

ATTACHMENT NUMBER E1

Existing Waste Types and Quantities

Contents

As this is a new waste management facility and therefore there is no existing waste, this attachment is not applicable.

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ATTACHMENT NUMBER E2

Proposed Waste Types and Quantities

Contents

Attachment E2.1

Proposed Waste Types and Quantities

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PROPOSED WASTE TYPES AND QUANTITIES

1. COMMUNITY RECYCLING PARK

TABLE E.2.1 WASTE TYPES AND QUANTITIES

WASTE TYPE	Nominal Capacity		Maximum Capacity	
	TONNES PER ANNUM	TOTAL (over life of site) tonnes ¹	TONNES PER ANNUM	TOTAL (over life of site) tonnes*
Household waste collected by or on behalf of the local authority	-	-	-	-
Household waste delivered to civic waste facilities and other bring facilities	1,990	39,800	4,980	99,600
Other household waste	-	-	-	-
Commercial Waste	-	-	-	-
Sewage Sludges	-	-	-	-
Construction and Demolition Waste	-	-	-	-
Industrial Sludges	-	-	-	-
Industrial waste not elsewhere specified	-	-	-	-
Hazardous Waste	10	200	20	400

Notes:

- This table has been completed on the basis of a site lifespan of 20 years. However, this can be extended with maintenance/replacement of items of equipment.

COMMUNITY RECYCLING PARK

TABLE E.2.2 HAZARDOUS WASTE TYPES AND QUANTITIES

HAZARDOUS WASTE	European Waste Code*	DETAILED DESCRIPTION	Nominal Tonnes Per Annum	Maximum Tonnes Per Annum
Waste Oil	20 01 26	Waste car lubrication oil will be accepted at the Community Recycling Park	2	4
Oil filters		-	-	-
Asbestos		-	-	-
Oil/Sand Mixtures or Mixtures of Oil and Other Material		-	-	-
Wood Preservation Waste		-	-	-
Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal		-	-	-
Wastes from Inorganic Chemical Processes		-	-	-
Wastes from Organic Chemical Processes		-	-	-
Agrochemical Wastes		-	-	-
Infectious Healthcare Waste		-	-	-
Photographic Processing Waste		-	-	-

* These European Waste Codes are as detailed in the EU Directive, 2001/118/EC, List of Wastes, effective from 1/1/02

COMMUNITY RECYCLING PARK

TABLE E.2.2 HAZARDOUS WASTE TYPES AND QUANTITIES CONTD.

HAZARDOUS WASTE	European Waste Code	DETAILED DESCRIPTION	Nominal Tonnes Per Annum	Maximum Tonnes Per Annum
Batteries and accumulators	20 01 33	Household batteries will be accepted at the Community Recycling Park	3	6
Fluorescent tubes and other mercury containing waste	20 01 21	Fluorescent tubes will be accepted at the Community Recycling Park	2	4
OTHER HAZARDOUS WASTE (APPLICANT TO SPECIFY)	20 01 30 20 01 32	As part of a household hazardous waste disposal system, detergents and medicines may be accepted at the Community Recycling Park	1	2

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COMMUNITY RECYCLING PARK

TABLE E.2.3 NON-HAZARDOUS WASTE TYPES

INERT WASTE	Check (if accepted)	European Waste Code	Additional Information
Stones and Soil	<input type="checkbox"/>		
Topsoil	<input type="checkbox"/>		
Brick	<input type="checkbox"/>		
Natural Sand	<input type="checkbox"/>		
Concrete	<input type="checkbox"/>		
Pottery & China	<input type="checkbox"/>		
Asphalt, tar and tarred products	<input type="checkbox"/>		
BIODEGRADABLE WASTE	Check (if accepted)	European Waste Code	Additional Information
Wood & Wood Products	<input checked="" type="checkbox"/>	20 01 38	Wood will be accepted at the Community Recycling Park
Paper & Paper Products	<input checked="" type="checkbox"/>	20 01 01	Paper, newspaper and cardboard will be accepted at the Community Recycling Park
Vegetable Matter	<input type="checkbox"/>		
Non-Infectious Health-Care Waste	<input type="checkbox"/>		
Natural & Manmade Fibres	<input checked="" type="checkbox"/>	20 01 10 20 01 11	Clothing/textiles will be accepted at the Community Recycling Park
Street Cleaning Residues	<input type="checkbox"/>		
Gully Emptyings	<input type="checkbox"/>		
Septic Tank Sludge	<input type="checkbox"/>		
Dredging spoil	<input type="checkbox"/>		
Food Stuffs	<input type="checkbox"/>		
Oil/Water Mixtures	<input type="checkbox"/>		
Vegetable Oil	<input checked="" type="checkbox"/>	20 01 25	Kitchen oil will be accepted at the Community Recycling Park
Oil and Fat	<input checked="" type="checkbox"/>	13 02 05 13 02 06	Lubrication/car oil will be accepted at the Community Recycling Park
Animal faeces, urine and manure (including spoiled straw) effluent, collected separately and treated off-site	<input type="checkbox"/>		
Animal Blood	<input type="checkbox"/>		

COMMUNITY RECYCLING PARK

TABLE E.2.4 OTHER WASTES

OTHER WASTES	Check (if accepted)	European Waste Code	Additional Information
Gypsum based Constructon Materials	<input type="checkbox"/>		
Dried Paints, Dried Varnish & Dried Lacquer	<input type="checkbox"/>		
Foundry Sand & spent blasting grit	<input type="checkbox"/>		
Glass	<input checked="" type="checkbox"/>	20 01 02	This will be accepted at the Community Recycling Park
Latex & Rubber Solutions	<input type="checkbox"/>		
Solid, Fully Polymerised Plastics	<input checked="" type="checkbox"/>	20 01 39	Plastic bottles will be accepted at the Community Recycling Park
Solid Rubber (excluding tyres)	<input type="checkbox"/>		
Electronic and Electrical Waste	<input type="checkbox"/>		
Waste from incineration or pyrolysis of municipal and similar commercial, industrial and institutional wastes	<input type="checkbox"/>		
OTHER WASTES (APPLICANT TO SPECIFY)	Check (if accepted)	European Waste Code	Additional Information
Ferrous Metals	<input checked="" type="checkbox"/>	20 01 40	This will be accepted at the Community Recycling Park
Non-ferrous Metals	<input checked="" type="checkbox"/>	20 01 40	This will be accepted at the Community Recycling Park
Garden Waste	<input checked="" type="checkbox"/>	20 02 01	This will be accepted at the Community Recycling Park
Footwear	<input checked="" type="checkbox"/>	20 01 11	This will be accepted at the Community Recycling Park
	<input type="checkbox"/>		
	<input type="checkbox"/>		
	<input type="checkbox"/>		
	<input type="checkbox"/>		
	<input type="checkbox"/>		
	<input type="checkbox"/>		
	<input type="checkbox"/>		
	<input type="checkbox"/>		
	<input type="checkbox"/>		

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2. MATERIALS RECYCLING FACILITY

TABLE E.2.1 WASTE TYPES AND QUANTITIES

WASTE TYPE	Nominal Capacity		Maximum Capacity	
	TONNES PER ANNUM	TOTAL (over life of site) tonnes ¹	TONNES PER ANNUM	TOTAL (over life of site) tonnes ¹
Household waste collected by or on behalf of the local authority	-	-	-	-
Household waste delivered to civic waste facilities and other bring facilities	-	-	-	-
Other household waste	-	-	-	-
Commercial Waste ²	20,000	400,000	30,000	600,000
Sewage Sludges	-	-	-	-
Construction and Demolition Waste	-	-	-	-
Industrial Sludges	-	-	-	-
Industrial waste not elsewhere specified	-	-	-	-
Hazardous Waste	-	-	-	-

Notes:

1. This table has been completed on the basis of a site lifespan of 20 years. However, this can be extended with maintenance/replacement of items of equipment.
2. The materials recycling facility is aimed at separately collected fractions of industrial and commercial dry recyclable waste. However, separately collected household waste could also be accepted at this facility.

MATERIALS RECYCLING FACILITY

TABLE E.2.2 HAZARDOUS WASTE TYPES AND QUANTITIES

HAZARDOUS WASTE	European Waste Code	DETAILED DESCRIPTION	Nominal Tonnes Per Annum	Maximum Tonnes Per Annum
Waste Oil		-	-	-
Oil filters		-	-	-
Asbestos		-	-	-
Oil/Sand Mixtures or Mixtures of Oil and Other Material		-	-	-
Wood Preservation Waste		-	-	-
Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal		-	-	-
Wastes from Inorganic Chemical Processes		-	-	-
Wastes from Organic Chemical Processes		-	-	-
Agrochemical Wastes		-	-	-
Infectious Healthcare Waste		-	-	-
Photographic Processing Waste		-	-	-
Paint, inks, adhesives and resins		-	-	-

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MATERIALS RECYCLING FACILITY**TABLE E.2.2 HAZARDOUS WASTE TYPES AND QUANTITIES CONTD.**

HAZARDOUS WASTE	European Waste Code	DETAILED DESCRIPTION	Nominal Tonnes Per Annum	Maximum Tonnes Per Annum
Batteries and accumulators		-	-	-
Fluorescent tubes and other mercury containing waste		-	-	-
OTHER HAZARDOUS WASTE (APPLICANT TO SPECIFY)		-	-	-

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MATERIALS RECYCLING FACILITY

TABLE E.2.3 NON-HAZARDOUS WASTE TYPES

INERT WASTE	Check (if accepted)	European Waste Code	Additional Information
Stones and Soil	<input type="checkbox"/>		
Topsoil	<input type="checkbox"/>		
Brick	<input type="checkbox"/>		
Natural Sand	<input type="checkbox"/>		
Concrete	<input type="checkbox"/>		
Pottery & China	<input type="checkbox"/>		
Asphalt, tar and tarred products	<input type="checkbox"/>		
BIODEGRADABLE WASTE	Check (if accepted)	European Waste Code	Additional Information
Wood & Wood Products	<input checked="" type="checkbox"/>	20 01 38	These will be accepted as part of the dry recyclable fraction from commercial/industrial premises for the Materials Recycling Facility ¹
Paper & Paper Products	<input checked="" type="checkbox"/>	20 01 01	These will be accepted as part of the dry recyclable fraction from commercial/industrial premises for the Materials Recycling Facility ¹
Vegetable Matter	<input type="checkbox"/>		
Non-Infectious Health-Care Waste	<input type="checkbox"/>		
Natural & Manmade Fibres	<input type="checkbox"/>		
Street Cleaning Residues	<input type="checkbox"/>		
Gully Emptyings	<input type="checkbox"/>		
Septic Tank Sludge	<input type="checkbox"/>		
Dredging spoil	<input type="checkbox"/>		
Food Stuffs	<input type="checkbox"/>		
Oil/Water Mixtures	<input type="checkbox"/>		
Vegetable Oil	<input type="checkbox"/>		
Oil and Fat	<input type="checkbox"/>		
Animal faeces, urine and manure (including spoiled straw) effluent, collected separately and treated off-site	<input type="checkbox"/>		
Animal Blood	<input type="checkbox"/>		

Notes:

1. The materials recycling facility is aimed at separately collected fractions of industrial and commercial dry recyclable waste. However, separately collected household waste could also be accepted at this facility.

MATERIALS RECYCLING FACILITY

TABLE E.2.4 OTHER WASTES

OTHER WASTES	Check (if accepted)	European Waste Code	Additional Information
Gypsum based Constructon Materials	<input type="checkbox"/>		
Dried Paints, Dried Varnish & Dried Lacquer	<input type="checkbox"/>		
Foundry Sand & spent blasting grit	<input type="checkbox"/>		
Glass	<input checked="" type="checkbox"/>	20 01 02	Glass may come into the Materials Recycling Facility as part of dry recyclable waste
Latex & Rubber Solutions	<input type="checkbox"/>		
Solid, Fully Polymerised Plastics	<input checked="" type="checkbox"/>	20 01 39	These will be accepted as part of the dry recyclable fraction from commerial premises for the Materials Recycling Facility
Solid Rubber (excluding tyres)	<input type="checkbox"/>		
Electronic and Electrical Waste	<input type="checkbox"/>		
Waste from incineration or pyrolysis of municipal and similar commercial, industrial and institutional wastes	<input type="checkbox"/>		
OTHER WASTES (APPLICANT TO SPECIFY)	Check (if accepted)	European Waste Code	Additional Information
Ferrous Metals	<input checked="" type="checkbox"/>	20 01 40	These will be accepted as part of the dry recyclable fraction from commercial/industrial premises for the Materials Recycling Facility
Non-ferrous Metals	<input checked="" type="checkbox"/>	20 01 40	These will be accepted as part of the dry recyclable fraction from commercial/industrial premises for the Materials Recycling Facility.
Mixed Municipal/Residual Waste	<input checked="" type="checkbox"/>	20 03 01	Mixed municipal/residual waste may come into the Materials Recycling Facility as part of dry recyclable waste
	<input type="checkbox"/>		
	<input type="checkbox"/>		
	<input type="checkbox"/>		
	<input type="checkbox"/>		

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3. WASTE TO ENERGY PLANT

TABLE E.2.1 WASTE TYPES AND QUANTITIES

WASTE TYPE	Nominal Capacity		Maximum Capacity	
	TONNES PER ANNUM	TOTAL (over life of site) tonnes ¹	TONNES PER ANNUM	TOTAL (over life of site) tonnes*
Household waste collected by or on behalf of the local authority, Other household waste, Commercial Waste, Sewage Sludges, Industrial Sludges and Industrial waste not elsewhere specified	150,000 ²	3,000,000	180,000 ²	3,600,000
Household waste delivered to civic waste facilities and other bring facilities	-	-	-	-
Construction and Demolition Waste	-	-	-	-
Hazardous Waste	-	-	-	-

Notes:

1. This table has been completed on the basis of a site lifespan of 20 years. However, this can be extended with maintenance/replacement of items of equipment.
2. The expected capacity of the waste to energy plant is 150,000 tonnes/annum. However, the maximum design capacity, depending on calorific value and plant availability, is 180,000 tonnes/annum. The waste will be made up of the following categories of waste:
 - Household waste collected by or on behalf of the local authority
 - Other household waste
 - Commercial Waste
 - Sewage Sludges
 - Industrial Sludges
 - Industrial waste not elsewhere specified

It is not possible at this stage to provide a detailed breakdown of the anticipated quantities of these types of wastes.

WASTE TO ENERGY PLANT

TABLE E.2.2 HAZARDOUS WASTE TYPES AND QUANTITIES

HAZARDOUS WASTE	European Waste Code	DETAILED DESCRIPTION	Nominal Tonnes Per Annum	Maximum Tonnes Per Annum
Waste Oil		-	-	-
Oil filters		-	-	-
Asbestos		-	-	-
Oil/Sand Mixtures or Mixtures of Oil and Other Material		-	-	-
Wood Preservation Waste		-	-	-
Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal		-	-	-
Wastes from Inorganic Chemical Processes		-	-	-
Wastes from Organic Chemical Processes		-	-	-
Agrochemical Wastes		-	-	-
Infectious Healthcare Waste		-	-	-
Photographic Processing Waste		-	-	-
Paint, inks, adhesives and resins		-	-	-

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WASTE TO ENERGY PLANT

TABLE E.2.2 HAZARDOUS WASTE TYPES AND QUANTITIES CONTD.

HAZARDOUS WASTE	European Waste Code	DETAILED DESCRIPTION	Nominal Tonnes Per Annum	Maximum Tonnes Per Annum
Batteries and accumulators		-	-	-
Fluorescent tubes and other mercury containing waste		-	-	-
OTHER HAZARDOUS WASTE (APPLICANT TO SPECIFY)		It is anticipated that a household hazardous waste collection system will be in operation to remove household hazardous waste such as batteries from residual waste. However, if there is some household hazardous waste mixed with the incoming waste, the incineration and gas cleaning systems will be able to deal with this.	-	-

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WASTE TO ENERGY PLANT

TABLE E.2.3 NON-HAZARDOUS WASTE TYPES

INERT WASTE	Check (if accepted)	European Waste Code	Additional Information
Stones and Soil	<input type="checkbox"/>		
Topsoil	<input type="checkbox"/>		
Brick	<input type="checkbox"/>		
Natural Sand	<input type="checkbox"/>		
Concrete	<input type="checkbox"/>		
Pottery & China	<input type="checkbox"/>		
Asphalt, tar and tarred products	<input type="checkbox"/>		
BIODEGRADABLE WASTE	Check (if accepted)	European Waste Code	Additional Information
Wood & Wood Products	<input checked="" type="checkbox"/>	20 01 38	Residual waste may contain some of this material from domestic, commercial or industrial facilities
Paper & Paper Products	<input checked="" type="checkbox"/>	20 01 01	Residual waste may contain some of this material from domestic, commercial or industrial facilities
Vegetable Matter	<input checked="" type="checkbox"/>	20 01 08	Residual waste may contain some of this material from domestic, commercial or industrial facilities
Non-Infectious Health-Care Waste	<input checked="" type="checkbox"/>	20 01 32	This will be accepted at the Waste to Energy Plant
Natural & Manmade Fibres	<input checked="" type="checkbox"/>	20 01 10 20 01 11	Residual waste may contain some of this material from domestic, commercial or industrial facilities
Street Cleaning Residues	<input checked="" type="checkbox"/>	20 03 03	This will be accepted at the Waste to Energy Plant.
Gully Emptyings	<input checked="" type="checkbox"/>	20 03 99	This will be accepted at the Waste to Energy Plant
Septic Tank Sludge	<input checked="" type="checkbox"/>	20 03 04	This will be accepted at the Waste to Energy Plant
Dredging spoil	<input type="checkbox"/>		
Food Stuffs	<input checked="" type="checkbox"/>	20 01 08	Residual waste may contain some of this material from domestic, commercial or industrial facilities
Oil/Water Mixtures	<input type="checkbox"/>		
Vegetable Oil	<input type="checkbox"/>		
Oil and Fat	<input type="checkbox"/>		
Animal faeces, urine and manure (including spoiled straw) effluent, collected separately and treated off-site	<input type="checkbox"/>		
Animal Blood	<input type="checkbox"/>		

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WASTE TO ENERGY PLANT

TABLE E.2.4 OTHER WASTES

OTHER WASTES	Check (if accepted)	European Waste Code	Additional Information
Gypsum based Constructon Materials	<input type="checkbox"/>		
Dried Paints, Dried Varnish & Dried Lacquer	<input type="checkbox"/>		
Foundry Sand & spent blasting grit	<input type="checkbox"/>		
Glass	<input checked="" type="checkbox"/>	20 01 02	Residual waste may contain some of this material from domestic, commercial or industrial facilities
Latex & Rubber Solutions	<input type="checkbox"/>		
Solid, Fully Polymerised Plastics	<input checked="" type="checkbox"/>	20 01 39	Residual waste may contain some of this material from domestic, commercial or industrial facilities
Solid Rubber (excluding tyres)	<input type="checkbox"/>		
Electronic and Electrical Waste	<input type="checkbox"/>		
Waste from incineration or pyrolysis of municipal and similar commercial, industrial and institutional wastes	<input type="checkbox"/>		
OTHER WASTES (APPLICANT TO SPECIFY)	Check (if accepted)	European Waste Code	Additional Information
Mixed Municipal waste	<input checked="" type="checkbox"/>	20 03 01	Indaver will not be sorting residual waste accepted at the Waste to Energy Plant. This material should be separated at source. Therefore the waste accepted at the Waste to Energy Plant may contain small quantities of wood, plastic, paper, etc.
Residual Waste from Materials Recycling Facility	<input checked="" type="checkbox"/>	19 12 12	The residual waste from the Materials Recycling Facility will be sent to the Waste to Energy Plant for incineration.
Meat and Bonemeal	<input checked="" type="checkbox"/>	02 02 02	This non-hazardous material may be accepted at the Waste to Energy Plant
Wastewater Treatment Sludges	<input checked="" type="checkbox"/>	19 08 05 19 02 06	This non-hazardous material may be accepted at the Waste to Energy Plant

ATTACHMENT NUMBER E3

Waste Acceptance Procedures

Contents

Attachment E3.1	Facility Opening Times
Attachment E3.2	Summary of Indaver Ireland Environmental and Quality Management Systems
Attachment E3.3	Draft Procedure for Waste Acceptance at Carranstown Waste Management Facility

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Attachment E3.1

Facility Opening Times

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E3.1 FACILITY OPENING TIMES

The waste management facility will have opening hours as follows:

1. COMMUNITY RECYCLING PARK

The Community Recycling Park will be open to the public six days a week, eight hours a day Monday to Friday and on Saturday mornings.

2. MATERIALS RECYCLING FACILITY

The materials recycling facility will operate each time a delivery of recyclable waste is received. Although it may operate at any time of the day it will mainly be operated from 8am to 6.30pm Monday to Friday and from 8am to 2pm on Saturdays when waste will be accepted at the plant.

3. WASTE TO ENERGY PLANT

The proposed facility will accept waste between 8am and 6.30pm five days a week and between 8am and 2pm on Saturdays throughout the year. Each line of the waste to energy plant will operate 24 hours a day for approximately 7,500 hours/annum, being shut down for maintenance for the remainder of the time. However, the shutdown periods will be staggered so that the plant will be able to accept and dispose of waste on a continuous basis. It is anticipated that both lines will only be shutdown together 1 to 2 days per year.

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Attachment E3.2

Summary of Indaver Ireland Environmental and Quality Management Systems

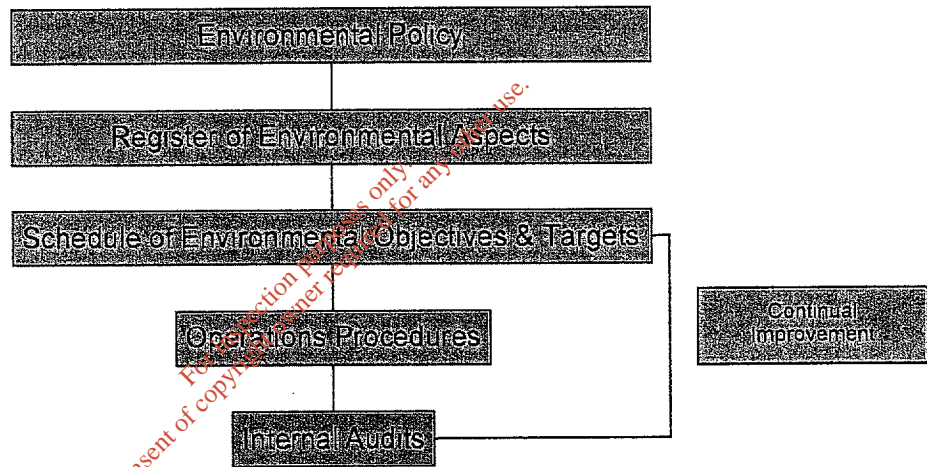
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Indaver's Quality and Environmental Management Systems ISO 14001 and ISO 9002

Indaver Ireland received accreditation to the Quality Standard ISO 9002 and the Environmental Standard ISO 14001 in December 2000. The most recent surveillance audit against both standards was held in June 2001 and there were no corrective actions issued at that time.

ISO 14001 – Environmental Management System

The basic structure of Indaver's Environmental Management System is as shown below.



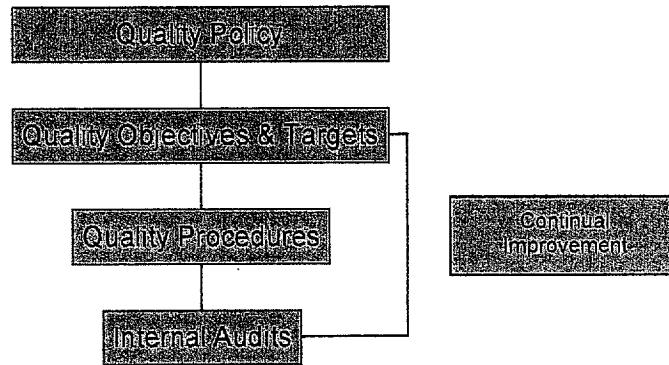
The Environmental policy is the top-level document and it defines Indaver's policies and overall aims with respect to the environment.

Below this is the Register of Environmental Aspects which identifies Indaver's environmental aspects. (An Environmental Aspect is an element of Indaver's activities that can interact with the environment.)

Once identified these environmental aspects are controlled via the schedule of environmental objectives and targets, which details Indaver's environmental objectives, targets for achieving those objectives and specific actions being undertaken to achieve these targets.

Quality Management System

The basic structure of Indaver's Quality Management System is as shown below.



As with the Environmental Policy, the Quality Policy is the top-level document on which the QMS is based. The Quality Policy defines Indaver's overall objectives and commitment to providing a quality service to customers and a quality workplace for employees.

In order to meet the aims laid down in the policy, quality objectives and targets are put in place. These objectives take the form of long-term targets that are reviewed on a 6-monthly basis.

Operational Procedures

Indaver have put in place operational and quality procedures covering all aspects of its activities. The purpose of these procedures is to ensure that Indaver:

- Maintains control over the environmental, quality and safety aspects of its activities
- Meets the aims laid down in the Environmental, Quality and Safety Policies
- Remains compliant with all relevant operating permits and legislative requirements

Monitoring of the Effectiveness of EMS and QMS

Monitoring of the effectiveness of both the Environmental and Quality Management Systems is achieved through internal environmental and quality audits against these procedures.

Issues raised as a result of these audits are dealt with through non-conformances and observations and are raised at management meetings and at reviews of the environmental and quality objectives and targets.

Attachment E3.3

**Draft Procedure for Waste Acceptance at
Carranstown Waste Management Facility**

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INDAVER

IRELAND

Procedure: Acceptance of Waste at the Carranstown Waste Management Facility

Reference	Status	Version	Owner
Operations_Draft1	Unauthorised : New	0	Patricia McGrath

Type Operations Manual Sub-Type Incinerator

1. Purpose

The purpose of this procedure is to outline the acceptance procedure for waste entering the Carranstown Waste Management Facility - Waste to Energy Plant and Material Recycling Facility

2. Definition

MRF - Material Recycling Facility
WTE - Waste to Energy

3. Responsibilities

It is the responsibility of the Plant Manager and Operations Team to ensure this procedure is adhered to.

4. References

Waste Handling at the Carranstown Material Recycling Facility Operations_Draft3

5. Procedure

Waste Scheduling:

The planning department is responsible for scheduling the acceptance of waste materials at the facility.

The scheduling takes place on two levels:

1. Scheduling of "Standard Contract" Waste Materials
2. Scheduling of "Non-contract" Waste Materials

1. "Standard Contract" Waste Materials:

Waste to Energy Plant

This is non-hazardous domestic and commercial waste materials. Standard contract waste materials have the following characteristics:

- A high degree of homogeneity
- The material arrives in bulk form, i.e. the waste unloads directly into the plants

waste bunker

Material Recycling Facility

This is non-hazardous dry recyclable commercial and industrial waste material. Standard Contract waste materials have the following characteristics:

- The material must be dry and free of contaminants i.e. foodstuffs
- The material must be separated from other wastes at source
- The material arrives in bulk form

Indaver Ire will have contracts in place with the suppliers of these non hazardous waste materials. These contracts will detail the overall annual intake quantities and the schedule for the arrival of the material on site over the year.

These waste materials will be supplied regularly (daily) and will comprise of a fixed batch. A fixed batch is created by the planner for a certain number of loads and is linked to an expiry date. A fixed batch is clearly identified by an accompanying waste certificate.

These loads are not planned for a precise intake date but the fixed batch of loads must arrive on site prior to the associated expiry date. The scheduling of the individual loads is agreed with the planner on a day to day basis.

2. "Non-contract" Waste Materials - WTE Plant and MRF

Non-contract waste is all other non-hazardous material arriving at the facility not covered by a contract as with standard contract waste material. These waste materials are supplied less frequently than those in a fixed batch.

The loads are planned by the planner for a specified delivery date and are incorporated into the relevant intake schedule (WTE plant or MRF). The intake schedule takes into account the spread of material arriving on site and the logistics requirements for acceptance and unloading of the material.

They are allotted a batch number upon arrival at Indaver.

Acceptance of a consignment, i.e. one load of waste, therefore takes place according to the intake schedule's (non-contract waste) or as per the agreed contracts with suppliers (standard contract waste).

The scheduling process is covered in more detail in the following procedures:

- Procedure for intake planning
- Procedure for drawing up and registration of intake planning in waste tracking system

Waste Acceptance:

Reporting at the gate

Trucks with a fixed batch card (standard contract waste) report to the weighbridge operator and then proceed immediately to be weighed.

All other loads (non contract waste) report to the weighbridge operator who then checks the relevant intake schedule (WTE plant or MRF), comparing it with the delivery docket, and issue's the driver with a batch card. The driver then proceeds to be weighed.

The following information is entered onto the tracking system for all waste material entering the facility:

- Name of Haulier/Carrier

- Name of Producer/Collector of Waste
- Registration number of truck
- Batch number.
- EWC Code and Description of Waste
- Date
- Name of Weighbridge Operator
- Details of rejected load (if applicable)

Weighing

The driver positions the truck on the weighbridge and the gross weight is recorded on the batch card. This information is automatically sent to the tracking system. After weighing the truck proceeds to the reception hall.

Arrival and unloading of trucks

- **Material for the Waste to Energy Plant:**
At the reception hall the operator in charge directs the loads to a suitable discharge chute, and the load can be off-loaded into either:
 1. **Disposal bunker for bulk waste deliveries**
 - This is a concrete bunker.
 - This bunker is fitted with 5 discharge chutes for emptying waste trucks.
 - The waste bunker and reception hall themselves are maintained under negative pressure; the air extracted is used as combustion air for the furnace. After the daily intake period the reception hall is sealed by means of a roller shutter.
 2. **Bulky waste shredder**
 - A bulky waste shredder is located in the reception hall, allowing waste of large dimensions (e.g. furniture, mattresses etc.) to be reduced prior to further processing.
- **Material for the Material Recycling Facility**
Upon arriving at the reception hall the dry recyclable waste will be discharged from the trucks into a storage area which is 5 metres below the level of the reception hall. This storage area will be capable of holding 2,200 cubic metres of waste material. This capacity is sufficient to allow for a maintenance period of 7 days when waste would have to be stored.

Visual Inspection:

- **Material for the Waste to Energy Plant:**
A percentage of the waste entering the waste to energy plant is visually checked by the reception hall operator. This is to ensure that the waste arriving at the plant is in compliance with Indaver Ireland's waste acceptance criteria and are only those that are permitted under the site waste licence. This inspection is carried out in the waste inspection area of the reception hall. These inspections are carried out on waste loads from both new and existing contractors.

The following features are checked for:

1. **Bulk waste for disposal bunker**
 - Danger symbols, which may indicate the presence of dangerous waste materials (or their packaging).
 - Specified dimensions (sheets: max. 1.0 X 1.0 X 0.1 m./ cubes: max. 0.5 X 0.5 X 0.5 m).
 - Excess Dust
 - Excess Liquid
2. **Bulk waste for shredder**
 - Danger symbols which may indicate the presence of (or packaging of) dangerous waste.
 - Specified dimensions (max. 1.9 X 1.4 X 3.0 m)

- Heavy gauge metals or building rubble

If irregularities are detected by the reception hall operator the process supervisor (or shift operator) must be notified of these immediately.

- **Material for the Material Recycling Facility**

Material for the MRF is visually inspected and sorted as part of the recovery process. (See procedure for Waste Handling at the Carranstown Material Recycling Facility Operations_Draft3)

The following features are checked for:

- Danger Symbols, which may indicate the presence of dangerous waste materials
- Specified dimensions
- Excess Dust
- Excess liquid
- Contamination by organic waste

If irregularities are detected the process supervisor (or shift operator) must be notified of these immediately.

Waste Quarantine:

All non conforming material will be held in the quarantine area within the reception hall until a further course of action has been agreed.

The following courses of action may be taken:

1. **The load may be processed without major additional cost** (e.g. the load may contain a number of large bulky items that will need to be shredded). In such a case the load may be accepted.
2. **The load may be processed, but the additional cost is likely to be major** (> 5 man-hours required or the use of special equipment/services etc.) In this case the process supervisor (or shift operator) gets in touch with the planner so that the latter can discuss this with the customer and reach an agreement (refusal and return of load / acceptance of load subject to additional cost etc.).
3. **The load cannot be processed or is not acceptable** (e.g. hazardous waste, high levels of contamination of food waste - MRF only). In such circumstances the load is refused and the process supervisor (or shift operator) notifies the planner and the manager or his deputy.

All loads that are refused will be recorded. Reasons for refusal, quantities and other comments will be noted. A list of all the non conforming material is presented and discussed during the regular meetings of the planning department with the operations department. These anomalies are also recorded in the minutes of this meeting.

Tare weighing

After unloading the truck proceeds once more to the weighbridge and a tare weight is recorded. The weight of discharged material is the gross weight minus the tare weight. A weigh ticket is automatically printed out for the driver.

If the truck has a fixed batch (contract waste):

- The information is automatically sent to the tracking system.
- The truck leaves Indaver and the driver retains the weigh docket and batch (card).

If the truck has a temporary batch:

- The information is automatically sent to the tracking system.
- The driver hands in his batch (card).
- He receives the signed-off delivery docket

The weighbridge operator keeps the white weigh docket and a copy of the delivery docket.

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ATTACHMENT NUMBER E4

Waste Handling Procedures

Contents

Attachment E4.1

Draft Waste Handling Procedure for the Waste to Energy Plant

Attachment E4.2

Draft Waste Handling Procedure for the Materials Recycling Facility

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Attachment E4.1

Draft Waste Handling Procedure for the Waste to Energy Plant

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Procedure: Waste Handling at the Carranstown Waste to Energy Facility

Reference	Status	Version	Owner
Operations_Draft2	Unauthorised : New	0	Patricia McGrath

Type Operations Manual Sub-Type Incinerator

1. Purpose

The purpose of this procedure is to outline the waste handling procedure for waste entering the Waste to Energy plant in Carranstown.

2. Definition

3. Responsibilities

It is the responsibility of the Plant Manager and Operations Team to ensure this procedure is adhered to.

4. References

Waste Acceptance at the Carranstown Waste Management Facility Operations_Draft1

5. Procedure

On arrival at the Waste to Energy Plant, non Hazardous waste is tipped directly into the waste bunker via one of the five discharge chutes in the reception hall. (See procedure for acceptance of waste at the Carranstown Waste Management Facility Operaitons_Draft1)

Waste Shredder:

Bulky waste (e.g. furniture) the dimensions of which are too large to be discharged through the chutes must be passed through a shredder.

The material is loaded into the shredder by means of a crane.

The material from the shredder is then loaded into the waste bunker.

Hydraulic Grabs:

Waste material is moved within the waste bunker by means of an hydraulic grab located above the waste in the bunker.

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The hydraulic grab must only be operated by a trained operator.

The grab operator works from the control room. A large window in the control room enables the operator to see the whole of the waste bunker while operating the grab. There are also closed circuit television cameras located in the waste bunker, reception hall, furnace hopper and in the furnace itself so that the operator can see all of these areas.

The grab operator must perform the following tasks:

- The operator uses the grab to keep the discharge chutes clear of waste material. This is essential in order to enable the ongoing unloading of material into the chutes from the reception hall.
- The operator uses the grab to mix the waste while in the bunker. This is essential to ensure a uniform mix of waste entering the furnace which is necessary to ensure the smooth operation of the plant.
- The operator uses the grab to load material into the hopper. It is essential that the levels of waste in the furnace hopper are sufficiently maintained at all times. In the event of a low level being achieved in the furnace hopper an advisory alarm will be activated in the control room to alert the grab operator of this fact. If waste is not added to the hopper within a specified time when this alarm activates the plant will go into automatic shutdown.

Once the waste has entered the furnace, the process of handling becomes automatic and is controlled by the plants computer system, which is monitored by the process supervisors and shift operators.

There are 3 levels of interlocks in place to ensure the plant operates within all specified limits with shift operator input where necessary but automatic shutdown for critical parameters.

Movement of the the grab to the hopper is automatic to prevent spillage.

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Attachment E4.2

**Draft Waste Handling Procedure for the Materials
Recycling Facility**

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Procedure: Waste Handling at the Carranstown Material Recycling Facility

Reference	Status	Version	Owner
Operations_Draft3	Unauthorised : New	0	Patricia McGrath

Type Operations Manual Sub-Type Incinerator

1. Purpose

The purpose of this procedure is to outline the waste handling procedure for waste entering the Carranstown Material Recycling Facility.

2. Definition

MRF - Material Recycling Facility

3. Responsibilities

It is the responsibility of the Plant Manager and Operations Team to ensure this procedure is adhered to.

4. References

Waste Acceptance at the Carranstown Waste Management Facility Operations_Draft1

5. Procedure

On arrival at the Material Recycling Facility, non hazardous dry recyclable material is tipped directly onto the floor of the 2,200 square meter waste reception hall from the waste delivery trucks. (See procedure for acceptance of waste at the Carranstown Waste Management Facility Operaitons_Draft1)

From here the material is loaded onto a conveyor system, via a hopper, which transports the material into the picking station where it is segregated into the following streams; paper, plastic, cardboard, wood and metal.

Bulky Waste material: Bulky waste (e.g. furniture) the dimensions of which are too large to be loaded onto the conveyor system is either shredded to reduce its size or placed directly in containers to be transferred to suitably licensed recycling facilities.

Shredder: The material is loaded into the shredder by means of a mobile crane. Once sufficient material has been loaded into the shredder the reception hall operator informs the operator in the control room to activate the shredder. Once shredded the material can be loaded onto the conveyor system.

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Conveyor: The material is loaded on the conveyor system by means of a mobile grab vehicle. Once on the conveyor the material passes through a rotating sieve which separates out two fractions of waste from the stream. In the first part of the rotating sieve the fraction of particles less than 25mm are separated. These particles are conveyed directly to the waste storage bunker of the waste to energy plant. In the second part of the rotating sieve particles between 25mm and 300mm are separated. Once separated this fraction is screened for metals and the remainder of this fraction is conveyed to the bunker. The remaining fraction continues on to the picking station. The residual fraction from the picking station is conveyed directly into the waste bunker for energy recovery.

Picking Station: The waste is conveyed to an enclosed picking station. Here the materials are manually removed from the conveyor by trained sorters. The operators in the station are each assigned a specific material (i.e. plastic, paper, cardboard, metal, wood) to remove from the conveyor. Upon removing the material from the belt, the operator drops it through a chute where it then falls into a storage bunker. Depending on the different volumes of materials received at the facility the number of operators sorting a particular material may vary. The process supervisor decides on the appropriate manning levels for each material. All operators must wear appropriate personal protective equipment.

Baling: When a sufficient amount of waste has been collected in the storage bunkers, plant operators using mobile grab units will gather the material and transfer it to a baling unit for compaction. The compacted bales of recovered material are then stored until enough have been produced to make a shipment.

Residual Waste: The residual volume of waste leaving the picking station is screened for both ferrous (magnets) and non-ferrous (eddy current) metals. These materials may be either baled or placed directly into containers for transport to an appropriately licensed recovery facility. The remaining waste that has not been recovered in the process and represents approximately 20% of the incoming volume will be conveyed directly to the storage bunker of the Waste to Energy plant.

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ATTACHMENT NUMBER E5

Raw Materials and Energy

Contents

Attachment E5.1

Raw Materials and Energy

Attachment E5.2

Completed Waste Licence Application Table 1.10 (Raw Materials, Intermediates, Products, etc.)

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Attachment E5.1

Raw Materials and Energy

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E5.1 RAW MATERIALS AND ENERGY

1. LIST OF MATERIALS

Table 1.10, in Attachment E5.2, consists of a list of the raw and ancillary materials which will be used at the Indaver Waste Management Facility. All raw and ancillary materials listed in Table 1.10 relate to the waste to energy plant, as no raw and ancillary materials will be used in the materials recycling facility or community recycling park. The processes being employed in the waste to energy plant will utilise chemicals associated with well proven technologies. All chemicals will be stored and handled in accordance with the relevant health, safety and environmental guidelines.

The data entered in Table 1.10 have been extracted from typical Material Safety Data Sheets (MSDS) where available. Where data was not available on MSDSs, other sources were consulted for data including:

- Aldrich – Catalogue handbook of Fine Chemicals
- Sax's Dangerous Properties of Industrial Materials
- Merck – Chemical database
- Chemicals Hazard Information and Packaging for Supply Approved Supply List

Where no data was found this is indicated by 'No Data' in Table 1.10.

The quantity stored indicated in Table 1.10 is based on storage for 10 days operation.

2. RAW MATERIAL USAGE

The table below summarises the fuel requirements and the main raw materials that will be used in the waste to energy plant. For a number of applications one of two substances can be used. Where this is the case, the maximum quantity of each material that could be used is indicated. The quantities overleaf are based on the maximum design capacity of 180,000 tonnes of waste per annum. However, as the plant is expected to operate at a nominal capacity of 150,000 tonnes of waste per annum, the expected raw material usage will be less than this.

Table 2.1 List of Fuel Requirements and Raw Materials that will be used in Waste to Energy Plant

Raw Material	Quantity per annum
Natural Gas	202,400 m ³
Water ¹	112,500 m ³
Towns Water ²	7,500 m ³
Ammonia (25% solution) ³	1,320 tonnes
Urea ³	900 tonnes
Activated Carbon/Lime Mixture	270 tonnes
Lime ⁴	3,960 tonnes
Limestone ⁴	7,200 tonnes
Activated Carbon/Lime Mixture ⁵	270 tonnes
Lignite Cokes ⁵	240 tonnes
Cement ⁶	3,600 tonnes
Iron Silicate ⁶	1,200 tonnes

Notes:

- 1 This will be supplied from stored rainwater and groundwater. Depending on rainfall patterns about 36,000m³ of rainwater will be used with the balance being supplied from groundwater.
- 2 This water will be supplied from Meath County Council's water main on the R152 for drinking water supplies.
- 3 Either ammonia solution or urea can be used in the Furnace.
- 4 Either lime or limestone can be used in the Wet Flue Gas Cleaning System.
- 5 Either activated carbon/lime mixture or lignite cokes will be used in the Tail End Flue Gas Cleaning System.
- 6 If a solidification plant is installed at the site, either cement or iron silicate can be used.

3. POWER OUTPUT AND DEMAND

The main aim of the waste to energy plant is to dispose of waste, reducing it to ash with a volume of approximately 10% of the original volume of waste, which will significantly reduce the amount of waste going to landfill. In addition to this, heat from the waste will be recovered in the form of electricity. The incinerator will produce approximately 105 GWh/yr (14 MW * approximately 7,500 hrs/yr). The electricity demand for the plant to run will be approximately 22 GWh/yr, which will leave 83 GWh/yr (11 MW * approximately 7,500 hrs/yr) to be exported to the ESB distribution network. This is sufficient to power over 16,000 homes based on an average domestic electricity consumption of 4,600 kWhr/annum (based on figures contained in the Irish Energy Centres Planning Update No 1, June 1999).

The overall heat input from the waste, assuming an average heat content of waste of 11 MJ/kg, based on Indaver's operational experience, is 460 GWh/yr. This converts to a gross efficiency of 23 %, and a net efficiency of 18 %. These values are low compared with net efficiencies of about 37% that can be achieved with coal burning technology or about 57% with modern natural gas combined cycle gas turbine plants. This relatively low efficiency is due to the fact that combustion of waste can lead to corrosive flue gases that attack boiler components. It will thus not be possible to recover steam at either high temperature, or very low temperatures as the boiler components would be attacked by the corrosive flue gases. The steam output from the boiler will thus be reduced leading to a reduced electrical output from the steam turbine and generator set. Furthermore, waste to energy plants need to operate with a higher quantity of excess air than power plants in order to meet the lower emission limits.

However, as the primary purpose of the waste to energy plant is to reduce the amount of waste going to landfill, energy recovery with a net efficiency of 18% is considered BAT. Efficient use of energy at the waste management facility will be a priority and will be a key objective of the Environmental Management Programme for the site.

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Attachment E5.2

**Completed Waste Licence Application Table 1.10
(Raw Materials, Intermediates, Products, etc.)**

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Table 1.10 (Sheet 1 of 3): Raw Materials, Intermediates, Products, etc.

Ref. N ^o or Code	Material/Substance ⁽¹⁾	CAS Number	Danger ⁽²⁾ Category	Amount Stored (tonnes)	Expected Annual Usage (tonnes)	Max. Annual Usage (tonnes)	Nature of Use	Organic/Inorganic	R ⁽³⁾ - Phrase	S ⁽³⁾ - Phrase	Seveso Yes/No
1	Ammonia Solution (25%)	1336-21-6	Corrosive, Dangerous to the Environment	0.4	0.3	1.2	Boiler Feedwater Additive	Inorganic	34, 50	26, 36/37/38, 45, 61	N ⁴
1a	Ammonia Solution ⁵ (25%)	1336-21-6	Corrosive, Dangerous to the Environment	50	600	1320	Boiler	Inorganic	34, 50	26, 36/37/38, 45, 61	N ⁴
2	Urea ⁵	57-13-6	Harmful, Irritant	50	400	900	Boiler	Organic	20/21/22, 36/37/38	22, 26, 36	N
3	Activated Carbon/Lime Mixture	None	Irritant	50	225	270	Before Baghouse Filter	Organic	None	None	N
3a	Activated Carbon/Lime Mixture ⁷	None	Irritant	50	225	270	Tail End Flue Gas Cleaning	Organic	None	None	N
4	Limestone ⁶	471-34-1	Sensitising	500	1600	7200	Wet Flue Gas Cleaning	Inorganic	None	None	N
5	Lime ⁶	01305-78-8	Irritant	300	900	3960	Wet Flue Gas Cleaning	Inorganic	41	2,8,24,25,26, 38	N
6	Lignite Cokes ⁷	Not determined	None	100	100	240	Tail End Flue Gas Cleaning	Organic	None	None	N

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- Notes:
- In cases where a material comprises a number of distinct and available dangerous substances, please give details for each component substance.
 - c.f. Article 2(2) of SI N^o 77/94
 - c.f. Schedules 2 and 3 of SI N^o 77/94
 - Ammonia Solution (25%) falls under SI 476 of 2000 (Seveso Regulations). However the quantities stored on site are well below the thresholds set in these regulations.
 - Either ammonia solution or urea can be used in the Furnace.
 - Either lime or limestone can be used in the Wet Flue Gas Cleaning System.
 - Either activated carbon/lime mixture or lignite cokes will be used in Tail End Flue Gas cleaning System.

Table 1.10 (Sheet 3 of 3): Raw Materials, Intermediates, Products, etc.

Ref. N ^o or Code	Material/ Substance ⁽²⁾	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold $\mu\text{g}/\text{m}^3$	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II +129 ⁽⁷⁾	List I	List II
1	Ammonia Solution (25%)	-	Yes	Pungent	-	No	√ Ammonia Solution	No	√ Ammonia Solution
2	Urea	-	Yes	Slightly Pungent	-	No	√ Ammonia Solution	No	√ Ammonia Solution
3	Activated Carbon/Lime Mixture	-	No	-	-	No	No	No	No
4	Limestone	-	No	-	-	No	No	No	No
5	Lime	-	No	-	-	No	No	No	No
6	Lignite Cokes	-	No	-	-	No	No	No	No

Notes (cont.): 7. The European Commission priority candidate list

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Table 1.10 (Sheet 1 of 3): Raw Materials, Intermediates, Products, etc.

Ref. N° or Code	Material/Substance ⁽¹⁾	CAS Number	Danger ⁽²⁾ Category	Amount Stored (tonnes)	Expected Annual Usage (tonnes)	Max. Annual Usage (tonnes)	Nature of Use	Organic/Inorganic	R ⁽³⁾ - Phrase	S ⁽³⁾ - Phrase	Seveso Yes/No
7	Cement ⁴	65997-15-1	Irritant	500	1600	3600	Solidification	Inorganic	36/37/38	24/25/26, 36/37/39	N
8	Iron Silicate ⁴	69012-64-2	Sensitising	300	600	1200	Solidification	Inorganic	None	None	N
9	Hydrochloric Acid (30%)	7647-01-0	Corrosive	10	10	24	Demineralisation	Inorganic	34, 37	26, 45	N
10	Caustic (30%)	1310-73-2	Corrosive	10	20	24	Demineralisation	Inorganic	35	26, 37/39, 45	N
10a	Caustic (30%)	1310-73-2	Corrosive	1	0.2	1.2	Boiler Feedwater Additive	Inorganic	35	26, 37/39, 45	N
11	Sodium Sulphite	7757-83-7	Irritant	1	0.2	1.2	Boiler Feedwater Additive	Inorganic	22,36, 38,40	22,26,36	N
12	Trisodium Phosphate	10101-89-0	Corrosive	1	0.2	1.2	Boiler Feedwater Additive	Inorganic	34	22, 26, 27, 36/37/39	N
13	Hydraulic Oil	Mixture	None	1	1	6	Lubrication of Moving Parts	Organic	None	None	N
14	Diesel	68334-30-5	Harmful	?	?	?	Fuelling of On-site Vehicles	Organic	40, 65, 52/53	24, 36/37, 43, 62	N

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- Notes: 1. In cases where a material comprises a number of distinct and available dangerous substances, please give details for each component substance.
2. c.f. Article 2(2) of SI N° 77/94
3. c.f. Schedules 2 and 3 of SI N° 77/94
4. If a solidification plant is installed at the site, either cement or iron silicate can be used.

Table 1.10 (Sheet 2 of 3): Raw Materials, Intermediates, Products, etc.

Ref. N° or Code	Material/ Substance ⁽²⁾	Ecological Aquatic				Toxicological				Radioactive Yes/No
		LC ₅₀ mg/l	Species	EC ₅₀ ⁽⁵⁾ mg/l	Species	Oral LD ₅₀ mg/kg	Species	IV LD ₅₀ mg/kg	Species	
7	Cement	No data	-	No data	-	No data	-	No data	-	N
8	Iron Silicate	No data	-	No data	-	No data	-	No data	-	N
9	Hydrochloric Acid (30%)	No data	-	No data	-	900	Rabbit	No data	-	N
10	Caustic (30%)	No data	-	No data	-	No data	-	No data	-	N
10a	Caustic (30%)	No data	-	No data	-	No data	-	No data	-	N
11	Sodium Sulphite	460	Fish	273	Daphnia magna	2610	Rat	175	Mussel	N
12	Trisodium Phosphate	No data	-	No data	-	7400	Rat	No data	-	N
13	Hydraulic Oil	No data	-	No data	-	5000	estimate	No data	-	N
14	Diesel	< 100	Fish	< 100	Fish	> 5000	Rat	No data	-	N

Notes (cont.): 5. Where available !

Table 1.10 (Sheet 3 of 3): Raw Materials, Intermediates, Products, etc.

Ref. N ^o or Code	Material/ Substance ⁽²⁾	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold $\mu\text{g}/\text{m}^3$	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II +129 ⁽⁶⁾	List I	List II
7	Cement	-	No	-	-	No	No	No	No
8	Iron Silicate	-	No	-	-	No	No	No	No
9	Hydrochloric Acid (30%)	-	Yes	Pungent	-	No	No	No	No
10	Caustic (30%)	-	No	-	-	No	No	No	No
10a	Caustic (30%)	-	No	-	-	No	No	No	No
11	Sodium Sulphite	-	No	-	-	No	No	No	No
12	Trisodium Phosphate	-	No	-	-	No	√ Inorg. P compound	No	√ Inorg. P compound
13	Hydraulic Oil	-	No	-	-	No	√ Petroleum Oil	No	√ Petroleum Oil
14	Diesel	-	Yes	Characteristic	-	No	√ Petroleum Oil	No	√ Petroleum Oil

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Notes (cont.): 6. The European Commission priority candidate list

ATTACHMENT NUMBER E6

Plant

Contents

Attachment E6.1

Plant Requirements

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E6.1 PLANT REQUIREMENTS

1. GENERAL

As this facility is still at design stage, the exact items of plant that will be required are not known. However, the following items of plant are likely to be required, based on experience at a similar Indaver facility in Belgium:

- Three loaders (one for the waste to energy plant and two for the materials recycling facility)
- Two vans (for internal transport of people, spare parts, etc.)
- A number of forklift trucks (for use in the warehouse, etc.)

Spare parts for plant items, on-site vehicles, etc. will be stored in the warehouse and workshop

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