Ringaskiddy Waste Management Facility

Environmental Impact Statement

Volume 1 of 2

Prepared By: Eddie Feely
Signed: Edward Feely Date: 6th November 2001

Checked By: Ria Lyden
Signed: Ria Lyden Date: 6th November 2001

Passed By: Eoghan Lynch
Signed: Eoghan Lynch Date: 6th November 2001

Revision Record

Issue No.	Date	Status	Prepared	Checked	Passed
1	Nov 2001	Issue No. 1			

ARUP
Consulting Engineers

Ringaskiddy Waste Management Facility

Environmental Impact Statement

Volume 1 of 2

November 2001

C796.10

1 Introduction

1.1 Introduction

Indaver Ireland proposes to construct a Waste Management Facility at Ringaskiddy in Co. Cork. The Waste Management Facility will consist of three elements:

- Community Recycling Park
- Waste Transfer Station
- Waste-to-Energy Plant

The project will proceed in two phases. Phase 1, to which the current planning application applies, includes the waste transfer station, the community recycling park and phase 1 of the waste to energy plant. Phase 2 of the waste to energy plant will be the subject of a later application. This EIS covers both phases of the waste management facility.

The site for the proposed development is located at the eastern end of the Ringaskiddy Peninsula. The location of the site can be seen in Fig 1.1.

Arup Consulting Engineers were commissioned by Indaver Ireland to prepare an Environmental Impact Statement (EIS), for the development.

1.2 Indaver NV Company Profile

Indaver NV, is the Flemish parent company of Indaver Ireland. Indaver is a waste management company that specialises in integrated waste management for industries and households. Indaver recycles and treats both domestic and industrial waste. Advice on the prevention of waste is an integral part of the Indaver service.

In 1985, the Flanders region of Belgium was experiencing a waste management crisis, not unlike the crisis that exists in Ireland currently. The vast majority of waste was being disposed of to landfill and there was a very low rate of recycling. Hazardous waste was being exported to other countries for disposal. The Flanders Government, in partnership with local industry, formed Indaver NV to provide an integrated waste management strategy for Flanders in order to address the waste crisis.

Flemish Environmental Holding is the holding company of the Government of Flanders and it is the majority shareholder in Indaver NV. The remaining shares are held by a number of leading private companies in Flanders. The Indaver group plays a leading role in the implementation of the Flemish Government Waste Policy. The company employs over 800 people and has operations in 11 European countries. In 2000, Indaver managed approximately 800,000 tonnes of waste, with approximately 400,000 tonnes of this waste being recycled or recovered. This included for example, paper (225,000 tonnes), and fluorescent tubes (1.1 million).

1.2.1 Indaver's Activities

Indaver NV is involved in a comprehensive range of waste management activities at its various facilities in Flanders, and elsewhere in Europe. A selection of such activities is listed below. Refer also to Figure 1.2.

- Sorting and purification of packaging waste
- Sorting of paper and cardboard for recycling
- Physio-chemical treatment of liquid waste
- Composting
- Sorting and recovery of tyres
- Landfill
- Glass recycling
- Incineration of hazardous waste with energy recovery
- Ash treatment
- Incineration of non hazardous waste with energy recovery
- Treatment of chlorinated waste
- Sludge treatment
- Solvent recycling
- Recovery of wood waste

All of the company's installations are licensed by the regulatory authorities in the region in which they operate, and also have been accredited to ISO 9002 Quality Assurance System. Indaver NV was the first waste management company in Flanders (and among the first in Europe), to attain accreditation to the ISO 14001 Environmental Management System. These certifications are independently audited on a regular basis to ensure company compliance. An integral part of the above certifications is clear and regular communications with members of the public, customers, suppliers and regulatory authorities. Indaver is committed to permanent and open dialogue regarding environmental matters.

1.3 Indaver Ireland

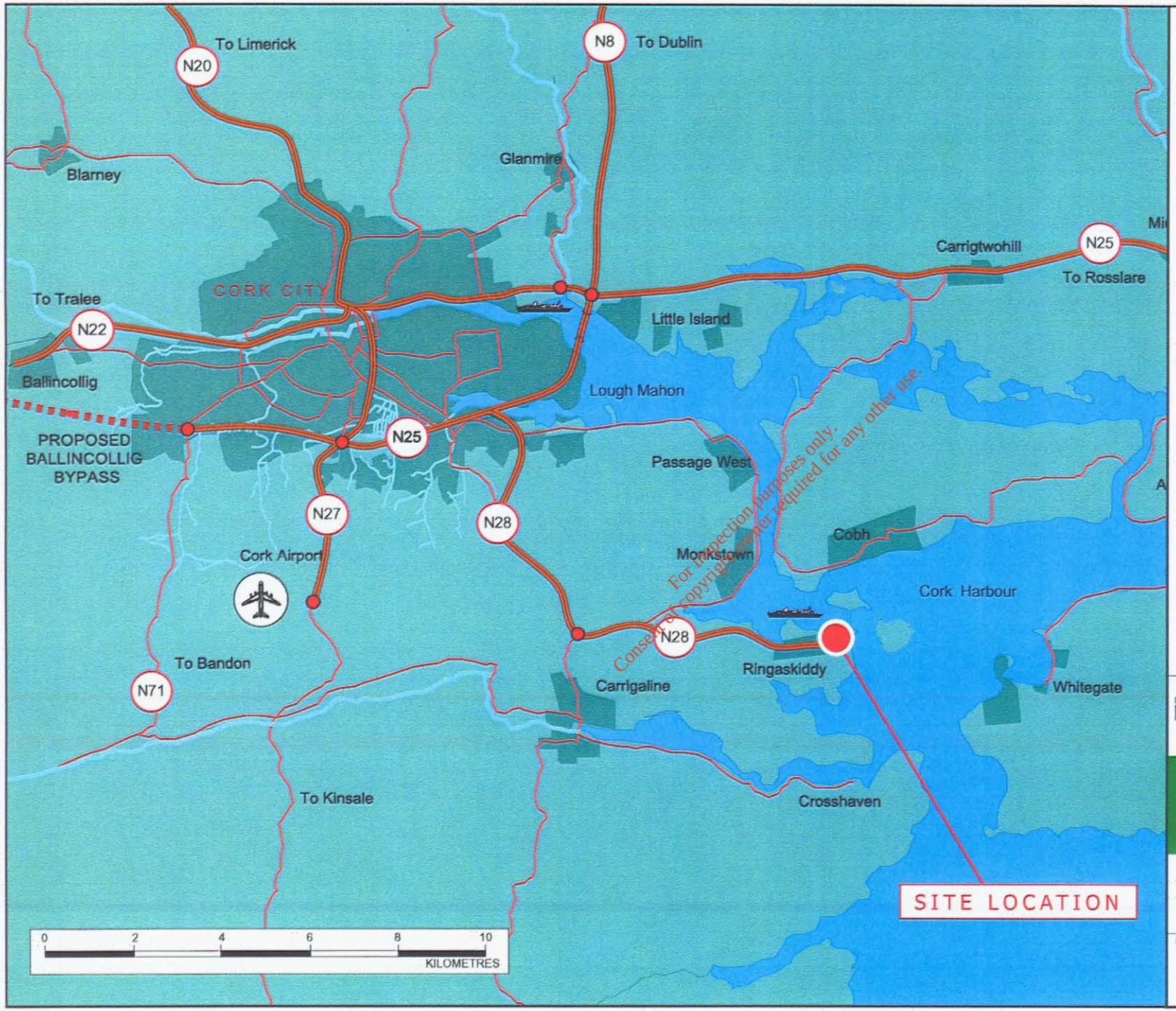
Indaver Ireland is a wholly owned subsidiary of Indaver NV and currently has fourteen employees. Information on Indaver's activities in Ireland can be found on the website www.indaver.ie.

Carranstown Waste Management Facility

In July 2001, Indaver Ireland received planning permission, which is under appeal to An Bord Pleanala, for a Waste Management Facility at Carranstown, Co. Meath. This facility will incorporate a waste to energy plant with a capacity to treat approximately 150,000 tonnes of non-hazardous solid waste per annum, a 20,000 tonne/annum Material Recycling Facility for sorting dry recyclable waste and a Community Recycling Park similar to that being proposed for Ringaskiddy.

Newspaper Recycling Business

In addition to the proposed Waste Management Facility at Ringaskiddy, Indaver Ireland operates a Newspaper and Magazine recycling business under a 'Bring it Back' theme. This business is currently serving Munster and Leinster, targeting newsagents, garage forecourts, local authorities and large employers. The newspaper recycling business is also certified to the ISO 14001 and ISO 9002 standards and there are warehouses, which operate under waste permits, in Dublin and Mallow for the storage of newspapers and magazines. The paper collected is then sent to paper mills in Europe for recycling.



INDAVER IRELAND Ringaskiddy waste management facility

Environmental Impact Statement

ARUP Consulting Engineers

Files Located : J:/jobs/796/graphics/EIS figures

Ordnance Map : Ordnance Survey Ireland Licence No. EN 0002801 © Government of Ireland

Figure Title : Site Location

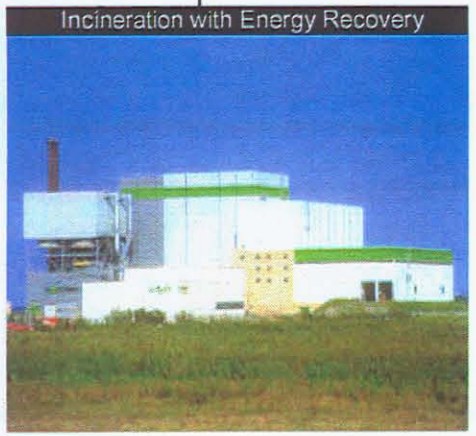
Figure No : 1.1

Paper Recovery

Solvent Recovery

Fluorescent Tube Treatment

Examples of Indaver NV Activities



Incineration with Energy Recovery

Material Recycling

Composting

INDAVER IRELAND Ringaskiddy waste management facility

Environmental Impact Statement

ARUP Consulting Engineers

Files Located : J:/jobs/796/graphics/EIS figures

Ordnance Map :

Figure Title : Examples of Indaver NV Activities

Figure No : 1.2

MinChem

Indaver owns 60% of MinChem Environmental Services Limited. MinChem is a hazardous waste management company with offices in Dun Laoghaire, Dublin Port and Cork. MinChem has been operating in Ireland since 1977 and currently employs 35 people.

MinChem exports hazardous waste from Ireland to Britain and other European countries for recovery, disposal or treatment. It operates a Transfer Station in Dublin Port for the export of these materials. The Transfer Station operates under a waste licence issued by the EPA. Minchem is accredited to ISO 9002 and ISO 14001, the internationally recognised quality and environmental standards.

1.4 Ringaskiddy Waste Management Facility

Indaver Ireland proposes to construct a waste management facility at Ringaskiddy, Co. Cork. The facility will have the following elements:

Community Recycling Park

The Community Recycling Park will be a facility for the local community to bring their recyclable household waste. The Community Recycling Park will be similar to conventional 'Bring Bank' or 'Civic Amenity' sites, but will accept a wider range of recyclable material, such as those listed below. The items deposited in the recycling park will subsequently be sent off-site to suitable recycling facilities.

- Cardboard
- Newspapers and magazines
- Aluminium Drink Cans
- Glass
- Garden Waste (green)
- Textiles (e.g., clothes and blankets)
- Footwear
- Batteries
- Waste Oils
- Fluorescent Tubes

The Community Recycling Park will be accessible to the local community from Monday to Saturday. There will be a full time attendant who will be available to give advice and assistance to the public on the best methods of managing household waste and waste management guides will be available.

Waste Transfer Station

The Waste Transfer Station will comprise a warehouse and a storage compound for industrial hazardous and non-hazardous waste. Industrial waste collected from Indaver's customers will be stored at the transfer station, and prepared for shipment overseas or incineration onsite. Liquids for incineration on site will be bulked up and transferred to the waste-to-energy plant.

Waste-to-Energy Plant

It is planned to develop the waste-to-energy facility in two phases. The first phase, a fluidised bed incinerator with post combustion chamber, will treat circa 100,000 tonnes per annum of hazardous and non-hazardous waste. Hazardous waste, such as solvents produced by the pharmaceutical and chemical plants and also non-hazardous wastes from industry, shops, factories, agriculture, hotels and restaurants will be handled in this plant. The plant will also have

the capability to treat other non-hazardous waste, such as waste activated sludge from the wastewater treatment plants of the pharmaceutical companies.

The second phase, a grate incinerator, will treat circa 100,000 tonnes per annum of non-hazardous wastes. The decision to proceed with this phase will be taken when the waste strategies of the Cork Local Authorities, and the requirements of other waste producers, have been defined.

Residual waste from industry and households, which is not suitable for re-use or recycling, will be treated in the waste-to-energy plant. Waste-to-energy (or incineration with energy recovery), is the burning of waste at a high temperature, in a carefully controlled environment, using the heat to generate electricity. Incineration does not destroy waste, but converts it to ash, a large proportion of which is suitable for reuse – the ash produced is approximately one tenth of the original volume of waste, and approximately one quarter of the original weight. The potential exists to recover and reuse a substantial proportion of the ash produced, for example in road construction, as already happens in other European countries. Metals within the ash can also be recovered. The processes are described in more detail in Section 3.6.

The heat produced by the combustion process will be recovered and will generate approximately 10MW and 8MW of electricity in phases 1 and 2 respectively. In phase 1, up to 8MW of electricity is available for export to the National Grid, while in phase 2 up to 6MW will be available. The electricity produced by the waste-to-energy facility will be enough to supply the power needs of approximately 12,000 homes (phase 1) and 8,000 homes (phase 2) annually.

1.5 EIS Methodology and Consultation Process

1.5.1 Need for an EIS

The purpose of the Environmental Impact Statement (EIS) is to report the findings of the Environmental Impact Assessment (EIA) undertaken for the Waste Management Facility. The EIS will accompany the planning application for the proposed development.

The European Communities Environmental Impact Assessment (Amendment) Regulations 1999 came into operation on the 1 May 1999 and are referred to as SI No 93 of 1999. The purpose of the Regulations is to transpose into Irish Law, the EU Directive 97/11/EC relating to Environmental Impact Assessments. The Regulations contain amendments to the European Communities (Environmental Impact Assessment) Regulations 1989-1998, and to provisions relating to EIA in a number of Acts including the Local Government (Planning and Development) Acts 1963-1998.

The proposed waste to energy facility falls within Categories 9 & 10 of Part 1 of the First Schedule of SI No. 93 of 1999:

Waste disposal installations for the incineration, chemical treatment as defined in Annex IIA to Directive 75/442/EEC under heading D9, or landfill of hazardous waste (i.e waste to which Directive 91/689/EEC applies)

Waste disposal installations for the incineration, chemical treatment as defined in Annex IIA to Directive 75/442/EEC under heading D9, of non-hazardous waste with a capacity exceeding 100 tonnes per day.

Consequently, an EIS must be submitted with the planning application.

It is a requirement of the regulations that an EIS address all potential significant impacts, both direct and indirect, of a development. Thus, this EIS must address the impacts of the completed Waste Management Facility. This EIS includes all information relevant to the potential significant environmental effects of the proposed facility, as required by SI No 93 of 1999, and highlights the proposed mitigation measures.

1.5.2 EIS Methodology

An Environmental Impact Assessment (EIA) is the process of examining the environmental effects of a development. This includes the consideration of environmental aspects at design stage, the preparation of an EIS, the evaluation of the EIS by a competent authority, and the subsequent decision as to whether or not the development should proceed. The EIA Regulations 1999 specify the information to be contained in an EIS and include the following:

- ***Description of the proposed development***
  - site, design and size of the proposed development
  - main alternatives studied
  - land-use requirements during construction and operational phases
  - nature and quality of materials used.
- ***Description of the existing environment***
  - human beings
  - flora and fauna
  - soil and water
  - air and noise
  - climatic factors and the landscape
  - material assets and cultural heritage
  - the inter-relationship between the above factors.
- ***Description of the likely significant effects on the environment resulting from;***
  - the existence of the proposed development
  - the use of natural resources
  - the emission of pollutants, creation of nuisances
  - the elimination of waste.
- ***Measures envisaged to avoid, reduce and if possible remedy those effects***
  - mitigation measures
  - residual effects

This EIS has been prepared with regard to the above requirements. The format used in the report seeks to allow the reader to access the issues of interest to them as easily and comprehensively as possible.

1.5.3 EPA Guidelines

This EIS has been prepared in accordance with the guidelines on Environmental Impact Statements prepared by the Environmental Protection Agency. These are outlined in "Draft Guidelines on the Information to be contained in Environmental Impact Statements" and also "Advice Notes on Current Practice in the Preparation of Environmental Impact Statements", both published in 1995.

1.5.4 Consultation Process

During the preparation of the EIS an extensive consultation and information exercise was carried out which involved local communities, relevant statutory bodies and other interested parties. This was to ensure that potential issues and concerns could be identified and addressed through design modifications or mitigation measures as appropriate.

The organisations consulted were:

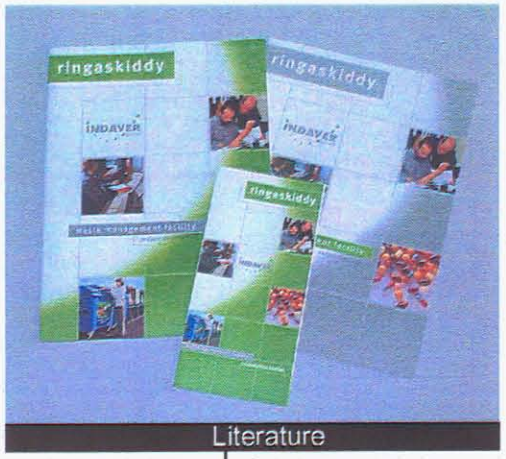
- Cork County Council
  - Planning Department
  - Environmental Department
- Environmental Protection Agency (EPA)
- Department of the Environment and Local Government

In addition, the following organisations were informed of the plans for the proposed waste management facility.

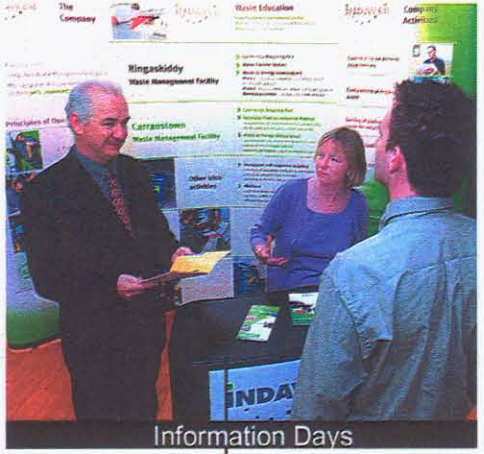
- An Taisce
- Duchas, the Heritage Service
- Southern Health Board
- Ringaskiddy Residents Association
- Public Representatives
- Port of Cork
- Local industries
- Naval Base at Haulbowline
- Commission for Electricity Regulation (CER)
- Health & Safety Authority (HSA)

A meeting was held with the Ringaskiddy Residents Association on the evening of the 17/04/01, to inform them of the proposed development, prior to the public launch. The project was launched publicly on the 18/04/01 with a press conference at the Maryborough House Hotel, Douglas, Cork. Councillors, TDs and Industry representatives were invited to Open Days held on 18-20 April.

To facilitate the dissemination of information on the project, members of the public were invited to a series of Open Days held during May 2001 in Ringaskiddy, Cobh, Carrigaline and Crosshaven. The Open Days were advertised in advance on local radio and in the local press. In general, the Open Days ran from 12.00pm to 7.00pm, on two consecutive days. Indaver personnel were in attendance to answer queries from the public. On each occasion, there was a model of the proposed waste management facility on display in addition to literature and display panels to aid in explaining the different elements of the proposed scheme. The consultation activities are illustrated in Figure 1.3.



Literature



Information Days

Visits to Indaver Belgium

Public Consultation Activities

Plant Model

Website (www.indaver.ie)

INDAVER IRELAND Ringaskiddy waste management facility

Environmental Impact Statement

ARUP Consulting Engineers

Files Located : J:/jobs/796/graphics/EIS figures

Ordnance Map :

Figure Title : Public Consultation Activities

Figure No : 1.3

A leaflet giving details of the proposed development was delivered to households in the following communities: Ringaskiddy, Shanbally, Passage West, Monkstown, Cobh and Carrigaline. A copy of the leaflet is included in Volume 2, Attachment 1.

Letters detailing the launch and accompanied by brochures were sent to public representatives, local industry and interested bodies (refer to Volume 2, Attachment 1).

A communications database was launched at an early stage of the consultation process. Indaver invited persons requiring further information on the Ringaskiddy facility to complete and return a postage-prepaid card. Indaver provides project information as requested, and also regular updates on the project to everyone on the communications database.

Interested parties were invited to visit a similar facility in Belgium. To date, three groups of 10 people have taken up the offer to visit Indaver's Belgian facilities. These trips included visits to Indaver's hazardous and non-hazardous waste incinerators, community recycling parks, a waste education centre and a materials recycling facility. Representatives of Indaver have spoken at a number of public meetings, to which they were invited, such as Cork Environmental Forum and Crosshaven Community Association.

1.5.5 Proposed Ongoing Consultations

Indaver Ireland believes in a policy of openness and dialogue between the company and the local community. Indaver is undertaking a wide-ranging and ongoing public information campaign about the proposed facility at Ringaskiddy. The programme is aimed at addressing potential issues and concerns that may arise within the community from an early stage in the planning process.

Indaver Ireland's website (www.indaver.ie) includes the Non-Technical Summary of the EIS and details of the application for planning permission. The website also includes options to register with the Indaver Ireland communications database.

Environmental Liaison Committee

Indaver Ireland will maintain this policy of openness throughout the lifetime of the facility. The most direct way of achieving a high level of communication is through face-to-face contact with all parties concerned, and to achieve this Indaver Ireland will establish an environmental liaison committee.

The formation of the environmental liaison committee will begin in the next few months. All individuals who have requested to be on the Indaver Ireland communications register, as well as neighbours of the facility and public representatives for the Ringaskiddy area, will be written to and invited to put their names forward for inclusion on the committee.

It is Indaver Ireland's intention that this committee will be formed promptly in order to help address issues regarding the facility from an early phase of the development. The committee will be scheduled to convene at quarterly intervals unless otherwise agreed.

The facility will operate under a Waste licence determined by the Environmental Protection Agency (EPA). This is discussed in more detail in Chapter 3.

The facility will be operated to relevant international standards for Environment, Safety and Quality Management Systems, namely ISO 14001 or EMAS for Environment, OHSAS 18001 for Safety and ISO 9002 for Quality. The facility will be subject to inspection by an independent body to

verify compliance with these standards. The results of accreditation audits and inspections will be made available to the Environmental liaison committee for discussion at the following scheduled quarterly meeting. In addition the results of monitoring inspections and audits carried out by the EPA will also be made available and discussed at the quarterly meetings.

Information Available to the General Public

Indaver Ireland has an 'open door' policy, and it is envisaged that groups, such as local residents and students, may request a tour of the facility when operations commence. Indaver Ireland, with prior notification, will be happy to accommodate such groups that may wish to visit the facility.

Access to information regarding the operation of the facility will not be restricted to members of the Environmental liaison committee. It is standard practice for the Environmental Protection Agency to require a licence holder to institute a Communications Programme 'to ensure that members of the public can obtain information concerning the environmental performance of the facility at all reasonable times'.

Correspondence between the company and the EPA and information regarding the environmental performance of the facility will also be accessible at the EPA's offices at Inniscarra, Co. Cork, and at Johnstown Castle, Co. Wexford. Indaver's annual environmental report will be distributed locally and will be available on the website.

1.6 Difficulties Encountered During The Study

No particular difficulties were encountered during the study.

1.7 References

Environmental Protection Agency (1995a) Draft Guidelines on the Information to be contained in Environmental Impact Statements

Environmental Protection Agency (1995b) Advice Notes on Current Practice (in the preparation of Environmental Impact Statements

The European Communities Environmental Impact Assessment (Amendment) Regulations 1999 SI No 93 of 1999