

PROCESS & INDUSTRIAL DESIGN CONSULTANTS LTD.

Suite 3:3 Mytton Mill, Forton Heath,
Montford Bridge, Shrewsbury,
SY4 1HA, UK.

Tel: (01743) 851057

Fax: (01743) 851357

Kilrock House,
Main Street, Midleton,
Co Cork, Ireland

Tel:- +353 214 613521

Fax:- +353 214 613051

Summary of Evidence of Martin Key

**Bord Pleanála Oral Hearing regarding
Planning Appeal for Waste
Incineration Process at Ringaskiddy,
Co. Cork on behalf of the East Cork
Harbour Environmental Association**

This submission is formatted as follows:

Section 1	Qualifications and Experience
Section 2	Introduction
Section 3	Comments on System Design
Section 4	Comments on Waste Strategy
Section 5	Comments on Planning Issues



Consulting and Engineering Services to the Process
Industries



1. QUALIFICATIONS

My name is Martin Key and I am an environmental consultant working with Process and Industrial Design Limited based in the UK office. I have been involved in environmental regulation, policy and management for 25 years. I hold a Professional Diploma of the Chartered Institution of Environmental Health Officers in Environmental Health, an MSc in Instrumental Chemical Analysis and a Royal Society of Health Diploma in Air Pollution Control. I am a member of the Institute of Chemical Engineers.

1.1 EXPERIENCE

I had 10 years experience as a Government regulator in the industrial Black Country of England in respect of occupational health and safety, air pollution, noise, contaminated land, asbestos removal and safety, waste management and disposal.

I subsequently worked in both the Department of the Environment and Her Majesty's Inspectorate of Pollution (now the Environment Agency) in the UK where I was responsible for technical and policy development of the Environmental Protection Act and supporting regulations and preparation of the industry specific BATNEEC standards for the following sectors:-

- waste combustion and incineration
- metal melting and processing
- VOCs, surface coating and coating manufacture
- rubber processes
- animal feed, by-product processing and oil extraction
- maggot breeding processes.

I have also worked Worldwide for 7 years for a US company who are one of the leading suppliers of thermal oxidisers for VOC and odour treatment and air flotation dryers where I was a corporate Director primarily responsible for determining business strategy on a worldwide basis. I worked from offices in both Sweden and the company's head office in Wisconsin, USA. This role also involved R&D and business development in the chemical business sector, odour management, energy and greenhouse gas/methane mitigation.

I have now been operating for 6 years as an environmental consultant working throughout Europe and America for industry and Government clients principally dealing in implementation of PPC and interpretation of BAT and BATNEEC, odour control, waste minimisation, environmental impact modelling and auditing, design and optimisation of environmental and process control equipment and process performance and environmental impact assessment and monitoring.

These activities have largely been concentrated in combustion, oxidation, metals, food processes, animal waste and agricultural processes, sludge drying and VOC and odour control.

1.2 ADDITIONAL INFORMATION

I have acted as an expert witness in court cases and public enquiries and appeals for environmental protection, odour control and planning issues. I have represented the UK on EU negotiations on the Solvent Directive and animal by-products and was a Member of the BS Environmental Management Committee. I have presented numerous papers at national and international conferences and seminars on a wide range of topics including IPC, air pollution, waste management, environmental management and global warming/greenhouse gases and have been published in magazines and contributed chapters for books on environmental health and also air pollution and the food industry. I am currently a specialist advisor on the UK Government expert panel on waste minimisation and environmental issues, Envirowise.

2 INTRODUCTION

I feel that I must firstly establish a few key points against which I intend to give my evidence.

Firstly, whilst I acknowledge the legal interpretation made by the Bord in not considering during the oral planning hearing any issues related to local environmental or potential health impact of the proposed incinerator, based upon my experience in the UK, it is very difficult to evaluate the full land use planning issues of such a process without consideration of environmental and health impacts. However, as requested by the Inspector I will refrain from reviewing potential health and environmental implications of this particular proposal.

Secondly, I must clarify the use of the term incineration. Many of the strategy documents referred to in earlier evidence actually discuss the use of thermal treatment technologies as a possible method for waste treatment. The process proposed by Indaver (fluidised bed incineration) is only one form of thermal treatment technology and there are other techniques which deserve further consideration such as pyrolysis and gasification. Again the full review of these techniques is hampered by the inability to review comparable environmental performance.

Thirdly, I must state that I am not anti-thermal treatment technology. Indeed, I agree with the principle that the selective application of correctly designed and operated thermal treatment systems (particularly including energy recovery) may be a viable and valid part of the overall solution to the problem of waste management in the 21st century. However, it is essential that these technologies are applied with a view to overall Sustainable Development principles and selection of the best practicable environmental option for the selected waste stream.

For inspection purposes only
Consent of copyright owner required for any other use

3. COMMENTS ON SYSTEM DESIGN

This section is intended to highlight a number of issues which do not appear to have been fully evaluated or explained in existing submissions.

1. Does the EIS review the possible impact of fugitive emissions from the liquid waste storage and offloading, waste transfer and drum wash operation?
2. The sizing of the incinerator should be subject to a mass or volume throughput constraint as this will be affected by ash, organics, calorific value etc..
3. The potential visual impact of the 55m high stack is significant. What was the selection criteria for the stack height and if the incinerator and associated control equipment is so effective why does the stack need to be so high.
4. The injection of liquid wastes directly into the secondary combustion chamber may not provide sufficient residence time, turbulence and temperature for adequate destruction particularly if the organic load on the fluidised bed is high or the liquid contains any significant particulate matter.
5. One issue which was referred to in the Indaver of June 2003 Referenced S/01/6215 was that one of the selection parameters for the location was the need for significant volumes of water. However the EIS seems to discount this reason (2.6.3). Why can't the water be condensed by indirect heat recovery?
6. Was the Raw materials consumption for the waste gas treatment considered and the relative impact of resource depletion considered?
7. There are several claims that all of the ash except flue gas cleaning ash will be non-hazardous. Based upon a preliminary review of the proposed plant and equipment layout, it is suggested that there will be concentration of pollutants in the bottom ash and filtration ash.
8. John Ahern stated in his evidence that.. 'The Ringaskiddy Waste Management Facility is consistent with all European and Irish policies' – this is hard to comment on without being able to reference environmental and health impacts.
9. John Ahern also stated in his evidence that .. 'the waste to energy facility will significantly reduce the quantity of hazardous waste for export'. This of course assumes that the waste has to be produced in the first place and that the waste producers cannot either eliminate the waste arising, re-use the material, significantly reduce arisings or treat on-site.
10. John Ahern also referred in his evidence to comments by objectors that there may be negative impact on agricultural exports and went on to provide data on other European export figures in countries with incinerators. However it should be noted that there have been incidences of local damage to agricultural operations in EC Member states from thermal treatment technologies.

COMMENTS ON WASTE TREATMENT STRATEGY

The previous evidence has highlighted the quantities of waste which are generated in Ireland. In respect of hazardous waste the arisings increased from 328,000 tonnes in 1996 to 370,000 tonnes in 1998. Although part of this increase can be attributed to an one-off disposal of contaminated soil, it is likely that the quantity of waste increased in real terms by around 5%. The National Waste Database Report for 1998 identified that around 35% of this waste was recovered or disposed of at the site of production and that a total of around 40% was recovered.

It has been reported that 220,000 tonnes of industrial hazardous waste was produced in 1998 and that the majority was organic solvents and pharmaceutical waste.

Whilst this appeal does not consider municipal waste, the experience in the EU in general is that when there are schemes in place for recovery and recycling and when there is pressure to minimize waste, the amount for final disposal is greatly reduced and the composition changes. It can be expected that if increased financial pressure (tax) and regulatory pressure is brought to bear a significant amount of the waste generated can either be eliminated, minimized or recovered. This is especially viable for waste solvents.

There are seven facilities licensed to operate eleven incinerators under the Integrated Pollution Control licensing regime. All facilities are used for the destruction of waste arising on those industrial sites and none are available on a commercial basis for the disposal of waste imported from elsewhere. These are in-house facilities which surely truly meet the test of proximity of treatment to generation.

It is fair to say that any thermal treatment process should be subject to extensive regulatory control for example from a number of EU Directives and Regulations including 2000/76/EC (Incineration of Waste), possibly Regulation 1774/2002 (Animal By-Products) and 96/61/EC regarding integrated pollution prevention and control. Much of the content of these regulations is associated with operational controls to minimise the impact on the environment.

Strategy

It has been stated that the existing policy and strategy documents are in support of waste incineration and that these references are sufficient to demonstrate the need for the facility. I will now discuss the role of total impact assessment in development of a waste strategy. The existing reports do refer to the role of thermal treatment techniques incorporating energy recovery as an option but this is not enough to demonstrate the need for this particular project.

The existing waste strategy documents refer in respect of Hazardous waste to the need to move away from disposal towards reduction, re-use, recycling and recovery, after all thermal treatment/incineration is only an intermediate treatment (volume and weight reduction) before final disposal in many cases.

In order to demonstrate the need for an incineration process it is necessary to review the methods of evaluating waste disposal techniques and developing a waste strategy.

The vision, aims and objectives of a waste strategy should include:-

- the need to tackle the growth in our waste
- to maximise the amount of value we recover from waste, through increased recycling, composting and energy recovery
- to develop new and stronger markets for recycled materials by helping to deliver markets and end uses for secondary materials, and promote an integrated approach to resource use
- producers must increasingly expect to arrange for recovery of their products

- the amount of waste sent to landfill must be reduced substantially
- where energy recovery facilities are needed they should be appropriately sized to avoid competition with recycling, and the opportunities for incorporating Combined Heat and Power technology should always be considered

The concept of the waste hierarchy suggests that the most effective environmental solution may often be to reduce the generation of waste. However, where further reduction is not practicable, products and materials can sometimes be used again, either for the same or a different purpose. Failing that, value should be recovered from waste through recycling or composting, or through energy recovery. Only if none of the above offer an appropriate solution should waste be incinerated without energy recovery, or disposed to landfill.

The most effective waste management decisions can be taken by adopting an integrated approach to waste management. Integrated waste management can be considered to be a number of key elements working in concert, in particular:

- *recognising each step in the waste management process as part of a whole* – decisions should take account of the collection, transport, sorting, processing and recovery or disposal of wastes; and in the case of recovery, identification of end uses or markets for the resulting materials and energy

- *involvement of all key players* – an integrated approach to waste management should also define the contributions which all interested parties (which might include waste producers and managers, waste reprocessors, waste regulators, waste management planners, community groups, consumers and householders, and Government) can make in the development and achievement of common goals and objectives

- *a mixture of waste management options* – those planning the management of significant quantities of various wastes should avoid over-reliance on a single waste management option. It is unlikely that one approach will represent the Best Practicable Environmental Option (BPEO) for all elements of the waste stream

- *formal and informal partnerships* – especially between those organisations obligated with legal responsibilities for managing waste that they generate or that arises in their areas. In particular this means producers, waste collection and waste disposal authorities within a particular area. Local authorities within a region who will also need to take a collective view of the more strategic regional implications of their various policies towards waste management issues

The key issue when evaluating an individual waste management proposal on the scale of the Indaver project is to review whether the proposal can be described as Sustainable. The technique that should be used for making such a waste management project evaluation is known as Best Practicable Environmental Option (BPEO), and the simplest way to encourage integrated waste management is to structure the implementation of BPEO with the above key elements in mind. The IPPC Directive which covers waste incineration requires that process operators demonstrate that the selected techniques meet the definition of the best available techniques (BAT) taking account of impact on the environment as a whole (not only at a local level but on a global basis). The aim is to achieve a high level of protection for the environment as a whole.

Waste is not a single substance, and its management is not a series of simple choices. Rather it is, for the most part, a complex mixture of different materials, in differing proportions. Each of these materials has the potential to impact differently on the environment. In a sustainable and integrated system all these factors must be taken into account when making decisions on how best to manage waste.

The concept of the Best Practicable Environmental Option (BPEO) was defined in the 12th Report of the Royal Commission on Environmental Pollution as:

the outcome of a systematic and consultative decision-making procedure which emphasises the protection and conservation of the environment across land, air and water. The BPEO procedure establishes, for a given set of objectives, the option that provides the most benefits or the least damage to the environment as a whole, at acceptable cost, in the long term as well as in the short term.

Sustainable development is a challenge to develop more integrated systems for managing waste that are environmentally effective (both locally and globally), economically affordable and socially acceptable.

When considering the BPEO, decision makers need to have regard to international obligations (such as the biodegradable municipal waste diversion targets in the Landfill Directive), the national policy framework), and policy guidance at regional and local level. The concept of BPEO means that local environmental, social and economic preferences will be important in any decision. These may well result in different BPEOs for the same waste in different areas.

The waste hierarchy provides a theoretical framework which should be used as a guide for ranking the waste management options being considered as part of the BPEO assessment. It offers an order which can be used when considering various waste management options, starting with a review of how less waste might be produced. Once this has been carried out, all options in the hierarchy should be considered for each component material within the waste stream, and for waste which cannot be reasonably separated out. For different materials, different options are likely to prove more environmentally effective and economically affordable. Thus the BPEO for a waste stream is likely to be a mix of different waste management methods.

The proximity principle suggests that waste should generally be disposed of as near to its place of origin as possible. This is in part to ensure that we do not simply export problems to other regions or countries. It also involves recognition that the transportation of wastes can have a significant impact.

To find an overall, optimal, environmental solution for managing waste, without the risk that the decision will result in a worsening of the overall impact, a life cycle approach can be adopted. Life cycle assessment (LCA) is the systematic identification and evaluation of all the environmental benefits and disbenefits that result, both directly and indirectly, from a product or function throughout its entire life – from extraction of raw materials to its eventual disposal and assimilation into the environment.

Life cycle assessment can provide a basis for making strategic decisions on the ways in which particular wastes in a given set of circumstances can be most effectively managed. Life cycle assessment also takes account of the proximity principle – that waste should be dealt with as close to the point of its generation as practically possible. The transportation of waste (both in terms of distance travelled and the mode of transportation) from the point at which waste is generated, through the collection and sorting of waste, to where it is treated, recovered or finally disposed are included within the life cycle.

In the development of a sustainable waste management system waste to energy incineration must be considered in the context of an integrated approach to waste management which encourages waste reduction, re-use and recycling. Where incineration with energy recovery is the best practicable environmental option, the potential for incorporating combined heat and power should always be considered in order to increase the efficiency of the process

The need to adopt a more strategic approach to hazardous waste management has been reinforced by the need to implement the Landfill Directive and the IPPC Directive as well as the recently published Chemicals Strategy and specific measures to remove the most dangerous chemicals from the environment. Furthermore, in December 1999, the Fifth Conference of Parties to the Basel Convention made a high-level declaration on the environmentally sound management of hazardous waste.

It is suggested that in order to evaluate the real need for a facility of this type it is necessary to carry out a formal assessment of the Best Practicable Environmental Option (BPEO) for key hazardous wastes streams. The determination of BPEO for the management of hazardous wastes will need to be carried out on a waste by waste basis in the context of available waste treatment facilities, using techniques such as life cycle assessment.

Summary

The development of sustainable waste strategy is a key consideration. If there is a significantly sized incinerator for any waste stream there will be no great pressure on process operators to reduce waste arisings. Indeed the operators of the incinerator will need a constant waste stream flow to maintain energy production. Incineration is in most waste hierarchies only one step up from landfill and therefore from a strategy perspective, early provision of a thermal treatment system will discourage waste minimization actions or waste treatment techniques higher up the hierarchy. These issues would be incorporated in a BPEO review.

For inspection purposes only.
Consent of copyright owner required for any other use.

5. COMMENTS ON PLANNING ISSUES

I would firstly submit a comment on an assumption suggested by this process that the separation of the incinerator has sufficient separation from local sensitive receptors. It is not possible for the appeal to determine whether the proposed separation of the process from nearby sensitive receptors is adequate when it is not within the remit of the planning appeal to consider environmental impact of releases from the proposed incinerator which is the only way to definitively determine possible implications.

The submission by Dr Meehan on planning issues addressed a number of specific issues relating to the Cork County Development Plan 2003. I would submit that as the Development Plan has only recently been adopted, any changes which Cork County Council may have felt were relevant to facilitate the provision of a waste incinerator should and would have been made during the period between the Indaver application and the adoption of the Plan.

Also there is reference in Figure 2 of Dr Meehan's submissions to a footnote which effectively suggests that new developments for waste disposal which may occur during the lifetime of the Plan should be provided for in zoning terms. In Figure 5 of Dr Meehan's evidence he reproduces ZON3-13 and suggests that this provides for the inclusion of incineration in an Industrial Area. I would disagree with this assertion for the following reasons:-

- subsection a) clearly allows for an area with Industrial zoning to be used for waste materials treatment and recovery. This would not include incineration.
- Indeed in subsection b) the policy goes on to say that for large industry, the zoning would be suitable for waste management activities (including treatment and recovery of waste materials) but specifically excludes landfill or contract incineration.

I would submit that policy ZON3-13 clearly precludes the inclusion of a waste incinerator with or without energy recovery in an Industrial Area.

Also I would like to comment on Figure 12 included in Dr Meehan's evidence. This suggests that the proposed incinerator is clearly defined in all of the national waste strategy documents. Firstly in terms of the

One of the requests made by Indaver in their submission of June 2003 Referenced S/01/6215 is effectively to permit the planning application for the hazardous waste incineration operation and not to specify a waste throughput capacity. Whilst the argument has been proposed that the incinerator is sized for energy input (or perhaps this should more correctly be that the heat recovery system specification is based on energy recovered) it is necessary for the ancillary systems such as waste reception areas, storage receptacles, tanks, ash containers etc to be adequately sized based on volumes or weight. Also Indaver propose that site throughput should be left to the EPA for control. This cannot be acceptable as it seeks to by-pass the inherent need for public consultation and involvement in the decision making process.

Ladies and Gentlemen,

I have been asked to present evidence of the expected health effects in children after accidental exposure to toxic chemicals. There are many toxic chemicals emitted into the environment and food chain through incineration processes, but in the case of an accident the amounts emitted can be, and generally are, large. To address the negative health effects of all these chemicals would be far too numerous for the short time available, and so I will limit my evidence to effects of dioxin and polychlorinated biphenyl, or PCB, exposures, considering that these chemicals are the most commonly seen, have been extensively studied and are amongst the most damaging to environmental and human health. Yet, one must remember that heavy metal toxicity may be even more harmful.

The presentation will focus on the direct effects of accidental exposure, or primary effects, and the indirect effects, or secondary effects. Finally, by presenting the evidence of health effects already seen in average Western European children, you will be able to see that any further exposure is only more detrimental and that the risk of further exposure should rather be reduced than increased.

What are dioxins and PCBs?

Polychlorinated dibenzo-p-dioxins (PCDDs), polychlorinated dibenzo-furans (PCDFs) and some polychlorinated biphenyls (PCBs), such as PCB-77, -126 and -169 (henceforth jointly referred to as dioxins) belong to the group of most toxic substances known. PCDDs consist of a family of 75 congeners, or structurally similar

compounds. They are, in pure form, colourless crystals or solids. With the exception of small amounts for research purposes, they are not intentionally manufactured by industry. Dioxins are formed as waste products of combustion processes and municipal incinerators are amongst the primary sources of these compounds. During the Vietnam War, an extensively used defoliant called Agent Orange, used during Operation Ranch Hand, was a major source of dioxin pollution in South East Asia.

PCBs are a family of 209 possible congeners, of which 13 are likely to be similar to tetrachloro-p-dioxin, TCDD, the most toxic dioxin congener.

Finally, there are 135 possible PCDF congeners. Heating of PCBs is a notable source of PCDFs.

Why are dioxins a human health hazard?

Dioxins are poorly degradable in nature and persist in the environment, accumulating in the human food chain mainly via fish-oils and animal fats. They do not dissolve easily in water, referred to as hydrophobic, and hence settle to surfaces, such as river sediments or grass. Fish eat the plankton and other microscopic organisms on river bottoms, herbivores eat the grass. Larger animals in turn eat these aquatic organisms and animals and eventually the food chain, as it is called, leads to man eating the dioxin contaminated animals or plants, such as dairy products and meat.

These chlorinated polyaromatic compounds are highly hydrophobic (do not mix in water) and are therefore difficult for an organism to metabolise, or work out of its

body. The accumulation results in increasing concentrations of dioxins in each higher step in the food chain. Dioxins in the human are primarily stored in adipose, or fat, tissues and liver. Their lipophilicity, or ability to mix in fat, allows them to readily pass the placenta, whereupon they are stored in foetal liver and adipose tissues .

In 1986 relatively high background dioxin concentrations in the breast milk of Dutch mothers was first reported, followed by similar findings in other Western European and industrialised countries . As a result foetuses and breastfed children are exposed to relatively high "background" dioxin levels, meaning exposure that we all currently face, averaging approximately 30 ng/kg fat, as measured in breastmilk. One nanogram (ng) is one billionth of a gram. The half-life, or time it takes to remove half of the amount right now, of dioxins in the human body is 7 to 12 years.

Yusho

Two Asian incidents of PCB and PCDF contamination of rice oils led to large numbers of people being poisoned. The 1968 accident in Japan, "Yusho", and the 1978 accident in Taiwan, "Yucheng", revealed direct toxicity effects, but also long-term effects and even teratogenic effects . Prenatal exposure to PCBs and PCDFs was associated with negative behavioural effects amongst the offspring of mothers who had ingested the contaminated rice oil. The Yusho children born to mothers who had consumed the rice oil, were apathic and uninterested.

Albert Fyfe

Yucheng

Similarly to Yusho, through an accident large amounts of PCBs and furans ended up in rice oil, in Taiwan. Infants born to mothers who had consumed the contaminated rice oil were characterised by:

- hyperpigmentation ('Coca-Cola Babies'),
- intra-uterine growth retardation (which drastically increases the risk of disease and mortality after birth),
- natal teeth (teeth already present at birth),
- pigmented dysplasia of the nails (pigmented nails with a strange morphology),
- hirsutism (masculinisation, including increased body and facial hair),
- hypertelorism (eyes too widely apart),
- conjunctivitis (red and inflamed eyes),
- clinodactyly (abnormally formed extremities),
- widely open fontanelles (opening on the head of babies, caused by unfused cranial bones) and
- spotty calcifications of the skull.

Mortality was high, with twenty-five percent of these hyperpigmented babies dying within four years of birth. Respiratory distress and pneumonia during the first six months of life were common. Follow-up revealed shorter stature and musculoskeletal changes.

Severe effects on IQ, due to high in utero exposure of a combination of PCBs and PCDFs were found in the Yucheng children

Seveso

In 1976, in the Italian town of Seveso, a chemical plant exploded releasing a large amount of pure TCDD, or dioxin, into the air. The resulting health effects, in many ways similar to those seen in the Asian accidents, demonstrated that the toxic effects of dioxin exposure were varied.

While most exposed pregnant women chose to have an abortion for fear of giving birth to misformed children, some chose to keep the foetus. The children born were almost exclusively girls. This possibly points to hormone disruption in the foetus.

The children showed various developmental abnormalities and negative health effects, including liver damage. The liver is one of the most vital organs in the human body.

Zeeburg

While researching an article on epilepsy and congenital defects in 1973, Koppe and her colleagues serendipitously discovered what seemed to be a surprisingly high incidence of cleft lips and palates, or orofacial clefts, during the 1960s, in the Zeeburg area of Amsterdam, The Netherlands. This high incidence was not indicative of the

incidence at a maternity clinic (the Wilhelmina Gasthuis) elsewhere in the same city. Much later it was discovered that chemicals had been incinerated in the open air in the vicinity of the Zeeburg maternity clinic, at the Diemerzeedijk, during the 1960's.

The Diemerzeedijk waste site

The company responsible for the incinerations, which took place from 1961 to 1973, was allocated the "Diemerzeedijk" terrain in 1961. Commissioning commenced shortly thereafter. It was soon apparent that a tremendous demand existed for such an incinerator, and major multinational companies, many of whom were later to deny the fact, exploited the opportunity in order to dispose of chemical wastes. The incinerations must have proved lucrative, for the quantities of incinerated chemicals increased phenomenally. The incineration company promptly began importing waste chemicals for combustion from all over Europe, from countries such as Germany and Czechoslovakia, and even from as far as Finland. A scanty registration of the quantities combusted was kept. However, these figures have been shown to be up to 70% understated!

While the rapidly increasing activities were probably favourable to the incineration company, this was not so for many residents of the surrounding urban areas.

Innumerable complaints regarding the extreme smells and air pollution were made.

Whilst the incinerations (one to three thousand tons per time) took place merely once every one to three months, it was noted that on the days that they took place, sedimentation powders fell over the surrounding areas. This more than likely was also a consequence of the manner of incineration: the 100 L drums of chemicals were lined

up, to at times more than a hundred metres long, tens of metres wide and eight to ten barrels high. A number of the drums were then pierced, allowing the contents to flow out and this was then ignited. According to the official report of the City of Amsterdam this was quite an impressive scene to witness, with drums flying high into the sky as the chemicals and drums exploded! The thick pitchblack smoke columns, more than 100 metres high, were visible from tens of kilometres away. The fire department was notified before the chemicals were ignited.

The incineration company was found to be in violation of environmental legislation during the years of operation. This eventually led to the City of Amsterdam taking over the responsibility and drastically reducing the incinerations, and finally decommissioning the waste site in 1973.

Since then, the site has been found to contain numerous toxic chemicals and in toxic concentrations. Anno 1998, a quarter of a century after its closure, the Diemerzeedijk complex remained a prohibited terrain - this as a result of the toxicity. Anglers are prohibited from fishing in the vicinity of the Diemerzeedijk, for fear of their possible ingestion of the contaminated aquatica.

The occurrence of children born with an orofacial cleft in the Zeeburg maternity clinic showed a relatively gigantic surge in 1963-64, being seven-fold the average Dutch incidence. The very atypical trend of incidence over the ten year period, with the peaking in 1963-64, was clearly not indicative of the incidence elsewhere in the same city. The Wilhelmina Gasthuis trend displayed an incidence of between 1 and 3 cases

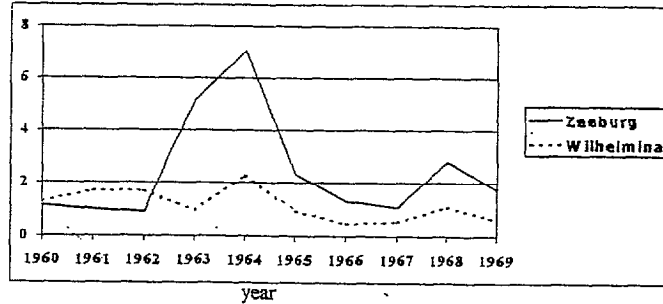
per 1000 births. This is in agreement with the average Dutch and Belgian incidence of 1.47 per 1000 births (including both syndromal and non-syndromal clefts) .

Furthermore, it remains remarkable that the incidence in Zeeburg dropped dramatically during 1965, plateauing at a level 155% higher than the Wilhelmina clinic. It is interesting to note that this rise in the incidence of orofacial clefts seems to follow the rise in tons of combusted chemicals. While there are no absolute amounts of combusted chemicals known for the years 1961 to 1964, evidence points towards a steady increase, which is evident from the years following, when more accurate records were kept.

The Zeeburg maternity population was a group selected on optimality regarding favourable, healthy pregnancies, with little chance of pathology, or disease. This in contrast to the Wilhelmina clinic where approximately half the population group was selected on possible or probable pathology. It is therefore to be expected, contrary to what was found, that there would then be a higher incidence of orofacial clefts in the Wilhelmina clinic than in the Zeeburg clinic. This can be seen in the fact that the average incidence of orofacial clefts in the Wilhelmina clinic (1.66 per 1000 births) is higher than the 1.47 per 1000 births reported for The Netherlands .

Non-syndromal orofacial clefts: trend of incidence for 1960-1969

per 1000 births (live + stillborn)



The wind in The Netherlands is normally from the southwest, but often comes from the southeast and east. Assuming that the company only combusted the chemicals while a south-westerly wind was blowing (which was the regulation), residues and sedimentation powders would then be blown east and north-east, over a lake, the IJssel Lake. What if the wind changed direction during the day, or if the company, in violation of the stipulations, decided to combust while the wind was blowing from the south-east or east? These same residues would then be blown northwest and west over urban areas of Amsterdam. It is then very interesting to note that there was an atypical grouping of orofacial clefts to the northwest and to the west of the Diemerzeedijk incineration complex.

While researching the incidence of orofacial clefts we noted that a large number of babies born in the Zeeburg clinic had midline defects. This we found surprising, bearing in mind that the Zeeburg population was selected on optimal, healthy pregnancies, and that any indications of pathology were reason for the birth to take place in the Wilhelmina clinic. The central nervous system (CNS) defects were

mostly spina bifidas and genital defects mostly hypospadias. The incidences fell within the normal incidence range (approximately 3 CNS defects per 1000 births and approximately 1 genital defect per 300 births). However, in view of the population selection, these incidences are possibly too high. Interestingly, when we plotted the residential addresses of the children born with CNS and genital defects, the vast majority lay to the northwest of the incineration site, with a smaller group to the west, in other words similar to the clefts.

The results then strongly suggest an association between the incineration of chemicals, and the increased incidence of orofacial clefts.

While it might be argued that the chance of accidental exposures is not high, it is always present when an incinerator is present. To illustrate, during the past couple of years fires have broken out at no less than three municipal incinerators in The Netherlands alone, whereby dioxins and other toxic chemicals have been emitted into the environment (and therefore also into the food chain). When the Elbe flooded its banks during the summer of last year, a chemical factory 15 km north of Prague was flooded, resulting in amongst other chemicals, dioxin contamination.

Wherever toxic chemicals are stored, there is an ever-present danger of environmental contamination, with resulting negative health effects. Not forgetting the fact that the chemicals have to be transported to the waste site. Over the past few years there have been numerous road, rail and shipping accidents whereby chemicals and toxic wastes have been released into the environment.

Amsterdam/Zaandam cohort

The shocking finding of dioxins in human breastmilk in women not living in "contaminated" areas led to growing concern over possible teratogenic (causing effects in the foetus) and long-term health effects in children prenatally, or in utero, exposed to "background" concentrations. Background concentrations being the concentrations found in average, healthy people, not living in areas at extra risk for exposure. It was in this setting that a Dutch long term follow-up study was started in 1989, by Koppe and Pluim, which later became known as the Amsterdam/Zaandam study. Various abnormalities were seen. The number of subjects in the Amsterdam study was limited, yet the results seen in this group were alarming enough to prompt a large cohort study, supported by a governmental institution, to re-evaluate the dioxin and PCB effects of perinatal, or around the birth, exposure in children. The Rotterdam and Groningen group elicited similar findings to what the Amsterdam/Zaandam group had found, supporting the validity of the concerns. Studies in various other countries have also shown childhood effects of perinatal exposure.

What health effects are seen?

In animal studies, dioxin exposure has been demonstrated to have effects on various systems in the body. In addition, it has become clear that the foetus and new-born baby are the most vulnerable subjects. Their developing systems are exposed to the dioxin concentrations of the mother during pregnancy, and after birth by their

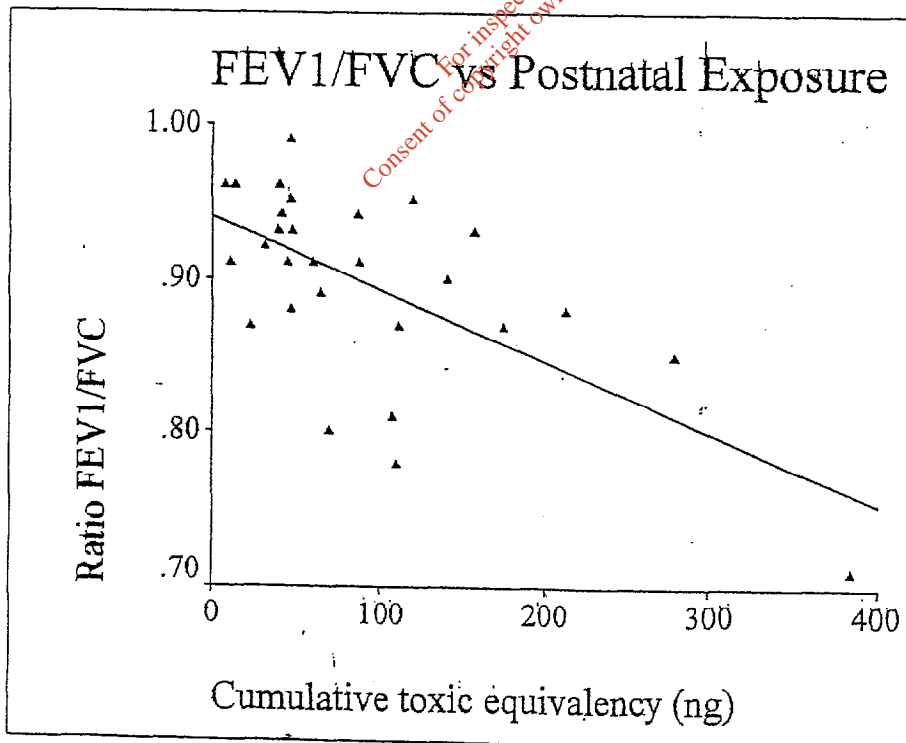
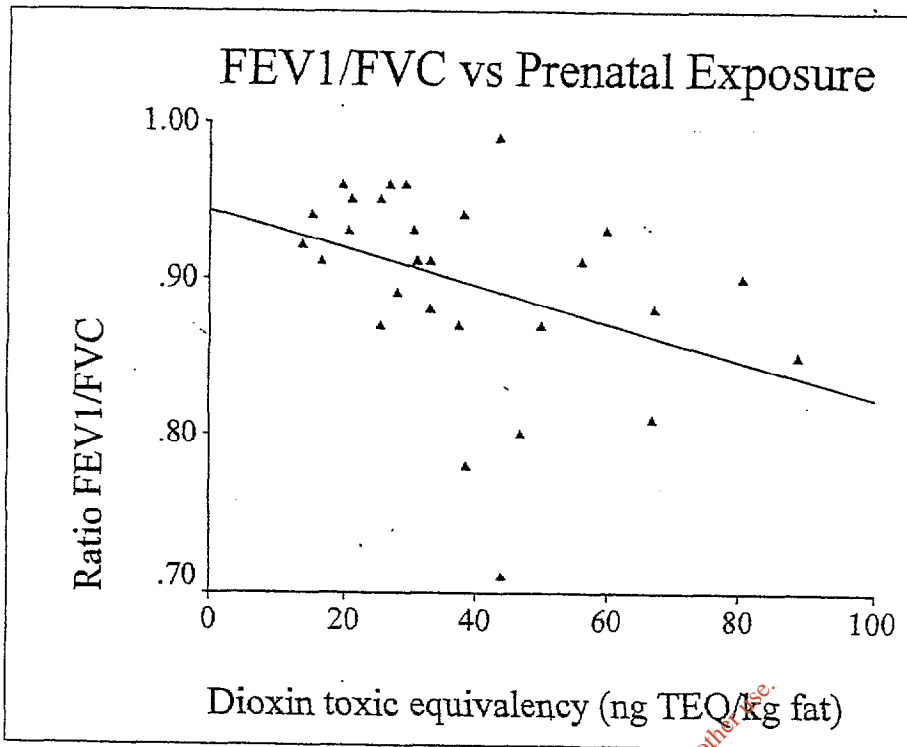
Still best for baby - advantage better breast

ingestion of contaminated breastmilk. The susceptibility of the foetus and new-born is the result of the many imprinting processes that take place in the perinatal period .

Lung function

In both animals and humans, the respiratory system is a target of dioxin toxicity. In the Amsterdam study we evaluated lung function in the children. A comprehensive medical history was taken and the children underwent spirometry, a test to evaluate lung function. The results showed that the higher the exposure in the uterus, the worse one's lung function at pre-puberty age. Similarly, the higher the exposure via breastmilk, the worse one's lung function. Finally, the higher the exposures, the higher the occurrence of asthmatic complaints.

For inspection purposes only.
Consent of copyright owner required for any other use.



Perinatal haematology and immunology effects

Shortly after birth, effects on blood cells and immune system are seen in exposed children. Plum et al. found thrombocyte (blood platelet) counts to be significantly decreased during the perinatal period, in relation to increasing postnatal dioxin exposure. Plum also found a reduced number of granulocytes (cells necessary for a normal functioning immune system) in relation to prenatal dioxin exposure. Similarly, Weisglas-Kuperus found reduced numbers of granulocytes during the perinatal period.

The lowering of white blood cell and blood platelet counts is probably due to an inhibition of the bone marrow by dioxins. That in the neonatal period both thrombocytes and white blood cells were affected, possibly points in the direction of damage to stem cells.

Toddler haematology and immunology effects

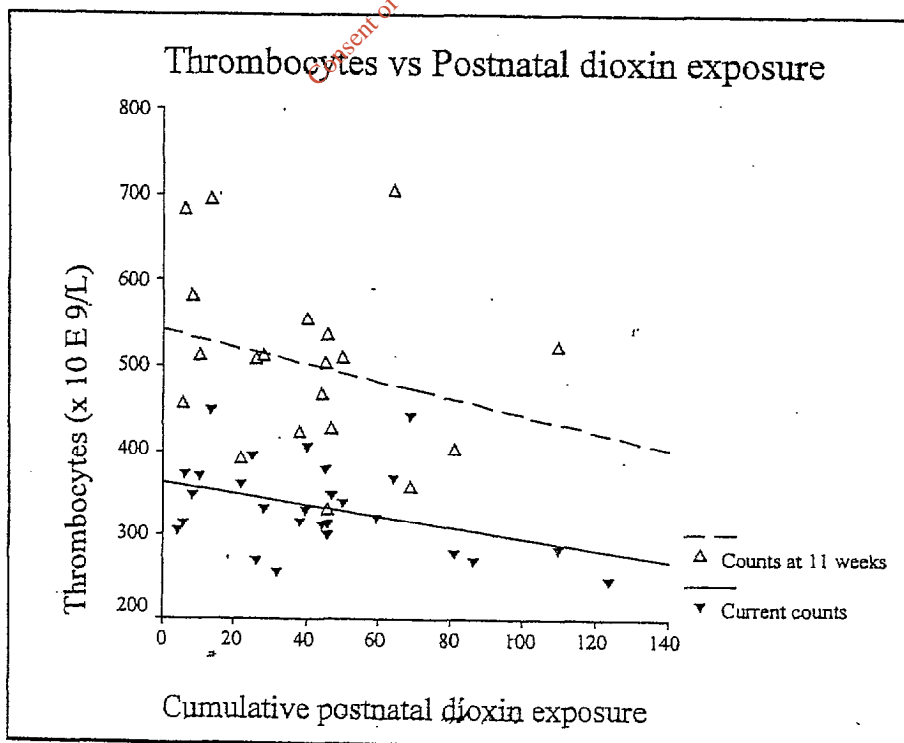
In follow-up studies in toddlers, at the age of 42 months more middle-ear infections were found in relation to the current PCB-levels of the children.

Eighteen month old children exhibited an increase in T-cells (CD8+, amongst others), cells necessary for effective immunity, which persisted until at least the age of 42 months. Additionally, amongst the forty-two month olds, a higher incidence of chickenpox was elicited relative to the sum of the maternal PCBs, and levels of

antibodies to measles were lower in relation to the sum of the PCB levels in cord blood.

Childhood haematology and immunology effects

In later childhood, even at Dutch background exposure levels, we saw a persistent negative effect on thrombocyte numbers, in conjunction with an increased thrombopoietin concentration (a substance necessary for production of thrombocytes), indicating a production problem at stem cell level, in bone marrow. A decrease in allergy, increase in T-helper cells and CD45RA positive cells were seen in relation to cumulative postnatal dioxin exposure. In other words, damage done in the womb and during the suckling period have far-reaching consequences.



Thyroid gland

Dioxins have a similar chemical structure to thyroid hormone, thyroxine. Pluim, in the Amsterdam/Zaandam group of children, found a tendency toward higher thyroxine (T4, a hormone necessary in all body cells for growth and normal metabolism) concentrations at birth in relation to increasing prenatal dioxin exposure. He also found increased mean T4 concentrations and increased T4/thyroxine-binding globulin ratio, at one and eleven weeks of age, related to dioxin exposure. TSH (the thyroid regulating hormone) levels, while being similar in the higher and lower exposure groups at birth and one week post partum, were significantly higher in the higher exposure group at eleven weeks of age. Similarly, the Rotterdam/Groningen study group also found disruptions in the thyroidal system. Thyroid hormone is essential for normal intelligence and low levels lead to intellectual impairment.

Liver

The liver is the first and primary organ where dioxins arrive in babies and children. The Amsterdam/Zaandam children exhibited decreased liver size with increasing dioxin exposure. A functioning liver is essential for life. Plasma alanine (ALAT) and aspartate (ASAT) aminotransferase activity was found to be significantly increased at eleven weeks of age, in relation to increasing cumulative (postnatal) dioxin exposure.

Intelligence

Persistently reduced I.Q. scores were seen in relation to higher in utero PCB-exposure in Rotterdam/Groningen and the U.S. A negative relation was found between cognitive functioning (from 2 to 6-8 points lower IQ) at 42 months, and the sum of the PCBs measured in maternal blood collected in the last month of pregnancy. Overall cognitive functioning was negatively influenced, as was the verbal comprehension score. This finding is in accordance with the study of the Jacobsons', who noted a negative effect of prenatal exposure to PCBs on cognitive functioning, at the age of four years. Furthermore, at the age of eleven years, in the Jacobson study, IQ-test scores were lower in the higher exposed children. Difficulties in verbal comprehension were elicited and the ability to concentrate was reduced in the higher exposed children. The latter were more than twice as likely to be two years behind in reading skills and word comprehension.

Behaviour

Behavioural imprinting is a further example of environmental influences playing a pertinent role in the perinatal period. Appropriate reactions, such as bonding, are dependant on appropriately working hormonal systems in a baby.

Teacher Report Form

Subtests	prenatal exposure	postnatal exposure
Withdrawn	p=0.404	p=0.891
Somatic Complaints	p=0.052	p=0.081
Anxious/Depressed	p=0.461	p=0.013 ¹ (B=0.02)
Social Problems	p=0.105	p<0.001* ¹ (B=0.03)
Thought Problems	p=0.126	p=0.005* ¹ (B=0.009)
Attention Problems	p=0.861	p=0.065
Delinquent Behaviour	p=0.894	p=0.156
Aggressive Behaviour	p=0.928	p=0.001* ¹ (B=0.03)
Internalised Behaviour	p=0.801	p=0.253
Externalised Behaviour	p=0.919	p=0.002* ¹ (B=0.04)
Total Behaviour Score	p=0.827	p=0.003* ¹ (B=0.12)

Child Behaviour Check List

Subtests	prenatal exposure	postnatal exposure
Withdrawn	p=0.082	p=0.961
Somatic Complaints	p=0.046 ¹ (B=0.05)	p=0.477
Anxious/Depressed	p=0.002* ¹ (B=0.106)	p=0.394
Social Problems	p<0.001* ¹ (B=0.09)	p=0.001* ¹ (B=0.02)
Thought Problems	p=0.564	p=0.450
Attention Problems	p=0.125	p=0.108
Delinquent Behaviour	p=0.924	p=0.270
Aggressive Behaviour	p=0.158	p=0.058
Internalised Behaviour	p=0.007 ¹ (B=0.20)	p=0.548
Externalised Behaviour	p=0.248	p=0.075
Total Behaviour Score	p=0.016 ¹ (B=0.47)	p=0.087

In the follow-up of the Amsterdam/Zaandam study we found an increase in social problems, anxious/depressed feelings and aggressive behaviour with increasing dioxin exposure. And these abnormalities were found in two environments: the “competitive” school environment (TRF) and “safe” home environment (CBCL).

Rotterdam and Groningen

Follow-up of brain development was done at the ages of 18 and 42 months. The study detected hyperactivity and slower mean reaction times in relation to the current PCB levels in the children.

The Rotterdam cohort was followed-up at the age of 7 years and fine motor performances were tested. There were more left-handed children in relation to higher prenatal PCB exposure as measured in maternal blood in the last month of pregnancy.

Brain development

The Zaandam group was studied at the age of two years and seven months. Signs of enhanced neuromotor maturation were found. A recent study in Germany demonstrated the negative effects on neurodevelopment up to 42 months of age, arising from prenatal, and also postnatal, exposure to PCBs. A deficit of 8 and 9 points was seen for mental and motor development respectively. At 42 months an intelligence test was performed to assess higher brain functions. Using this test postnatal exposure, as measured in blood at 42 months, was related to a significantly lower IQ.

At our follow-up at the age of 7-12 years, the higher exposed Amsterdam/Zaandam children showed a cerebral developmental delay of about 3½ years compared to the

normal curve, as measured with MEG and EEG. Furthermore, the behavioural problems seen could possibly be explained by the MEG/EEG findings. The speed at which a stimulus is processed and the intensity of the signal show a negative relation with the dioxin exposure.

Dental problems

Finnish researchers found an increased number of caries in children, in relation to postnatal dioxin exposure (via breastfeeding). Dental anomalies were seen in children following the Yusho and Yucheng disasters.

Summarizing

1. congenital malformations
2. endocrine (hormone) disruption
3. pulmonary problems with high mortality
4. haematological problems
5. immunological problems
6. disruption of thyroid homeostasis
7. liver damage
8. I.Q. deficit
9. increase in behavioural problems
10. retardation in brain development

11. increasing dental problems

Conclusion

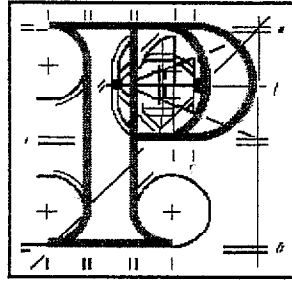
1. Our children are already being exposed to far too high background exposures.
2. Any increase, or even risk of increase, in this exposure, for instance in the case of an accident, only increases the damage done to them.
3. Dioxins, PCBs and other persistent organic pollutants remain with us for many years. We cannot get them out of our system.
4. There is always a pollution risk at an incinerator and the more toxic, and the larger the amounts of, the chemicals at the site of the accident, the more damage done.
5. It is not wise to reduce, or risk reducing, the health and/or I.Q. of our children, and their children.
6. In the best interests of the larger community, don't allow an incineration facility in County Cork.

*don't touch
this
part
of
your*

May the people of County Cork continue to enjoy its beautiful surroundings for many, many years.

Thank you for your attention.

AN BORD PLEANÁLA



Inspector's Report

PL04.131196

DEVELOPMENT:-

Waste Management Facility, comprising a waste to energy facility, waste transfer station and community recycling park and incorporating a main building, turbine building, office buildings, a sampling building, warehouse, storage tanks, security buildings, electricity sub-station, service yards, car parks, roads, landscaping and site works including sewage treatment plants to treat sanitary effluent from the facility at Ringaskiddy, Co. Cork

(The application is accompanied by an EIS)

PLANNING APPLICATION

Planning Authority: Cork County Council
Planning Authority Reg. No: S/01/6215
Applicant: Indaver (Ireland) Ltd
Application Type: Permission
Planning Authority Decision: Refuse, for one reason.

APPEAL

Appellants:

1. C.H.A.S.E. (Carrigaline)
2. C.H.A.S.E. (Cork – Bishopstown)
3. C.H.A.S.E. (Monkstown/Passage/Glenbrook/Rafeen Group)
4. Cork Environmental Alliance
5. East Cork for a Safe Environment
6. Carrigaline Community for a Safe Environment
7. Ringaskiddy and District Residents Association
8. Kinsale Environmental Watch
9. Cobh Action for Clean Air
10. Kate Corcoran and Susan Hackett
11. Ann Mária Russell
12. Dan Boyle TD
13. West Cork Green Party
14. An Taisce
15. The Hope Project
16. The Oysterhaven Centre
17. Crosshaven for a Safe Environment
18. Carrigaline Irish Farmers' Association
19. Growing Awareness Ltd
20. Irish Doctors Environmental Association
21. Dr G. Myrtle Allen and Darina Allen
22. Bertie Cronin
23. Michael and Natasha Harty
24. John and Joan Masson
25. Indaver (Ireland) Ltd.

Type of Appeal:

- (A) Third Party - v – Decision (nos. 1- 24)
(B) First Party - v – Decision (no. 25)

Observers:

25 no. (see report for listing)

DATE OF SITE INSPECTIONS:

19/8/03, 2/10/03, and 3/10/03.

SENIOR INSPECTOR:

Philip Jones

INTRODUCTION

This is an appeal by 24 no. third party groups and individuals in respect of the decision made by Cork County Council to refuse permission for this development, wherein they support the decision but argue that the refusal should have been made on further grounds, in addition to the single reason for refusal cited by the Council, and a first party appeal against that refusal decision. The third party appeals are supported by observations from 25 no. groups and individuals.

The appeal was the subject of a lengthy and extremely detailed oral hearing, held in Cork between September 22nd 2003 and October 10th 2003. A summary of the proceedings of the oral hearing is included in Appendix 1 to this report, with a number of written submissions presented at the hearing being included in Appendix 2. Appendix 2 also provides a full set of the Closing Statements on the appeal, as submitted by all of the parties present at that time.

The full proceedings of the oral hearing are contained in a package of CD-ROM's, which is appended to this report. Relevant extracts from the Cork County Development Plan, other local policies and Regional and National policies relevant to the development, together with copies of a number of International Conventions and Guidelines (WHO) that were adverted to in some detail during the processing of the application, are included in Appendix 3 to this report. [It is considered appropriate to provide these documents in full, with in some cases the relevant passages highlighted, rather than including extensive quotations from the documents in the body of the text of the report.]

INSPECTION

I inspected this site and its environs on 19th August 2003, and also during the evenings and early mornings of the oral hearing on October 2nd and 3rd 2003. During these inspections, I took a number of photographs of the site and its environs. These are included, together with some location and site key maps, in Appendix 4 to this report.

[Note that there are a large number of further photographs of the site, including some aerial photographs and photomontages in the submitted Environmental Impact Statement submitted with the application, and also attached to a number of the submissions made by third parties and observers during the course of the oral hearing.]

SITE LOCATION AND DESCRIPTION

The site, which has a stated area of 12.3 hectares (30.5 acres), is located at the extreme eastern end of the peninsula of Ringaskiddy, in the southern part of Lower Cork Harbour, and approximately 12 km from Cork City centre. This peninsula is effectively an elevated promontory, with generally steep sides (particularly on the northern (site) side, on the crest of which is a Martello Tower). There are extensive views in all directions from the top of this hill.

Immediately to the **east** of the site is a foreshore/beach (known locally as Gobby Beach), which is generally at a lower level than the site, and the south-eastern corner of the site is separated from the beach by cliffs. Gobby Beach faces the West Channel of Cork Harbour, separating the mainland from Spike Island, to the north-east, which is currently used as a prison. The beach is accessed from the public road via a small public car park (known locally as Paddy's Point), from which there is a public footpath to the foreshore.

To the **south** of the site, at a higher level on the top of the hill, is open farmland, containing a Martello Tower and associated moat. This is accessed by a footpath from the west, and also appears to be accessed through the subject site (I was unable to ascend the full length of this footpath during my inspections, due to the amount of undergrowth on the site). Beyond this farmland, on the lower ground below the hill, and adjoining another inlet of the Harbour, is a large industrial complex (Pfizer Loughbeg).

To the **north** of the site is a poorly surfaced public road, the LP2545, which connects with the village of Ringaskiddy and the N28 National Route from Cork City. Beyond this road is open land, partly used for the storage of motor vehicles, partly for a warehouse complex, and partly a construction site for the National Maritime College of Ireland (see planning history section, below). The road fronts the site and then turns northwards towards Haulbowline Island, in the Harbour, which is connected to the mainland via a succession of two bridges, with Rocky Island in between the bridges. Haulbowline Island contains the Headquarters of the Irish Naval Service, including Dock facilities, and also the unused and apparently semi-derelict Irish Steel / Irish ISPAT Complex (part of which is also on Rocky Island). Beyond this, at a distance of approx. 2 km, is clearly visible the town of Cobh.

To the **west** of the site is open ground, including a large field with a dwellinghouse within it, and beyond this is the housing and limited retail/commercial properties of Ringaskiddy village. To the north of the village is the Deep Water Port, which includes the Ferryport for passenger ferries to the UK and France, as well as commercial berths.

The site encompasses and surrounds a separate property, which is known as the Hammond Lane Foundry complex. This appears to be a scrap steel and vehicle dismantling and materials recovery facility. It involves a number of large industrial plant type machinery and buildings, some lower service buildings, and a very large mound or "slag heap" of waste materials from its processes, some of which appears to have encroached onto the subject site. The Hammond Lane facility is accessed from the public road via a large industrial gate.

The site itself is generally rectangular, with the exception of the central inlier of the Hammond Lane facility. Along the front (close to the northern boundary) the site is low lying, virtually at road level, with some evidence of water lodging (the ground was very soft when I inspected it in August after many weeks of dry and sunny weather). Beyond this lower level, the site extends sharply upwards towards the top

of the hill, with a distinct escarpment. The lower parts of the site are generally in grass, with the upper parts in rough scrub woodland.

The **general area** is a mixture of rural farmland and industrial/residential development. There are a number of very large industrial complexes in and around the village of Ringaskiddy, and an adjoining village, Shanbally, also on the N28. The N28 itself, which begins in Ringaskiddy village at the entry to the Ferryport, runs generally westwards, with a number of roundabouts at various points, including at the entrances of some of the large industrial plants, and also at Shanbally village (where it immediately adjoins a public house, shop, Church and primary school). It then turns northwards at a large roundabout (known locally as the Shannonpark roundabout), which also takes the road from the developing Cork Satellite town of Carrigaline, to run towards the southern suburbs of Cork City. It by-passes Douglas village and then links in with the Southern Ring Road around Cork, and the Link Road to the Jack Lynch Tunnel. Within Ringaskiddy, the N28 is generally a wide single carriageway road, but north of Shannonpark roundabout, along Carr's Hill, it is quite narrow and rural in character.

There are a number of more minor roads off the N28, some of which serve the industrial plants and others the farmsteads in the vicinity. There is a significant local road, the R610, coming off the N28 at Rafeen Bridge, which leads to the towns of Monkstown and Passage West and (via a ferry) to Cobh. This is a narrow winding rural road. The town of Carrigaline is accessed not only from the N28 beyond Shannonpark roundabout, but also by a regional route, the R613, which runs generally south-westwards from Ringaskiddy. This road runs past some of the industrial plants, and the smaller hamlet of Currabinny, and approaches Carrigaline from the east. With the exception of some local widening near industrial plants, this road is also a narrow and winding rural road, with a significant level of one-off ribbon development of housing.

PROPOSED DEVELOPMENT

The proposed development is set out in the published notices. The details are given in submitted drawings, in the responses to the planning application form, and in the outline specification. Essentially, the development involves the construction of a mixed hazardous and industrial non-hazardous waste management facility, and many be conceptually split into three sections, as follows:-

A. Community Recycling Park

This is proposed in the western portion of the site, and involves the construction of a paved area, laid out in a roughly oval shape, with vehicular access from the public road through the waste transfer station/storage facility. Off this paved area are proposed a number of separate waste receptacles, intended to provide a facility for the general public to bring waste for recycling. It is stated that this facility would be similar to the conventional "bring-bank" or "civic amenity" site, but would accept a wider range of recyclable material. The items deposited in the recycling park would subsequently be sent off-site to "suitable recycling facilities". It is proposed to

landscape this recycling park, with berms and trees/shrubs. A 2 metre high palisade fence is proposed around the external perimeters of the site, and a chainlink fence where it borders the Hammond Lane facility. It is indicated, on site layout drawing no. C05/APP/92/100, that the route of the N28 realignment (see below) will run along the western perimeter of the site.

B. Waste Transfer Station and Storage Facility

This waste transfer station and storage facility is proposed along the site frontage, directly in front of (to the north of) the Hammond Lane complex. It would comprise a warehouse (109 metres long, with a height of 11 metres over a raised ground level of 2.65 metres), and a storage compound for industrial hazardous and non-hazardous waste. Industrial waste would be stored at the transfer station, and would be then prepared either for shipment overseas, or for incineration on-site. Liquids for incineration on site would be bulked up and transferred to the proposed incinerator.

It is stated that there would be covered storage for 1800 drums of waste at any one time (although the drawings show space for 1960 drums). The bulk liquid waste tanks would have a capacity of 100 cubic metres, and there would be space for the parking of 10 to 12 trucks (holding solid wastes) on the hardstanding. The transfer station incorporates drum washing and tanker loading/unloading facilities, and sampling/testing buildings. A single vehicular access, which is shared with the community recycling park, is proposed to the public road, located to the west of the existing Hammond Lane entrance. A 2 metre high palisade fence is proposed along the site frontage, and along its eastern perimeter, with a chainlink fence separating the rear from the Hammond Lane facility (with the exception of a short stretch of "fire wall"). Apart from a low berm with planting along the frontage, it is not proposed to landscape this aspect of the development.

Between the waste transfer station/storage facility and the recycling park is proposed an administration/office building, with associated car parking. This is a two storied flat-roofed cladded building, with additional plant storey on top.

C. Waste Incinerator and Associated Energy Production Facility

The third, and major, part of the development is the proposed waste incinerator and association energy production facility. This is proposed in the eastern part of the site, and effectively running for the full depth of the site, from road edge to the top of the hill. It is proposed to excavate large parts of the sloping hillside in order to provide the main incinerator building, which would be accessed from the front (north) via a direct vehicular access from the public road. There would also be a second (emergency) vehicular access further to the east). The main building is proposed to be 35 metres in height, over a ground floor level of c. 5.77 metres O.D., with underground bunker and storage areas which would involve excavation up to 5 metres below ground level. In addition, a stack is proposed which is stated would be 55 metres in height, over a ground floor level of c. 5.77 metres O.D.

The proposed **incinerator building** is effectively L-shaped, with the long section running parallel to the public road, though at a higher level, and 55 metres back from the road. It would be 190 metres long, with 45 metres depth. The bunker area and reception hall would project behind the western section of the building, forming the end to the "L" shape, and enclosing a service yard to the rear.

Due to the slope of the site, and the proposed excavation and ground modelling, it is proposed that the vehicular access would run through the site, from the entrance to the west, with a climbing truck access around the front of the building, then along its eastern side, up a sloping roadway, and thence into either the service yard (for discharge of liquid wastes) behind (to the south of) the main building, or by a further access route to the rear of this to the reception hall where other wastes would be discharged by gravity into the waste bunker (see Drg. No. C05/APP/92/100). The EIS (Chapter 3) contains fuller details of the description of the process, including a process flow diagram.

To the south-east of the main incinerator building is proposed the **energy facility** (turbine building with turbines and condensers), which is effectively a stand alone building between the two access routes for waste trucks. It would be 35 metres long and 30 metres deep, with a parapet height of 24 metres above a ground floor level of 5.77 O.D. Between this building and the reception hall is a further bulk tank storage area, (described on the submitted drawings as a "tank farm" with a number of tanks for holding waste solvents etc. At the eastern extremity on the upper level of the site are smaller buildings for gas storage and nitrogen generator (as the process involves the use of natural gas for heating/starting).

It should be noted that the main process building, and the other associated buildings in this part of the site, have all been designed, and sized, to cater not only for the proposed mixed hazardous and non-hazardous waste facility, of 100,000 tonnes capacity, which is the subject of the present planning application, but also for an additional incinerator and process stream for a further 100,000 tonnes of municipal waste. It is stated that this latter incinerator will be the subject of a future planning application. The present proposal is described in the EIS as Phase 1, with the municipal waste facility being described as phase 2.

The proposed incinerator facility, as described in the EIS, involves two separate items – firstly a fluidised bed incinerator, with an expected working temperature of c. 850 degrees, and a capacity for 60,000 tonnes of solid and other wastes, and secondly a post combustion chamber (mainly for liquid wastes), with an expected working temperature of c. 1100 degrees and a capacity for c. 40,000 tonnes. In addition, there are flue gas cleaning systems and a stack sized to take two flues, from Phases 1 and 2.

This part of the site is proposed to be extensively landscaped, with berms and dense tree planting. (The evidence given by M. Hallinan during the oral hearing, in response to questions from the parties, sets out the rationale for the landscaping approach).

It is indicated that the energy that is to be produced by the proposed development, after allowance for on-site demand, would provide 8MW to the national grid. The connection to the national grid is not included with the present application, and there

were differing interpretations, during the course of the oral hearing, of the term "subject of a separate application", that was used by the applicants on the planning application form, as to whether this related solely to permission from the Commission for Electricity Generation to discharge electricity to the grid, or also to a future application for planning permission for transmission lines to link the development to the existing network (there are pylons nearby on the top of the hill).

It is stated that natural gas would be used to start-up the incineration process following a shutdown period and to boost the incineration temperature if the temperature within the furnace/boiler falls below a minimum value. There is an existing gas main running through the site, which is proposed to be relocated clear of the new buildings.

According to the planning application form, the total gross floorspace proposed would be 23,169 sq. metres, with the process building accounting for 17,430 sq. metres of this total.

External Appearance

The waste storage warehouse and administration buildings are proposed to be clad, in single coloured proprietary cladding (in the case of the warehouse a dark green colour, and in the case of the administration building a colour to be agreed with the Council). The proposed turbine building is proposed to be finished in a blue cladding, as is the reception hall to the rear of the main process building. All of these buildings are relatively conventional in appearance and form.

The main process building, by contrast, is proposed to be curvilinear in shape, with inclined planes and sloping roof, which seeks to mimic the shape of the hill behind it. However, due to its height, the building at its crest will rise considerably above the top level of the hill behind it, and hence would be visible from areas to the south of Ringaskiddy (Crosshaven, Currabinny etc.) as it breaks the skyline of the hill.

The proposed finishes for this building involve the use of different panels of cladding, using five colours (light and dark green, mid and dark blue and silver), in addition to louvered aluminium ventilation vents. It is stated on the drawings and in the application documentation that these panels will be provided in a random mix, but the coloured elevations (see Drg no. C05/APP/92/112) appear to indicate a colour shift in the pattern, with predominantly blue colours towards the western end, and predominantly green and silver towards the eastern end. On top of this cladding on the south, eastern and western elevations, it is proposed to have a translucent cladding, through which the mix of colours would be seen, but muted from a distance.

The basis for this approach is outlined in general terms in the EIS (section 5.8). It is argued that this "disruptive pattern" is most suitable to minimise the impact of the very large process building. (The basis for this theory was the subject of questions at the oral hearing to Mr D. Deasy – the Council's Architect – who indicated that he was not aware of any building using this approach anywhere else in the Cork Harbour area, and of Mr Frank O'Mahony, the applicants' architect, who indicated that the approach had been used on Merck Sharpe and Dohme in Co. Tipperary and in Blarney business park).

Services

It is proposed to discharge **surface water** from the community recycling park directly to the Council's combined sewer on the public road at the front of the site. In the case of the waste transfer station and the waste to energy facility, storm water is proposed to be discharged, following storage in storm/firewater retention tanks and testing (for compliance with whatever limits are set in the EPA license), into the public combined sewer on the public road. It is indicated that any contaminated surface water would be either incinerated or sent off site for "alternative treatment".

It is proposed to discharge **sewage** effluent from the staff on site (a total employment of 57 is envisaged) into a package sewage treatment plant on site, and then discharged into the Council's combined sewer on the public road. Effluent from the processes, including wastes from drum washing and run off from unloading areas is proposed to be collected in sumps and tested, and if within EPA license limits, to be discharged to the public sewer. If outside these limits, it is indicated that the effluent would be incinerated or taken off site for "alternative treatment".

It is indicated that **water** supply would be taken from the Council mains in the public road, for both potable and firewater purposes. In the case of process water, it is indicated that this would partly come from the Council watermains and partly by the recycling of storm water drained from the roof areas of the main building. It is indicated that total water demand is likely to be, on average, 16 cubic metres per hour.

ENVIRONMENTAL IMPACT STATEMENT

The planning application was accompanied by an Environmental Impact Statement, in two volumes, which sets out the applicants' estimation of the significant impacts of the proposed development on the environment. It should be noted that this EIS relates to both the Phase 1 development (which is the subject of this planning application) and also the Phase 2 development of the municipal solid waste incinerator (which it is stated would be the subject of a potential future application). In addition, the EIS looks at issues relating to the risk of environmental pollution from the activity, such as air emissions, which are matters that the Board is precluding from considering in dealing with the application (see the "Legal Provisions" section of this report, below).

The Structure of the EIS is as follows:-

1. Non-Technical Summary
2. Project Background
3. Site and Scheme Description
4. Planning and Policy Context
5. Landscape and Visual Impact
6. Roads and Traffic
7. Construction Activities
8. Noise and Vibration
9. Air Quality/Emissions

10. Flora and Fauna
11. Soils, Geology, Surface Water and Groundwater
12. Material Assets
13. Archaeology and Cultural Heritage
14. Impact on Human Beings
15. Climate
16. Other Impacts and Interactions
17. Summary of Mitigation Measures and Residual Impacts

It is stated that the EIS was prepared in accordance with the draft "Guidelines on the Information to be contained in Environmental Impact Statements" and with "Advice Notes on Current Practice in the Preparation of Environmental Impact Statements", published by the EPA in 1995.

It is submitted by the applicants' consultants that the proposed development would not, overall, have significant adverse impacts, following mitigation measures as outlined by them, and subject to compliance with the conditions of the future Waste License.

In the case of **visual impact**, it is predicted by the applicants' consultants (see chapter 5) that there would be residual significant impacts, following mitigation, on views from the public road adjacent to the site, from the West Channel of Cork Harbour to the east, and from the southern side of Haulbowline island, and moderate impacts from Monkstown and Rushbrooke, from Ringaskiddy village and from the Martello Tower. (Note that this analysis is based on a number of assumptions, including that the proposed landscaping will reach the heights predicted within the time periods predicted, as shown on the photomontages, and also on the ameliorative effect of the proposed external appearance of the main process building. These issues are considered further in the Assessment later in this report.)

In terms of **traffic impact**, it is predicted by the applicants' consultants that there would be percentage increases in traffic during the construction phase of the development (expressed in numbers of vehicles) during the morning peak period (6 am to 7 am) of +81% to +553% (over expected levels in 2004 without the development) on the N28 at Rafeen Bridge and as one approaches Ringaskiddy village itself, and +37% on the N28 north of the Shannonpark roundabout (see Table 6.24). In terms of the operational traffic, the corresponding percentage increases during the morning peak period, assumed to be 7.45 am to 8.45 am, would be +2% to +7% over expected levels in 2004 without the development, but would be +7% to +20% during the 1 p.m. to 2 p.m. period, and +3% - +15% during the 4.30 p.m. to 5.30 p.m. evening peak. However, it is argued that all of the roadways in the vicinity of the development will have sufficient capacity to cope with the projected volume, except the N28 north of the Shannonpark roundabout. In addition, it is accepted that a number of the junctions and roundabouts will experience increased congestion, over existing congested conditions, as a result of the development, leading to increased queues and delays, particularly on the Shanbally roundabout. It is concluded that the amelioration of these problems will be facilitated by the proposed NRA Ringaskiddy Bypass Scheme. (Note that the assumptions used, and some of the survey data provided for baseline purposes, was questioned during the course of the oral hearing,

and the conclusions reached under traffic impact were seriously undermined. These issues are considered further in the Assessment later in this report.)

In terms of **construction impacts**, it is predicated by the applicants' consultants that, with "proper construction management", there will not be any negative impacts arising from the proposed development, following mitigation. (Note that this analysis is based on a number of assumptions, and data that is not included within the body of the EIS, but was later partly provided in evidence at the oral hearing, and partly not provided at all. These issues are considered further in the Assessment later in this report).

In terms of **noise impacts**, it is predicted by the applicants' consultants that there would be "some small impact" on nearby residential properties during the construction phase, but that this would not be excessively intrusive in the light of the existing background levels, including from industrial sites in the vicinity. In relation to the operational phase, it is predicted that noise levels would not exceed EPA recommendations of 55 dB(A)_{1eqT} and 45 dB(A)_{1eqT} for daytime and night-time periods respectively.

In terms of **air pollution/air quality**, it is predicted by the applicants' consultants, based on air quality and air dispersion modelling, that all substances that would be emitted from the development would be at levels that would be below relevant air quality standards and guidelines (see Chapter 9). It is argued in the EIS that the worst case scenario has been taken, based on various assumptions regarding operation and meteorological conditions. However, there was extensive criticism of the baseline meteorological data used by the applicants by third parties, both in written submissions and during the oral hearing, and these were not significantly refuted by the applicants. This issue is further considered in the Assessment. (Note that the issue of air quality and air pollution, apart from the issue of the adequacy of the EIS, is a matter that falls to be determined in the Waste License application, by the EPA, as outlined in the "Legal Provisions" section of this report, below.)

In terms of **impact on flora and fauna**, it is predicted by the applicants' consultants that there would not be any significant adverse impacts arising from the construction of the proposed development, other than some reduction in the use of the site by birds and a cessation of use of the site by foxes, due to the loss of habitats where buildings are proposed. However, it is contended that the existing badger sett on the site would not be disturbed, and could be protected to prevent cessation of use of the undeveloped portions of the site by the existing badgers. No bat survey was undertaken, nor was there any survey of any flora and fauna outside the boundaries of the site. (This issue was the subject of considerable comment and criticism during the course of the oral hearing – see Mr G. Morgan's evidence and questions for Mr Morgan in Appendices 1 and 2 to this report).

In terms of the **impact on geology/soils/surface water and groundwater**, it is predicted by the applicants' consultants that, with the implementation of construction management, and mitigation measures such as the provision of bunded storage and stormwater retention tanks, there would not be any significant negative impacts on geology, soils, surface water and hydrogeology. (Note that this chapter of the EIS is

based on a detailed soil and hydrogeological investigation carried out for the applicants at the time of purchase of the subject site, but the data from this investigation is not given in the EIS. This lack of data was criticised by parties during the course of the oral hearing, particularly in relation to evidence given by a noted geologist. It was stated, by the applicants, that the investigation report, by Messrs K.T. Cullen & Co. Ltd, was included in the Waste License Application to the EPA. The matter is covered further in the Assessment later in this report)

The chapter on **material assets** deals only with services and inputs/outputs of materials from the development, including the electricity generation envisaged.

In relation to **archaeology and the cultural heritage**, it is predicted by the applicants' consultants that there would be no impact on the Martello Tower, as no work is proposed within its designated zone of Archaeological Potential, indicated on the relevant Sites and Monuments Record. Archaeological monitoring is recommended as mitigation, and it is suggested that the remains of the pathway, which is shown on Ordnance Survey maps as running from the shoreline to the Tower through the site of the proposed development, might be uncovered during site works. It is stated that the development will have an impact on some views of the Martello Tower, particularly from the public road and parking area beside the shoreline.

The chapter on **impact on human beings** deals with socio-economic issues. It also deals with dioxins (which were also dealt with in more detail in chapter 9 under air quality/air pollution), where it reviews a number of published studies on the issue. It is predicted by the applicants' consultants that there would not be, after mitigation, any significant impacts on residential amenity arising from the development, but that there will be some impact on recreational amenity of the site and its environs due to the change in character to industrial. It is predicted that the impact on tourism would be negligible, and that the impact on agriculture will not be significant, as the emissions of dioxins would be "approx. one-tenth of the EU directive limit". It is contended that there may be a perception of a risk to human health or contamination of farm produce (see para 14.8.6), but that there is "no evidence of food companies or outlets boycotting food produce from locations close to modern incineration plants". It is contended that the impact on property values would be expected to be minor and that prices would be expected to recover once the plant is operational. (Note that no data is given to support this contention, other than a small quotation from a UK report on the public acceptability of incineration. The full report was later provided by the applicants in their response to written appeals and is on file.)

In relation to **impacts on climate**, the applicants' consultants predict that there will not be any significant impacts on global climate, nor on Ireland's commitments under the Kyoto Protocol, from the development, and that, with the energy recovery for the two phases of the overall development, there may be a net, if slight, improvement over landfilling. However, this chapter does not break down the conclusions clearly as between Phase 1 (the subject of the present application) and Phase 2 (which is not). (Note that the analysis depends on a number of assumptions, including that the electricity proposed to be generated would otherwise come from fossil fuel burning power stations, and that the CO₂ emissions from the waste proposed to be incinerated would otherwise be landfilled (in the case of non-hazardous waste) and hence produce methane.)

Chapter 16 of the EIS (which is a little over one page in length) is stated to deal with other impact headings and **interactions**. In relation to other impacts, it is stated that, where these have not been included, the "authors have concluded that no potential for impact exists". In relation to interactions, there is a descriptive text, but no analysis, matrix table or other weighting carried out.

PLANNING AUTHORITY REPORTS

There were a number of internal technical reports on the application, and also some external submissions from Prescribed Bodies. The file indicates that there was also a very large number of submissions/objections from interested parties, the great bulk of which (over 20,000 in number) were objections against the proposed development.

The following internal reports are on file:-

Heritage Officer (S. Casey) (4/12/01) This report dealt only with Chapter 10 of the E.I.S. 5 conditions recommended. Noted that the ecological assessment in the E.I.S. dealt only with the impact of construction of the plan, and not of emissions from the plant on ecology.

Sanitary Services (M. Lavelle)(5/12/01) No objection, subject to conditions. Water demand could be accommodated from mains, subject to conditions. Domestic sewage to be treated in on-site package plant and discharged to council sewer. Details of disposal of process effluent, scrubbing liquors (s. 3.8 of E.I.S.) not clear.

Archaeological Officer (C. Power)(6/12/01) Conditions, including stipulation that the development take into account the visual impact of any structures on the Martello Tower, and that the development should not obscure the outline of the monument.

Environmental Officer (D. Daly) (10/12/01) This report outlined the legal position re exclusion of environmental pollution issues (see Legal Provisions section of this report, below). Considered that the development was in conformity with EC Directive 75/442/EC (on self-sufficiency of waste disposal), with National Hazardous Waste Management Plan and with National Waste Policy. No conflict seen with 1996 County Development Plan. A later report from this section (K. Walshe 14/5/03) indicated that there were sufficient quantities of hazardous and non-hazardous industrial/trade wastes and sludges to justify the construction of a plant with a capacity of 100,000 tonnes per annum.

Roads (D. Ryan)(7/1/02) No objection in principle, subject to mitigation measures referred to in E.I.S. being imposed, and subject to financial contributions towards upgrading of N28.

Architect (D. Deasy)(24/5/02) No objection in principle, subject to condition re external treatment and landscaping details to be agreed prior to commencement.

Co. Planning Officer (B. Kelleher) – various versions are on file. The final report, dated 15/5/03, outlined the content of the application, and dealt with the legal position, the Development Plan policy and planning issues generally, the impact on amenities, traffic issues, infrastructure, community levy and financial contributions. He summarised and commented on the submissions and observations that had been received. He concluded that the proposal would materially contravene the Development Plan, but recommended that it be put to the elected Council. He prepared a schedule of conditions to be used in the event that the members decided to grant permission.

The following reports are on file from external consultees:-

Duchas (archaeology) (17/12/01) Archaeological monitoring conditions.

Duchas (nature conservation) (10/1/02) Noted that no designated areas or protected plants are affected. No bat survey had been undertaken, and this was recommended, due to the presence of suitable foraging and possibly roosting habitats. Conditions recommended.

Duchas (architectural) (22/4/02) Submitted E.I.S. fails to include information on the effect of the development on the “architectural heritage”, as required by 1999 EIA (Amendment) Regulations. However, considered that there might be little effect on the architectural heritage in the locality. (Note: further correspondence on file indicated that this issue had been resolved.)

Duchas (underwater archaeology) (5/6/02) No objection.

Health and Safety Authority (7/3/02, received 8/3/02) This report indicated that the Authority did not advise against the granting of planning permission in the context of Major Accident Hazards. It noted that the applicants had made a number of commitments, which the HSA felt should be considered as planning conditions in the grant by the Council. The HSA indicated that, if the development were to be constructed, a consultation distance would be set around the site, as indicated on a map that was attached to the letter.

PLANNING AUTHORITY'S DECISION

The Planning Authority decided to refuse permission for the development, for the following reason:-

“The proposed development would contravene materially a development objective indicated in the County Development Plan 2003, I-15 which specifies the lands as being suitable for large stand alone industry with suitable provision for landscaping and access points and provision for buffer planting, minimum 15 metre wide open space buffer to the Martello Tower and its associated pedestrian access, for use solely for Industrial purposes”

This decision was made following a meeting of the Council, as the application would have involved a material contravention of the County Development Plan, held on 26th

May 2003, where 13 members voted in favour of a grant of permission and 30 members voted against a grant of permission, with two abstentions. (A copy of the minutes of that meeting are on file.)

LEGAL PROVISIONS

The legal provisions relating to the treatment of this application and appeal were a significant issue during the course of the oral hearing. For this reason, in my report on the oral hearing proceedings, in Appendix 1 to this report, I have generally kept in, as closely to verbatim as possible, the legal submissions made by the parties on the matter, and my responses thereto, for the information of the Board.

The legal position, as I understand it, is that this planning application was submitted to the Planning Authority on 13th November 2001. Hence, under the provisions of the 2000 Planning and Development Act's transitional provisions (Section 265(4)), the application and appeal falls to be determined under the 1963 – 1999 Acts.

On this basis, and as the proposed development comprises an activity which requires a waste licence under Part V of the Waste Management Act, 1996, the Board is precluded, by reason of Section 54 of the Waste Management Act 1996, from considering the appeal, or any submissions or observations made to the Board in relation to the appeal, in so far as the appeal, or the submissions or observations, relates or relate to the risk of environmental pollution from the activity. All of the parties were formally informed of this fact by letter issued by the Board prior to the oral hearing. Section 5(1) of the Waste Management Act, defines the term "environmental pollution" as follows:

" 'environmental pollution' means, in relation to waste, the holding, transport, recovery or disposal of waste in a manner which would, to a significant degree, endanger public health or harm the environment and in particular-

- (a) create a risk to waters, the atmosphere, land, soil, plants or animals'*
- (b) create a nuisance through noise, odours or litter, or,*
- (c) adversely affect the countryside or places of special interest.*

There was an extensive debate, not surprisingly in view of the subject matter of the proposed development, of why the Board was unwilling to permit discussion of matters relating to public health and damage to the environment from the proposed incinerator. This mainly revolved around the issue of airborne emissions, including dioxins and other substances, and their effect on human beings and the environment. As noted in the oral hearing proceedings, I took careful note of the various legal submissions made, both verbal and written. (There is a very detailed typed submission from CHASE Carrigaline (Third Party Group 1), which sets out the essential basis of this view, and includes the texts of the various statutory provisions involved. This is included in Appendix 2 as item Group 1 - A).

A number of the parties sought that the oral hearing be adjourned (and in one case "abandoned") until the Board obtained a legal ruling from the High Court/European Court, by way of case stated, or, until the matter had been judicially decided under

cases which were currently underway, on the basis that the Irish legislation had not adequately transposed the requirements of the EIA Directives, and as the division of responsibilities between the Planning Authority/Board and the EPA prevented a proper Environmental Impact Assessment being carried out in accordance with those Directives.

Other legal submissions questioned whether the 2000 Planning and Development Act, in Article 257 (where it amended the Waste Management Act to permit a Planning Authority or the Board to refuse permission on environmental grounds) was subject to the transitional provisions of Section 265 in terms of the date of the making of the planning application. It was further submitted that, even if the Board were precluded from considering the risk of environmental pollution from the activity, the term "activity" meant the operation of the development that would be the subject of the waste licence from the EPA under the Waste Management Act, and hence dealt only with routine emissions from the proposed development. On this basis, and since the Board has a responsibility under the Seveso II Directive to deal with matters relating to the control of major accident hazards involving dangerous substances, it was appropriate that the Board should consider the issue of the impact of the development on health and the environment in the event of a major accident or incident at the proposed development.

In order to ensure orderly running of the oral hearing, I contacted (by telephone) the offices of An Bord Pleanála on a number of occasions during the course of the hearing (generally in the evenings or in the early mornings before the opening of the day's proceedings), and spoke to the Chief Officer and the Planning Officer. On the basis of those telephone contacts, I was informed that the Board would not alter its position, as had been outlined in its written notifications to the parties, in relation to consideration of matters relating to the risk of environmental pollution from the activity, but would consider matters relating to major accident hazard. On the latter point, it was agreed that a module of one day (10th October 2003) would be set aside to provide an opportunity to hear evidence from the HSA concerning its advice to the County Council of 7th March 2002, and to permit parties to ask questions of the HSA on that matter. I further indicated that, as the Board has to have regard to national policy on waste management, I would hear submissions on this policy (although the applicants' planning witness, Dr Meehan, argued against this as being inappropriate at an oral hearing).

The Board's view on the "separation of jurisdictions" issue was the subject of a large number of complaints from participants at the hearing, some of whom stated that their continued participation was without prejudice to any legal proceedings that they might take in due course. A number of parties asked for written evidence of the Board's decision in response to the legal submissions made on the first day of the hearing. Following further telephone contact, I was instructed that this would not be given to the parties. Some third party representatives, P. Sweetman and G. Casey, complained that, when they went to the Board's offices, they also were refused such written confirmation. Mr. J. Noonan, solicitor, representing CHASE Carrigaline, asked for the Board's legal advice supporting its refusal to accept issues relating to the risk of environmental pollution from the activity, which I refused him on the basis that any legal advice given to the Board would, in the normal course, be privileged.

In the light of these legal provisions, and following the instructions given to me at the hearing, I will not be dealing, in my assessment, nor in my summary of the issues raised by the parties, with matters relating to the risk of environmental pollution from the activity.

PLANNING HISTORY

There is no record of any previous application having been made in respect of the subject site. However, a number of planning decisions in relation to adjoining sites were raised in the appeal, and summary details of these are set out below.

A. Site Immediately to the West of the Subject Site.

This site, which is a rectangularly shaped field of 4.8 acres immediately to the west of the subject site, surrounding a dwellinghouse known as Rock Farm, was the subject of an application (Ref. S/01/1806) in April 2001 for a development of 5 no. two storey and 10 no. single storey industrial service buildings, access roads and services by Howard Holdings Plc. The application was refused by Cork County Council on 31st May, for three reasons, relating to conflict with zoning (part of the site was unzoned), to prematurity pending the determination by the Planning/Road Authority of a road layout for the area, and to serious injury to the amenities and depreciation of the value of residential property in the vicinity.

(Note – it was established, during questioning of the County Planning Officer, Mr. B. Kelleher, at the oral hearing that the second reason for refusal, relating to prematurity, related to the fact that the site could be affected by an NRA proposal to realign the N28, which was likely to involve a new road coming directly through part of the site.)

B Hammond Lane site adjacent to, and surrounded by, the Subject Site

This property, which effectively is surrounded on three sides by the subject site, is the site of the Hammond Lane Foundry/Metal Recovery facility. This development obtained planning permission under reg. ref. S/770/90 on 21st June 1990 as a “fragmentation plant”, subject to 26 conditions, granted to Hammond Lane Metal Co. Ltd. (It would appear that there was a first party appeal against condition 11 of that permission 13 – Bord ref. 83390)

C. National Maritime College of Ireland site (directly opposite the Subject Site, to the North)

This site, which is directly opposite the subject site, on the northern side of the public road, is the site for the development of the National Maritime College of Ireland, the foundation stone for which was laid by Minister Noel Dempsey on Friday 26th September, while the oral hearing was in progress.

Outline permission was granted for the construction of this National Maritime College to Cork Institute of Technology/Irish Naval Service under file ref. S/00/5570 on 30/10/2001. The Council’s decided to grant permission, subject to conditions, but that decision was the subject of an appeal by the Port of Cork (Bord Ref.

PL04.125809), which was later withdrawn. Condition no. 1 of the Council's grant of outline permission specified that the college was not to include buildings for residential use.

A subsequent application for approval was submitted by Focus Education (NMC) Ltd under file reg. ref. S/02/1867, and was granted on 13th August 2002, subject to 27 conditions. The developer was the successful bidder for a design, build, finance and operate agreement for the development under a PPP (Public-Private Partnership) under the aegis of the Department of Education and Science, which is the owner of the site. It is indicated on the file that the development would involve 750 students (full-time equivalent), together with 70 staff, of which 250 would be Naval Service personnel.

(Note:- It was established, during questioning of the County Planning Officer, Mr. B. Kelleher, at the oral hearing (10/10/03 – Track OO), that the condition preventing residential accommodation in the outline permission had been included because of the potential for problems in relation to industrial uses on adjoining sites, as well as potential difficulties for the subject (Indaver) application, which, though it had not been submitted at the time of the outline permission, was known by the Council officials to be imminent.)

[Details of these planning files, which were obtained from the Planning Authority, are included in separate folders, labelled by file reference number and description, in the box files containing the drawings for the present application.]

For inspection purposes only. Consent of copyright owner required for any other use.

APPEAL SUBMISSIONS

1st PARTY APPEAL

The first party appeal is against the Council's single reason for refusal. The grounds of appeal may be summarised as follows:-

- The proposed development is classified as an industrial use, and is proposed to be located in an area zoned for industrial use. It is contended that the proposed site is zoned for large stand-alone industry, and is particularly appropriate for the proposed use, which constitutes such large industry.
- The proposed development is consistent with the proper planning and (sustainable) development of County Cork.
- The proposed development is consistent with the objectives of the Cork County Development Plan 2003 for industrial development and waste management, and is not in material contravention of the Plan.
- The Council's Chief Planning Officer had no difficulty with the proposed development other than its alleged non-compliance with an objective of the County Development Plan.
- The proposed development will promote the objectives of the national waste management policy framework and strategies and of the National Hazardous Waste Management Plan.
- The proposed development is in compliance with all relevant EU and national policies.
- The proposed development is of strategic and national importance, as Ireland is currently dependent on the facilities of other EU countries for the disposal of hazardous waste and none of the EU countries that currently accept Irish hazardous waste is obliged to do so.

The grounds of appeal also include comments on the draft conditions proposed by the County Planning Officer and in particular, in relation to proposed conditions 3 and 4, requests that there be no limitation on the importation of hazardous waste from Northern Ireland, and that the development not be limited to a 100,000 tonnage per annum capacity limit, but by a calorific value limit. However, as both of these requests were withdrawn by the applicants during the course of the oral hearing (see Appendix 1), they are no longer before the Board for determination.

There are also some comments on the financial contribution conditions recommended by the Planning Officer. This aspect of the written appeal was not expanded upon by the applicants during the course of the hearing, nor was the response from the County Planning Officer on this aspect at the appeal (see Appendix 2 – PA – 2b) questioned nor refuted by the applicants at the hearing. It is therefore not clear what the status of this aspect of the appeal now is.

[The submission includes a number of appendices, including a copy of the judgement in *McEvoy & Smith v Meath County Council*, and a copy of a UK consultation paper on the Management Plan for Imports and Exports of Waste. There is also a partial photocopy of the NRA's N28 Route Options for Ringaskiddy, a complete colour copy of which is appended to the evidence submission given by Mrs J. Masson at the oral hearing (see Appendix 2 – Group 24 – 2).]

3rd PARTY APPEALS

As noted on the title page, there were third party appeals from 24 different groups and individuals. All of these support the Planning Authority's refusal decision, but argue that the planning application should also have been refused for other reasons. The third parties state that they are cognisant of the fact that the application is before the Board for a de-novo consideration, and outline their grounds of appeal on that basis.

Given the very large number of parties and the level of detail in their submissions, I propose to outline, in brief, the points raised generally, without attributing any particular point to any particular third party. This outline also includes the points made by the third party groups in response to the first party appeal. This is for reasons of brevity, to assist the Board, and not on any grounds of inequality of treatment as between the first party and any third party. The full texts of the third party submissions are on file nos. 1, 2 & 5 and run to over 400 pages.

Many of the grounds of appeal from third parties relate to the implications of the development on human and animal health and the environment, in terms of potential pollution from the activity. In addition, a very large amount of the accompanying documentation includes copies of research documents and reports on the health effects of dioxins and similar pollutants that come from incineration plants internationally. For the reasons outlined above under "Legal Provisions", I have not summarised these points.

(Note that the numbering of the third party groups used for the appeal in this report, and used for the order of appearances during the oral hearing, is different from the numbering used in file no. 1, which was merely based on date of arrival/filing in the Board's offices of the submissions. Accordingly, all references to Third Party Group Nos. 1, 2, 3, - 24 etc., is based on the order used on the title page of this report and during the oral hearing, and not that in file no. 1)

The main points raised by the third parties in their grounds of appeal may be summarised as follows:-

Need (Principle)

- The proposed development is not of strategic or national importance as there is no crisis in toxic waste disposal at present, and as there is no indication of any imminent or widespread ban on the acceptance of Ireland's hazardous waste by EU countries currently accepting such waste for disposal. The crisis that does exist is in landfill capacity, and the proposal would increase demand for such

capacity, due to need to dispose of ash residues (30% by weight of the 100,000 tonnes proposed to be treated by the development), which cannot be disposed of by any other means.

- Building the proposed development could precipitate other EU countries making a decision not to accept importation of Irish hazardous waste for disposal in the future – under the Basle Convention, the lack of treatment capacity in a member state is a reason not to prevent the import of waste from that state.
- There is insufficient hazardous waste from within the State to feed the proposed development, as the amounts of such waste are being decreased, in line with national policy, under IPC license requirements, especially in the pharmaceutical and chemical industries. To maintain commercial viability, the applicants would then have to import waste, and hence contradict their “self-sufficiency” justification argument for the proposed development.
- The proposed development will hinder and undermine waste minimisation and recovery of wastes where they are generated (i.e. at plant level), and would therefore be contrary to the proximity principle, as for commercial reasons, contracts with waste suppliers will dictate fixed amounts of waste tonnage to be supplied, and hence operate as a financial disincentive on supplying industries to re-use, re-cycle and minimise their waste amounts in the future.
- The proposed development would inhibit the development of safer and more economic alternative methods of waste disposal, currently under examination (some of which are outlined in “Changing Our Ways” national policy document).
- The proposed development would render Toxic Use Reduction techniques (which have been successfully applied in the US and Canada) less likely to succeed, based on published research (which research is appended to the third party submissions).
- The proposed development would create “a market for waste” in Ireland, (as this is the commercial basis for the proposal), where no such market currently exists, and the very existence of this market would put back the drive to develop waste minimisation, prevention, re-use and recycling in the industrial sector in particular, by providing a “quick-fix”.

Need (Location in Cork/Ringaskiddy)

- Lack of centrality. The site location is on a cul de sac at the end of a peninsula in the extreme south of Ireland, with no rail access. This is not a central location for Ireland’s national hazardous waste incinerator.
- No site selection process, using objective criteria, including transport routes, tonnes of waste per km travelled etc, was undertaken on a national basis by the

applicants, nor analysis by location on a national basis, of waste arisings that are exported for disposal, rather than simply generated.

- The claimed justification for the location of the development in Cork is based on flawed data, and incorrect assumptions. Over half of the hazardous waste generated in Cork is treated on-site, and only half of the remainder, which is exported, is exported for disposal (the remainder being exported for recovery).
- Existing industries in the area generating hazardous waste already treat most of this waste in-house (5 incinerators already in place, with Pfizers (the largest producer) currently proposing their own in-house facility, which would amount to 33% of the potential local market for the proposed development).
- None of the local industries have indicated any intention of using the proposed development, nor have made submissions in favour of the planning application.

Economic Dis-benefits

- The proposed development will inhibit waste recovery, and would distort and interfere with the operation of the EU waste recovery market, since industries would tend to send some of their wastes, that are currently sent abroad for recovery, to the proposed development for disposal by incineration.
- The proposed development would produce no economic benefit to the area, and would stifle the recycling and reclamation industries that would otherwise provide far more jobs than the 57 jobs proposed for the overall development (Phases 1 and 2).
- The development would make the task of attracting new industries to the Ringaskiddy and Harbour area (which is both local and national policy) more difficult, as few new clean industries would wish to be located beside a toxic waste incinerator. This would apply whether or not there would be any deleterious effect, as perception is an important factor in industrial location.
- The development could injuriously affect and put at risk adjoining health-care industry, which requires clean air for its processes, and would inhibit its future expansion in Ringaskiddy.
- It is submitted (based on an EU commissioned report by Coopers and Lybrand) that incinerators are the most costly method of waste treatment and of least economic value. It is also stated that the energy produced from waste-to-energy plants is merely a secondary benefit, and is an extremely inefficient, and expensive, means of generating electricity.

Incompatible Land-Use/Improper Use of a Scarce Land Resource for Port Development

- The site is one of only three sites suitable for large-scale stand-alone industry in Ringaskiddy, which is the main location designated for the development of, and

relocation of, the functions of the Port of Cork. It is submitted that the development of the site for an incinerator, as proposed, would constitute an incompatible land use, and the loss of a potential valuable site by a use that does not require to be port-located (unless it is for the importation of waste by sea, which is specifically denied by the applicants).

- It is submitted that the proposed development involves “an improper use” of a port-related site that should be reserved for such use. CASP notes that available land in Ringaskiddy for port-related use is becoming scarce and should generally be reserved for port-related or complementary uses (ref. p. 125), which the proposed development is not. Hence the proposed development would limit future employment prospects for the area.

Conflict with National Policy (National Hazardous Waste Management Plan)

- The proposed development would conflict with the National Hazardous Waste Management Plan, which provides for thermal treatment and hazardous landfill capacity together (priority no. 7), and not separately. In the absence of a landfill for hazardous ash residue that would be generated by the incineration of both hazardous and non-hazardous waste, it is submitted that the development is contrary to the Plan and also contrary to the proper planning and sustainable development of the area. (It is noted that Cork County Council does not propose to accept hazardous waste into its proposed Bottlehill landfill facility.)
- It is submitted that the development is premature pending provision of a hazardous landfill facility in Ireland (as otherwise ash from the development would have to be exported, contradicting the applicants’ justification argument regarding the alleged unwillingness of other EU countries to accept the importation of waste for disposal from Ireland).

Conflict with County Development Plan

- The proposed development would conflict, in a material way, with the provisions of the County Development Plan, as it constitutes “contract incineration”, which is specifically excluded in zoning objective ZON 3-13, and as it is not a large-scale stand alone port-related industry, contrary to specific objective I – 15. It is also contrary to many of other objectives and policies of the Plan.

Conflict with Cork County Waste Management Plan

- The proposed non-hazardous incinerator is in conflict with the Waste Management Plan, which does not envisage mass-burn incineration as a means of disposal of industrial wastes.
- The proposed community recycling park is in conflict with the Waste Management Plan, which states that such facilities should be located within residential communities, for ease of access and to encourage frequent use.

- The proposed development is in conflict with the Sludge Management Plan, which does not envisage incineration as the appropriate method of dealing with sludges.

Conflict with Cork Area Strategic Plan (CASP)

- The proposed development would conflict, in a number of material ways, with the provisions of CASP, which indicates that the lower Harbour area should be developed for tourism, recreational and amenity use, and clean industry, based on its natural assets.
- CASP states that industrial lands in Ringaskiddy are to be reserved for port-related and complementary uses, which the proposed development is not.

Granting Permission Would Undermine the Democratic Process

- It is submitted that, even though An Bord Pleanála has the legal power to overrule the Development Plan, to do so would undermine democracy, as 20,000 people had objected to the development, and the elected Council, by a very significant majority (30 votes to 13) had refused the material contravention.
- Granting permission would undermine the legitimacy of the County Development Plan process, which had been adopted only 6 weeks before the planning application was determined by the Council. The chronology of events indicate that the new Plan was adopted in full knowledge of the proposal, and did not make provision for it. The Plan is a “contract” between the Council and the people, and granting permission would breach this contract.
- It is submitted that any over-riding by An Bord Pleanála of the democratically-adopted County Development Plan, which permits thermal treatment of waste on an in-house industry basis, but excludes contract incineration, should only be done on “grounds of significant public need”. It is submitted that no such public need exists in this case.

Breaches of International Conventions

- The proposed development would breach Ireland’s international commitments, under the Kyoto Protocol on Climate Change, in that it would increase the amount of greenhouse gas emissions (however well monitored and controlled by EPA licensing), by releasing an additional 100,000 tonnes of CO₂, as well as other substances. The EIS statistics on this issue are not credible and are full of false and unreliable assumptions.
- The development would breach Ireland’s international commitments under the Stockholm Convention, which seeks to phase out and eliminate the release of persistent organic pollutants. Even if the development met EPA license conditions, it would still be emitting such pollutants.

Breach of Government Agreement / Government Policy

- It is submitted that the proposed development would breach a long-standing Government commitment, formally agreed following controversies in Ringaskiddy in the 1970's arising from asbestos dumping in the area, that there would be no waste disposal site in the area in the future. It is noted that the IDA, also a party to that Agreement, refused to sell any land to the applicants. It is submitted that, as An Bord Pleanala has a duty to have regard to Government policy, it should honour this Government Commitment.

Inadequate Infrastructure - Roads

- The existing road network in the area is already overloaded, with major traffic congestion on the approach roads and junctions at peak times. This is recognised by the NRA, which has proposals, at an early stage of development, to provide a By-Pass on the N28 of Ringaskiddy and Shanbally villages, and the Shannonpark roundabout. The proposed development would exacerbate this already unsatisfactory situation, and cause traffic hazard and obstruction of road users.
- It is submitted that, in order to avoid existing and predicted congestion on the N28, traffic (including HGV's carrying hazardous waste), would use the R610 and R613, hence running through residential areas such as Rochestown, Monkstown and Passage West, where the road infrastructure is unsuitable to take such traffic, and where there would be further potential for accidents.
- It is submitted that the applicants' proposed mitigation measure, of starting construction work at 7 a.m., is not an acceptable solution, as it would cause noise nuisance and disturbance to residential areas in Shanbally and Ringaskiddy villages.
- The proposed development would be premature until the road safety deficiencies have been rectified by the completion of the N28 NRA Scheme. It is submitted that construction traffic, in particular, would cause major traffic congestion and that therefore it was not appropriate that the development should be permitted to commence, if granted, until the By-Pass was already fully in place, so that it could be used by such traffic.

Inadequate Infrastructure – Sewerage/Surface Water.

- It is submitted that the proposal to discharge surface water from the development into the existing combined public sewer would lead to overloading of this sewer and hence backing up of sewage into residential properties in Ringaskiddy. The Council has long term plans to provide proper sewers in Ringaskiddy. The development is therefore premature by reference to this existing deficiency in the provision of sewerage facilities in the area.

Site Issues (Climate)

- The site is located within the bowl of a steep sided valley, where wind conditions and meteorological conditions are not the same as elsewhere in the Cork area, with more frequent temperature inversions in winter, and wind turbulence in other seasons, due to the presence of hills and open water.

Site Issues (Ownership/Title/Right of Way)

- The applicants' title to the subject site is questioned, on the basis that the vendors (Irish ISPAT) had been in breach of contract with the Irish Government and therefore may not be in a legal position to sell the site to the applicants.
- It is submitted that the proposed development would involve interference with the maintenance of an existing and legally established public right-of-way running diagonally through the site from the Martello Tower to the foreshore, which has not been extinguished by the Local Authority under the necessary statutory procedures.

Site Issues (Site Selection)

- There is inadequate evidence of any rational approach to site selection by the applicants, as they mistakenly limited their selection process to areas zoned for industrial use, with which the proposed development is in material conflict.
- The site selection process carried out by the applicants was seriously flawed and non-objective. The applicants have not put forward objective data on which to assess the validity of the selection process. Assertions unsupported by evidence are made about the source, availability and quantities of waste arisings in the area and these assertions underpin the application.

Site Issues (Geology/Hydrogeology)

- There are serious geological constraints on the site, with bedrock near the surface and the potential for contaminants entering ground water and discharging into the harbour. There is no data presented on the possibility of fissures, nor how ground water / sea water infiltration is to be dealt with in the construction of the development.

Public Safety and Emergency Planning

- It is submitted that the proposed development would be too close to stationary populations that would be at risk in the event of an accident or emergency, and in particular the National Maritime College, local schools and the Spike Island prison. This would be in breach of WHO Guidelines.
- There was no adequate risk assessment included in the EIS.
- It is submitted that the location of the subject site is unsuitable as it is at the end of a cul-de-sac, with one road in or out, and this would make evacuation, in the

event of a fire or other major accident problematical. The local Emergency Plan makes no provision for the evacuation of the residents, nor the occupants of Spike Island prison or the personnel of the Naval Base (raising an issue of national security).

- The emergency infrastructure in the area is inadequate, with no fire station in Ringaskiddy and only a part-time station in Carrigaline. The Chief Fire Officers Association has publicly indicated a serious lack of capacity and equipment to deal with potential incidents in the area already.
- It is submitted that any favourable decision on the proposed development would be premature pending a full analysis of major accident hazards from the proposed development. This is particularly necessary given the proximity of other Seveso II sites in the immediate vicinity of the subject site.
- It is submitted that the site is contaminated, and that no proposals have been made by the applicants to deal with this issue.

Impacts of the Development on Visual Amenity/Heritage

- It is submitted that the proposed incinerator building and stack, because of its huge bulk, scale and appearance, its height above the adjoining hill, and its siting at a sensitive location at the entrance to the Harbour, would be visually obtrusive and have an unacceptably detrimental impact on the visual amenities of the area.
- The proposed development would impinge on views of the Martello Tower from the north, including Cogh and the local road/foreshore, and be obtrusive when seen from scenic routes designated in the County Development Plan, thereby breaching the County Plan policy to preserve views from such routes.
- The proposed development would interfere with the visual setting of the Martello Tower, a protected structure in the County Development Plan, and a registered Archaeological Monument. (It is noted that the ground level of the Martello Tower is at 43 m O.D, while the main process building is at 40.8 m O.D. and the stack is at 60.7 m O.D.)

Impacts of the Development on Residential Amenity and Diminution of Property Values

- It is submitted that the development, both in construction stage and in operation, will lead to noise nuisance to the local residential area and disturbance from the additional traffic and construction activity. It is noted that the applicants' proposal to commence construction work at 7 am, in order to allegedly avoid traffic congestion, would be unacceptable on grounds of nuisance.
- It is submitted that there is a recent precedent for a refusal (Howard Holdings) by the Council, on grounds of residential amenity, in relation to an industrial development on the adjoining site that was much smaller in scale, and with much less harmful effects, than the proposed development.

- The proposed development, because of its nature and function, and its location in close proximity to high density housing development at Ringaskiddy, Cobh, Monkstown and other settlements, would be injurious to residential amenity, and would be likely to depreciate the value of residential property. (It is submitted that, whether real or imagined, if people have a perception of dangers to health and safety from the development, this will cause depreciation of property values, since perception is vital to property valuation and sales of residential property.)

Impact of the Development on Recreational Amenity

- The proposed development would adversely impact on local recreational amenities, such as the Gobby Beach and foreshore and the Martello Tower, which are extensively used by local residents and day trippers for walks and fishing. These amenities are one of the few remaining for the village of Ringaskiddy.

Impact of the Development on Tourism

- The proposed development, because of its nature and the perception on the part of tourists of its nature, would damage tourism in the area, particularly the tourism industry in Kinsale and East Cork, and the cruise liner business and visitor centre in Cobh.
- It is submitted that the development, because of its location at the ferry entry point to the Cork area and South of Ireland, would damage tourism, by giving an unfavourable first impression.
- It is submitted that the proposed development would cause damage to Ireland's image for tourists as a "clean green" area, which is a key part of Ireland's international marketing effort.

Impact of the Development on Agriculture

- Emissions from the proposed development, even if within EPA limits and license conditions, tend to bio-magnify and accumulate in the food chain, and the development would be a threat to farming and food supply in the area. There have been examples (cited by the parties) of incidents involving incinerators operated by the applicant company and others, which led to accidental releases of contaminants, well in excess of permitted levels.
- Ireland's agriculture depends on exports, and this export drive is supported by the country's image of clean wholesome and safe food. This image is validly based (as research has shown that Ireland has lower dioxin levels than other European countries). It is submitted that the proposed development would threaten this image, which is part of Ireland's marketing "brand" (Bord Bia's policy of promotion of Ireland as "the food island".)

- Major importers of Ireland's produce, including Danone and Cadburys, will not accept milk from a 40 km radius of incinerators, because of fears of contamination.

Precautionary Principle / Prematurity (Policy re Incineration)

- It is submitted that, as there is no conclusive scientific evidence as yet on the impacts of incineration on public health and the environment (reference HRB report), as a matter of policy the Board should apply the precautionary principle and refuse permission.
- The development is premature pending the provision of baseline human health surveys of the Cork Harbour area (there are some surveys for cows but not for humans), as otherwise it would be impossible to afterwards determine the impact on health of the development if permitted. (This is not considered to be a matter for the EPA, since it would deal with emissions only once operational, when such a survey should already have been carried out.)
- The development is premature until there is a full review of alternative technologies for dealing with the disposal of hazardous waste, and until waste reduction and waste minimisation have already taken place (as per the priorities set out in the National Hazardous Waste Management Plan and in Changing our Ways/Delivering Change.)
- The development is premature until adequate provision is made in Ireland for controlling the handling, transport and labelling of toxic and hazardous waste (per complaints to EU Commission, of which details are supplied).

Applicants' Record/Experience

- It is submitted that the applicants are not "a fit and proper entity" to receive permission for a development of this nature. The applicants have no experience of the proposed incinerator type (fluidised-bed), a type which has had serious problems in Dundee in the UK

Invalidity of the EIS / Inadequacies in the EIS

- It is submitted that the application for planning permission and the EIS are not the same, since the EIS is for Phases 1 and 2 (which is what is sought in the Waste License application), and that the EIS does not contain all the likely significant effects and mitigation measures of the proposed development. It is also submitted that the submitted site and newspaper notices "do not reflect the actual proposed development", and that therefore the application is invalid.
- It is submitted that the EIS does not conform with the mandatory requirements of the EIA Directive, nor the EPA Guidelines currently in force. This is based on the lack of a accident risk assessment, no current human health data, no groundwater testing, no assessment of interactive pollutant effects, no description or assessment of "worst case" scenarios, no account of noise/vibration effects during construction.

- It is submitted that the flora and fauna baseline survey was flawed, as it was limited to the site boundaries and did not cover all species (e.g. bats and sentinel species). It was not carried out for a long enough period (seasons were missed and hence potential flora and fauna not identified). The flora and fauna analysis was restricted to the impact on flora and fauna of the physical construction of the development, not the operation of the development.
- The noise survey was flawed, as it was only for a period of 24 hours, and did not include ferry traffic. There was no analysis of noise from rock removal.
- The traffic surveys and resultant analysis was flawed, as the surveys were taken on only one day in the week, with no evidence that the traffic patterns were typical. No traffic from the ferries was surveyed. The survey was for 18 hours only, despite some existing industrial plants in the area operating shift working. The analysis did not include traffic from ash landfill removal (implying that this ash is to be exported by sea)
- There was misinterpretation of EU Directives and Euro Waste Categories, and use of different figures and limit standards, which prevented fair comparisons.
- The air modelling was based on unrepresentative meteorological conditions, based on data at Cork Airport. No adequate data was used for modelling climatic conditions adjacent to the proposed site, nor was any such data collected at the site.
- The proposed developments in Phases 1 and 2 were mixed in the EIS, and their impacts were not properly distinguished from one another, making meaningful analysis difficult.
- No baseline study or data was provided for ground water, nor geology.
- The site selection process was deeply flawed and did not conform to WHO Guidelines, in that the analysis went from the particular to the general, as the location of the site had already been chosen. There was the use of different criteria for different sites without any objective basis or explanation.
- There was inadequate information regarding the waste streams that were proposed to be accepted/treated by the proposed incinerator. Vague statements such as "industrial hazardous waste" and industrial non-hazardous waste" were used. (It is noted, from the information given in the EPA Waste License Application, that the applicants propose to burn a wide range of wastes, including meat and bonemeal and infectious hospital wastes.)

Further Particular Points

- One third party group, CHASE (Carrigaline) also makes a detailed submission in relation to the processing of the application by the County council's Management. It is submitted that the Council, as both planning authority and waste management authority, was in an inherent conflict of interest position. It

is contended, based on documentation obtained under Freedom of Information, that the Council management did not maintain a proper balance between these conflicting roles in dealing with the planning application, in that it showed bias towards the applicant company. On this basis, the Board is asked to entirely disregard the County Manager's recommendation for a material contravention, and the County Planning Officer's report recommending that permission be given, subject to such material contravention.

- It is submitted that the submitted site and newspaper notices were invalid, as they did not refer to the fact that the proposed development would be a Seveso II establishment.

OBSERVATIONS

There were 25 written observations, in support of the third party appeals and against any granting of permission in this case, from the following groups and individuals:-

1. Richard Wood
2. Liz Kenny and Joan Hayes
3. Carrigaline Country Market
4. Richard and Carol Daly
5. Norcott Roberts
6. Monica Conway
7. Walterstown National School
8. Aghada Branch of the Irish Farmers' Association
9. Andries de Bout
10. Killeagh Branch of the Irish Farmers' Association
11. Paul and Sally Hudson
12. Monkstown Amenity Association
13. Councillor Jo Kelleher
14. Midwives Association of Ireland
15. Jean Vaughan
16. Orla O'Connell and Noel Murtagh
17. Peter Fitzgerald & ors.
18. Universal Health and Safety co. ltd
19. Ann Kirwan
20. Jonathan, Hazel and James Fleury
21. Monkstown Bay Sailing Club Ltd
22. Marcia D'Alton & ors.
23. Dr Philip Michael & ors.
24. Ballymore Community Association
25. Ballymacoda Branch of the Irish Farmers' Association

The content of these observations closely follows that of the third party submissions, and expresses similar concerns. For this reason, and also because many of the observers gave formal witness statements, either on their own account or as witnesses for a number of the third party groups during the oral hearing (which are included in Appendices 1 and 2 of this report), it is not proposed to itemise the content of the submissions here. All of the written observations are included in file no. 4, should the Board wish to read them in fuller detail.

RESPONSES

1. Third Party Responses to First Party Appeal

As noted above, there was a number of response by third parties to the first party appeal. These generally re-iterated the points raised in the grounds of appeal. In addition, some of the responses dealt, in some cases in considerable detail, with the applicants' proposal to import waste from Northern Ireland. However, as this matter has now been withdrawn by the applicants, and therefore is no longer before the Board, it is not necessary to summarise these points.

Responses from the following third parties were received (and are in file no. 5)

East-Cork for a Safe Environment (Group 5)	received	23/7/03
M. & N. Harty (Group 23) (with petition)		25/7/03
Ringaskiddy & District Residents (Group 7) (with petition)		25/7/03
CHASE (Monkstown) (Group 3)		25/7/03
Cobh Action for Clean Air (Group 9)		28/7/03
J. & J. Masson (Group 24)		28/7/03
Dan Boyle T.D. (Group 12)		29/7/03
CHASE (Carrigaline) (Group 1) (with petition)		29/7/03
Carrigaline Community for a Safe Environment (Group 6)		30/7/03

First Party Response to Third Party Appeals

There was a detailed response to the third party appeals, submitted by the applicants (which is in file no. 5). This seeks to refute the grounds of appeal and generally refers to aspects of the EIS dealing with the matters. As much of what is set out in this response was set out in somewhat greater detail in the submissions by the applicants' witness during the course of the oral hearing, and also discussed during cross-examination, and are therefore on tape, and set out in the oral hearing proceedings (Appendices 1 and 2), it is not proposed to summarise the responses here.

Planning Authority Response to Appeals

There was a short response to the appeals by the County Planning Officer, B. Kelleher. This made a few comments on the third party appeal references to the HRB report, and on Objective INF 3 – 1. He also addressed, in some detail, the applicants' proposals in relation to the importation of waste from Northern Ireland. The County Planning Officer also noted that the sole reason for refusal by the Council referred only to I – 15, and should also have referred to ZON 3 – 13, which clearly excludes contract incineration and by which the development materially contravenes the County Development Plan. He stated that ZON 3 – 13 is "the over-riding objective that governs the site specific objective 1 – 15".

Further Responses by Third Parties following publication of EIS Notice by Board.

There were further responses by a few third parties following publication by the Board of the statutory notice inviting submissions on the EIS. These responses generally repeated points already made in the initial grounds of appeal and earlier responses, and therefore it is not proposed to summarise them. (They are included in file no. 5). They are from the following parties:-

Cork Environmental Alliance (Group 4)	received	27/8/03
East Cork for a Safe Environment (Group 5)		27/8/03
Carrigaline Community for a Safe Environment (Group 6)		28/8/03
Cobh Action for Clean Air (Group 9)		29/8/03

DEVELOPMENT PLAN

The operative Development Plan is the Cork County Development Plan 2003. Under this Plan, the subject site is zoned for "Industry / Enterprise", which is indicated in the written statement as Zoning Objective ZON 3-13. This objective states as follows:-

- a) *"It is an objective to promote the development of industrial areas as the primary locations for uses including manufacturing, repairs, warehousing, distribution, open-storage, waste materials treatment and recovery, and transport operating centres. The development of inappropriate uses, such as office based industry and retailing will not, normally, be encouraged."*
- b) *It is an objective that industrial areas that are not used mainly for small to medium industry, warehousing or distribution are considered to be generally suitable for waste management activities (including the treatment and recovery of waste materials **but not including** landfill or **contract incineration facilities**). In the interests of clarity, **contract incineration facilities comprise those whose primary role is to manage wastes which are not generated by the company itself.***
- c) *It is an objective that subject to local considerations, civic amenity sites and waste transfer stations may be suitable on industrial sites with warehousing and / or distribution uses."*

The Plan outlines, in paragraph 9.3.6, the basis of the industrial zoning provisions, and the uses that are considered appropriate in industrial areas, as follows:-

"Uses appropriate to Industrial Areas include activities that include manufacturing, repairs, warehousing, distribution, open-storage and transport operating centres. These types of use often, necessarily, result in standards of amenity that would not be acceptable in other areas. They can inadvertently cause bad neighbour problems for uses with higher amenity expectations that are inappropriately located in these areas. With certain exceptions as set out in the objectives below, primarily industrial areas are

also generally suitable for waste management activities (including the treatment and recovery of waste materials but not including landfill or incineration of waste generated elsewhere)."

The relevant land use zoning map is the Ringaskiddy Zoning Map (one of a number of such zoning maps, covering a large number of settlements in the county). This shows that lands comprising the sites of existing industrial plants are zoned "Primarily Industry / Enterprise" and those new areas intended for industrial use are zoned "Industry / Enterprise".

Lands to the east and west of the subject site are similarly zoned to the "Industry / Enterprise" zoning of the site. While lands to the north are partly zoned "Primarily Industry / Enterprise", and partly zoned "Educational / Institutional / Civic". Lands to the south are also zoned "Industry / Enterprise", apart from a small area around the Martello Tower, which is zoned for "Primarily Open Space / Sports / Recreation / Amenity" purposes.

In addition to the zoning objective, which applies generally to industrially zoned lands, the subject site (and immediately adjoining landholding, comprising a total of 42.8 hectares – the site being 12.5 hectares) is one of fifteen specific sites in the Ringaskiddy area that is covered by specific objectives. This objective states as follows:-

"I-15 Suitable for large stand alone industry with suitable provision for landscaping and access points and provision for buffer planting, minimum 15 metre wide, open space buffer to the Martello Tower and its associated pedestrian access."

The written statement of the County Development Plan has a number of policies and objectives that also have relevance to the proposed development, but these are more general in application than the particular location-specific zoning and site-specific objectives. They include policies in relation to housing, tourism, waste management, employment, infrastructure, heritage and environmental matters. Among the sections referred to by the parties, in addition to general aims at the start of various chapters, are the following:-

- INF 1-21 (preservation of rights of way)
- INF 1-22 (Infrastructure policy re role of ports and harbours)
- ECO 2-3 (Industrial/Enterprise policy re port related development)
- INF 3-1 (Waste Management Plan)
- RCI 2-2 (Coastal Zone Management)
- ENV 3-4, 3-5 and 3-6 (Scenic routes / views and prospects)
- ENV 4-1 (Safeguarding sites, features and objects of archaeological interest)
- ENV 5-2 (Protection of protected structures)

The Martello Tower, on the crest of the hill behind the site, is a Protected Structure (ref. 00575). There are a number of other protected structures in the general vicinity, on Haulbowline Island and on Spike Island.

The Development Plan identifies a number of "Scenic Routes", the locations of which are identified on the "Heritage and Scenic Amenity" maps. In relation to the proposed site, there are two of particular relevance – that around western and southern sides of Great Island (ref. A53), from Belvelly Bridge to the town centre area of Cobh (at the waterfront/quays) – and that around the eastern side of the West Passage (ref. A54), along the harbour frontages of Passage West and Monkstown and then on to Ringaskiddy, terminating at Paddy's Point. The policy in relation to these Scenic Routes, views from which are to be protected, is set out in ENV 3-4 and ENV 3-5.

[I am enclosing, in Appendix 3 at the end of this report, extracts from the written Statement of the Plan, highlighted where relevant to the issues in this appeal, together with a copy of the Heritage and Scenic Amenity map and Ringaskiddy zoning map, with the location of the subject site indicated.]

OTHER LOCAL POLICY

Waste Management Plan for Cork County

This Waste Management Plan was adopted by the Council in May 1999, following on from the 25-year Waste Management Strategy for the Cork Region, adopted jointly by Cork Corporation and Cork County Council in 1995, and in accordance with the requirements of the Waste Management Act, 1996, and of national policy ("Changing Our Ways 1998 – see below).

[I am enclosing relevant extracts from this Plan in Appendix 3 at the end of this report.]

REGIONAL POLICY

Cork Area Strategic Plan (C.A.S.P.)

CASP is the relevant Regional Strategy (Regional Planning Guidelines under the 2000 Planning and Development Act) for the Cork City and Hinterland area. It sets out the overall longer term strategy of the two local authorities for this area, and is the successor to the former LUTS, which guided the development of the area for many years. CASP is noted in the National Spatial Strategy as being the appropriate means by which its objectives are to be applied for this geographical area.

Key sections of relevance to the appeal are at pages 32, 57, 119, 120 and 125 – 127.

[I am enclosing a full copy of this document in Appendix 3 at the end of this report.]

NATIONAL POLICY

As the proposed development involves co-incineration of both hazardous and non-hazardous waste, it is necessary to examine national policy in relation to waste management for both aspects.

“Changing our Ways” (1998)

General national policy in relation to waste management is set out in the document “Changing our Ways”, published in September 1998. This sets out the requirement for an integrated approach to waste management. Major elements of the policy refer to the need to reduce the reliance on landfill. In accordance with EU policy, a waste management hierarchy is put forward, with prevention at the top of the hierarchy, followed by waste minimisation, re-use, re-cycling and recovery, with waste disposal at the bottom of the hierarchy. Waste disposal is specifically stated as only being acceptable in the future in respect of “waste that cannot be prevented or recovered”.

The document advocates “the development of waste recovery facilities employing environmentally beneficial technologies, as an alternative to landfill, including the development of composting and other feasible biological treatment facilities”. Public/private partnerships in waste management provision are advocated as a means of delivery. It also advocates the need to give effect to the “polluter pays principle” in relation to waste disposal, and to the “proximity principle”, that waste should be treated as close as possible to its source of generation. While stating that, in general, composting or materials recovery are preferable to incineration, the document states that waste to energy incineration “could prove to be a beneficial option”. However, it warns that it is necessary to ensure that the “development of waste to energy incineration capacity does not militate against long term investment in materials recycling” (para 7.7.4).

The document also looks at alternative thermal processes which, it states, “offer a better environmental performance than waste to energy incineration”, such as thermolysis (gasification and pyrolysis), in that less atmospheric emissions are produced, containing lower levels of contaminants. It states that these technologies, currently under investigation, could provide “plants of the order of 20,000 to 80,000 tonnes per annum that would be viable and merit consideration” (see para 7.8.2).

The document advocates that local authorities should prepare regional waste management plans for their areas, under the Waste Management Acts, as a matter of urgency.

“Preventing and Recycling Waste – Delivering Change” (2002)

A further policy document on waste management was issued by Government in March 2002, following on from the adoption of all of the waste management plans and the enactment of the Waste Management (Amendment) Act 2001, which goes into further detail on the national priorities of preventing and recycling waste, and sets out methods by which all sectors of society can contribute towards this aim. It focuses on waste prevention and minimisation (section 2), Re-use (section 3), recycling (section 4), producer responsibility (section 5), biological treatment of organic waste (section 6) and public service waste management programming (section 7). It reiterates that, under the waste hierarchy, landfilling should only be used as a last resort after all of the other higher options have been exhausted – so that “only material that cannot be prevented, re-used, recycled or otherwise treated should be landfilled”.

National Hazardous Waste Management Plan (2001)

This document, which had been in draft form public consultation during 2000, was published by the EPA in 2001. This Plan has statutory recognition under the terms of the 1996 Waste Management Act, Section 26 of which requires the EPA to draw up such a Plan:-

"The Agency shall...make a national plan (in this Act referred to as 'the national hazardous waste management plan') with regard to:-

- (a) the prevention and minimisation of hazardous waste.*
- (b) the recovery of hazardous waste*
- (c) the collection and movement of hazardous waste, and*
- (d) the disposal of such hazardous waste as cannot be prevented or recovered".*

Section 26 (5) states:-

"A Minister of the Government, a local authority and any other public authority in whom are vested functions by or under any enactment in relation to the protection of the environment shall have regard to.... recommendations contained in the hazardous waste management plan"

On this basis, I consider that the Plan represents National Policy, and one to which the Board is obliged to have regard. This view is borne out by the speech of the Minister of State at the time of the launch of the Plan (5th July 2001), and also by the letter to the Planning Authority from the Department of the Environment and Local Government during the course of consideration of the application (this is on file no. 3). [A full copy of the Minister of State's speech is included in Appendix 3, with the copy of the National Hazardous Waste Management Plan.]

The Plan discusses the rise in hazardous waste arisings as between 1996 and 1998, and provides a large number of statistics in relation to these. It indicates that, without corrective measures, the amount of hazardous waste generated in Ireland is likely to increase by 48% up to 2006. On this basis, its key recommendation – what is described in the Plan as "the cornerstone" - is waste prevention, with a target to reduce hazardous waste disposal over a seven-year period to 1996 levels. A number of measures are outlined in order to achieve this key recommendation, including the establishment of a dedicated prevention team to implement the prevention programme, regulatory instruments, economic pressures such as charges and taxes, awareness raising, training and technical assistance. The prevention programme is costed at £43.5 million.

In relation to recovery and disposal of hazardous waste, the Plan indicates that it is desirable, to apply the proximity principle and to ensure security of hazardous waste disposal by reducing reliance on export and achieving self sufficiency, that hazardous waste landfill capacity and thermal treatment for hazardous wastes requiring disposal should be developed. It is noted that there are questions regarding the viability of a thermal treatment facility (see chapter 6). A number of thermal treatment options are outlined (Table 6.1) to give an indication of the levels of expenditure likely to be

required, but the EPA does not come down in favour of any particular option, because of its regulatory role. It states that the provision of these facilities "must not be allowed to interfere with the potential to prevent or minimise the generation and disposal of hazardous waste" (para 8.5).

[These documents are included, in full, in Appendix 3 to this report]

INTERNATIONAL POLICIES/DOCUMENTS/GUIDELINES

A number of International Conventions and Policies were adverted to during the course of the Oral Hearing, as follows:-

KYOTO Protocol on Climate Change.

This Agreement, to which Ireland is a signatory, commits State to limit its discharge of greenhouse gases to a level which is no greater than 13% above the State's 1990 levels by 2012. (It was noted that Ireland is already well over this limit, and that it may be shortly facing fines at EU level for non-compliance).

Stockholm Convention on Persistent Organic Pollutants

This Convention, to which Ireland is a signatory, commits the State to reducing and eliminating from the environment persistent organic pollutants (including dioxins and furans), and to cease the manufacture and use of certain specified chemicals.

Rio Convention on Biological Diversity

This Convention, to which Ireland is a signatory, commits the State to agree on the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources. This is translated into Irish national policy through the National Biodiversity Plan

Guidelines on Site Selection

Two Sets of Guidelines were put forward by the applicants in the EIS as sources for site criteria used by them for the Site Selection. These were the subject of considerable questioning of the applicants' witnesses during the oral hearing. In the absence of national guidelines on the siting of [Hazardous Waste treatment Facilities and Incinerators, I consider that the Board should have due regard to their content (this was also the conclusion of the Inspector in the Kilcock Hazardous Waste Incinerator case, which was the subject of Board decision in 2000 under file ref. PL09.112536)

World Health Organisation (WHO): Site Selection for New Hazardous Waste Management Facilities (1990)

Basel Convention:- Technical Guidelines on Incineration on Land (1997)

[Copies of the Guidelines, and of the Stockholm Convention, are included in Appendix 3 to this Report. Details relating to the Biological Diversity Convention are included with witness statement of F. Duff (Appendix 2 – Group 1 – 5). Also included in Appendix 3 is a copy of the Cork Joint Major Emergency Plan, which was supplied by the Council during the course of the hearing.]

ASSESSMENT

Under the statutory provisions for a planning application and appeal of this type and complexity, there are two distinct and separate processes that have to be carried out by the Board in relation to this development. The first is the EIA of the proposal, and the second is the planning consideration of the proposal. I propose to deal with each in turn.

ENVIRONMENTAL IMPACT ASSESSMENT OF THE DEVELOPMENT

Since the proposed development is of a type and scale that puts it within Annex 1 to the EIA Directives and applicable Irish Regulations, the submission of an Environmental Impact Statement by the applicants was required. It is incumbent on the Board, as the Competent Authority under the Directive and Regulations, to assess the adequacy of the EIS that was submitted and to assess the environmental impact of the development.

This assessment of adequacy has two parts – firstly, whether the EIS that was submitted was **legally** adequate, in that it met the statutory requirements in relation to the topic areas to be covered and the content to be included – and secondly whether the **content** of the submitted EIS, if legally adequate, adequately described the likely significant impacts of the proposed development, so that a judgement could be reached as to its acceptability or unacceptability.

A) LEGAL ADEQUACY OF THE EIS

It is a requirement, under Section 58 of the 1994 Planning Regulations, for the Board to consider, in dealing with this appeal, whether the EIS complies with the mandatory requirements as to its adequacy. The relevant statutory criteria to assess this matter are set out in the EIA Directives and the implementing Irish Regulations. The EU Directives (1985, as amended in 1997) define the minimum content of an EIS. Article 3 of the Directive (as amended) states:-

“The Environmental Impact Assessment shall identify, describe and assess in an appropriate manner in the light of each individual case and in accordance with Articles 4 to 11, the direct and indirect effects of a project, on the following factors:-

- *human beings;*
- *fauna and flora;*
- *soil, water, air, climate, and the landscape;*
- *material assets and the cultural heritage*

and the interaction between the factors mentioned in the first, second and third indents”

Article 5 (3) states:-

"The information to be provided by the developer, in accordance with paragraph 1, shall include at least...

- (3) the data necessary to identify and assess the main effects which the project is likely to have on the environment..*
- (4) A non-technical summary of the information mentioned in the previous indents."*

These provisions have, as the Board is aware, been transposed into Irish legislation by means of the EIA Regulations of 1989 and 1999. Article 25 and the Second Schedule to the 1999 Regulations are the relevant points to be considered here.

The 1992 EPA Act empowers the EPA to prepare and publish Guidelines on the Information to be Contained in Environmental Impact Assessments, and provides that, where such Guidelines have been published, those preparing **and evaluating** EIS shall have regard to the Guidelines (A copy of the Guidelines are included in Appendix 3)

Having examined, in full detail, the EIS, and considered the points put forward by the public (as required by Article 8 of the Directive) through the written submissions and proceedings of the oral hearing, I have come to the conclusion that the submitted EIS is legally inadequate and fails to conform to the mandatory requirements of the Directive/Regulations in the following areas:-

1. Data.

The data required to **identify and assess** the main effects which the proposed development is likely to have on the environment (section 1 (c) of the Second Schedule to the 1999 Regulations) has not been provided in respect of the following areas:-

Geology/Hydrogeology.

Although data was in fact obtained by the applicants, by way of what is described as a "due-diligence" investigation of the site, in a report prepared by K. T. Cullen & Co, which carried out borehole and trial hole tests, this report was not submitted as part of the EIS, and the data in this report was not provided within the EIS. (The report was, apparently, provided to the EPA in the Waste Licence Application.)

This lack of data is vital to a proper assessment of the likely significant impacts of the development on the environment, in my view, as the site is identified by the applicants as having "groundwater affected by seawater influences", and "flooding can occur in winter months due to closeness of bedrock" (see Table 2.10). In addition, there is a generalised textual description in the EIS of the depth of overburden over this bedrock as being "from 1 m to 9m", yet no maps showing the locations of these depths were provided in the EIS (against which the locations of the proposed buildings could be judged). It is noted that the development drawings indicate excavation below ground level of up to 5 metres at certain locations.

It was learned (through detailed questioning at the oral hearing) that the construction works envisaged excavation of up to 4 metres deep into the bedrock. There is no data in the EIS (merely unsubstantiated statements) on the composition of the bedrock, nor

is there any data at all on whether or not there are fissures or caverns below the site (if the underlying strata is limestone or water soluble), nor whether the bedrock is permeable or non-permeable. There is no data as to whether the soil and/or groundwater is already contaminated (as was suggested at the oral hearing) arising from its previous use by Irish ISPAT and from the spillover from the adjoining Hammond Lane facility. There is no data on the level of the groundwater within the site, by reference to the levels of excavation proposed, nor is there any data on what portions of the site are "flooded during the winter months" or "affected by seawater influences".

It is clear to me that a likely significant impact of a development such as this (a hazardous waste storage, transfer and incineration operation) might legitimately be contamination of groundwater, through spillages or failure of stormwater retention proposals, or indeed through accidents. Without knowledge of the underlying geology and hydrogeology, it is not possible to assess the resultant severity of such occurrences on the ground water, nor on whether this ground water is naturally contained by rock, or would seep or otherwise travel into the adjoining harbour waters, thereby causing pollution and potential danger to the environment and/or water users. Without such knowledge, it is not possible to assess the adequacy of the proposed mitigation measures proposed by the applicants to contain such spillages, nor indeed whether it is appropriate to permit the development to connect to the public combined sewer, or alternatively to require enlarged and/or augmented storm water retention provisions, additional bunding, or perhaps the construction of the building at a higher level, by reducing the amount of excavation. These factors would bear directly on matters that are within the remit of the Board, such as the physical construction of the building, its size and shape, and its visual impact.

If there is contamination on the site, it is quite likely that it would be necessary to remove material from the site and dispose of it elsewhere. Quite apart from the licensing aspects of this, this would cause significant effects of a planning nature, such as noise/ disturbance and traffic levels, that would have to be considered by the Board.

(Note that an attempt was made by the applicants, during the course of the oral hearing, to hand me in a copy of the K.T. Cullen report. However, on legal grounds relating to fair procedures, and the fact that it had not originally been included in the EIS (and therefore could not be introduced at that late stage in the process, as this would deprive the public of an opportunity to comment on it in accordance with EIA Directive requirements (Article (6(2) refers)), I was persuaded that it would not be appropriate to accept it into evidence.)

Noise data

No noise data has been provided in relation to construction activities from rock breaking of the bedrock. As noted above, it became clear during the oral hearing in cross-examination of the applicants' witness, Mr J. O'Mahony (see 8/10/03 tracks ZZ, AAA, BBB and CCC), that there would be extensive excavation of the bedrock, up to 4 metres deep, using (probably) rock breakers. There is no data on the noise impacts that this would have on nearby residential property, not on the occupants of the National Maritime College, Naval base or Spike Island. Nor was there any data on which to judge the impact of such rock breaking on the badger sett, which in the fauna

and flora section of the EIS the applicants had predicted would be retained on site. Nor was there any assessment of the impact which rock breaking, and hence vibration, would have on the Martello Tower. Hence, any assessment of the utility of any mitigation measures to deal with this noise and vibration (which themselves were not specified) could not be made. Noise from construction activities is, of course, entirely a matter within the remit of the Board, and not the EPA.

Traffic data

The traffic data is inadequate and unrepresentative, as the baseline surveys were carried out only over a single 18-hour period, on one day in February 2001, when the car ferries were not in operation, and as the Secondary Schools in the area were closed for mid-term break. In my view, this lack of data makes the prediction of the likely significant impacts of the development problematical, especially as the evidence that was produced showed that the road network in the area is already heavily overloaded at certain critical junctions and times, and there is no information on whether this overloading would have continued into other locations on the network, and/or at other times, when the ferry traffic is taken into account. Accordingly, the efficacy of the proposed mitigation measures cannot be established. The issue of traffic impacts are entirely within the remit of the Board, and not the EPA. (Note – there are other problem areas with the traffic assessment, involving inappropriate or unclear assumptions, use of confusing and inappropriate terminology, which are more a matter of poor content than legal inadequacy, and these will be dealt with below).

Climatic/Meteorological data

Data used in the EIS for air modelling/air dispersion modelling was based on readings taken at Cork Airport, and not from the location of the site. No adequate data was provided to prove that the Cork Airport data was representative of conditions obtaining at the site, which is in a markedly different topographical situation. This issue is of crucial importance in view of the coastal location of the site, in a valley, and makes the assessment of the accuracy and hence the reliability of the resultant model outputs impossible. If the model results are incorrect or unreliable, this could impact not only on the EPA's assessment of the effects of the activity on the environment, but also on the location and height of the proposed stack, for example, which is clearly within the Board's remit.

Fauna & Flora data

No data whatever has been provided in relation to bats, despite the specific comment from the relevant Prescribed Body (Duchas) that such a survey should be carried out (It is entirely unreasonable to promise that such a survey would be carried out as a condition of any planning permission, since the impacts of a proposed development have to be assessed as part of the EIA process before consent can be given to the project.) Accordingly, it is not clear whether the development would, or would not, have a significant adverse impact on bats (a protected species), and hence it is not possible, in the absence of survey data, for the Competent Authority to come to a conclusion on the matter, or even for the applicants to propose mitigation measures to deal with any such impact.

There was no survey of any fauna or flora outside the immediate site boundaries. The reason for this, as given by the relevant expert witness, Mr Morgan, at the oral hearing, was because the brief he had been given by the applicants was to look only at

the impacts, on fauna and flora, of the *construction* of the buildings on the site, and not of the *operation* of the development. There is therefore no baseline data on aquatic fauna nor flora, despite the site being within a few metres of the harbour waters (Mr. Morgan is Manager of the Aquatic Services Unit at UCC, so would have been well qualified to conduct such a survey). (If it is argued, as Mr Morgan did, that the impact on aquatic species is an issue for the EPA and not the Board, then one has to question whether or not there is any legal entitlement, under the EIA regulations, for the applicants to exclude, in their EIS submitted with a planning application, any information on the likely significant effects on the environment of the operation of the development, so that this information only needs to be included with the EPA Licence Application. I am not aware of any such legal exemption. In any event, if this was the case, why then did the applicants include in the EIS a very detailed air modelling and air dispersion section, as this evidently covers matters relating to the risk of environmental pollution from the activity? I have to conclude that the lack of data on aquatic species is a material omission from the EIS.

Waste Inputs data

Inadequate data was provided on the waste streams that were proposed to be accepted into/treated in the development. Fuller data, including characterisations of waste streams to include meat and bone meal (including specified risk material), and infectious hospital waste, was provided to the EPA in the Waste Licence application, even though the EIS is supposed to cover all significant environmental effects. There was therefore no analysis in the EIS on the impact of odours (from the MBM) – either in terms of residential amenity during transport/storage or in terms of the incineration process - nor on the efficacy of the proposed pollution control processes in dealing with biological or virus emissions. Nor was it possible – until the actual oral hearing process commenced and the information about this matter came to light – to assess the policy justification for the location of the development in Ringaskiddy by reference to the proximity principle in relation to such waste streams. (It is noted on the last day of the oral hearing that the HSA did not model for these impacts either, implying that it was not informed of such waste streams in the EIS nor in the HAZID risk assessment document supplied by the applicants under the SEVESO II process.)

Erosion

Evidence was put forward at the oral hearing that the site had, for many years, been subjected to erosion from the seaward side (the cliff face being regularly undermined and “eaten into” by high tides). It was stated that the original owner of the land had had to periodically replace fences that had fallen into the sea. It was also stated that other industries in the vicinity, which are on a foreshore location (e.g. Pfizer Loughbeg) had had to put in rock barriers to protect their perimeters. However, no data was included in the EIS on this issue, which was not dealt with at all. In my view, on the basis of the evidence, this was a likely impact that should have been considered, since if part of the cliff face (which is proposed to be immediately beside the truck access route to the bunker hall, and the gas and Nitrogen compounds) were to fall, there would be significant impacts on the environment. It would appear that local knowledge was not used (as is advised in the EPA Guidelines) on this matter.

In relation to the provision of data generally in EIS's, it is stated in the EPA Guidelines that “data must be sufficient to allow the competent authority to make a decision” and “this data must not have been withheld” (see p. 20). It is evident to me

that, on this count, the submitted EIS is legally inadequate, since it fails to provide the necessary data, some of which was in the possession of the applicants but was withheld from the EIS (for whatever reason), but was subsequently provided to the EPA.

It is argued, by the applicants (see closing submission by P. Gardner in Appendix 2) that the EIS adequately describes, and gives data for, the likely significant effects of the development on the environment, and that it is not necessary to deal with non-likely and non-significant impacts. However, this pre-supposes that the choice of what is likely and significant should be limited to what the applicants and their consultants consider to be likely and significant. That choice, under the EIA process, is not reserved to the proposers of a development, but is a matter for the Competent Authority (in this case the Board) to determine, having considered the views put forward by the applicants, the comments and observations of the public, and its own assessment of the documentation and proposal. As outlined above, I consider the matters that I have enumerated above to be both significant and likely, and that the data to support a proper analysis and determination of their impacts has not been adequately provided.

2. Assessment of the Interactions

A critical part of the legal requirement for the content of an EIS is that it should deal with the interactions between the likely significant effects of a proposed development and the various headings set out (what is described in Article 2 (b) of the 1999 Regulations as "the inter-relationship between the above factors", and in the Directive as "the interaction between the factors mentioned in the first, second and third indents."

This aspect of the EIS submitted by the applicants in this case is covered by 16 lines of text in Chapter 16 of the EIS. This can not, in any meaningful way, be described as complying with this mandatory requirement. No analysis, matrix table or other weighting of the relevant interactions has been provided (as would be normal practice in EIS, in my experience), and there is no evidence that any actual assessment of the interactions was in fact carried out by the applicants or their consultants. It is stated that the interactions are covered in the relevant subject chapters, but in fact this is not the case on any consistent basis. For example, even the known construction impacts, such as from the plant noise, and the locations of the car parking for site workers, were not considered in relation to the retention of the badgers on site, nor was the duration of the construction period (see my questioning of Mr O'Mahony, where he admitted that it might be necessary to phase construction if no car parking space could be found on site for construction workers) considered in relation to the traffic analysis.

On this basis also, I consider that the EIS fails to comply with the mandatory requirements of the Directive/Regulations.

3. Non-Technical Summary

It is a legal requirement that a non-technical summary be provided. A summary was provided with this EIS. The EPA Guidelines state that this non-technical summary should be provided so as to enable the public to be aware of the environmental implications of the development. It specifically states that "technical terms,

abbreviations, references or jargon" are to be omitted. It was suggested by a number of the third parties, and in my view correctly, that the inclusion, in the non-technical summary of noise measurements and predictions, expressed solely in dB(A)_{Leq} and dB(A), without any explanation of these terms, is inappropriate.. (I note that other terms are used, such as chemical formulae (e.g. PM₁₀ , CO₂ etc), but these are first explained in simple language, whereas the noise measurements are not.) I am forced to agree with the third parties that, without such explanation, the noise section of the non-technical summary would be unintelligible to the average reader for whom it is supposed to be intended. Mr Ahern of the applicants, under questioning at the oral hearing, was unable to define what these figures meant in layman's terms (and there was no noise expert offered up by the applicants as a witness at the hearing who could do so).

On this basis also, I conclude that the submitted EIS is legally invalid.

Conclusion

My finding that the EIS is legally inadequate, and hence invalid, has a number of potential responses. It is open to the Board to request, as part of a further information request, a new EIS, which will cover the matters that have not been adequately provided. This would require a lengthy process of further data gathering, new public notices, provision for public comment, and a re-opening of the oral hearing. It is also open to the Board to determine that, as the planning application was invalid, since it was not accompanied by a legally adequate EIS, the application can be declared as having been withdrawn. Alternatively, the Board could decide to determine the application as now presented, and to refuse permission on the basis, inter alia, that the information supplied does not satisfy it that the proposed development can be permitted.

It is my recommendation, in the light of my further Assessment below, wherein I conclude that the application should be refused on other grounds, that the Board should not decide to seek further information and a revised EIS, as the supply of such information and EIS would not solve all of the issues upon which I base my recommendation for refusal, nor alter the general unacceptability of the development, on planning and policy grounds. However, in fairness to all parties, it should not declare the application to be withdrawn, as this would merely invite a re-application, which would still have to be refused for other, planning and policy related, reasons.

B) ADEQUACY OF CONTENT OF THE EIS

Apart from legal adequacy problems with the EIS, the parties have submitted that there are many other inadequacies with the submitted EIS, which (though not strictly legal requirements), nevertheless call into question many of the conclusions that are reached by the applicants' consultants in relation to the impact of the proposed development.

I have considered these points, and the applicants' responses to them, and have also noted a number of points myself in my assessment of the EIS. I do not agree with all of the points put forward, but the following points do appear to me to be inadequacies and difficulties that raise doubts as to the some of the conclusions reached in the EIS.

1. Site Selection. I propose to deal with this issue later in my Assessment, as it relates to planning considerations and to the suitability of the site.

2. Visual Analysis. The visual analysis, though it included a very large number of photomontages, gave no indication of the impact of the development at night (it was noted by parties at the hearing that most of the industries in the lower Harbour Area light up their plants at night). In addition, there was absolutely no photomontage view of the development from the road in front of the site, nor from the site of the National Maritime College opposite, even though it should have been obvious that these locations would be most significantly affected by the huge bulk and size of the proposed process building (The excuse for this omission, that was given by the visual consultant, Mr Hastings, was that this was a matter for the applicants' architect. I do not accept this, since the same consultant has provided close-up views of large scale development from adjoining public roads in appeals with which I have been involved during the last year.)

There was no properly explained rationale for the "dazzle painting" approach advocated for the external treatment of the main process building, nor even references to the "research" that had underpinned this approach. This was compounded by different outlines of the colours to be used, as between the EIS, the outline specification and the submitted drawings with the application. (The photomontages, for example, showed a grey/green colour, while the drawings showed the use of extensive areas of blue cladding.)

3. Noise Analysis. Baseline noise measurements (chapter 8) were carried out at the roadside gate of the nearest sensitive receptor (a dwelling), rather than at the dwelling itself, despite the fact that the applicants were seeking to use noise standards that are based on noise levels at the nearest residential receptor. No attenuation/correcting factor was applied to account for distance effects between the gate and the dwelling. This had the effect of maximising existing baseline measurements, and hence under-estimating the impact of the noise impact of the development on the dwelling.

4. Traffic. The traffic surveys were flawed, in addition to the points mentioned above, in that they did not deal with one of the roundabouts on the N28 in the network between Shanbally and Ringaskiddy, did not adequately account for the traffic generation from a number of major industrial developments planned for the area, and misinterpreted the data from the planning applications of others (notably the National Maritime College). In addition, all of the measurements were given in vehicles per hour, rather than p.c.u's, and hence equated a very large HGV with a private motor car, despite their obvious differences in size and extent of road coverage in congested conditions. This had the effect of underestimating the impact of HGV traffic (which would represent a significant proportion of the traffic that would be generated by the development). Mr Coughlan, the applicants' traffic consultant, when queried about this issue at the oral hearing, was unable to give any convincing explanation for his choice of measurement unit.

5. Mixing of Phase 1 and 2 Impacts. Throughout the EIS, there is reference to both phases of the development – the present application for a 100,000 tonne

hazardous and non-hazardous incinerator, and the potential future application for a 100,000 tonne municipal waste incinerator. The impacts of these are combined, both in textual and tabular form, and in a number of the chapters, they are not separated out (e.g. Chapters 9 and 15). This makes an objective assessment of the present proposal almost impossible. The applicants' justification for this is that they are seeking to show all the direct and indirect impacts of the development. However, I do not accept that this is reasonable, since the data and impacts are not separated out into direct and indirect, as suggested, and since the proposed Phase 2 development will, presumably, have its own EIS in due course.

Conclusion

On the basis of the above analysis, I consider that it is appropriate to advise the Board that it would not be prudent to accept the conclusions reached by the applicants in the submitted EIS in relation to the likely significant impacts of the proposed development.

PLANNING CONSIDERATIONS

I consider that the main planning issues for consideration in this appeal are as follows:-

1. Compliance with Policy
 - a. National Policy
 - b. County Waste Management Plan 1993
 - c. County Development Plan 2003
 - d. Regional Policy (CASB)
 - e. Government Commitment
 - f. International Policy / Commitments
2. Proper Planning and (Sustainable) Development
 - a. Site Selection
 - b. Site Suitability
 - c. Impact on Economy/Employment
 - d. Impact on Visual Amenity
 - e. Impact on Residential Amenity
 - f. Impact on Recreational Amenity
 - g. Impact on Protected Structure/Cultural Heritage
 - h. Inadequate Infrastructure – Roads
 - i. Inadequate Infrastructure – Sewerage/Storm Water
 - j. Inadequate Infrastructure – Emergency Planning / Public Safety
3. Additional Points
 - a. Site Ownership
 - b. Public Right of Way
 - c. Costs

1. COMPLIANCE WITH POLICY

a) National Policy

There are two national policies that have to be considered in relation to this application, since it proposes to deal both with hazardous wastes and with non-hazardous wastes. The former is governed by the National Hazardous Waste Management Plan, while the second is the subject of "Changing our Ways" and "Delivering Change" policy documents. I propose to deal with each in turn.

Before doing this, it is necessary to make a general point. It should be noted that, in relation to this application, the Board is required to "have regard to" policies and objectives of "the government or any minister of the government in so far as they may affect or relate to its functions". This statutory obligation has been judicially decided in the Supreme Court in the case of *Glencar Exploration plc v Mayo County Council* in 2002, and by the High Court in the more recent case of *McEvoy and Smith v Meath County Council* in 2003. In the *Glencar* case, the Chief Justice expressly decided the issue in his judgement when he stated:-

"The fact that they [Mayo County Council] are obliged to have regard to policies and objectives of the government or any particular minister does not mean that, in every case, they are obliged to implement the policies and objectives in question. If the Oireachtas had intended such an obligation to rest on the planning authority in a case such as the present it would have said so".

I consider that the same legal stipulations apply to the Board, which has the same responsibilities in relation to national policy under the 1963 – 1999 Planning Acts as do Planning Authorities.

It is my professional opinion that, even if the proposed development in principle does conform to national policy, as set out in the National Hazardous Waste Management Plan and in "Changing our Ways/Delivering Change" – for the hazardous and non-hazardous aspects, respectively (which, as outlined below, I do not accept), it is nevertheless open to the Board to conclude that the proposed development should not be permitted on other grounds, relating to the proper planning and (sustainable) development of the area, the particular unsuitable characteristics of the site and its environs, and other factors, as outlined below. I do not consider that any purported compliance with national policy, even if true, should over-turn other considerations to which the Board is also required to have regard.

There is a further point that needs to be considered in relation to the statutory requirement of "having regard" to national policy, and one that was strongly put forward by the applicants during the course of the oral hearing – that if the County Development Plan does indeed prohibit "contract incineration" anywhere within its functional area, the Plan is therefore in breach of national policy and should be disregarded by the Board in reaching its decision. This was, essentially, the content of the submission (no 3214) made to the Council in 2002 during the drafting process of the County Development Plan by Indaver. Detailed evidence was given by Councillor Peter Kelly in relation to this matter (and a copy of the County Manager's proposed amendment, in response to the Indaver submission, was provided by

Councillor Kelly and is with his oral hearing submission – see Appendix 2 – Group 6 - 2). (The text of the Indaver submission to the draft Development Plan was also handed in during the course of the oral hearing and is on file – see Appendix 2 – IND - 11). Councillor Kelly’s evidence was that the Council members, in deciding to retain the prohibition on “contract incineration” and hence not to accept the County Manager’s proposed amendment and to reject Indaver’s submission on the draft Plan, made a conscious and deliberate decision to do so, after debate and explanation by the officials of the issues involved.

This issue of the requirement of “having regard” to national policy was extensively discussed during the course of the oral hearing, particularly in questioning by both the Planning Authority’s barrister, Mr Sreenan, and by myself as Inspector, of the applicants’ planning witness, Dr Brian Meehan, and of my questioning of the County Planning Officer, Mr Kelleher. Under such questioning, Dr Meehan accepted that the development does indeed constitute “contract incineration”, as defined in the County Development Plan. He also admitted that it was in material conflict with the zoning provisions of the Development Plan. Dr Meehan accepted that the Council members had fulfilled their legal obligation of “having regard” to national policy when they adopted this provision in the Plan, and also when they voted, by a 70% majority (30 votes to 13), not to materially contravene the Development Plan in relation to the present planning application, since they took note of the advice from the Council officials before coming to their decisions on each of these. Mr Kelleher also accepted this point on behalf of the Planning Authority.

National Hazardous Waste Management Plan

It is submitted by the applicants that this development, of an incinerator for hazardous waste, is in conformity with this Plan. They point to the recommendations of the Plan, which include, as item 7 in the priorities for the years 2001 – 2006, the following:-

“The development of hazardous waste landfill capacity and thermal treatment for hazardous waste requiring disposal to achieve self sufficiency and reduce our reliance on export”

The third parties, on the other hand, argue that this view is based on a selective misreading of the Plan. They point out that the Plan does not specify what type of thermal treatment should be employed, and that there are a number of potential thermal treatment alternatives, some of which do not involve incineration as proposed. They point out that the recommendation quoted links the provision of thermal treatment with the provision of hazardous landfill capacity, and not separately, and that, since the applicants are not proposing such capacity, and since there is no such capacity in Ireland at present, the proposal is, at best, premature. They submit that, without such landfill capacity, ash residues from the proposed development (which would be hazardous and could not be landfilled in Ireland), would have to be exported for disposal, thereby breaching the proximity principle and self-sufficiency argument used by the applicants as justification for the proposed development.

More crucially, the third parties argue that a full reading of the entirety of the Plan shows that the main priority of the Plan is for hazardous waste prevention (described as "the cornerstone" in the text of the Plan), and that the provision of the proposed incinerator, when the other priorities of the Plan, and particularly the waste reduction measures, have not yet commenced, would be inappropriate, premature, and contrary to the objectives of the Plan.

As this is such a crucial issue in this case, I have carried out a detailed examination of the National Hazardous Waste Management Plan (and have included the full text of the Plan in Appendix 3 for the Board's consideration). I find that the main thrust of the Plan is, as suggested by the third parties, waste prevention. A Prevention Programme is to be established, which is described as "the cornerstone" of the Plan (p. 85). The Objectives of the Plan are set out clearly on page 1, which states:-

"The primary objective of the National Hazardous Waste Management Plan is to prevent the production of hazardous waste and to minimise the effect of hazardous waste on the environment. The secondary objective is to manage hazardous waste that cannot be prevented in such a manner as to ensure that environmental pollution is minimised and not transferred from one environmental medium to another: in other words to bring about a qualitative reduction in the quantity of hazardous waste requiring management" (para 1.3 - my emphasis)

In noting the increases in hazardous waste arisings between 1996 and 1998, the Plan states that it is the intention that these should be reduced, by a combination of measures, as follows:-

A 'standstill' scenario for hazardous waste disposal shall be adopted as a target with 1996 as the base year for that target" (para 4.4).

A number of methods are proposed in order to help achieve this target. It is proposed to establish an Implementation Committee, to oversee a Prevention Team which would implement the Prevention Programme. The Programme would achieve this reduction target by a combination of measures such as regulatory instruments, economic pressures (charges and taxes), awareness raising, training and technical assistance. The costs of the prevention programme are estimated to be £43.5 million. The Plan states:-

"in the short term, the key to reducing dependence on disposal options for hazardous waste is the segregation and re-use, recycling or recovery of that waste. Recovery options may provide financial benefits to companies and reduce waste disposal costs."

"Medium to long term measures may include material (raw or intermediate) substitution and the adoption of cleaner technologies, both of which should prevent the generation of hazardous waste in the first place."

In order to provide the necessary assistance to industry to implementing practical changes, the work of the prevention team (section 4.7.5) should be commenced without delay" (ref. page 44)

The urgency in relation to prevention is echoed in the speech of the Minister of State at the launch of the Plan (see marked sections of the text of this in Appendix 3).

Chapter 6 of the Plan does with "Recovery and Disposal of Hazardous Waste". It outlines that the main emphasis of the Plan is on making recommendations for the prevention of hazardous waste, but recognises that the Prevention Programme "will not reduce waste quantities much below 1996 levels," and that therefore that it is important to ensure that "adequate and suitable recovery and disposal outlets exist for the hazardous waste that will continue to arise". After dealing with recovery, both in Ireland and abroad, it notes that there is a need for the State to be self-sufficient in relation to hazardous waste disposal, since there cannot be continued long-term reliance on export to other countries. A number of potential thermal treatment options are outlined, based on an analysis of the data for 1996 and the quantity remaining to be exported (18,880 tonnes) (Figure 6.1), as follows:-

- a. Continued export
- b. Small all purpose kiln, capacity 15,000 tonnes, capable of handling all hazardous waste types
- c. Two kilns, one for municipal waste and the second a liquid injection kiln with capacity of 8,000 tonnes
- d. Other technologies (such as gasification, pyrolysis and high temperature melting.)

The Plan does not come down in favour of any particular option, due to the EPA's licensing role, but states that the selection would have to be contingent on the option representing "best available technology (BAT), as required by the IPPC Directive 96/61/EC".

It concludes as follows:-

"on the face of it, the quantities of hazardous waste exported for incineration between 1996 and 1998 would appear to justify the establishment of a high temperature thermal treatment facility for the disposal of hazardous waste in Ireland...However, there are uncertainties in regard to future quantities of hazardous waste and also in regard to the types of waste that can be expected to arise as collection rates improve. In addition, the impact or success of prevention programmes can only be determined when they have been in place for a number of years. It is important that the establishment of a thermal treatment facility does not inhibit the success of prevention programmes"

(p. 66 – my emphases)

Evidence was given, during the course of the oral hearing, that the Implementation Committee had only just been established (in July 2003), and that the Prevention Team and Prevention Programme had not yet commenced. No information was presented as to the availability of funding for the Programme.

From my examination of the Plan, I am fully satisfied, contrary to the contention of the applicants, that the recommendations of the Plan are intended to be carried out in sequence, and in particular that the Prevention Programme is intended to be put in place as a priority, before other aspects of the Plan are implemented. Given that this has not happened, and in view of the very clear warnings in the Plan that the

establishment of the thermal treatment facility would tend to inhibit the success of the prevention programme, I do not consider that the development of a thermal treatment facility at this time can be justified as being in accordance with national policy. Indeed, it is my firm view that its development at this time, in the absence on progress with prevention, and some progress towards the target of 1996 hazardous waste disposal levels, would be premature.

In addition, from the context in which it was used (and particularly Figure 6.1 and the text of the Plan at page 65), I am satisfied that the term "thermal treatment for hazardous waste", as used in the Plan does not, as contended by the applicants, equate with an incinerator such as is proposed in this case. The Plan discusses other types of thermal treatment, which it acknowledges have not been applied to the treatment of hazardous waste on a commercial scale, but which it feels "subject to further research, present real alternatives to incineration" and "have a number of reported advantages", which "should be considered". In this regard, I feel that the selection of the proposed development to treat hazardous waste at this stage, when it is not justified on the basis of the need to proceed with prevention first, would also militate against the consideration of such alternative thermal treatment technologies.

There is also the issue of the scale of the thermal treatment facility envisaged by the Plan. The Plan clearly intends that the amount of hazardous waste that it is appropriate to dispose of by way of thermal treatment is 18,880 tonnes per annum, as outlined in its target of achieving reduction to 1996 levels (see Table 6.1 and also the introduction to Chapter 6 on p. 61, as quoted above).

I am fully satisfied that the scale of the proposed development, which is intended to treat 50,000 tonnes of hazardous waste out of the total of 100,000 capacity, would be well in excess of what is envisaged in the National Plan. It is evident, from the comments of Mr Ahern during the oral hearing, and from the closing statement of Mr Gardner, that the reason for the size of facility proposed is the "economic viability of the proposed development". I do not consider, on policy grounds, that the economic viability for the applicant company is something that the Board should give any weight to, as it is not a material planning consideration in an appeal, but only a private financial matter.

I also note that the statutory basis for the making of the National Hazardous Waste Management Plan, in Section 26 of the 1996 Waste Management Act, dictates that the Plan should put forward proposals for "*the disposal of such hazardous waste as cannot be prevented or recovered.*" Since anything above the 1996 levels is seen by the Plan as being capable of being prevented or recovered, to permit a thermal treatment facility with a greater capacity could be seen as going against the very statutory basis of the Plan itself. Accordingly, there is not only a policy reason against accepting a facility that is grossly over-sized for the purpose intended in the Plan, but also a statutory reason.

Finally, I accept the contention put forward by the third party appellants that the Plan specifically links the provision of thermal treatment to deal with hazardous waste for disposal with the development of hazardous landfill capacity. This is clear from the linking of the two within the one recommendation, and also from the context in which they are discussed in Chapter 6 of the Plan. Since it is evident that, at present, there is

no such capacity, either in the Cork area or nationally, and since the proposed development would produce hazardous ash residue (from both the burning of hazardous waste and non-hazardous waste – even if the quantities of such ash are in dispute), I consider that the proposed development would be premature. The stated justification of the development lies in the need for self-sufficiency and to reduce reliance on export of waste for disposal, due to concerns that other EU countries will prohibit such importation in the future. This justification falls if there would be a continuation of export of resultant hazardous ash for disposal.

Accordingly, for all of the above reasons, I consider that the proposed development, at this time, of a hazardous waste incinerator would be in material conflict with the provisions of the National Hazardous Waste Management Plan, and would also be premature pending achievement of waste prevention and reductions in the quantities of hazardous waste arisings for disposal, as envisaged in that Plan. It would also be premature pending the provision of hazardous landfill capacity to deal with hazardous waste residues from thermal treatment.

Changing our Ways/Delivering Change

The main focus in these policy documents, as with the hazardous waste plan, lies in waste prevention, re-use, recycling and recovery. However, the documents also focus on the proximity principle, that waste should be treated as close as possible to its source of generation. They indicate that waste to energy incineration “may prove” to be a beneficial option for “residual waste” that cannot otherwise be minimised, recovered, re-use or recycled. They indicate that the method of waste management planning is through the adoption of regional waste management strategies by Local Authorities. The later 2002 document (Delivering Change) notes that these are now all adopted, as a result of the enactment of the Waste Management (Amendment) Act 2001.

In the context of the present development, half of which is stated to be for non-hazardous industrial waste, the key points to determine are firstly, whether thermal treatment for residual non-hazardous industrial waste is envisaged in the Waste Strategies adopted by the Local Authority, and secondly whether there is justification, on the basis of the proximity principle, for this aspect of the proposed development. In my judgement, the non-hazardous aspect of the development can only be allowable, under national policy for non-hazardous waste, if it is provided for by the local Waste Strategies/Plans, since these are the implementing mechanisms prescribed in non-hazardous national waste policy.

b) County Waste Policy

I have carefully examined the relevant Waste Policies that apply to County Cork – which in this case are the 1995 Joint City and County Waste Management Strategy and the 1999 Cork County Waste Management Plan. In the case of the 1995 document, evidence was given during the hearing that three scenarios were examined, and that scenario two, which specifically excluded thermal treatment, was the chosen strategy.

In the case of the 1999 County Cork Waste Management Plan, the evidence of the Planning Authority's witness in this area, Declan Daly (see Appendix 2 – PA – 3) was that there is an Action Point (no. 46) which commits the Council to "examining the results of feasibility studies being carried out into the possibility of employing thermal waste to energy treatment for residual municipal waste". He also stated that there is no commitment in the Plan to adopt scenario 3 of the 1995 Joint Waste Management Strategy (which provided for thermal treatment). He concluded that the Waste Management Plan "does not indicate that incineration facilities will be required for either hazardous or non-hazardous industrial waste or for residual municipal waste."

In the case of the proximity principle, evidence was given that Cork generated a high level of industrial non-hazardous waste, and was one of the highest in the State in percentage terms, if the wastes from particular industries in three other counties were excluded. However, there was no analysis provided as between the types of industrial waste generated in County Cork and the types of such industrial waste that was proposed to be dealt with by the proposed development. The only waste streams discussed in any detail during the course of the oral hearing in relation to this aspect of the development were industrial sludges and meat and bonemeal. In the case of sludges, evidence was given by Ms D'Alton (CHASE Monkstown) that the policy of the Council (for whom she had worked in this area) was that these should be treated by non-thermal treatment technologies, such as anaerobic digestion etc. In the case of Meat and Bonemeal (MBM), Mr Ahern provided figures, at my request, from the Department of Agriculture on the location of rendering plants producing this material (see Appendix 2 – IND – 13). This showed that there were, in fact, no rendering plants in Cork at all, and that, of the four in the Munster area, two were in Co. Tipperary, one was in Limerick and one was in East Waterford. This present site could hardly be described as being "proximate" to those sources of waste.

However, there is no analysis in the submitted documentation put forward to the Board on the need for thermal treatment for residual industrial non-hazardous waste, nor of the quantities of such waste requiring disposal, nor is there any analysis, in the EIS or submitted documentation, that Ringaskiddy would be the optimum location for such a facility. In fact, the non-hazardous aspect of the proposed development was merely an adjunct to the hazardous aspect of the development, in respect of which all of the site selection and justification was based. Accordingly, if the hazardous aspect were to fall (as I am recommending, since it is not appropriate nor in accordance with the national and county plans), then there is no evidence nor analysis available to the Board to justify the non-hazardous waste incinerator aspect.

On the basis of this analysis, and in particular since there is no provision, currently, within the Cork Waste Management Plan for the implementation of thermal treatment to deal with residual non-hazardous industrial waste, any development of a non-hazardous industrial incinerator at this location would not be justified and would, at the very best, be premature pending future reviews of the Waste Management Plan.

(It should be noted that there is no provision, in the Cork Waste Management Plan 1999, for hazardous waste, since that Plan was adopted before the adoption of the National Hazardous Waste Management Plan. However, there is, in section 2.2.2.14, a statement that it is intended that the Council will incorporate the recommendations of the National Hazardous Waste Management Plan into the County Waste

Management Plan as an amendment. The evidence of Mr Daly, for the Planning Authority, was that, to date, that amendment has not yet been made. Mr Daly also noted that, in any event the National Plan does not "indicate that Cork would be the preferred or only location for a hazardous waste incinerator".

c) County Development Plan 2003

The applicants argued, both in written submissions and during the oral hearing, that the proposed development did not constitute a material contravention of the County Development Plan, and that, when read as a whole, the proposed development would be in conformity with the objectives of the Plan. In the alternative, as contended by Dr Meehan and Mr Gardner, if the development conflicts with the zoning objectives of the Plan, but not with other objectives, the Board is entitled to over-rule the plan on grounds that there are conflicting objectives in the Plan (as provided for in Section 37(2) of the 2000 Planning and Development Act).

The Planning Authority's position, as put forward in the written submissions and at the oral hearing, is that the proposed development constitutes "contract incineration" and hence is specifically excluded under the terms of the relevant zoning objective. In addition, as the development does not constitute "large stand alone industry", it is in material conflict with the specific site objective applying to the subject site.

The third parties agree with the approach taken by the Planning Authority, but also submit that the development would not only conflict with the zoning and site specific objectives of the Plan, but also with other objectives and policies set out in the Plan.

I have carefully considered all of these submissions, and have reviewed all of the sections of the Plan referred to by the parties to the appeal. It is my considered professional opinion that the proposed development materially contravenes the statutory Development Plan in the following areas:-

1. The proposed development constitutes "contract incineration" (as defined in Zoning objective ZON 3- 13 and paragraph 9.3.36). This definition is clear – it refers to facilities whose primary role is to manage wastes that are not generated by the company itself (i.e. the industrial company) - to "the incineration of waste generated elsewhere". As noted earlier, following extensive cross-examination, the applicants' planning expert, Dr Meehan, conceded that the proposed development constituted contract incineration. On this basis, and under the terms of ZON3 –1 3(b), which is the applicable zoning objective, the proposed development is not considered to be suitable in such areas. (In this regard, I find the applicants' argument that, because the words "generally suitable" are used, rather than "appropriate" that this somehow means that the proposal is permissible, to be entirely specious and without merit.)

It will be noted (see Appendix 1- oral hearing proceedings for 8/10/03 tracks G, H and J) that I closely questioned Dr. Meehan on his interpretation of the Development Plan, and that he accepted that, in interpreting development

Plans, one goes from the general to the specific, and where there is conflict, one favours the specific, in this case the zoning objective. He accepted that the development materially contravened ZON3 -13, but still contended that the development was in accordance with national policy, which (in his view) took precedence. (For the reasons outlined above, I do not agree with this last opinion of Dr. Meehan.)

2. The proposed development is not a "large stand alone industry", in the sense that the term is used in Specific Objective I - 15. While I accept that the use involved is "industrial", in the Use Class sense - in that it constitutes heavy or special industrial use (and in this regard I disagree with Mr Sreenan on the matter) - I do not accept that, by any reasonable definition, the proposed development could be classified as either "stand-alone" (since it depends for its whole existence on the waste products of other industries), nor as a "large industry". I note that, in the site selection process, the applicants' consultants themselves accepted that the development was not a "medium/large stand alone industry due to the number of potential jobs", when they dismissed the suitability of an industrially-zoned site in Charleville on this basis (see para. 2.6.6 of the EIS). It is evident from this that the term "large", as used in the County Development Plan, relates to the amount of employment that is likely to be generated by an industrial development, and not to the physical size of the actual buildings concerned. At a total, for both Phases 1 and 2, of 57 jobs, on a site of over 30 acres, the proposal could by no means be described as "large". This view is entirely consistent with the objectives of the County Development Plan of encouraging employment in industrial and enterprise areas.
3. The County Development Plan indicates, at objective 1-22, that it is an objective to "safeguard lands in the vicinity of ports and harbours against inappropriate uses that could compromise the long term potential (including access) of the port and harbour". I note, from Dr. Meehan's submission, that the subject lands form part of only three plots of land in Ringaskiddy (itself designated in the plan as a "strategic industrial area") earmarked in the Plan for large stand alone industry. Since Ringaskiddy is the chosen location by the Port of Cork for the continued development and expansions of Port activities (in accordance with its Strategic Plan - details of which are included in the history documents relating to file ref. S/00/5570 (Bord ref. PL04.125809)), I consider that it is reasonable and appropriate to ensure that such an important site, which is directly opposite the National Maritime College and close to other sites owned by, and in the case of the other Irish ISPAT landholding, recently purchased by, the Port of Cork, should be reserved for industries that are genuinely port-related. (In this context, it was accepted by Mr Ahern that the proposed development was not port-related.) This issue of port related uses is further outlined in the Cork Area Strategic Plan (see below)
4. The County Development Plan also specifies a number of scenic routes around the Harbour Area, and lists a number of protected structures, including the Martello Tower. It states that it is the objective to preserve the character of all important views and prospects, particularly sea views (Objective ENV 3-4), and to preserve the character of those views and prospects obtainable from

scenic routes (Objective ENV 3-5). Two such scenic routes are the route around the south side of Great Island, looking southwards across the Harbour towards Ringaskiddy (A53), and the route through Passage West and Monkstown and on to Ringaskiddy (A54), looking towards the Harbour and Haulbowline. In my judgement, the proposed development, because of its bulk and scale, would impinge of these scenic views and certainly would alter their character. (It is argued by the applicants that, as the subject site is zoned for industry, this character would be altered in any event. However, the size and scale of the proposed development, which was characterised by Mr Deasy, the Council's architect, as the biggest building that he had encountered in the Harbour area, would clearly have a much greater impact than other industries that might be located there (especially given the site's topographical constraints).

There were a number of other points made by the parties in relation to the County Development Plan, as outlined in the submitted documentation, wherein they argued that the development would conflict with other objectives and policies. I do not accept that, in those cases, the development would be such as it would contravene in a material way, the objectives and policies referred to. For example, I am satisfied that the development would not interfere with the visual setting of the Martello Tower to such an extent as to amount to a material contravention of the Plan. Neither do I consider that the development, as suggested by some parties, would conflict with the policies on integrated coastal zone management, nor be premature pending the carrying out of such ICZM for Cork Harbour.

My judgement in relation to the contravention of the Development Plan is limited to the four instances mentioned above. However, in each of those instances, I consider that the proposed development is not only in conflict, but is in Material Conflict with the relevant provisions of the Development Plan. Accordingly, I would support the Planning Authority's reason for refusal, but would considerably add to it.

However, this is not the end of the matter, since the Board has the power to grant a planning permission, even if the development in question materially contravenes the Development Plan.

It was strongly argued by a number of the parties at the oral hearing, and by Mr Sreenan (for the Planning Authority), that the Board, although it has the power to over-rule a Planning Authority and grant a permission which is in material conflict with the provisions of a Development Plan, would have to have very significant and overwhelming reasons for over-turning such a very deliberate and conscious decision of the elected councillors. Such an over-ruling was described as injurious to democracy. It was argued – and in my view correctly - that no such overwhelming or significant reasons can be adduced for this particular development, at this particular location, at this particular time.

Another third party made the point that the adopted Development Plan should only be overturned in such circumstances by the Board on the basis of a "pressing public need". It is evident from the foregoing that the proposed development is neither a "pressing need", as it is not urgent in the context of the National Hazardous Waste Management Plan, nor is it a "public need", but is rather a private sector development,

designed for commercial reasons to a scale and purpose that has little public benefit. Neither it is a "necessary public utility" as the proposed incinerator in Carranstown was determined to be by the Board in file ref 126307, since the proposed development is not justified nor permitted under the terms of the County Development Plan nor the Cork County Waste Management Plan (as noted above).

d) Regional Policy - Cork Strategic Area Plan (CASP)

As Regional Guidelines recognised in the National Spatial Strategy (section 4.7, p. 85), and given statutory recognition under Sections 21 - 27 of the 2000 Act, the Board is obliged to have regard to this policy document, just as it has to have regard to national policy. It is submitted by the third party appellants that the proposed development would conflict with CASP, essentially under two main headings. Firstly, CASP makes particular reference to the need to use the Harbour Area as a natural asset in the further development of employment, and in the development of amenity, recreation and tourism. Secondly, CASP makes particular reference to specific areas, including Ringaskiddy, and sets out Regional Guidance in relation to certain major activities with regional significance, including the development of the Port of Cork.

In relation to the first issue, while I recognise that the Strategic Plan seeks to build on the harbour as an asset, it also recognises the continuation of the long-standing trend for the development of industry in the harbour. While tourism, recreation and amenities are given due regard, the Plan is essentially a settlement and employment strategy, and seeks to re-direct residential expansion of Cork towards the north of the City, and in a linear fashion eastwards towards Midleton, and seeks to curb the current market-led growth of housing towards the south suburbs and southern satellites. It also emphasises the value of continued industrial and enterprise development in Ringaskiddy. In this regard, therefore, I do not think that the third parties can take much solace from the Strategic Plan, in principle, although there are particular policy statements with which they would agree, and which they have emphasised (including the potential longer term use for the redundant Irish Steel/Irish Ispat complexes).

In relation to the second issue, however, I consider that the third parties are on firmer ground. Even more than is covered in the County Development Plan, the Strategic Plan (Chapter 7) emphasises the importance to the future economic development of the Cork region of the further expansion of Port activities in the harbour, and the eventual relocation of Port activities downstream from the City to the harbour. In this regard, the following statements are most relevant to the present application:-

"The Port of Cork has commissioned a study of port operations and the Port of Cork Strategic development Study....Port operations at City Quays are in decline and are likely to reduce significantly over the coming years. This represents a major City-wide regeneration opportunity. Thus the future focus of activities for the Port of Cork will be at Tivoli and Ringaskiddy".

"Ringaskiddy benefits from deep water berthing, but suffers from a mixture of roles which constrains current operations....Much of the land requirements for the protected port development at Ringaskiddy will be from land reclamation. This is likely to be of the order of 30 hectares at both the Curlane Bank and Oyster Bank, and 10 acres for a Common User Berth. Despite the proposed

reclamation, development in the Ringaskiddy area should be limited to port-related industry, other industry, port back-up or other activities that complement the port."

"Land supply in Ringaskiddy is becoming scarce. As described previously, the Port's plans for expansion include land reclamation; however, land in the area should generally be reserved for port-related or complementary uses".

I am satisfied that the proposed development is not port-related, nor is it complementary to the port (unless it is argued that the reason the development is proposed is in order to avail of the port for the export or import of hazardous or non-hazardous waste, and such a scenario would entirely contradict the stated reason for the proposed development that has been advanced by the applicants – and also conflict with national policy.)

I consider that, on grounds of rational planning and the orderly future development, not only of Ringaskiddy but the general area as a whole, the use of the proposed site for a non-port-related purpose, in a position where there is a definitive future need for such land to facilitate the future development of the Port (with the spin-off benefit of urban regeneration in Cork City), would be entirely unacceptable and inappropriate. It should be refused on that basis also.

e) **Government Commitment**

There is a further aspect, which is peculiar and particular to the Ringaskiddy area, and that might well legitimately be described as Government policy. This relates to the formal written agreement between local residents and the Cork County Council, the IDA and the Government, as represented by then Ministers Gene Fitzgerald and Des O' Malley. This formal Agreement, which was in writing and signed by the parties, came about following controversies in the area in the 1970's, which came to a head when asbestos waste was dumped on a site at Barnaheely. It was agreed that no further waste disposal sites would be developed in the future in the Ringaskiddy and Monkstown areas. (The details of this Agreement are included in the site documentation.)

From my examination of this documentation, and from hearing the large number of oral submissions from residents of the Ringaskiddy area during the oral hearing, including a former County Councillor for the area, Mr B. Brennan, as well as the comments of Deputy B O' Keeffe, who is one of the Dail representatives for the area currently, I am satisfied that the residents have a legitimate expectation that there should not be any further waste disposal developments in their area.

I am convinced, from hearing this testimony, that the opposition on the part of the residents of the area to the proposed development could not be characterised as a NIMBY response, but as a strong feeling that the Ringaskiddy residential community has been willing to accommodate, over many years, a disproportionate level of industrial development, in the general economic interest of the region, and that the development of a hazardous waste incinerator is seen as a clear breach of this Government Commitment and is an unfair imposition on this community.

I consider, in the circumstances, that it would be reasonable for the Board to conclude that the Government Commitment represented by the 1970's Agreement should be given the status and weight of Government policy, to which the Board should have due regard in reaching its decision on the proposed development.

f) International Policy / Commitments

It is submitted by a number of the third parties that the proposed development would represent a breach of International Policies, to which the Government, by way of International Agreements, is a consenting Party. These include the Stockholm Convention on the reduction and Elimination of Persistent Organic Pollutants (POP's), the Rio Convention on Biological Diversity, and the Kyoto Protocol on Global Warming.

They submit that, in a hierarchy of policies as between local, national and international, greater weight should be given to international policies, to which Ireland is bound by international agreements, freely entered into, than to national policies, which can change at the whim of a government. It is submitted that the net implication of compliance with these international policies is that Ireland should not permit incineration of waste, in principle.

The applicants contend that it is not the role of the Board to seek to re-write Government policy through the medium of an oral hearing and planning appeal, and that, as incineration is part of accepted national policy, any arguments against it, in principle, are not a matter for the Board. In addition, it is contended (see Mr P. Gardner's closing statement) that national waste management policy has been adopted subsequent to these international treaties and commitments, and so has to be assumed to have taken them into account. In the case of the Stockholm and Rio Conventions, it is also argued by Mr Gardner that, in order to be seen to breach them, the development has to be assumed to be causing environmental pollution (through the release of Dioxins and other persistent organic polluting substances etc.), and the issue of environmental pollution from the activity is reserved to the EPA, and is not the province of the Board, under the current legislative provisions.

I find that, in the current legislative situation, it is not possible for me to accept the contentions made by the third parties. I accept that it is not the function of the Board to "second guess" national policy, as it has to accept that the policy of the day is the national policy, and that it has (as is outlined above) to "have regard" to that policy, whether or not it may agree with the content of such policy. It cannot seek to balance one national policy against another, but merely examine whether, in any particular case, a proposed development is in conformity with that policy. This is what I have done, in some detail above, and have concluded that the proposed development is not in conformity with national policy, as expressed in the National Hazardous Waste Management Plan. I do not consider that it is for me, as the Inspector dealing with this appeal, to give an opinion on whether the national policy in question is right or wrong - that is essentially a political matter.

Accordingly, I have no recommendation on the issue of international policy.

2. PROPER PLANNING AND (SUSTAINABLE) DEVELOPMENT

In addition to compliance, or otherwise, with national, local and regional policy, the proposed development also falls to be determined in relation to general principles of proper planning and sustainable development. This may be conveniently covered under a number of closely related headings, as set out below.

a) Site Selection

I have carefully considered the points raised by the parties in relation to the site selection process undertaken by the applicants in choosing this site, and the applicants' responses, particularly the responses given by Ms L. Burke of Indaver to very detailed questioning by Mr J. Noonan (CHASE Carrigaline) on the matter during the oral hearing.

I feel that, in the absence of national guidelines on the siting of hazardous waste facilities such as this, or indeed incinerators generally, it is appropriate (and indeed essential for objective analysis) to use internationally-accepted site selection guidelines such as those issued by the WHO.

For dealing with what is a national hazardous waste facility, I consider that the necessary and logical first step should have been the identification of the appropriate geographical region in the State in which to locate such a facility. This should be based on objective and verifiable criteria, including the sources of the waste to be treated, the cost-benefit in terms of transportation and property/site costs, and the environmental and social factors listed in the WHO Guidelines. It cannot be left to the judgement of a firm of consultants employed by an applicant to determine what criteria should be used to determine the siting of such a complex and significant development.

However, the applicants' choice of Cork appears solely to have been based on the use of the statistic that 60% of the hazardous waste generated in Ireland is generated in the Co. Cork. Even this criterion was not fully appropriate, as the applicants did not go further than this and determine what percentage of the national quantities of hazardous waste that are exported for disposal are in fact generated in Co. Cork. This is highly relevant because, of course, the intended purpose of the proposed incinerator is not to deal with hazardous waste that is generated *per se*, but only with that portion of the waste which is exported for disposal (approx. one quarter of the amount generated) and which (to use the terminology in the Waste Management Act, "cannot be prevented or recovered". While Cork has the highest concentration of pharmaceutical and chemical industries, this industrial sector is the one that is probably the most efficient at reducing its waste arisings, or treating them on site, and which has the greatest potential for further reduction, due to IPC licensing requirements (a point acknowledged by the EPA in the National Waste Database). I consider this lack of further analysis of the statistics to be regrettable, and the lack of consideration of any other criterion and hence of any other location within Ireland on that basis, to be most unfortunate. In my view, for a national hazardous waste facility, such as is proposed, this represents a very serious flaw in the process.

Within Co. Cork, the site selection process undertaken by the applicants was also seriously flawed. As was clearly evident from the cross-examination of Ms. Burke during the oral hearing, the applicants did not follow the successive step by step procedure set out in the WHO Guidelines, (see pages 26 – 27) of first applying exclusionary factors to screen or filter out unsuitable sites, then secondly applying suitability factors to the areas not excluded so as to highlight potentially promising areas, then thirdly applying community impact criteria and additional environmental criteria to identify a number of candidate sites for consideration and exclude unsuitable sites from the potentially promising areas, and then fourthly using more detailed criteria to rank the remaining candidate sites so as to obtain the preferred site for the development. Nor, evidently, did the applicants involve the public, in any meaningful way whatever, in the site selection process, as the evidence of Mr Ahern at the hearing was that the public consultation process was engaged in after the project was fixed, and the site had been chosen. The public consultation process, in fact, was a public notification process, and was not designed to, nor apparently intended to, alter the selection of the site. (It should be noted that public “involvement” is specified in the WHO Guidelines for both the “voluntary” and “technical” site selection models.)

Instead, it would appear that the applicants limited their search, as a first step, only to industrially-zoned lands under the Cork County Development Plan. Having initially selected Ringaskiddy as the preferred location and selected four sites within this area, they then looked at other lands in the Cork Harbour area, and then further afield in Co. Cork, using their own criteria, and consultation with the Planning Department of the Council. They then appear to have applied some (but not all) of the WHO criteria from Step 4, in a comparison of the four favoured sites in Ringaskiddy. Even these selection criteria were not ranked in order of significance or importance, and no weightings were given as between the stated criteria.

There is some reason to believe, based on the chronology of the project as outlined in this case, that the location of Ringaskiddy, and possibly the subject site itself, had already been chosen before the applicants even became aware of the WHO Guidelines. Ms. Burke’s answers on this matter were, at best, evasive (see oral hearing proceedings for 8/10/03 – tracks NN – VV). It was suggested by third parties during the hearing that the site selection process outlined in the EIS, based on a combination of WHO Guidelines criteria and the applicants’ own criteria, selectively used, was subsequently prepared to retrospectively justify the already chosen site. While there is no specific concrete evidence of this supposition either way, I consider that such an inference is reasonable on the basis of the evidence put before me at the oral hearing.

In my view, the initial decision to use industrial zonings as the key selection criterion, apart from this decision not being in compliance with the process of site selection set out in the WHO Guidelines, also has to be questioned. While I accept that the proposed development type would be classified as industrial (a point accepted by the Board in the Kilcock and Carranstown incinerator appeals), it does not follow that it could only be considered on lands zoned for such purposes. Indeed, in both Kilcock and Carranstown, the lands concerned were not zoned at all. There was evidence submitted at the oral hearing by Mr Ahern and Ms Burke that Indaver’s initial search began at about the time of the Kilcock oral hearing (January 2000). In addition, there

was evidence given by Mr Ahern during the Carranstown oral hearing that he had looked, for that facility, at both industrially-zoned and non-industrially-zoned lands, and had concluded that the non-zoned lands were more suitable.

This fact becomes of much more crucial significance when it is remembered that the applicants were aware that the industrial zonings proposed in the draft Co. Cork County Development Plan specifically excluded "contract incineration", and that therefore there was at the very least the potential that there would be a presumption against the proposed development being permitted in industrial zones. There is clear evidence that they did know this, as they made a formal submission arguing against the adoption of just such a zoning stipulation, during the processing of the Plan.

On this basis, I consider that the applicants have not given the Board (and the public) sufficient evidence to justify the choice of the subject site for the building of the proposed national hazardous waste incinerator.

b) Suitability of the Subject Site

Of course, all of this relates to the accuracy of statements made, and analysis used by the applicants in the EIS and their lack (or alleged lack) of transparency in their justification for the choice of this particular site. The Board must also look at the resultant choice, to see whether, notwithstanding these flaws in the process of site selection, and the subjective use of criteria by the applicants, the site is objectively suitable for the proposed use.

In this regard, there are a number of factors:-

Location at the end of a peninsula, with only one road access.

This factor relates to the fact that the site is not readily accessible from the national road network, and requires that all traffic serving the site, whether for construction materials in the initial stage or hazardous and non-hazardous waste in the operation phase, has to travel in the one direction past residential areas, and return the same way.

I consider that the type of development proposed in this case, which is intended to treat waste that would have in almost all cases to travel some distance (particularly since no local industries have given any indication that they intend to use the facility – and if they had, the applicants would doubtless have indicated so) is not located in a site that is readily accessible to all areas of the State. Even if Co. Cork were to have been the correct location, it is surely the case that a site north of Cork City, with ready access to the national road network, and with access to rail, would have been more suitable.

This single road access also has implications for public safety and emergency planning, which is covered below.

Topography/climate

As noted earlier, the site is located on a north-facing hillside, within a steeply sided valley, and on steeply sloping ground. This has implications both because of the climatic/meteorological conditions, with much more frequent temperature inversions

(estimated by Mr Hession, the Council's Fire Officer with extensive experience of the area, at c. 5% of the time), and also turbulent wind conditions, and also because the available area for building on is quite restricted. This restriction is compounded by the presence, in the centre of the site, of the Hammond Lane facility. The net effect is that the main process building is crowded onto the eastern portion of the site, with quite limited room for buffering planting, particularly to the rear (a point acknowledged in cross-examination of Mr Hallinan, the applicant's landscape contractor).

In relation to topography, the contrast with the criterion used by the same applicants in respect of site selection for the Carranstown incinerator in Co. Meath is stark. There, a site that was flat was considered to be a favourable criterion for selection. Here the site is one side of a hill.

Geology/hydrogeology / lack of natural containment

The geology and hydrogeology of the site appears to be such that there is inflow of seawater into the ground water (so stated by the applicants in the EIS). There is also some evidence of flooding of the site in the winter months, due to a combination of poor drainage on the flat land to the front, and the minimal overburden/soil cover on parts of the site. This factor is listed as one of the prime exclusionary factors in site selection by the WHO Guidelines.

The significance of this for the suitability of the site is that the site may not have any natural containment, so that, in the event of a spillage of hazardous chemicals, or waste of some kind from loading and unloading operations (and human error cannot always be mitigated against) there is the very real possibility that there would be contamination of ground water and hence pollution of the harbour waters. The evidence given by Mr Huw Jones, who operates one of two major oyster fisheries, under Government licence, in the harbour, indicates that, were to be such contamination, there would be significant economic implications for his business and employees. In such circumstances, the precautionary principle would dictate that the site is objectively unsuitable and should be excluded from consideration for this type of development.

Risk of erosion

I am satisfied, from my inspection of the area, and the evidence given by the parties, (and in particular by Mrs O'Driscoll) that there is a very real danger of erosion of the eastern side of the site in storm conditions. Reference was made, during the oral hearing, to the recent EPA document "Climate Change: Scenarios and Impacts for Ireland", published in July 2003. This advised that development should be curtailed in areas that are at risk of such erosion, arising from more frequent storm weather conditions that could cause erosion occurrences and flooding. Cork Harbour was specifically identified as being under threat. In my view, this is an objective site suitability problem with the proposed development.

Proximity to High Density Residential Housing Areas

It is stated by the applicant that the proposed development is not proximate, in terms of WHO guidelines, to residential areas. In fact, the WHO criterion that is quoted by the applicants relates not to the text of the guidelines, but rather to an example of the use of such guidelines for a landfill facility in the U.S. And in any event the analysis

that was carried out by the applicants in the E.I.S. (Table 2.10), using this criterion, gave a negative rating.

I consider that, with the presence of Ringaskiddy village less than one km away, and Cobh, directly across the harbour water 2 km away, which already has a sizeable residential population, it was objectively inappropriate to locate a development that had the *potential* to cause at best bad neighbour effects and at worst public safety implications. In this regard, the testimony given at the oral hearing in relation to the 1993 Hickson fire was revealing, where a large plume of smoke from the fire travelled across to Cobh, and later, when the wind changed, over to Crosshaven to the south, before eventually dispersing over the East Cork countryside

It seems to me that, objectively, a development such of the type proposed in this instance should be located as far away from high density housing as possible. The contrast, again, with Carranstown, is illuminating, since one of the site selection criteria used at that time was location away from high density residential areas.

Proximity to sensitive land uses/users

Possibly the most obvious evidence of the unsuitability of the proposed site from this development lies in its proximity to the National Maritime College of Ireland. This development, which has national Government backing via the Department of Education and Science (under a Public-Private Partnership), and involvement by the Department of Defence (via the Naval Service) is located immediately opposite the site, and would be less than 100 metres from the proposed development.

The unsuitability of the proposed site can be readily understood by looking at the issue in reverse – had the proposed development already been erected, whether the Departments involved would have sponsored the development of the National Maritime College on the site in which it is now located. It should be noted that, at the time that the applicants stated that they purchased the subject site, in December 2000, the outline planning permission for the College had been lodged, but not granted. However, it had been long granted by the time the present planning application was submitted. Since it was therefore a *fait accompli*, an objective examination of the situation should surely have cautioned against proceeding.

The criterion of proximity to sensitive receptors and stationary populations, such as educational establishments and prisons, is specifically included in the WHO Guidelines on Site Selection.

Overall, it seems to me that the proposed site, on all these grounds, is objectively unsuitable to accommodate the proposed development. It should, in my judgement, be refused on this ground also.

c) Impact on Economy / Employment

It is submitted that the proposed development would have adverse impacts on other economic sectors in the area, and on employment, including farming, tourism and existing pharmaceutical industry.

These impacts all depend on an argument that it is the perception of the proposed development, rather than necessarily its reality, that causes the impact. For this reason, it is submitted by a number of the third parties that irrespective of whether or not the development complies with any EPA Waste Licence requirements, the perception that it causes health impacts would be sufficient to detrimentally impact on the "clean green image" of Ireland in terms of tourism and agricultural exports, and hence the matter is a material consideration for the Board to consider.

The applicants argue that there is no evidence before the Board that would support this contention, merely supposition and assertion on the part of the appellants.

While I am aware that perception is a real issue, and that a key part of marketing any commercial enterprise is the creation and maintenance of a "brand image", I have to conclude that most potential tourists, and most potential buyers of Irish agricultural exports, would not be aware of the existence of the proposed development, in its normal operation, unless there was an incident or major accident. To a tourist entering the harbour, the proposed development – big and visually objectionable as it would be – would simply be another ugly modern industrial building, of which there are, regrettably, too many already in the harbour area (a point echoed by Mr Deasy, the Council's architect, from his experience of the area). I do not consider, for example, that the current state of Irish Ispat/Irish Steel, with its rusting and ugly buildings, and its slag heaps of (apparently) radioactive and toxic waste, is causing any particular problems for the tourism industry in the area, despite the fact that it lies in direct view of the frontage of Cobh, where cruise liners dock, and opposite the Cobh heritage centre.

In relation to the existing pharmaceutical industry, it is less a matter of perception and more a matter of reality. Such industry typically requires clean air as part of its process, and would not welcome a neighbouring land use that would cause pollution. However, as the applicants validly comment, this assumes that the development would cause environmental pollution, and that is a matter to be considered by the EPA.

d) Impact on Visual Amenity

The issue of visual amenity is, however, entirely a matter for consideration by the Board, and not the EPA. I have given careful consideration to the submissions from the parties in relation to this matter, and assessed the site from a number of viewpoints within the harbour area. I have examined the photomontages, and the submitted drawings.

In my judgement, the proposed main process building is grossly excessive in scale and bulk, and would be seriously visually obtrusive in the area. Because of its size, and height, it would extend above the level of the hill, and hence would read as a discordant feature in the landscape, especially when viewed from designated scenic routes, as at Cobh and Monkstown.

I am not convinced that the proposed landscaping and mounding would be successful in mitigating the impact of the development. While I accept that, in closer-up views from Ringaskiddy village to the west, the landscaping, and intervening smaller

buildings, would be likely to have some mitigation effect, this would not be the case from the east, as the area is too elevated and exposed to onshore coastal winds to have much chance of extensive landscape growth, and as the available space for planting, because of the congested nature of this end of the site, would be limited. I am fully satisfied that the development, when viewed from the West Channel, from Haulbowline Island, and from Cobh and Monkstown, will be seriously detrimental to the maintenance and enhancement of the character of the area.

It is contended by the applicants that, as the site is zoned for industrial purposes, the visual character of the area will be affected in any event. As outlined above, I do not accept this premise. The extreme height and bulk of the proposed process building is a function of its purpose, and most industrial buildings would be much less bulky, and most would not be as high. In any event, with the presence of the Hammond Lane facility, I think that it is likely, in practical terms, that the land area covered by Objective I-15 (which is over 40 hectares of which the subject site is only 12) would be developed for large scale industry on the southern side of the hill, which is a much more gentle slope and gives greater freedom of space. In such circumstances, the industry would not be visible from Cobh or Haulbowline, nor from the scenic routes referred to earlier.

I am also not in any way convinced by the proposed external treatment of the building. I have looked at the research cited by the architect in answer to my questions at the oral hearing, and in my opinion, (and experience of dealing with many of the largest industrial buildings in the State), the approach will not serve to mitigate the building's impact, but will rather tend to accentuate it and draw the eye to the building. In fact, it seems to me that the use of this treatment is more a matter of architectural theory and "fashion" than any realistic attempt of camouflaging and mitigating the very extensive bulk and scale of this building. The process is not helped by the proposal to differentiate the reception hall area from the rest of the building by the use of a single colour treatment (blue) for reasons of architectural differentiation.

Overall, I consider that the proposed development, by reason of its bulk, scale and design, would be visually obtrusive and injurious to the visual amenities of the area, particularly when viewed from designated scenic routes within the harbour area, which it is an objective of the Development Plan to preserve.

e) **Impact on Residential Amenity**

The issue of residential amenity relates to two aspects – pollution from the development in operation, and impact during construction. As noted earlier, I can only address the latter item. On this basis, the key concerns are noise and disturbance from construction activities, including rock breaking, and traffic noise.

I am satisfied that the proposed construction activities, which are merely proposed to be mitigated by starting before 7 a.m., and implementation of (somewhat vague) agreements with contractors, would seriously interfere with the enjoyment of the reasonable amenity of adjoining and neighbouring housing. On this basis, I consider that the development should be refused.

f) Impact on Recreational Amenity

The impact on recreational amenity arises in relation to the continued use of Gobby Beach, Paddy's Point car park, and the Martello Tower. Notwithstanding the points raised by the parties, and the evident lack of amenities in the village, I am not convinced that the proposed development, per se, would have a detrimental impact on residential amenity. There may well be an issue of perception, in that people may not wish to use these facilities when an incinerator is in operation, due to fears for human health relating to environmental pollution from the activity. As outlined above, this is not a consideration that is within the remit of the Board.

g) Impact on Protected Structure/Cultural Heritage

As noted earlier, I am not satisfied that the proposed development would have a deleterious impact on the nearby protected structure of the Martello Tower, which represents the sole issue of cultural heritage on the site. I note the opinion of the Council's Conservation Officer, given at the oral hearing, and also the submissions of the Archaeological Officer / Heritage Officer and of Duchas. I do not consider that, apart from the general problems of visual amenity caused by the development (see section (d) above) that there is any justification for a refusal based on impact on cultural heritage/protected structures.

h) Inadequate Infrastructure – Roads

As already noted, I consider that the EIS, in dealing with traffic, was seriously flawed both in its baseline surveys and in the conclusions reached on the basis of these surveys.

It is evident to me that the existing traffic situation in the area, and in particular in Shanbally and Ringaskiddy, and along the N28 from the Shannonpark roundabout, is extremely congested, and is of a standard that could not justify further development without improvement. As noted by Mr D. Ryan, the Council's roads engineer, the Level of Service on the N28 at present, and as projected up to 2007, is well below acceptable levels. Junctions that are 119% and 445% over capacity are not, in my judgement, merely below ideal levels of service, but are, in fact, hazardous, with very serious congestion. To add any further traffic to this, and especially significant numbers of HGV's, would be to compound this hazard.

This problem of inadequate infrastructure is acknowledged by the National Roads Authority, in its proposals for a new road/realignment of the N28. I consider that, irrespective of the percentage increase on this already unacceptable situation that the development would generate (and the figures may run up to 15 – 20% during construction, with perhaps half that in the operating period), the proposed development is premature pending the provision of this road realignment project. It should therefore be refused on that basis.

i) Inadequate Infrastructure – Sewerage/Storm Water

The issue of inadequate infrastructure was raised by a number of parties, particularly in relation to the proposal to discharge storm water from the development into the

public combined sewer. It was also noted that there is no sewerage treatment currently in operation in Ringaskiddy, except for individual treatment at industrial plant level, and an IDA sewer that is separate to the public combined sewer.

In the light of the answers that I obtained from Mr Lavelle, of the Council, during the course of the hearing, I am satisfied that any concerns about inadequate services infrastructure are groundless, or – where they relate to the adequacy of stormwater retention provision and surface water attenuation provision - could readily be dealt with by condition.

j) Inadequate infrastructure – Emergency Planning / Public Safety Issues

The final area of inadequate infrastructure relates to emergency planning, and the implications on public safety of the proposed development, in the event of a major accident hazard.

It became evident, during the course of the oral hearing, and particularly following the evidence of Mr Hession, that there is no evacuation plan for the people or area of Ringaskiddy, in the event of a major accident such as a fire or explosion. This problem is compounded by the physical situation of Ringaskiddy, located on a peninsula with effectively only one way in and out. A similar problem arises, on a larger scale, for the town of Cobh, which is connected to the mainland by only a very narrow bridge, Belvelly Bridge. In addition, there is no public fire service whatever in Ringaskiddy, and only a part-time “retained” service in Carrigaline, the nearest such service. Cork City is 12 km away.

In this context, I was most concerned about the presentation, and the responses to questions given, by the representatives of the Health and Safety Authority on the last day of the hearing. As noted in Appendix 1, the analysis of the risks from the proposed development was based on statistical modelling, using information provided by the applicants’ consultants. It would appear that this analysis is merely an interim analysis, or outline assessment, and that a more detailed assessment is given six months before the proposed development is due to commence (i.e., in the context of this development, perhaps a year and a half to two years after the commencement of construction works.).

Under the Seveso II Directive, the HSA is obliged, when requested, to give land –use planning advice to the Planning Authority. This advice, given to Cork County Council on 7th March 2002, did not advise against the granting of planning permission. However, there was a significant number of points that were apparently not covered or examined by the HSA in carrying out its risk assessment of the proposed development, and in providing this advice. These included the fact that there was no modelling of off-site impacts of fires in waste containing biologically active pharmaceutical waste or specified risk material (MBM) (see 10/10/03 track N), and no modelling of the impacts of hot fires in the tank farm on the adjoining Gobby Beach and foreshore (tracks BB and CC). The modelling of bunker fires was based on municipal waste, not industrial waste (as it used data and modelling for a Municipal Waste Incinerator (which is Phase 2, and hence not part of the present application))(see tracks M, W and Z). The HSA was not aware of the existence of the natural gas main within the site when carrying out its assessment (track WW), nor of

the groundwater conditions where there is inflow of seawater (track AA). No evidence was collected about the hazard record of the proposed incinerator type, the fluidised-bed incinerator, nor information from this type of plant in Dundee, which has had a number of fires since it started operation (tracks Q & R).

It is my judgement, based on the evidence given by the HSA at the oral hearing, that it would not be prudent for the Board to rely on the land-use planning advice given to the Planning Authority in relation to the safety of the proposed development in the event of major accident hazard, since that advice was based on incomplete and inaccurate information, and incorrect assumptions. On this basis, I consider that the Board should include, in its reasons for refusal, that there is not sufficient evidence before the Board to satisfy it that the proposed development would not pose risks to public safety in the event of major accident hazard, particularly in view of the proximity of the National Maritime College, and the other nearby Seveso II establishments, and having regard to the inadequacy of emergency infrastructure in the area.

3. ADDITIONAL POINTS

Three further points were raised by the parties that require comment and that do not conveniently come within the other headings.

a) Site Ownership.

I have considered the submissions made by the parties in relation to the applicants' title to the proposed site. The applicants state that they are the owners of the site, and that the necessary papers etc are in the Land Registry for registration. Some of the parties have questioned this, and have also questioned the right of the vendors, Irish Ispat, to sell the site to the applicants, on the basis of alleged non-performance of the contract conditions by which it obtained the lands from the Irish Government

In my judgement, the key question for the Board is whether the applicants have passed the "Frascati test" – i. e. whether that have sufficient interest in the site in question to apply for permission, such that, if permission were granted, they would be able to carry out the development. Both Dr Meehan and Brendan Kelleher (the only professional planners present at the hearing, other than myself) agreed that this was the applicable test.

On this basis, I consider that the applicants have sufficient interest in the site to enable them to have this planning application processed. Any alleged incapacity on the part of Irish Ispat, which is apparently to be investigated by a Parliamentary Committee, is outside the Board's remit and, unless proven, cannot be seen to vitiate a planning application made in good faith.

b) Public Right of Way

It was strongly argued, by a number of the parties, that there is a subsisting public right of way, running from the foreshore at Gobby Beach/Paddy's Point up through the site for the proposed incinerator building, to the Martello Tower. This is a right of

way that has been, it is submitted, in use for many years, and therefore, even if not registered, is established by usage. There was some evidence of such usage submitted, via Mr. Cronin of Group no. 6, from a long-time local resident. The pathway, or right of way, was shown on old editions of the Ordnance Survey maps as running diagonally across the site, but not on the most recent maps, since the Ordnance Survey have changed their mapping criteria. It is submitted that, until the Local Authority has extinguished the public right of way by statutory procedure, it is not possible for the Board to grant a permission for a development that would have the effect of removing the right of way.

The applicants deny the existence of any such public right of way, pointing out that the contours of the site changed "sometime in the 1970's", thereby removing the diagonal path. They submit that there is no evidence of any public right of way in existence, and that they propose to provide such a path around the proposed development, as a part of their landscaping works.

In my judgement, this issue is not one to be determined through the medium of a planning appeal, but falls to be determined at law. On that basis, and since the Planning Acts specifically provides (under Section 26 (11)) that planning permission, if granted, does not entitle someone to proceed, the Board is not constrained as suggested by the appellants. I am unable to accept the contention made by Mr J. Noonan, in his closing statement (see Appendix 2) that, simply because the Board is aware of the issue, that this invalidates the use of Section 26 (11).

c) Costs

The issue of the awarding of costs was raised by a number of the third parties.

I have considered these points, which generally are on the basis that, although the Council refused the application, it should have done so for more than the single reason given. There was also the suggestion, made by CHASE (Carrigaline) in the written submission, that the Council Management acted *male fides* in relation to the processing of the application. However, this suggestion was not further pursued by the relevant party at the hearing, nor by any other party.

I do not consider that it would be appropriate for costs to be awarded in this case. Although the content of the decision by the Council was criticised, it was a refusal decision, and it was notable that, during the course of the hearing, the viewpoint put forward by the Council was that of defending that decision.

On this basis, I do not consider that it would be correct for the Board to consider awarding costs. In the event that it may wish to do so, I would draw the Board's attention to the specific request of the County Council's barrister, Mr. Sreenan, in his closing comment on the last day of the hearing (see the penultimate page of Appendix 1), that the Council be given an opportunity to address the issue specifically (which could presumably be in writing, which could then be circulated to the parties, rather than a re-opening of the oral hearing).

CONCLUSION AND RECOMMENDATION

In the light of the above Assessment, I consider that the proposed development should be refused, for the reasons set out in the Schedule of Reasons below.

SCHEDULE

1. By reason of:-

- a) Lack of sufficient data necessary to identify and assess the main effects of the proposed development,
- b) Inadequate consideration of the interactions between the factors, and
- c) Inclusion of technical terminology within the non-technical summary,

it is considered that the Environmental Impact Statement submitted with the application is inadequate and fails to comply with the mandatory requirements as to content, contrary to the provisions of the 1999 European Communities (Environmental Impact Assessment) (Amendment) Regulations, and applicable European Directives, and the Board is not satisfied, on the basis of the information provided in the submitted E.I.S., that the proposed development would not be likely to have significant adverse impacts on the environment.

2. It is considered that the proposed development of a hazardous waste incinerator facility, prior to any progress on the achievement of the waste prevention targets set out as a priority and first step in the National Hazardous Waste Management Plan, would be premature and, because of its scale, which is considerably in excess of the scale envisaged for thermal treatment in that Plan, would tend to inhibit the achievement of the Prevention Programme as provided for in the Plan. The proposed development would therefore be contrary to national policy in relation to hazardous waste management and disposal.
3. It is considered that the development of a hazardous waste incinerator facility, in the absence of the concurrent or prior provision of hazardous landfill capacity, would be premature, and would conflict, in a material way, with the provisions of the National Hazardous Waste Management Plan, in that no provision would be made for hazardous waste generated by the proposed development.
4. It is considered that the development of an incinerator facility for the treatment of non-hazardous industrial waste is contrary to the provisions of the Cork Waste Management Plan 1999, which makes no provision for thermal treatment to deal with this type of waste.
5. Having regard to its nature and location, it is considered that the proposed development would contravene materially the development objective ZON 3 – 13, indicated in the Cork County Development Plan 2003, for the use of the site primarily for the development of industry/enterprise, but not including the

development of "contract incineration", in that the proposed development constitutes contract incineration.

6. Having regard to its nature and limited employment content, it is considered that the proposed development would contravene, in a material way, the development objective I-15, indicated in the County Development Plan 2003, which specifies the lands, of which the site forms part, as suitable for large stand alone industry.
7. Having regard to its nature and purpose, and its location adjacent to Cork harbour and to port-related activities in Ringaskiddy, it is considered that the proposed development would contravene, in a material way, the development objective I-22, indicated in the County Development Plan 2003, which states that it is an objective to safeguard lands in the vicinity of ports and harbours against inappropriate uses that could compromise the long term potential of the port and harbour. It is considered that the proposed development is not port-related and hence is an inappropriate use that would be inconsistent with the Council's policy of promoting Ringaskiddy as the appropriate location for the future development and expansion of the Port of Cork, and uses that are complementary to that purpose.
8. It is considered that the proposed development, by reason of its bulk, scale, height, design and location, would be visually obtrusive and seriously injurious to the visual amenities of the area, would constitute a visually discordant feature within the harbour landscape, and would detrimentally impact on the preservation of views and prospects obtainable from scenic routes nos. A53 and A54 indicated in the County Development Plan 2003, which it is necessary to preserve. The proposed development would, therefore, be contrary to the proper planning and development of the area.
9. Having regard to the scale, nature and purpose of the proposed development, it is considered that the site, by reason of its topography, its climatic conditions, its geological and hydrogeological characteristics, and the risk of erosion and flooding of parts of the site, would be fundamentally unsuitable to accommodate the proposed development, and the applicants have not demonstrated that the proposed site is suitable, on the basis of objective criteria in a rational site selection process based on international best practice.
10. The proposed development, because of its nature and function, its location in close proximity to high density housing development at Ringaskiddy, and the resultant noise and disturbance arising from its construction and operation, would be seriously injurious to residential amenity, and would be likely to depreciate the value of residential property. The proposed development would, therefore, be contrary to the proper planning and development of the area.
11. Having regard to the location of the proposed development at the end of the peninsula of Ringaskiddy, with a single road access and no rail access, on the southern coast of the State, and to the scale of the development which is designed to source waste from all parts of the State, it is considered that the proposed development would involve excessive movement of vehicular traffic

through urban areas, and hence would give rise to conditions that would be prejudicial to public safety and amenity. The proposed development would therefore be contrary to the proper planning and development of the area.

12. The existing road infrastructure in the vicinity of the site, particularly along the N28 national primary route at Carr's Hill, the Shannonpark and Shanbally roundabouts, and along the LP2545 local road within Ringaskiddy, is currently the subject of serious traffic congestion, and is inadequate to accommodate the extra volume of traffic and traffic movements that would be generated by the proposed development, both during construction and operational phases, particularly the significant H.G.V. content. It is considered that the proposed development would endanger public safety by reason of a serious traffic hazard and obstruction of road users.
13. The proposed development would be premature by reference to the existing deficiencies in the road network serving the area of the proposed development, which it is not likely will be rectified within a reasonable period.
14. The Board is not satisfied, on the basis of the evidence submitted to it and heard at the oral hearing, that the proposed development would not pose significant risks to public safety in the event of major accident hazard, particularly in view of the proximity of the site to the National Maritime College, and to nearby Seveso II establishments, and having regard to the inadequacy of emergency infrastructure in the area and to the location of the site at the end of the peninsula, with limited road access.

Philip Jones,
Senior Planning Inspector,
5/1/04