Arup Consulting Engineers

APPENDIX 5

A5.1 A COPY OF THE TEXT OF THE NOTIFICATION, REQUIRED UNDER SECTION 11 OF SI 476 OF 2000, EUROPEAN COMMUNITIES (CONTROL OF MAJOR ACCIDENTS HAZARDS INVOLVING DANGEROUS SUBSTANCES) REGULATIONS 2000, FROM INDAVER IRELAND TO THE HSA.

INDAVER IRELAND

Process Industries Unit.
Health and Safety Authority,
10 Hogan Place,
DUBLIN 2

Date: 4th January 02

For the attention of Mr. John Colreavy

Re: Notification to the Central Competent Authority under Regulation 11 of the European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, SI 476 of 2000.

Dear Sirs,

This Notification is submitted to the Health and Safety Authority in accordance with the requirements of the European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, SI 476 of 2000, which implements Council Directive 96/82/EC. We confirm that the Indaver site at Ringaskiddy, for which a Planning Application has been lodged in November 2001, will be an establishment to which the above Regulations apply. The information is set out in sections (a) to (i) below as required by Regulation 11(2) and the Third Schedule to the Regulations.

(a) Name and Address of Operator

Office: Indaver Ireland
4 Haddington Terrace
DunLaoghaire
Co. Dublin

Proposed Site Address: Ringaskiddy
Co. Cork
Folio No.: 22979

(b) Registered Place of Business of the Operator

Indaver Ireland is a branch of Indaver NV.

Registered Office in Ireland No. E4443
Registered Office in Belgium No. 254912

Registered Office in Belgium: Poldervlietweg B-2030
Antwerpen 3
Belgium

(c) Name/Position of Person in Charge of Activity

Laura Burke
Project Manager
Indaver Ireland

(d) & (e) Dangerous Substances at Establishment

Named Substances

There are a number of materials included on the list in Part 1 of the First Schedule of the Regulations (i.e. the list of Named Substances) which may be handled by Indaver at the site in Ringaskiddy. Table 1 contains details of the Named Substances that may be stored or handled at the establishment.

The column entitled "Quantity" shows the maximum quantity of each named substance which is expected to be present at the establishment at any one time. The Qualifying Quantity in Table 1 is the threshold quantity, specified in Part 1 of the First Schedule, above which the requirements of Article 9 of the Directive apply. All quantities are expressed in tonnes.

The data is based on MinChem's operations involving exports of wastes from Ireland during 2000 and Indaver's experience in operating hazardous and municipal waste incineration plants in Belgium. This data is considered current and representative of the typical waste streams which would be accepted at the Ringaskiddy facility and is scaled up to reflect a larger storage capacity.

Indaver owns 60% of MinChem Environmental Services Limited. MinChem is a hazardous waste management company with offices in Dun Laoghaire, Dublin Port and Cork. MinChem has been operating in Ireland since 1977 and currently employs thirtyfive people. MinChem operates an EPA licensed hazardous waste transfer station at Dublin Port, similar to the one proposed for Ringaskiddy, and exports hazardous waste from Ireland to Britain and other European countries for recovery, disposal or treatment.

Table 1: Maximum Quantities of Dangerous Substances in the List of Named Substances in Part 1 of the First Schedule of the Regulations

Substance	Physical Form	Hazard Symbols	Risk Phrases	Quantity (q) (tonnes)	Qualifying Quantity (Q) (tonnes)		Quotient (q/Q)	
					Article 6, 7	Article 9	Article 6, 7	Article 9
Arsenic Trioxide	Liquid	T+, N	R45, R28, R34, R50/53	5.0×10^{-5}	0.1	0.1	0.0005	0.0005
Bromine	Liquid	T+, C, N	R26, R35, R50	Trace	20	100	–	–
Formaldehyde	Liquid	T	R23/24/25, R34, R40, R43	0.02	5	50	0.004	0.0004
Lead Alkyls	Liquid	T+, N	R61, R26/27/28, R33, R50/53, R62	Trace	5	50	–	–
Methanol	Liquid	F, T	R11, R23/24/25, R39/23/24/25	1,614	500	5,000	3.228	0.3228
Propylene Oxide	Liquid	F+, T	R12, 20/21/22, R36/37/38, R45	Trace	5	50	–	–
Dioxins	Solid (Ash)	Toxic		4.65×10^{-7}	0.001	0.001	0.000465	0.000465

Notes:

Arsenic Trioxide: Present as a component in one shipment of Lab Smalls at MinChem's Transfer Station during 2000.

Bromine: There were 6 shipments in total of Lab Smalls at the MinChem Transfer Station which contained Bromine as a component.

Formaldehyde: There were many shipments containing Formaldehyde in the data for 2000. However, the concentration must be 90% or more to qualify as a Named Substance. In most cases, the concentrations are not given, but Formaldehyde is generally present with a number of other components and so it is unlikely that the concentration would be 90% in any of them. There were three shipments of pure formaldehyde, but the quantities involved were not significant (10 – 20 kg each).

Lead Alkyls: Present as a minor component (0.08%) of one shipment of 0.02 tonnes. No significant contribution to the status of the site.

Methanol: Present in a large number of shipments in both bulk tankers and in smaller containers.

Propylene Oxide: Present as a component in two shipments of Lab Smalls (0.06 tonnes and 0.05 tonnes). No significant contribution to the status of the site.

Dioxins: Present in minute quantities in incoming waste and waste ash/residues at the site, as follows:

1,500 tonnes Bottom Ash	(5 pgTEQ/g)	=	7,500 µg
100 tonnes Boiler Ash	(216 pgTEQ/g)	=	21,600 µg
200 tonnes FGC Residue	(653 pgTEQ/g)	=	130,600 µg
300 tonnes Electrofilter/Cyclone Ash	(216 pgTEQ/g)	=	64,800 µg
4,800 tonnes Waste	(50 pgTEQ/g))	=	240,000 µg
TOTAL		=	464,500 µg

The table shows that the value of q/Q for each Named Substance is well below 1.0. This means that none of the Named Substances in the Regulations are present at the establishment in a quantity equal to or approaching the Qualifying Quantities above which the Regulations would apply.

Other Dangerous Substances

In addition to the Named Substances, there will be many substances stored/ handled at the establishment which are covered by the Regulations. This is because they fall within one or more of 13 Risk Categories listed in Part 2 of the First Schedule of the Regulations (Annex 1 to Council Directive 96/82/EC).

Note that these Dangerous Substances will be present on site mainly as liquids, although there will also be some solid wastes. A listing of all the waste shipments to the site will be maintained and will be available for inspection on request.

Based on the quantities of Dangerous Substances set out in Table 2, the Indaver site, once operational, will be one to which the Regulations in SI 476 of 2000 are applicable, although the inventory levels will not be high enough for Regulations 12 to 19 to apply.

Table 2: Quantities of Dangerous Substances in Categories of Dangerous Substances (excluding Named Substances) listed in Part 2 of the First Schedule of the Regulations

Categories of Dangerous Substances		Quantity at Establishment (q) (tonnes)	Qualifying Quantity (Q) (tonnes)		Quotient (q/Q)	
			Article 6,7	Article 9	Article 6,7	Article 9
1	Very Toxic	2	5	20	0.4	0.1
2	Toxic	83.5	50	200	1.67	0.418
3	Oxidising	2.2	50	200	0.044	0.011
4	Explosive	0	50	200	0	0
5	Explosive	0	10	50	0	0
6	Flammable	0*	5,000	50,000	0	0
7a	Highly Flammable	0	50	200	0	0
7b	Highly Flammable	720*	5,000	50,000	0.144	0.0144
8	Extremely Flammable	1	10	50	0.1	0.02
9i	Dangerous for the Environment	19.5*	200	500	0.098	0.039
9ii	Dangerous for the Environment	0*	500	2,000	0	0
10i	Other Classifications	0*	100	500	0	0
10ii	Other Classifications	0*	50	200	0	0

Notes:

- There will be a wide variety of Flammable & Highly Flammable solvents stored on site. As a conservative approach, the total maximum inventory has been determined and grouped together as being Highly Flammable. By far, the majority of solvent handled on site will be Methanol, a Named Substance, and so the contribution from this substance is not included in this table.
- There will be a number of drums on site containing material classed as Dangerous for the Aquatic Environment. As a conservative approach, the total maximum inventory has been determined and grouped together as being R50, Very Toxic to the Aquatic Environment for the purposes of the Σq/Q calculation.
- Water reactive materials will not be taken on site as part of the main waste bulk shipments. There may be some waste drums from time to time which contain wastes with the R14 or R29 Risk Phrases, but the quantities will be very small. These materials do not contribute to the Σq/Q calculation under the Addition Rule (see below).

Each of the Named Substances also falls into one or more of the 13 generic Categories of Dangerous Substances. By adding in the q/Q quotients for the Named Substances (as shown in Table 1) to the quotients for the "generic" substances in Table 2, the total quantity and the q/Q quotient under each of the Dangerous Substances Categories were estimated for the site and are shown in Table 3.

Table 3: Combined Inventories of all Dangerous Substances in Part 1 and Part 2 of the First Schedule

Categories of Dangerous Substances		Quantity at Establishment (q) (tonnes)	Qualifying Quantity (Q) (tonnes)	Quotient q/Q for Article 6,7	Quotient q/Q for Article 9
1	Very Toxic	2		0.401	0.101
2	Toxic	1,698		4.902	0.741
3	Oxidising	2.2		0.044	0.011
4	Explosive	0		0	0
5	Explosive	0		0	0
6	Flammable	0		0	0
7a	Highly Flammable	0	Note 1	0	0
7b	Highly Flammable	2,334		3.372	0.337
8	Extremely Flammable	1.0		0.100	0.020
9i	Dangerous for the Environment	19.6		0.098	0.039
9ii	Dangerous for the Environment	0		0	0
10i	Other Classifications	0		0	0
10ii	Other Classifications	0		0	0

Note 1: Each Named Substance has its own unique Qualifying Quantity, there is thus no Qualifying Quantity for a combination of Named Substances and other substances having the same Category of Dangerous Substance.

Addition Rule

The Regulations require that two addition rules be applied to combine several Categories of Dangerous Substances in order to determine whether Regulations 12 to 19 apply to the site. One addition rule relates to the toxic properties of substances (whether toxic to man or to the environment) while the second rule relates to the risks of fires or explosions. The categories to be combined together with the numerical outcome of the addition exercise are as follows:

Table 4: Summary of Quotient Calculation under Articles 6 & 7

Qualification as a Lower Tier Site		Quotient q/Q for Article 6,7
$\Sigma q/Q_{TOXICS}$	(combining categories 1, 2, 9i & 9ii)	5.333
$\Sigma q/Q_{FLAMMABLES}$	(combining categories 3, 4, 5, 6, 7a, 7b & 8)	3.516

Table 5: Summary of Quotient Calculation under Article 9

Qualification as an Upper Tier Site		Quotient q/Q for Article 9
$\Sigma q/Q_{TOXICS}$	(combining categories 1, 2, 9i & 9ii)	0.854
$\Sigma q/Q_{FLAMMABLES}$	(combining categories 3, 4, 5, 6, 7a, 7b & 8)	0.368

The sum of the quotients for substances in the toxic categories (Very Toxic, Toxic and Dangerous for the Environment) is greater than 1.0, using the Qualifying Quantities for Articles 6 and 7, and so the site qualifies as a Lower Tier site under the Regulations.

The sum of the quotients for substances in the flammable categories (Oxidising, Explosive, Flammable, Highly Flammable and Extremely Flammable) is greater than 1.0, using the Qualifying Quantities for Articles 6 and 7, and so the site qualifies as a Lower Tier site under the Regulations.

The site does not qualify as a Top Tier site for either for Toxics or Flammables.

(f) Description of Activity

Indaver Ireland has applied to Cork Co. Council for permission to construct a waste management facility at Ringaskiddy. The facility will comprise a Waste Transfer Station, Community Recycling Park and a Waste to Energy Plant capable of treating hazardous and non-hazardous waste.

The waste types and quantities included in sections (d) and (e) of this notification were derived from MinChem's operations involving exports of wastes from Ireland during 2000. Indaver owns 60% of MinChem Environmental Services Ltd., a hazardous waste export company. This data is considered to be representative of the typical waste streams which would be accepted at the Ringaskiddy facility and is scaled up to reflect the larger storage capacity

Waste Transfer Station

This facility will be utilised for the sorting, and repacking if necessary, of industrial hazardous and non-hazardous waste. There will be a warehouse on site, and waste will be stored in segregated, bunded areas in the warehouse. Four solvent storage tanks will be utilised for the bulking up of certain drummed waste solvents and these tanks will be contained within a bunded area on site. There will also be offices for administrative staff and a packaged sewerage treatment plant will be provided for treatment of sanitary effluent.

The following facilities will be provided:

- warehouse with storage capacity of 1,800 drums
- unloading area
- repacking area
- pumping of drummed solvents into storage tanks
- drum washing area
- water storage tanks
- solvent storage tanks with total capacity of $100m^3$
- container parking area

All waste entering the transfer station will be checked, categorised and recorded after acceptance, in a computerised tracking system. All the drums will be segregated in accordance with their danger class (flammable, corrosive etc.) and stored in separate areas of the warehouse. Non-compliant material will be repacked prior to storage.

Liquid drummed material that is suitable for treatment onsite will be analysed and transferred into storage tanks. The drums or containers will then be cleaned. These will either be returned to the customer for re-use or sent for recycling. The material that has been bulked up in storage tanks will be transported to the waste to energy facility by road tanker. Solids may be repacked prior to going for incineration onsite. Material for recovery will be repacked where necessary and exported to licensed facilities. Material that is not suitable for recovery, or for incineration on site, will be prepared in lots for shipment to the appropriate disposal facilities abroad.

The bulk storage tanks will incorporate a number of safety systems to minimise the risk of an accident occurring and also, to confine any damage to the immediate area should an accident happen, including:

- weak seal on the roof
- all tanks will have a Nitrogen 'blanket'. Nitrogen is an inert gas, which is used to fill the headspace of the tank thereby ensuring that flammable or explosive vapours will be suppressed
- tanks will be earthed and there will be an interlock on the tank mixers to avoid the build up of static electricity if the tank is empty
- in the event of a fire occurring, the tanks will have foam injection
- water curtain on the outside of the tank
- the tanks will have high and low level alarms as well as overfill protection
- the tanks will be located within a containment bund, which will collect the tank contents in the event of a spillage.

Community Recycling Park

Indaver will include a community recycling park in the proposed waste management facility at Ringaskiddy, in accordance with the Government's policy of promoting the recycling of household waste. The park will accept a wide range of recyclable materials including:

- cardboard
- newspapers and magazines
- glass
- aluminium drink cans
- textiles (such as clothes and blankets)
- footwear
- batteries
- waste oils
- fluorescent tubes.

The park will be supervised during opening hours and information and advice on household waste management will be available to the public. There will be no Seveso materials stored on this part of the site.

Waste to Energy Plant

There will be two phases to the waste to energy facility. The first phase will comprise a fluidised bed furnace, a post combustion chamber or afterburner, and flue gas cleaning systems. The fluidised bed furnace and post combustion chamber will be used for the thermal treatment of solid and liquid, hazardous and non-hazardous, industrial waste. The second phase will be a moving grate furnace with flue gas cleaning systems. Phase 2 will treat non-hazardous industrial and municipal waste. It should be noted that the current planning application applies to phase 1 of the waste to energy plant, waste transfer station and the community recycle park.

The design of the proposed facility has been optimised to include the most up to date emissions control and flue gas cleaning technology, which will be the same for both phases. The waste-to-energy process (or incineration with energy recovery) will consist of a number of process elements:

- waste intake, acceptance and storage
- combustion process
- energy recovery process
- flue gas cleaning including dioxin and furan removal.

Waste Intake

Indaver Ireland will implement procedures, similar to those which are currently in operation at other Indaver facilities, to regulate the acceptance, testing, approval and if necessary, the rejection of incoming wastes.

Waste is received in different ways at the waste to energy plant, depending on the nature of the waste stream.

Trucks carrying solid waste will unload in an enclosed reception hall, discharging the waste to a bunker. The bunker will be compartmentalised, with separate compartments for different types of waste.

The waste will be transferred by crane from the bunker via a hopper to the fluidised bed furnace. It may be necessary to shred some of the larger pieces of waste prior to feeding to the furnace.

Liquid hazardous wastes will be unloaded from road tankers and pumped to storage tanks. There will be eight storage tanks with a total capacity of approximately 2,000 m^3. The maximum tank size will be 400m^3. Different categories of liquids will be stored in separate tanks. The liquids will be pumped from the storage tanks to the post combustion chamber. Some liquid wastes will be pumped directly from a road tanker to the post combustion chamber.

Combustion Process

Phase 1 will use a fluidised bed furnace to burn hazardous and non-hazardous waste. In the fluidised bed furnace, solid or sludge-like waste will be introduced onto a bed of sand, which will be agitated or 'fluidised' by an upward movement of air through a porous plate below it.

The operating temperature of the fluidised bed will be a minimum of 850°C. A post combustion chamber, which will operate at a temperature up to 1,100°C, will be used after the fluidised bed. All liquid wastes will be directed to the post combustion chamber.

The capacity of the furnace will be equivalent to a throughput of approximately 60,000 tonnes per annum of hazardous and non-hazardous waste. Solid waste and high moisture content wastes such as sludge will be handled in the furnace. The post combustion chamber capacity will be equivalent to a throughput of approximately 40,000 tonnes per annum of hazardous liquid wastes.

Energy Recovery

The hot flue gases from the post combustion chamber or moving grate furnace will be directed through a steam boiler to generate steam. There will be a boiler on each line. The steam from the two boilers will drive a turbine, which will drive an electricity generator. Approximately 10MW of electricity will be generated in phase 1, of which approximately 8MW will be exported to the national grid.

Gas Cleaning

The flue gases from the boiler will be cooled down in the evaporating spray towers prior to treatment in the flue gas cleaning system. All water produced in the various processes will be used in the spray towers. Consequently there will be no process effluent emissions from the waste to energy plant.

Activated carbon and lime mixture will be injected into the flue gases leaving the spray towers. Dioxins and furans will be adsorbed onto the activated carbon particles. The flue gases will then pass through a baghouse filter, which will remove dust, salts and the carbon particles from the gases. The gases will be cooled and will pass through a wet scrubber

system to remove sulphur dioxide, hydrogen chloride, hydrogen fluoride and heavy metal residues. There will then be a final flue gas cleaning step, which will be either activated carbon and lime mixture injection and a second baghouse filter or lignite coke bed. The final step will reduce further the concentrations of dioxins and furans in the flue gases. The exhaust gases will be reheated and discharged through the 55m stack.

The stack emissions will be monitored as required by EU Directive 2000/76/EC and in compliance with the waste licence from the EPA. A waste licence application will be submitted to the EPA in mid 2002.

Ash and Solid Residues

There will be five solid residues from the waste to energy plant. The approximate annual ash tonnages given below are for both phases in operation:

- bottom ash, 23,000 (dry weight)
- cyclone/electrofilter, 5,000
- boiler ash, 3,200
- flue gas cleaning residues, 6,900
- gypsum, 2,600.

The bottom ash will be a non-hazardous material and may be suitable for use in road construction. Subject to testing, the cyclone/electrofilter ash and boiler ash will be non-hazardous and will be disposed of to landfill. The flue gas cleaning residues will be classified as a hazardous waste and it is expected that they will be exported for disposal to a hazardous waste landfill. The gypsum will be non-hazardous and may be suitable for use in the construction industry or else can be sent to non-hazardous landfill.

(g) Description of the Immediate Environment of the Establishment (Elements Liable to Cause a Major Accident or to Aggravate the Consequences Thereof)

Site Location and Population in Environs

The location for the site is at the eastern end of the Ringaskiddy peninsula, on the western shores of the lower part of Cork Harbour. The site is covered in rough grass, gorse and scrub, with grazing to the south and a warehouse and more scrub grazing to the north.

The landscape is mixed use. There are some major man-made elements in the area, such as some very large industrial plants at Ringaskiddy, Haulbowline Island and Aghada/Whitegate. Hammond Lane operate a metal reclamation facility (employing 12 people) which is located between the sites for the waste to energy plant and the community recycling park and so it shares some common borders with the site. There are no activities at Hammond Lane which could cause or escalate a major accident at Indaver.

The distances to the nearest occupied dwellings are shown in Table 6.

Table 6: Distances to nearest occupied buildings off-site

Location of Accident on Site	*Distance to nearest occupied house (m)*	*Distance to nearest group of houses (> 25 houses) (m)*
Main Tank Farm	490	659
Bulk-Up Tank Farm	247	431
HCl unloading area	584	752
NH_3 unloading area	460	637
Drum Store	232	419

Elements in the Immediate Environment Liable to Cause a Major Accident or to Aggravate the Consequences Thereof

There are no known activities conducted in the environs of the site that are liable to cause or escalate a major accident at Indaver.

Risk from other Establishments in Vicinity involving Dangerous Substances

The nearest "Upper Tier Seveso Site" to the proposed Indaver site is the pharmaceutical synthesis plant of Glaxo Smith Kline, which is located ~ 2.5 km south from the Indaver site. There are three other "Lower Tier Seveso Sites" in the area viz. Novartis in Ringaskiddy (2 km West-Southwest of Indaver site), Pfizer Ireland Pharmaceuticals at Loughbeg (~ 1km due South) and Pfizer Drug Substances Plant (Pfizer OSP4 ~2 km West- Northwest) also at Ringaskiddy. There are no known establishments in proximity to the Indaver site where the likelihood and possibility or consequences of a major accident may be increased because of its location and inventory of dangerous substances.

(h) Map of Establishment and Immediate Surroundings

A map showing the Indaver site and its environs (ref CO5/APP/92/101), in 1:2,500 scale, is attached to this Notification. We also include a cheque for €380.92 in respect of the charge for submission of a Notification.

Signed on behalf of Indaver Ireland,

Laura Burke
Project Manager
Indaver Ireland

A5.2 A COPY OF THE LETTER FROM THE HSA TO CORK COUNTY COUNCIL WITH REFERENCE TO THE PLANNING APPICATION FOR THE FACILITY

HEALTH AND SAFETY AUTHORITY

3rd Floor, 1A South Mall, Cork.
Telephone: 021-425 1212 Fax: 021-425 1217 Website: http://www.hsa.ie/osh

Mr. B. O'Neill,
Planning Department,
Cork County Council,
County Hall,
Cork.

Our Reference: 02-09-PLA

March 7, 2002

Re: Planning Application [ref. S/01/6215] for development by Indaver Ireland at Ringaskiddy, & your letter of 6th December 2001.

Dear Mr. O'Neill,

The Authority, acting as the Central Competent Authority under the EC (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2000 (SI 476 of 2000), gives technical advice to the planning authority when requested, under regulation 29(1) in relation to

(a) the siting of new establishments,
(b) modifications to an existing establishment to which Article 10 of the Directive applies, or
(c) proposed development in the vicinity of an existing establishment

The advice given is for the purposes of assessing new development only, where a precautionary approach is taken.

The Authority directs your attention to Article 12 of the EU Directive 96/82/EC of 9 December 1996:

'Member States shall ensure that their land-use and/ or other relevant policies and the procedures for implementing those policies take account of the need, in the long term, to maintain appropriate distances between establishments covered by this Directive and residential areas, areas of public use and areas of particular natural sensitivity or interest, and, in the case of existing establishments, of the need for additional technical measures in accordance with Article 5 so as not to increase the risks to people.'

and the Major Accident Hazard Bureau/ Joint Research Centre of the European Commission guidance[1] in this area:

It is recognized that consideration of major-accidents is only one input to the process of land-use planning controls and policies....many other considerations can be relevant, and that these may already be elaborated in various national policies and implemented in national, regional or local structure and development plans.

In giving its advice, the Authority considers only the effects of on-site credible major accident scenarios and does not deal with routine emissions. It is the understanding of the Authority that such emissions will be subject to EPA scrutiny and control.
The operator of an establishment covered by S.I. 476 of 2000 is also required to take all necessary measures -

(a) to prevent major accidents occurring, and

(b) to limit the consequences of any such major accidents for man and the environment.

In the context of the above, and the Health and Safety Authority remit, in respect of this specific application the following points are relevant:

1. The application is covered by Regulation 29(1)(a) of SI 476 of 2000
2. In assessing this application the Authority had a meeting with representatives of Indaver Ireland, at which they made certain commitments in relation to the proposed development. In particular they indicated:
   2.1. That all of the bulk storage tanks would be of 'double-skin' construction, effectively ruling out their catastrophic failure as a credible scenario.
   2.2. That they will put in place, to the satisfaction of the Authority, a system of screening hazardous waste that will identify the potential for delayed incompatible effects.
   2.3. That the Bulk Hydrochloric Acid and Aqueous Ammonia solutions will be located within an enclosed building.
   2.4. That the bunding will be sufficient to hold the contents of the largest tank located in the bund (i.e. >110% of the largest tank).
   2.5. That road-tankers would be unloaded in bunded areas.
   The council may wish to consider whether these should be included as conditions in the granting of any planning approval.
3. The Authority has noted that the outline planning permission granted to the Naval Maritime College (S/00/5570) which is near this proposed development, specifically excludes buildings for residential use (condition 1).
4. On the basis of the information the County Council has supplied to the Authority and the information obtained directly from Indaver Ireland, the Authority **does not advise against** the granting of planning permission in the context of Major Accident Hazards.

[1] Guidance on Land Use Planning as Required by Council Directive 96/82/EC (ISBN 92-828-5899-5)

5. If constructed, the Authority would set a consultation distance around this development as shown on the attached map. (The consultation distance is that within which planning applications should be forwarded to the HSA for advice unless generic criteria have already been provided). Note that the entire Hammond Lane site is included in the consultation distance.
6. The advice is only applicable to the specific circumstances of this proposal at this period of time.

Yours sincerely

Patrick Conneely
Process Industries Unit