantages which so outweigh the harm as to amount to the very special circumstances required to justify the granting of permission. He has, additionally, considered whether it would be premature to allow the proposal in advance of the forthcoming inquiry into the Waste Local Plan.
5. The Secretary of State agrees with the Inspector, for the reasons he gives in paragraphs 215-218 of his report that the proposal would harm the openness of the Green Belt by reason of its greater size and bulk than the existing development. He also shares his view that, despite intensive landscaping, it would be prominent in the landscape and damaging to visual amenity. He further agrees with the Inspector that the benefits of the proposal in terms of site clearance in 25 years and enhancement works to adjoining land do not outweigh the harm to the

Green Belt. He also observes that the diversion of waste onto the appeal site would be likely to put back by some years the programme of restoration of the Biffa landfill site adjacent to the appeal site, which in itself would be contrary to development plan policies which seek the restoration of mineral workings.

6. The Secretary of State notes that the highway authority have not objected to the proposal but he agrees with the Inspector that the additional HGV traffic movements through residential areas, would cause environmental harm, even though that the greatest number will not co-incide with commuter rush hour peaks. Additionally, the location of the site to the east of the county would necessitate much of the waste having to travel long distances by road, contrary to the objectives of PPG 13.

7. In principle of the Government's waste strategy encourages the diversion of appropriate waste streams from landfill to incineration with energy recovery, amongst other recovery options. The Secretary of State notes that the County Council are seeking alternatives to landfill and their Waste Management Plan and waste Local Plan both refer to the establishment of facilities for the combustion of household and commercial industrial wastes, or waste derived fuel incorporating generation of electricity and/or heat recovery. However, the County Council's overall strategy for waste disposal will be considered at the inquiry into their Waste Local Plan, and the Secretary of State agrees with the Inspector that the provision of incineration goes to the heart of the draft Local Plan and its management strategy and takes the view that the appeal proposal is so significant that to give permission would predetermine decisions about the scale and location of development which ought properly be taken in the development plan context. He has considered whether, nonetheless, there is any justification for allowing the appeal in advance of the Local Plan, but he is not satisfied, on the basis of the evidence available, that there is such an over-riding need for additional waste disposal facilities to be provided at the appeal site as to outweigh the Green Belt and highway objections already identified.

8. Since the inquiry the Secretary of State has received from Surrey County Council a copy of a Section 106 agreement dated 17 June 1996 entered into between the County, Reigate and Banstead Borough Council, Tandridge District Council, Laporte Industries and your clients relating to the Copyhold Works and other land. The obligation contains restrictions upon the site or obligations upon Laporte as listed by the Inspector in paragraph 200 of his report. He accepts that some of the matters within the obligation, including site access works, a limit on HGV movements, site restoration and other environmental safeguards would be beneficial. He notes the reservations of the East Redhill Residents' Association Action Group that some of the benefits claimed where they relate to land outside the appeal site fail the tests of Circular 16/91 and also the Inspector's conclusion in paragraph 240 of his report that highway works at Noke Drive and in Nutfield could be of some limited benefit. However, in the Secretary of State's view, none of the matters in the agreement overcomes the objections to development set out in the preceding paragraph and or affects the decision on the appeal.

9. The Secretary of State considers, therefore, that there are no very special circumstances to warrant allowing the development contrary to the development plan or which would justify allowing inappropriate development in the Green Belt.

10. Accordingly, for the reasons given above, the Secretary of State accepts the Inspector's recommendation. He hereby dismisses your clients' appeal and refuses planning permission for the erection of a recycling and bio-thermal waste to energy plant on land at the Copyhold Works, Nutfield Road, Redhill, Surrey.

Yours faithfully

MISS A GERRY

Authorised by the Secretary of State for
the Environment to sign in that behalf

Box 18: Extracts from the Inspector's recommendations:

215. What is very clear to me, from the evidence at the inquiry and my site inspections, is that the proposed buildings would be more dominant in the landscape than those existing on the site. The three-dimensional volume is substantially greater, and extends across about twice the width of the site seen from the north. Although the highest buildings (excluding the stack) are similar to those now in existence at 30m, there is more of them at that height. However the footprint is calculated (and I have a preference on an integrated industrial plant for regarding the buildings as one mass including pipes and connections, whose theoretical ground level footprint is a poor indicator of visual impact or encroachment on a sense of openness of surrounding land), it would be larger by at least 8% on the basis of the present, not fully worked up, design and layout.

216. I conclude that the increased bulk would harm the openness of the Green Belt...

217. ...However, although some mitigation [of damage to landscape] would occur [by landscaping], I am not persuaded that it would do more than slightly soften the impact of such a large complex on views from the surrounding countryside and town edge...

218. ... When it is seen clearly..., the impact would be damaging within a vista that is essentially rural looking south-east away from the Redhill/Reigate area...

227. In so far as the appeal proposal fits that trend in policy, it can be said to be meeting an emerging general need for a plant of this type within the waste hierarchy. There is much to commend about the integrated technology being pioneered by EDC, as the award of NOFFO contract shows, in line with government energy policies. Opposition to that broad thrust of government (central and local) initiatives towards incineration was expressed at the inquiry by the Friends of the Earth, but that seems to me to be directed not to the merits of this development but against national policy. I am therefore unable to give it much weight.

231. ... To locate a major incinerator in the open countryside of the Green Belt away from the urban areas of Surrey and at some distance from south London, seems to me to fly in the face of that proximity principle...

233. ...The award of the [NOFFO] contract by a different branch of government cannot imply that planning permission should be granted.

244. ... Neither the perception of unproven risk if no actual harm to land uses can be established, nor the ability of other regulatory bodies, is a material consideration.

248. There would also be adverse environmental consequences to residential communities and to the character of conservation areas, arising from the HGV traffic generated by the development, contrary to Policy MT2 of the Structure Plan. The location of the site in relation to likely sources of waste would encourage traffic to travel long distances through those communities, contrary to the proximity principle and to concepts of sustainability set out in PPG 13.

249. The lack of harm to land uses from pollution, whether by emission to air or from noise, do not outweigh these adverse considerations.

250. In arriving at my overall conclusion that the appeal should be dismissed, I have also had regard to the strongly held views of the local planning authorities and others that the application is premature ahead of the forthcoming inquiry into the Surrey Waste Local Plan. I agree that many of the issues surrounding the need argument and the availability of alternative sites are a matter for that inquiry. I also agree that, were this application to be approved, it would go to the heart of the plan. Having regard to the advice in PPG 1, I conclude that the application is premature.

Annex 6

How Incinerators Work

This section -

- provides an introduction to how incinerators work
- describes the pollution abatement technologies they may employ.

Useful background reading.

Types of incineration

Incineration facilities are individually authorised to handle one or more specific categories of waste. Most are so-called "dedicated" plants, i.e. handling only one category or material:

Municipal Solid Waste (MSW): refers to the domestic refuse and similar material routinely collected from homes, businesses and public areas by, or on behalf of, local authorities. The 20 or so MSW plants that were in operation in the UK prior to 1997 accounted for the majority of waste incineration. All but 5 of those plants were closed down by at the end of 1996 as a result of being unable to meet tighter performance standards. However, much of the "lost" incineration capacity is expected to be regained through the building of several new, modern MSW incinerators. The most common mode of operation is direct "mass burn" involving only minimal initial sorting of the feedstock to remove bulky non-combustibles.

Chemical Waste/Hazardous Waste: chemical waste is not a legally defined category, but would often constitute "hazardous waste" within the terms of UK/EU legislation¹⁴⁴. Often referred to as "hazardous chemical waste" or "toxic waste", chemical waste refers to toxic/dangerous chemicals which are collected from industrial and commercial installations for disposal (usually on-site) in specialised, high temperature plants. There are currently over 40 plants in the UK which are licensed to handle this waste, of which 5 are dedicated commercial ("merchant") facilities.

Clinical Waste: includes any waste which consists wholly or partly of human or animal-derived material

which, without special treatment, may present a risk of infection. It is derived from a wide variety of medical, clinical or veterinary practices and research establishments. Because of the health risk, the Government recommends incineration as the method of disposal for all clinical waste that cannot safely be diverted into the municipal waste stream.

Sewage Sludge: This includes the solid residues from municipal sewerage facilities, and screened-out debris/litter. In 1996 there were 7 dedicated facilities licensed to handle sewage sludge, all owned by water companies. As a result of the commitment in 1991 to ban sewage disposal at sea by 1999, the number of licences is expected to increase to at least 11 by 1999. Licences may also be granted for co-disposal at existing MSW plants.

Additionally, there are various other components of general waste arisings for which special facilities have been developed, including:

Agricultural Waste: small-scale, on-farm incinerators of animal (particularly poultry) carcasses, litter and offal, and of low-grade packaging, is the most common means of disposal for such materials. Additionally, a number of farms have installed dedicated, whole-bale straw-burners to heat farm buildings.

Larger, dedicated WTE plants are currently being developed which utilise either animal carcasses and offal, poultry litter or straw bales.

Tyre burners: The incineration of tyres for the commercial generation of electricity in dedicated facilities is still somewhat experimental. There are currently only about 5 such facilities operating in the UK.

Crematoria: There are currently around 227 licensed crematoria in the UK.

¹⁴⁴ European Council Directive 91/689/EEC on Hazardous Waste

Burning a variety of wastes are **cement kilns**: Cement production is highly energy intensive and cement kilns have been increasingly trying to burn wastes - including hazardous wastes - rather than conventional fuels. This has been and continues to be a highly controversial development and is being widely opposed by communities and environmentalists. The House of Commons Environment Committee has looked at the issue twice since 1995¹⁴⁵. This guide does not discuss the use of cement kilns for burning waste, but the Industry and Pollution team at Friends of the Earth is campaigning on the issue - contact us if you would like more information about this particular subject.

The basic principles of waste incineration

Although the design of an incineration facility will vary to some extent according to the nature of the waste material (the *feedstock*) being incinerated, the essential elements are basically similar. Each of the essential elements of the plant perform various functions in the handling and combustion of wastes, and the removal and treatment of by-products such as ash, fumes, heat and noise.

The following is based on descriptions in the Royal Commission's report on incineration and the IPC Guidance Note on Waste Incineration, and we would refer you to these if you need more detail¹⁴⁶. A plant consists of:

- **Facilities for handling, storing and mixing feedstock** without creating a hazard or a nuisance. Typically, wastes will be driven by truck into a bunker area and unloaded. The feedstock will then be transferred from the bunker into a hopper which feeds the combustion chamber.
- **A furnace or combustion chamber.** The furnace is designed to allow the maximum combustion of the feedstock (*primary* combustion), and also to subject the resulting gases and aerosol of fine

particles to further combustion (*secondary* combustion), reducing the content of soot and other pollutants in the exhaust.

- **A heat recovery system** for cooling the exhaust gases prior to further pollutant removal. Heat recovery is achieved through water cooling or air cooling the exhaust gases through a heat exchanger. The recovered heat may be re-used as heat or used to generate electrical power.
- **A gas cleaning system**, typically consisting of a "scrubber" (filters which absorb pollutants) and an electrostatic precipitator, and/or fabric "bag filter", to remove fine particles and some polluting gases (often termed fly ash).
- **A fan** to draw exhaust gases through the system before being discharged to the atmosphere via the **stack** (chimney).
- **Facilities for the solid and water residues** are needed. Ash and clinker from the furnace grate (bottom or grate ash) fall into a water-filled quench tank and are removed as a sludge by conveyor to a bunker. Liquid effluents from the exhaust gas cleaning mechanism ("scrubber") and quench tank will have become contaminated through contact with the exhaust gases and ash.

The process will be designed to achieve as thorough a degree of combustion as possible, which will be affected by the time in the furnace, the temperature achieved, oxygen availability and nature of the feedstock. Fumes from the first (primary) combustion stage usually go through a secondary combustion stage to improve the degree of combustion. Representative retention times are 30 minutes for solid waste primary combustion, and 2-3 seconds for secondary combustion of the fumes. The design temperature for secondary combustion is usually between 850°C and 1200°C. Pollutants can reform while the exhaust gases are cooling, so this stage is also considered in the design.

It is more difficult to achieve conditions which will allow complete combustion if the feedstock is mixed ("heterogenous") - as is municipal waste or clinical waste. More homogenous (uniform) feedstock (such as sewage sludge or some chemical wastes) will allow combustion conditions to be optimised more easily.

If you need more technical detail on design and pollution control, it is worth getting a copy of the IPC Guidance Note on Waste Incineration (S2 5.01,

¹⁴⁵ House of Commons Environment Committee (1997). *The Environmental Impact of Cement Manufacture*. London, The Stationery Office.

¹⁴⁶ Environment Agency (1996). *IPC Guidance Note S2 5.01: Waste Incineration*. London, The Stationery Office; RCEP (1993). *Seventeenth Report: Incineration of Waste*. London, The Stationery Office

Box 19: Some technical terms that you might come across

Anaerobic digestion - organic waste rots down in a reactor vessel, producing a methane-rich gas which is captured for energy generation

Co-generation - production of heat and power

Fluidised bed - a type of combustion system which requires crushing or pulverisation of waste into small fragments and particles which are subjected to pressurised gas flow resulting in a "fluid" bed of particles which is fed into the combustion process.

Mass burn - a type of incinerator where waste is incinerated with little or no pre-treatment or sorting

Refuse-derived fuel (RDF) - waste is sometimes pre-treated (separated and shredded) into a more homogenous material known as RDF

Pyrolysis - waste is heated in a low-oxygen environment, producing a gas and maybe a liquid and solid residues. The gas /liquid can then be used as a fuel.

Gasification - waste (or other fuel) is subjected to heat and pressure to produce a gas rich in carbon monoxide, hydrogen and methane which can then be combusted. Pyrolysis may precede gasification.

October 1996)) (from The Stationery Office). The Royal Commission's report mentioned above also has useful descriptions of various combustion systems.

Pollution control

Pollutants will be present in the exhaust gases from the combustion chamber, either having been present in the original feedstock (such as metals) or having been produced during the combustion or gas-cooling process. Ideally, all organic compounds would break down into carbon dioxide and water if completely burned, but in practice, "products of incomplete combustion" (PICs) such as dioxins are formed. In addition, nitrogen oxides are formed both from nitrogen in the waste and in the air supplied to support high temperature combustion.

Pollutants will subsequently be incorporated into the ash produced from the grate and exhaust-cleaning systems, and in liquid effluents used to quench the ash. These effluents need to be treated and disposed of to sewer.

Various types of filters will be present, although the exact types and the configuration can vary.

Scrubbers remove acid gases and some of the metal content by passing the gases through chemical reagents. A **Selective Non-Catalytic Reducer (SNCR)** may be used to convert nitrogen oxides into nitrogen by reacting with ammonia or urea (and inhibits dioxin formation); **Flue Gas Recirculation (FGR)** also reduces nitrogen oxide and dioxin formation. **Ceramic filters, fabric filters, electrostatic precipitators, and/or wet scrubbers** may be used to remove particulates (and any adsorbed pollutants in or on the particulates). **Activated carbon**, an adsorbent, may be used to filter out volatile substances such as mercury and PICs.

An incineration plant will not normally have all of these devices. The most common pattern is a combination of physical sifting and scrubbing.

Associated hazards at an incinerator site include the fly ash itself (which contains high levels of toxic substances) and the storage of waste before incineration occurs (e.g. chemical drums might leak).

Annex 7

Reading List

Friends of the Earth Documents

The following papers are available from the Industry and Pollution team, Friends of the Earth, 26-28 Underwood Street, London N1 7JQ (please enclose an A4 SAE).

Don't Burn it or Bury it - Alternatives to Landfill and Incineration (1997) (appended)

Gone to blazes...burning hazardous waste in cement kilns (1997)

Turning Waste into Resources (1997)

Recycling - Memorandum of Evidence by Friends of the Earth - FOE's evidence to the House of Commons Inquiry on Recycling (1993)

Friends of the Earth Europe (1995). *Towards Sustainable Europe: A Summary*. Brussels, FOE Europe.

The following can be ordered from Friends of the Earth, Publications Despatch, 56-58 Alma Street, Luton, LU1 2PH. For queries and credit card purchases, telephone 01582 482297, 2-4pm. There are reduced prices for Friends of the Earth Local Groups.

The Landfill Campaign Guide (1997). £15.

Up in smoke... why Friends of the Earth opposes incineration (1997). 50p. (appended)

McLaren, D., Bullock, S., Yousuf, N. (1997). *Tomorrow's World - Britain's Share in a Sustainable Future*. London, Earthscan. £12.95.

Friends of the Earth Europe (1995). *Towards Sustainable Europe: The Study*. Brussels, FOE Europe. £24.00.

Forests and Climate Change (1997) .50p.

Paper Recycling - Exposing the Myths (1997). 50p.

Working Future? Jobs and the Environment. A FOE Discussion Paper (1994). £5.95.

Wildlife, Planning and Developments (1995). £1.00.

Planning for the Planet (1994). £12.00.

Statutory Nuisance (1995). £1.00.

The following briefing sheets can be requested from the Local Campaigns Department, Friends of the Earth, 26-28 Underwood Street, London N1 7JQ. Telephone: 0171 566 1677.

How to Make the Most of Public Inquiries (1994)

Using Your Right to Know (1994)

The following is available from the FOE Northern Ireland office, 40 Wellington Park, Belfast BT9 6DN.

The Northern Ireland planning system: A user's guide (1997). £3.

European Community Laws and Documents

94/67/EC Directive on the Incineration of Hazardous Waste (OJ L365, 31.12.94)

89/429/EEC Directive on the reduction of air pollution from existing municipal waste incineration plants (OJ L203, 15.7.89)

89/369/EEC Directive on the prevention of air pollution from new municipal waste incineration plants. (Official Journal L 163, 14.6.89)

75/442/EEC EC Directive on waste (OJ L194/39, 25.7.1975), as amended by

91/156/EEC (OJ L78/32, 26.3.1991) and

91/692/EEC (OJ L377/48, 31.12.91)

- the Framework Directive on Waste.

85/337/EEC Directive on the assessment of the effects of certain public and private projects on the environment (OJ L 175/40, 5.7.1985)

97/111/EEC OJ L73/5, 14.3.97 - revision.

80/68/EEC	Directive on the protection of groundwater against pollution caused by certain dangerous substances (OJ L20/43, 26.1.1980).		amendments 1991/836, 1992/614, 1993/1749, 1993/2405, 1994/1271, 1994/1329, 1995/3247)
92/43/EEC	Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (OJ L206/7 22.7.92)	SI 1991/507	Environmental Protection (Applications, Appeals and Registers) Regulations
91/689/EEC	Directive on Hazardous Waste (OJ L377/20, 31.12.1991 as last amended by	SI 1989/317	The Air Quality Standards Regulations
94/31/EEC	Official Journal L168/28 of 2.7.1994.	SI 1988/1199	Town and Country Planning (Assessment of Environmental Effects) Regulations

94/62/EC Directive on Packaging and Packaging Waste (OJ L 365, 31/12/1994)

European Council (EC) Resolution on waste policy (December, 1996)

Important Acts and Statutory Instruments

Environment Act 1995
 Planning and Compensation Act 1991
 Environmental Protection Act 1990
 Town and Country Planning Act 1990
 The Electricity Act 1989
 Control of Pollution (Amendment) Act 1989
 Local Government (Access to Information) Act 1985
 Control of Pollution Act 1974
 Health and Safety at Work Act 1974

SI 1997/648	Producer Responsibility Obligations (Packaging Waste) Regulations
SI 1995/417	The Town and Country Planning (Environmental Assessment and Permitted Development) Regulations
SI 1995/418	The Town and Country Planning (General Permitted Development) Order
SI 1995/419	The Town and Country Planning (General Development Procedure) Order
SI 1994/1056	Waste Management Licensing Regulations
SI 1992/3240	Environmental Information Regulations
SI 1991/2839	Environmental Protection (Duty of Care) Regulations
SI 1991/472	Environmental Protection (Prescribed Processes and Substances) Regulations (and

Northern Ireland Laws

Statutory Rules:

SR 1993/278	The Planning (General Development) Order (Northern Ireland) 1993
SR 1992/254	The Waste Collection and Disposal Regulations 1992
SR 1989/20	The Planning (Assessment of Environmental Effects) Regulations (Northern Ireland) 1989
SR 1989/290	The Planning (Use of Classes) Order (Northern Ireland) 1989

Statutory Instruments:

SI 1991/1220NI11	The Planning (Northern Ireland) Order 1991
SI 1978/1049NI19	Pollution Control and Local Government (NI) Order 1978

White Papers

Making Waste Work - A Strategy for Sustainable Waste Management in England and Wales. 1995.

This Common Inheritance. 1990.

DETR (DOE)/WO Circulars

Circular 15/96	Planning Appeal Procedures
Circular 9/95 (WO 29/95)	General Development Order Consolidation 1995
Circular 11/94 (WO 26/94)	Waste Management Licences
Circular 19/91 (WO 63/91)	Environmental Protection Act 1990, Section 34, "the Duty of Care"

Circular 15/88 Environmental Assessment
(WO 23/88)

**Planning Policy Guidance Notes (PPGs) and
Technical Advice Notes (TANs)**

PPG 1 General Policy and Principles (1997)
PPG 9 Nature Conservation (1994)
PPG 12 Development Plans and Regional
Planning Guidance
PPG 13 Transport (1994)
PPG 23 Planning and Pollution Control (1994)
(under revision)

NB: It is unclear when a revision of PPG 23 will be produced, or whether the revision will be published as a separate document; the latest information on this can be obtained from the DOE on 0171 276 3000.

For Wales: Planning Guidance (Wales): Planning
Policy (1996).
PPG 13 Transport (1988) - Appendices only
TAN 5 Nature Conservation and Planning

This Welsh Planning Guidance is a consolidation into the Welsh context of PPGs which were formerly issued jointly with the DOE (see note in Section 8).

Reports and Papers

Environment Agency (1995). IPC Guidance Note S2 5.01 *Processes Subject to Integrated Pollution Control - Waste Incineration.*

Department of the Environment, Transport and the Regions (DETR) (1997). *Digest of Environmental Statistics, No. 19.*

Department of Trade and Industry (1996). *Energy from Waste - Best Practice Guide.* Revised edition.

European Commission, DGX1 (1997). *Cost-benefit analysis of the different municipal solid waste management systems: objectives and instruments for the year 2000.* A report by Coopers & Lybrand/CSERGE. Luxembourg, Office for Official Publications of the European Communities.

European Commission, DGX1 (1997). *Economic evaluation of the draft incineration directive.*

Luxembourg, Office for Official Publications of the European Communities.

DOE/Welsh Office (1996). *Integrated Pollution Control - A Practical Guide.*

Department of the Environment (1991). *Waste Management - the Duty of Care: A Code of Practice.*

House of Commons Environment Committee (1997). *The Environmental Impact of Cement Manufacture.* London, The Stationery Office.

DOE (1993). *Landfill Costs and Prices: Correcting Possible Market Distortions.* A Study by Coopers and Lybrand. London, The Stationery Office.

Royal Commission on Environmental Pollution (1993). *Incineration of Waste. 17th Report.* London, The Stationery Office.

Royal Commission on Environmental Pollution (1988). *Best Practicable Environmental Option. 12th Report.* London, The Stationery Office.

ETSU (1996). *Properties and utilisation of MSW incineration residues.* Report B/RR/00368/REP. ETSU/DTI.

ETSU (1995). *Municipal Solid Waste Combustion: Economics and projections for energy recovery to the year 2000.* ETSU/DTI.

IPCC (1995). *Climate Change 1995: Impacts Adaptations and Mitigation of Climate Change: Scientific and Technical Analyses.* Watson, R.T. et al (eds). Published for the InterGovernmental Panel on Climate Change by Cambridge University Press, Cambridge, UK.

DHV Environment and Infrastructure (1997). *Composting in the European Union.* Report for European Commission, DG XI. Amersfoort, The Netherlands, DHV.

Recycling

IIED (1996). *Towards a Sustainable Paper Cycle.* London, International Institute for Environment and Development.

Waites, Richard (1995). *Household Waste Recycling.* London, Earthscan.

BNMA (1995). *Recycle or incinerate? Summary*. BNMA.

Sound Resources Management (1992). *Recycling Versus Incineration*. Canada, Pollution Probe Ontario.

Ogilvie, S.M. (1992) (Warren Spring Laboratory). *A review of the environmental impact of recycling*. Department of Trade and Industry; citing work by Clark, H. and New, R. (1991). *Current UK Initiatives in Plastics Recycling*, Paper No W91002.

Elizabeth Holtzman, Comptroller, City of New York (1992). *Fire and Ice: How Garbage Incineration Contributes to Global Warming*.

Pollution and Health

DOE/WO/SO (1996). *The United Kingdom National Air Quality Strategy*. London, The Stationery Office.

NSCA (1997) *1997 Pollution Handbook* of the National Society for Clean Air and Environmental Protection (Brighton, NSCA).

Institute for Environment and Health (1997). *Health Effects of Waste Combustion Products*. Report R7. Leicester University, IEH.

Dockery, D.W. and Pope, C. (1994). *Acute Respiratory Effects of particulate Air Pollution*. Annual Review of Public Health, 15, 107-32

Pope, C. (1995). *Lung cancer and Air Pollution*. Environmental Health Perspectives

DOE Expert Panel on Air Quality Standards (1995). *Particles*.

World Health Organisation (1992). *Cadmium*. Environmental Health Criteria 134. Geneva, WHO.

Dioxins

Environment Agency/ AEA Technology plc (1997). *A review of dioxin releases to land and water in the UK*. Bristol, Environment Agency.

HMIP/Environmental Resources Management (1995). *A review of dioxin emissions in the UK*.

HMIP (1995). *Determination of polychlorinated biphenyls, polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans in UK soils*. 2nd technical report.

Welsh Office. *Polychlorinated biphenyls, dioxins and furans in the Pontypool environment*. (7 reports).

WHO Europe (1996). *Levels of PCBs, PCDDs and PCDFs in human milk*. (*Environmental Health in Europe No.3*). Ref. EUR/ICP EHPM02 03 05

Burnley, S. (1997). *Dioxins: Energy from Waste - a source or sink?* Warmer Bulletin 57, p18.

Eitzer, B.D. (1995). *Polychlorinated dibenzo-p-dioxins and dibenzofurans in raw milk samples from farms located near a new resource recovery incinerator*. Chemosphere 30 (7), 1237-1248.

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Liem, A.K.D. *et al.* (1990). *Levels and patterns of dioxins in cows' milk in the vicinity of municipal waste incinerators and metal reclamation plants in the Netherlands*. Proceedings DIOXIN '90, Organohalogen Compounds, Vol.1, 567-570.

Books on planning permission

CPRE (Council for the Protection of Rural England) (1997). *Campaigners' Guide to Public Inquiries and Planning Appeals*. CPRE, Warwick House, 25 Buckingham Palace Road, London SW1W 0PP, telephone: 0171 976 6433.

Speer, R. and Dade, M. (1994). *How to Stop and Influence Planning Permission*. London, JM Dent. ISBN 0 460 86194 8

Specific to Northern Ireland

Turner, S. and Morrow, K. (1997). *Northern Ireland Environmental Law*. Dublin, Gill & Macmillan.

Dowling, J A. (1995). *Northern Ireland Planning Law*. Gill & Macmillan. ISBN: 0 717 12340 5

Tracking policy

The ENDS Report, published by Environmental Data Services Ltd, is an excellent monthly journal which tracks environmental policy. You might find it at your local library. Subscriptions from: Environmental Data Services Ltd, 40 Bowling Green Lane, London EC1R 0NE, telephone: 0171 278 4745; e-mail: post@ends.co.uk.

Warmer Bulletin, is published bimonthly by the World Resource Foundation, and provides invaluable information on waste management, policy and practice, even though keen on WTE. Contact: WRF, Bridge House, High Street, Tonbridge, Kent TN9 1DP, telephone: 01732 368333; e-mail: wrf@wrf.org.uk.

Waste Planning is a quarterly journal and closely tracks policy, legal cases and individual proposals for waste management facilities of all types. Contact: Waste Planning, 2 The Greenways, Little

Fencote, Northallerton DL7 0TS, telephone: 01609 748709.

Where to find the documents

Official documents can be obtained from:
The Stationery Office (or agents), 49 High Holborn, London WC1V 6HB; 0171 873 0011.
In Wales, Oriel Bookshop, The Friary, Cardiff CF1 4AA; 01222 395548.
In Northern Ireland, 16 Arthur Street, Belfast BT1 4GD; 01232 238451.

Some reports (and particularly draft documents) can be obtained from the originating source:

Department of the Environment, Transport and the Regions (DETR), 0171 276 3000;
Welsh Office, 01222 825111;
DOE - Northern Ireland, 01232 254754;
Environment Agency, 0645 333111.

Annex 8

Abbreviations and Units

BATNEEC	Best Available Techniques Not Entailing Excessive Cost
BPEO	Best Practicable Environmental Option
CHP	Combined Heat and Power
CO ₂	Carbon dioxide
CV	Calorific Value
DETR	Department of the Environment, Transport and the Regions
DTI	Department of Trade and Industry
DOE	Department of the Environment (now part of DETR)
EA	Environment Agency
EA 1995	Environment Act 1995
EfW	Energy-from-Waste incinerator
EPA 1990	Environmental Protection Act 1990
ESP	Electrostatic precipitator
ETSU	Energy Technology Support Unit
FGD	Flue gas desulphurisation
IEH	Institute of Environmental Health, Leicester University
IPC	Integrated Pollution Control
IPCC	Inter-governmental Panel on Climate Change
LAAPC	Local Authority Air Pollution Control
LAWDC	Local Authority Waste Disposal Company
LPA	Local Planning Authority
MRF	Materials Reclamation (or Recycling) Facility
MSW	Municipal Solid Waste
MW	Megawatts
NFFO	Non Fossil Fuel Obligation
NO _x	Oxides of nitrogen
PAHs	Polycyclic aromatic hydrocarbons
PCBs	Polychlorinated biphenyls
PCDDs	Polychlorinated dibenzo-p-dioxins
PCDFs	Polychlorinated dibenzo-p-furans
PGN	Process Guidance Note (for IPC processes)
PICs	Products of Incomplete Combustion
PPG	Planning Policy Guidance
RCEP	Royal Commission on Environmental Pollution
SI	Statutory Instrument
SO _x	Oxides of sulphur
SSSI	Site of Special Scientific Interest (ASSI, Area of SSI in Northern Ireland)
TDI	Tolerable Daily Intake
TEQ	Toxic Equivalent (a measure of dioxin toxicity)
TPP	Transport Policies and Programmes
UDP	Unitary Development Plan
USEPA	United States Environmental Protection Agency
WCA	Waste Collection Authority (part of the LA)
WDA	Waste Disposal Authority (part of the LA)
WRA	Waste Regulatory Authority (now merged with the Environment Agency)
WO	Welsh Office
WTE	Waste to Energy

Units of measurement

mg	milligrams (one thousandth of a gram, 10^{-3} g)
μ g	microgram (one millionth of a gram, 10^{-6} g)
ng	nanogram (one billionth of a gram, 10^{-9} g)
pg	picogram (one million millionth of a gram, 10^{-12} g)
fg	femtogram (one thousand million millionth of a gram, 10^{-15} g)
kg	kilogram (one thousand grams, or 2.2 lbs)
m^3	cubic metre
ppb	parts per billion
ppm	parts per million
kilo (k)	a thousand, 10^3
mega (M)	a million, 10^6

Energy units

1 tonne of oil equivalent	= 10^7 kilocalories
	= 396.8 therms
	= 41.87 gigajoules (GJ)
	= 11,630 kWh

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