

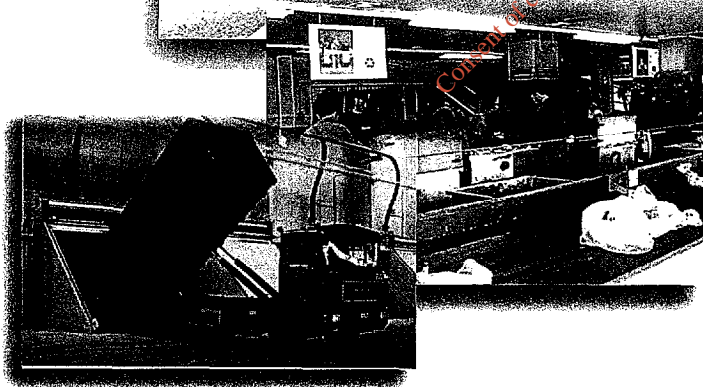
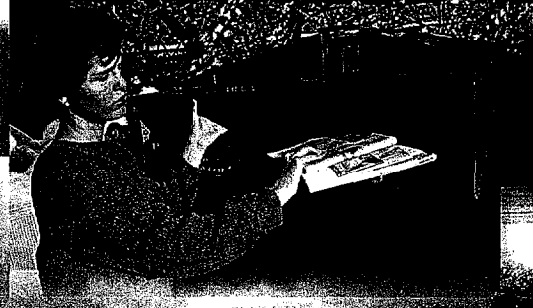
Carranstown Waste Management Facility

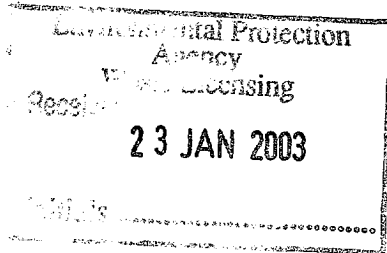
Waste Licence Application

Response to 3rd Party Submissions 24-29

January 2003

INDAVER
IRELAND





Administration,
Waste Management Licensing,
Environmental Protection Agency,
PO Box 3000,
Johnstown Castle Estate,
Co. Wexford.

22/01/03

W.L. Application Ref:167-1

Indaver Ireland - Response to Third Party Submissions 24- 29 / Additional Information

Dear Sir / Madam,

Please find attached an original plus five copies of Indaver Ireland's response to Third Party submissions regarding our Waste Licence application 167-1. This document responds to submissions 24 to 29 as assigned by the Agency.

In addition to the above, please find attached an original plus five copies of the following additional information.

- First Party Submissions made at the An Bord Pleanala Oral Hearing for the proposed facility
- Meath Co. Co. & Third Party Submissions made at the An Bord Pleanala Oral Hearing for the proposed facility
- Site Selection Process – Additional Information.

I trust that the above is to your satisfaction, however should you require any additional information please do not hesitate to contact me.

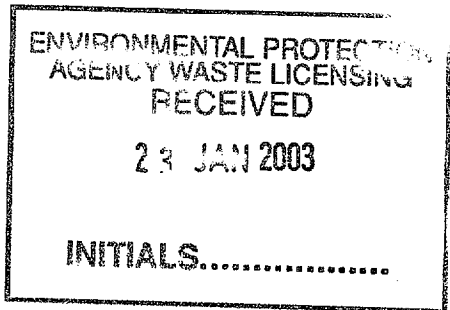
Yours Sincerely,

Robert Kelly
Project Engineer
Indaver Ireland



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Licence Application 167-1

Carranstown Waste Management Facility

Response to Third Party Submissions 24 – 29

January 2003

The following information has been compiled by Indaver Ireland in response to submissions received by the Agency in regard to the licence application for the proposed waste management facility at Carranstown, Co. Meath. The submissions addressed are numbered 24- 29 by the Agency on the Public file. A previous document was submitted to the Agency in response to submissions 1 – 23.

This document addresses each submission individually. Where the content of submissions overlap a reference to previous discussion is made.

Submission 24: Maureen & Francis Mulryne, Mount Hanover – 20th August 2002

We live a few hundred yards downwind of the proposed Incinerator at Carranstown, Duleek. We depend entirely on the ground water for all our needs. The fall out from this proposed incinerator would undoubtedly contaminate our water supply.

Air Emissions

The maximum ground level concentrations for most parameters will occur either within or just outside the site boundary under worst case climatic conditions as displayed by the air modelling exercise.

The flue gas emissions from the waste to energy facility will be well within the current limits as specified in the Incineration Directive 2000/76/EC.

Indaver Ireland has submitted as part of the Waste Licence application an air dispersion modelling report that assesses the potential impact of the emissions from the stack. The model used is the Irish and US E.P.A. approved Industrial Source Complex (ISC 3) computer model. The results of the modelling showed that the predicted ground level concentrations were significantly below the most stringent air quality standards and therefore the

impact of these emissions on the surrounding environment will be insignificant.

The full air dispersion model report is included in section H1.2 of the licence application attachments.

Construction

There will be no direct discharges to groundwater during the construction phase of the development. The hydrogeological survey has demonstrated the soils and groundwater on site are free of contamination and therefore excavation works on site and not result in the mobilisation of any sub-surface contaminants.

A number of mitigation measures will be put in place during construction to prevent any spillages of potentially polluting substances entering the soils and groundwater. These will include;

- Bunding of any oils, chemicals, paints or other potentially polluting substances.
- Filling and draw off points will be contained within bunded areas.
- Drainage from bunded areas will be diverted for collection and safe disposal
- All domestic effluent generated on site will be discharged to temporary sewage containment facilities prior to transport and treatment off-site.

Operation

The World Health Organisation have stated in their document on "Solid Waste Disposal – Waste Incineration" –attached in the previous response to submissions as Appendix 5 - that 'The incineration of waste is a hygienic method of reducing its volume and weight which also reduces its potential to pollute'. "In general, properly equipped and operated waste incinerators need not pose any threat to human health, and compared to the direct land filling of untreated wastes, may have a smaller environmental impact."

The EIS (section 8.2.4) identifies the importance and the physical nature of the ground water in the area of the proposed site. Based on the thickness and type of overburden cover the aquifer vulnerability for this site is considered moderate (GSI Guidelines for aquifer protection).

The operation of the facility will result in no direct discharges to groundwater. A number of measures including the installation of a domestic effluent system, the design of the waste storage bunker, the bunding of all chemical storage tanks and the installation of interceptors for the surface water entering surface water drainage system will ensure that there will be no impact on the groundwater from the facility. In addition, regular monitoring of the groundwater will take place that will detect any changes in quality.

Submission 25: Indaver Ireland– 4th September 2002

This submission was Indaver Ireland's "Response to Third Party Submissions 1- 23".

Submission 26: Nuala Ahern M.E.P., Greystones, Co. Wicklow – 6th September 2002

I understand an application has been received for a licence for an incinerator which Indaver Ireland Ltd. propose to build in Duleek near Drogheda. Can you let me know whether this information is correct?

This query has been responded to directly by the Agency to Ms. Ahern.

I have been informed by a Drogheda resident that Indaver have been found to be in breach of licensed limits for dioxins at one of their incinerators in Belgium. Do you have any information on this and whether or not the information is accurate?

A copy of Indaver Ireland's Press Release on the above incident is attached as Appendix 1. This information was sent to the Agency in September 2002.

The press release details that fact that Indaver switched off a static kiln which is used to dispose of highly chlorinated hydrocarbons and PCB waste on an industrial site in Antwerp, Belgium.

Indaver discovered during routine in-house monitoring of emissions that the kiln may not have been operating properly. The relevant authorities were notified of this immediately, and the kiln was switched off.

The probable cause of the incident was the installation of a new burner in the facility.

Can you also let me know what are the standards which you would be requiring if a license for this incinerator were to be issued.

This query has been responded to directly by the Agency to Ms. Ahern. However, Indaver Ireland wish to note that the proposed facility will operate well below limits defined in the Incineration directive 2000/76/EC.

Submission 27: Fergus O'Dowd T.D., Dail Eireann – 24th September 2002

The proposal by Indaver Ireland to construct a municipal waste incinerator on the outskirts of Drogheda has created widespread concern among my constituents, especially in Drogheda and South Louth. I am aware of similar concerns in East Meath.

The general public have a poor understanding of the licensing process that applies to such a development. Given the precedent this proposed development creates, I would ask you to host an information meeting for the public here in Drogheda at the earliest opportunity- before the EPA determines the matter.

Indaver Ireland have attended numerous public meetings in the Drogheda area, distributed approximately 5,000 project brochures and held open days in local hotels and community halls in order to provide the people of the area with information regarding the Carranstown project. Currently there are approximately 500 people on the Indaver Communications database that are regularly supplied with updates on the project status and other related matters.

Submission 28: Brenda Maguire @ Yahoo.com – 16th October 2002.

The following is a direct quote from today's Independent:

"A Bord Pleanala hearing onto plans to build a giant incinerator in Co. Meath will next week refuse to deal with claims that toxic emissions from it would be a danger to public health

The board confirmed to the Irish Independent yesterday that the inquiry will deal solely with planning matters in this case and not with any concerns about the possible risk of environmental pollution"

An Bord Pleanala held an oral hearing regarding the planning permission for the proposed waste management facility at Carranstown over four days (21/10/02 – 24/10/02) in Drogheda.

During the hearing a large number of submissions were made from Third Parties, Meath Co. Co. and Indaver Ireland. A copy of these submissions including a summary have been forwarded to the Agency. As may be seen from these documents a number of parties addressed the environmental impact of the proposed facility.

In addition, it must be noted that the environmental impacts of the proposed facility during the construction phase are a matter that An Bord Pleanala can and must consider. It is the responsibility of the Agency to consider any environmental impacts from the operational and post closure phases. It is also expected that the Agency will hold their own oral hearing as part of the licence

application process – during this hearing environmental issues can be discussed and concerns will be addressed.

Toxins released from incinerators with energy recovery, where mixed waste is burnt, pose health and environmental risks that will impact not only the present but future generations.

The waste to energy facility will accept approx. 150,000 tonnes / annum of non hazardous waste. The incineration of the waste will produce hot gases to be used for energy recovery; these gases will be treated in a five-stage gas cleaning process prior to be emitted to atmosphere.

As a result of the gas cleaning process all emissions will be below the limits specified in the Incineration Directive 2000/76/EC- for dioxins the plant will operate at approx. 90% below the limits.

The full air impact assessment from the proposed Waste to Energy facility has been submitted as Attachment H of the licence application.

Modern incinerators with sophisticated pollution control equipment will trap some of the toxic metals in the fly ash – the residue captured by the pollution control devices. Ironically, this means that the better the air pollution control, the more toxic the ash.

There will be four solid waste residues collected from the proposed waste to energy plant namely;

- Bottom ash
- Boiler ash
- Flue gas cleaning residues
- Gypsum

The bulk of the waste residue will be in the form of bottom ash, representing about 20% of the waste input or approx. 30,000 tonnes per annum. The bottom ash will mainly consist of inert material such as sand, glass, scrap metal and stones. This ash, which is classified as non-hazardous in a similar Indaver waste to energy plant can be used as a material in road construction (following processing in an Ash Recycling plant) or may be disposed of in a licensed non-hazardous waste landfill.

About 1-2% of the waste input or 1,500 to 3,000 tonnes per annum will be collected as boiler ash. The boiler ash according to the European waste catalogue may be classified as either hazardous or non-hazardous depending on the constituents. Indaver Ireland has stated in the licence application that this ash will be sampled and analysed to determine the correct classification. If the ash is classified as non-hazardous, it will be disposed of in a licensed landfill. In the case that the ash is classified as hazardous, it will be mixed with cement/ iron silicate and water; this will chemically bind the ash to produce a solid material. The ash may then be disposed at a licensed non-hazardous/ hazardous landfill as appropriate.

Flue gas cleaning residues will amount to some 2-3% of the incoming waste input or 3,500 to 5,000 tonnes per annum. The flue gas cleaning residues will require solidification prior to disposal at a licensed hazardous landfill. This stream will be solidified with cement/ iron silicate and water; this will chemically bind the ash to produce a solid and inert material. The material is non hazardous for transport but is classified hazardous for disposal.

Approximately 1,000 tonnes of gypsum will be generated in the gas cleaning process per annum. This material following further refinement can be suitable for reuse in the construction business, however in the absence of such a market this will be disposed of to a licensed non hazardous waste landfill.

The residues will be analysed on an ongoing basis to ensure their correct classification. Only those streams that will demonstrate to being non-hazardous will be sent to non-hazardous landfill. Whether the ashes are classified as non-hazardous / hazardous, only licensed facilities will be used by Indaver Ireland for the disposal of these streams.

The toxicity of the fly ash means that an expensive hazardous waste landfill site must be found for its disposal. However, all landfills eventually leak; the dioxins and heavy metals in the fly ash will eventually find their way to ground waters around the landfill and then perhaps into drinking water sources or the sea. A modern, properly regulated landfill will only delay this process, not prevent it.

Indaver Ireland have identified and informed the Agency of potential non hazardous landfills in Ireland that would be capable of accepting the non hazardous solid waste fraction produced at Carranstown.

It is an objective of the EPA National Hazardous Waste Management Plan (page 89) to develop hazardous waste landfill capacity in Ireland, however if at the time of commissioning there is no such facility, the hazardous waste will be exported for final disposal by Indaver or another party. Indaver Ireland have informed the agency of landfill sites on the continent that have stated they would accept the hazardous material from Carranstown.

The low quantities of the hazardous material to be disposed of amount to between 3,000 to 5,000 tonnes per annum, this material is suitable for disposal at facilities on the continent.

A document detailing a typical hazardous waste landfill design is attached as Appendix 2.

As stated in the previous response to Third Party submissions the ash streams are classified as non-hazardous for transport by the Laboratory of Government Chemists in the UK.

Smoke is carried to long distances by wind. When smoke particles settle down they are consumed during the process of ingestion.

The Air Dispersion modelling for the waste to energy plant has demonstrated that the max. ground level concentrations for emissions from the plant occur either within the site boundary or not far from it and will be well below all relevant ground level limits. This modelling took account of meteorological data taken over a 5 year period from Dublin airport, and used the worst case scenario for dispersion i.e. little or no winds. Therefore, the greater the wind speed, the greater the dispersion of the emissions in the atmosphere.

Flue Gas emissions from the proposed Waste to Energy facility will be well below the limits set in the incineration directive 2000/76/EC.

Friends of the Earth, UK, has compared the amount of carbon emission, major contributor to global warming, from incineration versus recycling and composting of household waste. It estimates that up to 4.5 million tonnes of carbon emission can be saved each year by recycling and composting of household waste as compared to incineration with energy recovery.

The proposed facility at Carranstown incorporates a Community Recycling Park (2,000 tonnes/annum) and a Materials Recycling Facility (20,000 tonnes/annum) both of which will assist in the landfill diversion targets set out in the Waste management Plan for the North East Region.

The waste to energy facility will have a nominal capacity of 150,000 tonnes/annum; this represents approximately 30% of the waste produced in the four counties of the northeast region. This leaves approximately 70% of the waste arising available for recycling/ recovery. This compares to Flanders - where Indaver also operate - here recycling levels of 66% are achieved - the highest levels for any region in the world.

By comparing the carbon emissions between Incineration and landfill for the remaining 30% of the residual waste arising in the North East Region, Indaver Ireland have demonstrated (Attachment H.2 of licence Application) that Incineration provides a net reduction in greenhouse gas emissions compared to that of landfill.

Truth No.1: Incineration Demands Creation Of Waste – It Encourages Waste Production.

As stated above the proposed waste to energy plant will be capable of disposing of 30% of the waste generated in the region. Therefore, the plant will place no demand on the region to create waste or encourage its production.

Truth No.2: Incineration Destroys Resources

Thermal Treatment with energy recovery is the preferred to landfill for the disposal for those materials that are not suitable for recovery or recycling according to the Waste Management Hierarchy. The incineration plant at Carranstown will produce 14MW of electricity of which 11 MW will be exported to the National Grid.

Truth No. 3: Incineration is not final disposal it requires landfills

The Incineration process reduces the volume of incoming waste by 90% and the weight by 30%. The largest fraction of the solid waste produced by the incinerator (Bottom Ash – 30,000 tonnes/ annum) can be reused as a construction material and thus diverted from Landfill.

Truth No. 4: Incineration Produces Toxic Ash and Smoke

The bulk of the waste residue will be in the form of bottom ash, representing about 20% of the waste input or approx. 30,000 tonnes per annum. The bottom ash will mainly consist of inert material such as sand, glass, scrap metal and stones. This ash, which is classified as non-hazardous in a similar Indaver waste to energy plant can be used as a material in road construction (following processing in an Ash Recycling plant) or may be disposed of in a licensed non-hazardous waste landfill.

About 1-2% of the waste input or 1,500 to 3,000 tonnes per annum will be collected as boiler ash. The boiler ash according to the European waste catalogue may be classified as either hazardous or non-hazardous depending on the constituents in its makeup. Indaver Ireland has stated in the licence application that this ash will be sampled and analysed to determine the correct classification. If the ash is classified as non-hazardous, it will be disposed of in a licensed landfill. In the case that the ash is classified as hazardous, it will be mixed with cement/ iron silicate and water; this will chemically bind the ash to produce a solid material. The ash may then be disposed at a licensed non-hazardous/ hazardous landfill as appropriate.

Flue gas cleaning residues will amount to some 2-3% of the incoming waste input or 3,500 to 5,000 tonnes per annum. The flue gas cleaning residues will require solidification prior to disposal at a licensed hazardous landfill. This stream will be solidified with cement/ iron silicate and water; this will chemically bind the ash to produce a solid and inert material

Approximately 1,000 tonnes of gypsum will be generated in the gas cleaning process per annum. This material following further refinement can be suitable for reuse in the construction business, however in the absence of such a market this will be disposed of to a licensed non hazardous waste landfill.

The incineration plant will also generate flue gas emissions. As discussed in the licence application (Attachment H1) the flue gases will well below the emission limits specified in the Incineration Directive 2000/76/EC. Air

modelling for the Flue Gases has shown that Ground Level Concentrations will also be well below all relevant guidelines.

Truth No. 5: Incineration is a very expensive technology

Modern incineration is an expensive technology, this is primarily due to the high level of automation and computer control involved in the process and advances in flue gas cleaning that ensures emissions are maintained well below limits set down by the EU. It is to be noted that approximately 50% of the capitol costs for the proposed Carranstown facility will be spent on the Flue Gas Treatment process.

Landfill is a cheap disposal option, however disposing of waste by this method is not in line with the Waste hierarchy or the EU Sixth Action Environmental Programme.

Truth No. 6: There is no such thing as Eco-Friendly Incineration

Waste Management involving Thermal Treatment is ranked higher on the Waste Management Hierarchy than landfill for the disposal of waste.

Incineration is a proven technology for the disposal of waste; in addition modern Incineration facilities operate to the highest standards thus ensuring a minimal impact on the environment.

Truth No. 7: Incineration is Energy Intensive

The proposed incineration for Carranstown will recover the energy released by the combustion of the waste, this energy will then be converted into 14MW of electricity. The Waste Management Facility will require 3MW for on site requirements, this leaves 11 MW available for export to the national grid.

The energy recovery efficiency from the proposed plant will be approximately 20%, a typical dedicated power station would operate to an efficiency of approximately 50%. Energy production from the facility is a valuable by-product, however the principle activity is the disposal of waste.

Truth No. 8: Incineration will Destroy Livelihood of Thousands of People

Incineration will create employment both directly and indirectly through the provision of services at the facility.

Section 3 of the E.I.S. describes the existing human environment in terms of land use, population and employment and assesses the likely impacts on the human environment arising from the proposed development.

The proposed incinerator will have a capacity for only 30% of the waste generated in the North East region; this leaves 70% for recovery/ recycling.

Truth No. 9: Energy From Incineration is non renewable

In the absence of incineration the waste will be disposed of to landfill – which is at the bottom of the waste management hierarchy. The recovery of energy from a landfill arises from the decay of organic materials and the subsequent production of methane, however the non-organic fractions (plastics etc) of the waste will not produce this gas and therefore their use as an energy resource is lost.

By employing incineration to treat the waste prior to landfill, all wastes that have the potential to produce energy can be harnessed. It is to be noted that energy produced from the biomass fraction of MSW can be considered as a renewable source, typically the biomass fraction can make account for approximately 35% of the overall volume.

Truth No.10: Incineration does not completely burn all the waste

The incineration Directive 2000/76/EC states in Article 6

1. Incineration plants shall be operated in order to achieve a level of incineration such that the slag and bottom ashes Total Organic Carbon (TOC) content is less than 3% or their loss on ignition is less than 5% of the dry weight of the material.

The proposed incinerator at Carranstown will be operated to ensure that the above limits for “burn-out” are not exceeded.

Submission 29: Mamie Bowen, Monkstown, Cork – 20th October 2002

In October 2002 the chicken eggs in towns communities near the Indaver waste incinerator, exceeded the Belgian Standards for eggs (standard = 5 pg TEQ/g fat). The Belgian Federal Agency for the Safety of the Food Chain found dioxin value levels at 11pg TEQ/g fat. In other words the acceptable level for dioxins in chicken eggs exceeded more than twice. These two communities (Stabroek and Brendrecht) are situated less than 2 miles from the Indaver waste incinerator.

The Belgian Federal Food Agency have carried out extensive testing on the free range eggs in the municipalities of Stabroek and Brendrecht. As part of the testing a comparison of the dioxin profiles between the Indaver emissions and those found in the eggs was undertaken. The authorities have concluded that

“The profiles for Indaver are not the same as the profiles for the eggs. Our Conclusion was and therefore is that there is no direct relationship between the dioxin emission from Indaver and the dioxins present in the eggs.”

A press release from the Belgian Federal Food Agency following the increased dioxin emission values from the Indaver Static Kiln in Antwerp is attached as Appendix 3. This confirms that dioxin analysis carried out on milk demonstrated that levels were well below the standard limit, similarly very low levels were detected on vegetables and leaves.

A copy of a press release from the nearby Dutch municipality of Woensdrecht and the Province of Noord- Brabant advising people of the situation regarding the eggs is attached as Appendix 4.

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Appendix 1

Indaver Ireland's Press Release

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PUBLIC INFORMATION
September 2002

INDAVER SWITCHES OFF STATIC KILN

Indaver recently switched off a static kiln which is used to dispose of highly chlorinated hydrocarbons and PCB waste on an industrial site in Antwerp, Belgium.

Routine in-house monitoring of emissions gave an indication that the kiln may not have been operating properly. The relevant authorities were notified of this immediately, further sampling for dioxins was carried out to verify preliminary results and, as a precautionary measure, the kiln was switched off.

Results of further testing confirmed that the kiln was operating outside its emission licence limits. The probable cause of the incident was the installation of a new burner in the facility.

Whilst regretting the incident, we wish to confirm it did not pose a threat to public health and there was no measurable effect on the environment. This has been confirmed by the Belgian Authorities who carried out testing and analysis in the local environment and found no increased levels of dioxins.

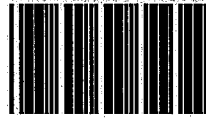
Indaver has been operating incinerators on this site in Antwerp since 1987 and these latest results verify that dioxin levels in the environs of the Indaver facility in Antwerp are among the lowest in Flanders.

This 5,000 tonnes per annum static kiln is a specialised facility for the treatment of highly chlorinated hydrocarbons and PCB waste. The waste management facilities proposed for Carranstown, County Meath and Ringaskiddy, County Cork will use different technologies and will treat different types of waste.

Appendix 2

Typical Hazardous Waste Landfill Design

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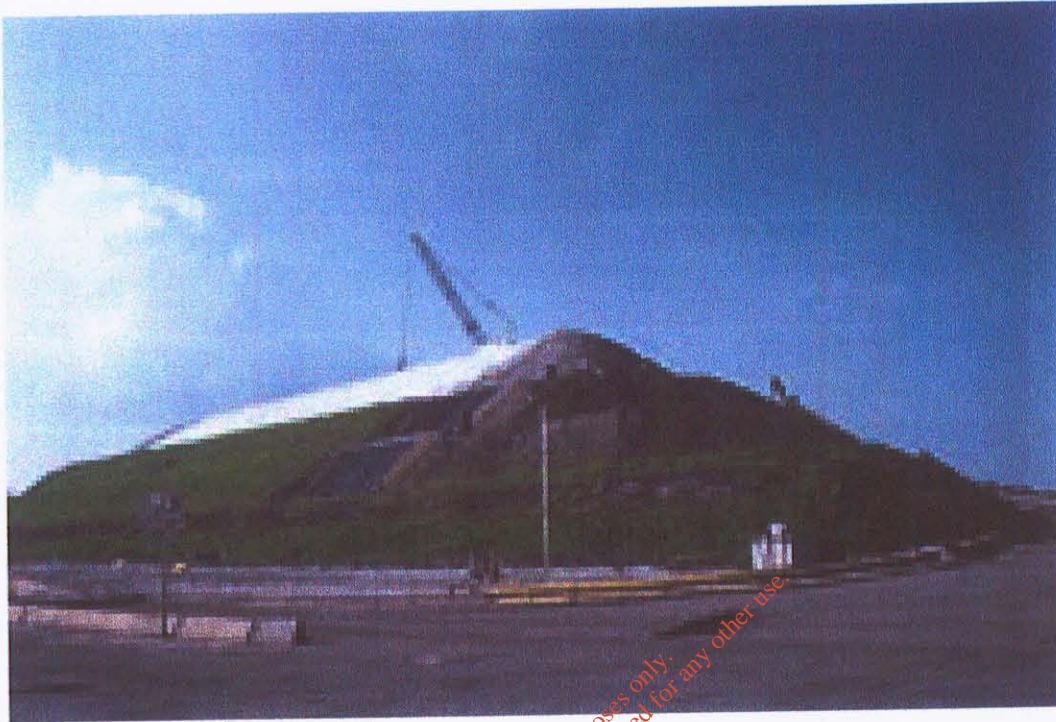
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Hazardous Waste Landfill (Class 1) – Indaver, Antwerp

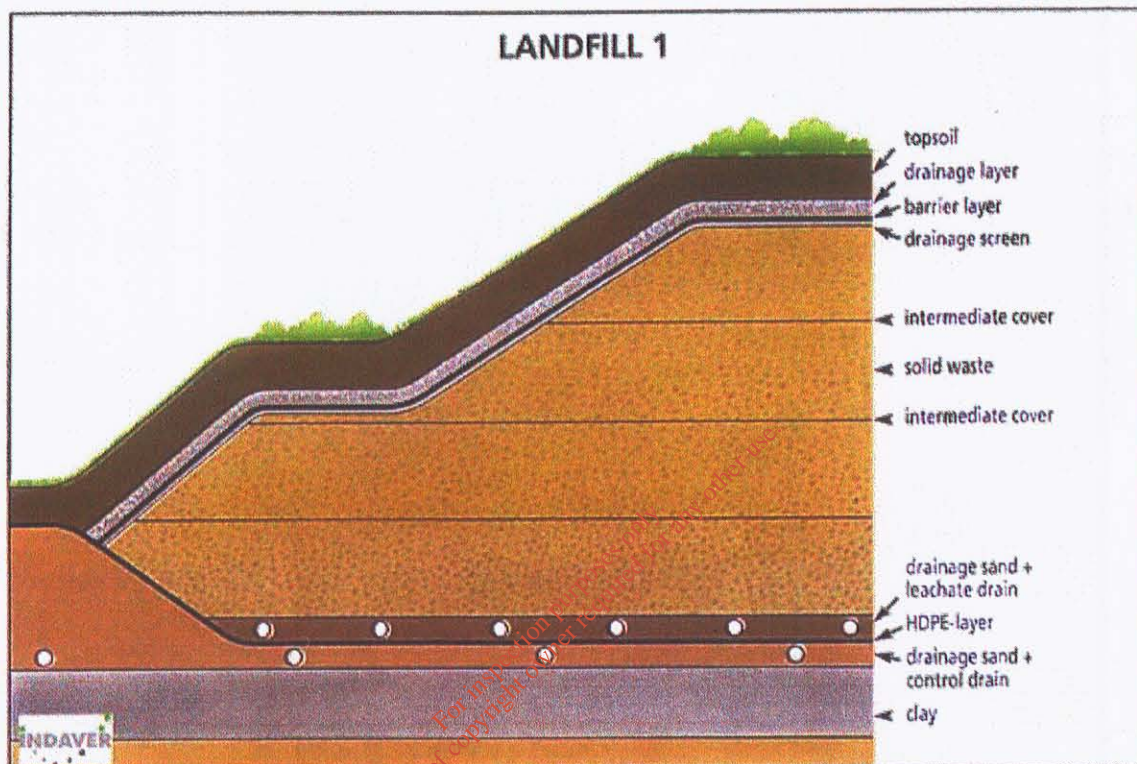


Indaver operate a hazardous waste landfill on the site of their Hazardous Waste Incinerator facility at Antwerp. The landfill accepts the following waste types:

- Hazardous Residues from Incineration and other waste treatments
- Industrial Hazardous Waste
- Asbestos Waste
- Non- Hazardous Industrial Waste
- Construction & Demolition waste (including asbestos concrete)

The incoming waste to the landfill must be solid. Indaver through their environmental management system regularly check the solid content of the waste in the on site laboratory to ensure the material meets compliance. The test method used for this is termed “Pressure Variance” analysis; this uses a sensitive probe to “prod” the material thus giving a resistance that can be correlated into a solids content. In addition, the waste must be mainly inorganic and must comply with leaching standards.

Any materials that do not meet the leachate or solids standards undergo a physico-chemical treatment prior to entering the landfill. This treatment involves mixing the waste with concrete. The concrete chemically binds any salts or metals contained in the waste as well as physically containing these materials. An example of this type of waste would include Flue Gas Cleaning residue from an incineration plant.



The landfill is designed and constructed to prevent contamination of the soil and groundwater beneath the site. The base layer of the site is made of a impermeable clay that would prevent any liquids from entering the ground below, this layer has a depth of 3-4 meters.

Above the base clay layer is a Control Layer – this principally consists of sand to allow for drainage into a liquid collection system. The control layer and collection system should remain free of liquids at all times, for this reason an electronic leak detection system is installed in this layer which provides an alarm in the event that liquid is detected, the control layer has a depth of approx. 2 meters.

Above the control layer, is a film of High Density Polyethylene. This impermeable layer of plastic is designed to prevent any liquids from entering the control layer beneath and to contain the liquids in the leachate collection layer above.

The leachate collection layer is similar in construction to the control layer, however the key difference here is that any liquids coming from the waste above are collected here and pumped for treatment elsewhere on site. The leachate collection layer consists of a network of HDPE piping encased in sand – this provides easy drainage for the liquid arising.

Waste is placed above the leachate collection layers. As discussed above the pre-treatment of any wastes that have low solid content or demonstrate high leachability is carried out to reduce the volume and concentration of leachate produced.

Each cell of the landfill is covered as the cell reaches capacity, an intermediate or cover layer is placed over the waste. The intermediate layers consist of a permeable soil or similar topping that prevents the waste from exposure to the weather. As the cells reach capacity at one level the next cells will be formed above on a new level. This may lead in turn to the formation of up to three intermediate layers.

Once the landfill site has reached capacity, the final top layers are then complete. Above the waste a drainage screen is established, this area is used to monitor the efficiency of the capping layers above and ensures that no rainwater enters the cell. The drainage screen is beneath a barrier layer that is typically HDPE; this prevents rainwater from entering the cell.

Above the barrier layer drainage is required to divert rainwater away from the cell, the top drainage layer consists of a mixture of sand / gravel and must be suitable for establishing a topsoil layer above.

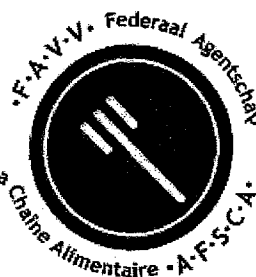
The final or top layer of the landfill consists of a deep layer (3-4 meters) of topsoil that is capable of supporting vegetation.

Indaver assigns a portion of its annual budget to guarantee the long-term maintenance of the landfill site.

Appendix 3

**Press Release from the Belgian Federal Agency for Food
Safety**

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PRESS RELEASE

30 August 2002

Favourable analysis results for samples near Indaver site

Last Thursday, 22 August, The Federal Agency for the Safety of the Food Chain took samples of milk and vegetables in consequence of the increased dioxin emission values recently registered for the Indaver incinerator. In view of the prevailing wind direction at the moment of the increased emission limit values, the sampling took place in companies and on farmland located within a radius of between 1.5 and 3 kilometres north-east of the incinerator.

Today, the results of the analysis were announced.

As for **milk**: samples were taken of the milk produced by two companies (tanker milk). Analysis of the milk samples showed the following results: 1.5 pgTEQ/g of fat and 1.8 pgTEQ/g of fat (pg = picogram). These dioxin concentrations are lower than the legal standard of 3 pgTEQ/g of fat for milk and do not deviate from values registered under normal circumstances.

As for **vegetables**, there is no existing standard value. Analyses of vegetable samples showed the following results:

- Beans: less than 0.15 ng/kg = negative (so favourable)
- Carrots: less than 0.15 ng/kg = negative
- Carrot tops (leaves): 0.22 ng/kg
- Leaves of onions: 0.16 ng/kg (ng = nanogramme)

In the leaves (aboveground and consequently exposed to the air and susceptible to dioxin-contaminated dust), very low dioxin concentrations were detected (somewhat higher than the detection limit). Dioxins are fat soluble, they will not be absorbed by the plant but will attach themselves to dust particles on vegetables. Like the Agency advised earlier, the consumption of vegetables does not require any other precautionary measures than washing all vegetables before eating or preparing them –which is always a sensible precaution -.

This measurement programme was carried out in co-operation with other concerned authorities. On the initiative of the Agency, a coordination meeting was organised with the representatives of regional, provincial and local authorities this afternoon. During this meeting, all the parties concerned agreed to exchange relevant information and the Agency decided to set up an intensive, specific milk monitoring programme in the vicinity of the Indaver site during the following months.



Appendix 4

Press Release from the Dutch municipality of Woensdrecht and the Province of Noord- Brabant

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Hoogerheide, 20 January 2003

RESULTS OF IN-DEPTH STUDIES CONDUCTED BY NATIONAL INSTITUTE OF PUBLIC HEALTH AND THE ENVIRONMENT (RIVM) REVEALED

Hoogerheide – In the beginning of October 2002, the city of Antwerp informed its inhabitants of increased dioxin concentrations found in free-range eggs in the municipalities of Stabroek and Berendrecht. As long as the cause of the increased dioxin concentrations is unknown, the municipality of Woensdrecht does not consider it unlikely that the increased concentrations also pose a risk to the public health in their region. Consequently, the Woensdrecht municipal council decided to take the necessary precautions and report the news to its inhabitants.

The municipal council of Woensdrecht immediately entered into consultation with the province of Noord-Brabant and the Inspectorate of the Netherlands Ministry of Housing, Spatial Planning and the Environment (VROM) to set up an intensive monitoring programme to check the dioxin concentrations in free-range eggs.

Initially, the increased dioxin concentrations were attributed to the Antwerp waste management company Indaver, which exhausted dioxins exceeding the imposed emission limit values due to technical problems in the period between 5 July and 14 August 2002. According to the Belgian authorities, results from later studies showed that the increased concentration of dioxins found in the eggs was not due to emissions from the Indaver installations but attributable to other (still unknown) causes. As this issue is of major importance for public health and the message raises concerns and questions about the full facts of the subject and its possible consequences, the Inspectorate for Housing, Spatial Planning and the Environment (VROM) ordered the National Institute of Public Health and the Environment (RIVM) to carry out further studies.

The results of the enquiry have now been revealed.

The National Institute of Public Health and the Environment has informed the municipal council through the Inspectorate for Housing, Spatial Planning and the Environment (VROM) that it found no risk for the public health. The Institute based these findings on former reports and the available knowledge. As soon as the complete final report will be available, it will be open to general insight at the town hall of Woensdrecht.

For the sake of completeness, the Inspectorate for Housing, Spatial Planning and the Environment (VROM) adds that possible increased dioxin concentrations in eggs from free-range chickens is more a consequence of structurally increased background concentrations of air pollutants than of the previously mentioned accidental emission. Increased dioxin concentrations are discovered in free-range eggs all over the Netherlands. The National Institute of Public Health and the Environment (RIVM) and the National Institute of Food Safety (RIKILT) in Wageningen are currently conducting research into this matter.

Note for the editors (not for publication):

This is a joint press release published by both the municipality of Woensdrecht and the province of Noord- Brabant.

For more information, please contact the information bureau by phone at (0164)-611138/611109 or the Inspectorate for Housing, Spatial Planning and the Environment in Eindhoven at 040-2652911.