

## INSPECTORS REPORT

### WASTE LICENCE REGISTER NUMBER      17-1

<b>(1) Summary:</b>
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<b>Name of Applicant</b>	Limerick County Council
<b>Facility Name (s)</b>	Gortadroma Landfill
<b>Facility Address</b>	Gortadroma, Co. Limerick
<b>Description of Principal Activity</b>	Specially Engineered landfill
<b>Quantity of waste (tpa)</b>	130,000
<b>Environmental Impact Statement Required</b>	Yes
<b>Number of Submissions Received</b>	52 (4 submissions received after the closing date for same were not considered)
<b>INSPECTOR'S RECOMMENDATION</b>	The proposed decision as submitted to the Board be approved

Notices	Issue Date(s)	Reminder(s)	Response Date(s)
<b>Article 14 (2) (b) (i)</b>	Not Applicable		
<b>Article 14 (2) (b) (ii)</b>	5/11/97		23/12/97
<b>Article 14 (2) (a) (Application complies with Article 12/13)</b>	10/2/98		
<b>Article 16</b>	17/2/98, 9/4/98		18/3/98, 9/6/98, 3/7/98, 13/8/98 8/9/98

<b>Applicant Address</b>	Limerick County Council, County Buildings, 79-84 O'Connell St., Limerick
<b>Planning Permission status and date granted (if appropriate)</b>	Not Applicable
<b>Planning Authority</b>	Not Applicable
<b>For Local Authority applicants, is the facility within its own functional area</b>	Yes
<b>Is the facility an existing facility:</b>	Yes
<b>Prescribed date for application:</b>	1 October 1997
<b>Date Application received:</b>	30 September 1997
<b>For Certified Sites, have matters in the EIS relating to environmental pollution been considered as required by Article 21 of SI 133 of 1997</b>	Not applicable
<b>Location of Certificate in Application</b>	Not applicable
<b>Confidential Information Submitted</b>	No
<b>Location of Planning Documents in Application</b>	Not Applicable
<b>Location of EIS in Application</b>	Seven Volume EIS submitted as a stand alone document.

**SITE VISITS:**

<b>DATE</b>	<b>PURPOSE</b>	<b>PERSONNEL</b>	<b>OBSERVATIONS</b>
24/10/97	Site visit and check site notice	B Donlon	Site notice complies with Art 8.
26/8/98	Meeting on-site	B Donlon, G Carty	Meeting on-site with LCC personnel.
26/3/99	Meeting on-site	B Donlon, T Nealon	Meeting on-site with LCC personnel.

**(2) Class/Classes of Activity**

The class(es) of activities for which the applicant has applied are outlined below.

<b>WASTE MANAGEMENT ACT, 1996: THIRD SCHEDULE</b> <small>Note 1</small>	
<b>Class 1.</b>	<p><b>Deposit on, in or under land:</b></p> <p>This activity is limited to waste disposed of at the landfill prior to 1997 which was placed into unlined cells in the exhausted sand and gravel pit.</p>
<b>Class 4.</b>	<p><b>Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons:</b></p> <p>This activity is limited to the storage of leachate in the leachate storage lagoon, a HDPE lined lagoon, prior to treatment.</p>
<b>Class 5.</b>	<p><b>Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment:</b></p> <p>This activity is limited to the disposal of waste at an annual rate not exceeding 130,000 tonnes. This is the principal activity applied for.</p>
<b>Class 6</b>	<p><b>Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 10 of this Schedule:</b></p> <p>This refers to treatment of leachate in an on site treatment plant.</p>
<b>Class 7.</b>	<p><b>Physico-chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcination) which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 10 of this Schedule (including evaporation, drying and calcination):</b></p> <p>This activity refers to the treatment of leachate by settlement, filtration or by chemical precipitation or other physico-chemical means, at the leachate treatment plant.</p>
<b>Class 11.</b>	<p><b>Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule:</b></p> <p>This activity is limited to the mixing of sludges with other wastes during the landfilling process to ensure that the waste body is as homogenous as possible.</p>
<b>Class 13.</b>	<p><b>Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced:</b></p> <p>This activity is limited to the emergency storage of wastes not suitable for disposal at the facility.</p>

Note 1: Any reference to an activity Class is to be taken as being from the Third Schedule of the Waste Management Act, 1996, unless otherwise stated.

**WASTE MANAGEMENT ACT, 1996: FOURTH SCHEDULE** Note 1

<b>Class 2.</b>	<b>Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes):</b>
	This activity is limited to the trial composting of wastes accepted subject to a limit of 1000m <sup>3</sup> at any one time at the facility, subsequent to prior written approval by the Agency.
<b>Class 3.</b>	<b>Recycling or reclamation of metals and metal compounds:</b>
	This activity is limited to metal collection at the facility.
<b>Class 4.</b>	<b>Recycling or reclamation of other inorganic materials:</b>
	This activity is limited to collection of inorganic materials (glass etc) at the proposed civic waste facility.
<b>Class 9.</b>	<b>Use of any waste principally as a fuel or other means to generate energy.</b>
	This activity is limited to the provision of a landfill gas recovery facility, subsequent to the prior written approval of the Agency.
<b>Class 10.</b>	<b>The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system:</b>
	This activity is limited to the use of organic waste which has been fully composted as intermediate cover and in the closure/restoration stage of the landfill
<b>Class 11.</b>	<b>Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule:</b>
	This activity is limited to the use of waste at the site as landfill cover material following the composting on-site of the waste.
<b>Class 12.</b>	<b>Exchange of waste for submission to any activity referred to in a preceding paragraph of this schedule:</b>
	This activity is limited to the possible exchange of green waste being delivered to the facility in exchange for composted organic material or similar material.
<b>Class 13.</b>	<b>Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced:</b>
	This activity is limited to temporary storage of waste prior to inspection prior to recycling on-site.

**Note 1:** Any reference to an activity Class is to be taken as being from the Fourth Schedule of the Waste Management Act, 1996, unless otherwise stated.

**(3) Facility Location****Appendix 1 contains a Site Location Map.**

The facility is located at Gortadroma Townland which is approximately 12km north of Newcastlewest and 9km south-west of Foynes in West Co. Limerick. The landfill is located in a relatively flat lying area. The land use in the area is predominantly agriculture, with a mixture of pasture land and crop land and a significant amount of marginal agricultural land as damp pasture. The pattern of settlement is typical of a small scale farming landscape, a dispersed pattern of farmhouses and their associated out-buildings scattered through the countryside. The immediate area around the site is mainly grassland with some grazing.

**(4) Waste Types and Quantities**

**Total quantities and types of wastes accepted by the facility are shown below.**

YEAR	NON-HAZARDOUS WASTE (tpa)	HAZARDOUS WASTE <sup>note 1</sup> (tpa)	TOTAL ANNUAL QUANTITY OF WASTE (tpa)
1997	approx 32,000	0	approx 32,000
1998	91630	0	91,630
1999 (est.)	130,000	0	130,000 <sup>note 2</sup>

**Note 1:** Condition 5.1 of the Proposed Decision (PD) prohibits the deposit of hazardous waste in the landfill.

**Note 2:** Requested in Art 16 information received June 1998.

**The total quantities of waste deposited at the facility and the amount to be deposited prior to closure are shown below.**

	NON-HAZARDOUS WASTE (tonnes)	HAZARDOUS WASTE (tonnes)	TOTALS (tonnes)
<b>Already deposited</b>	214,250 (Note 1)	0	214,250
<b>To be deposited</b>	901,500 (Note 1)	0	901,500

**Note 1:** Supplied in Information dated 24/7/97 as Table B.8.2.

**The expected life of the facility and the expected maximum annual tonnage are indicated below.**

<b>Expected Life of Facility (years)</b>	7 years*
<b>Maximum Annual Tonnage (tpa)</b>	130,000

\* as stated in Article 16 notice response of 9/6/98 and based on 130,000 tpa waste deposition rate.

**(5) Activity Summary**

Non-hazardous waste consisting mostly of household waste and commercial waste is disposed of at the facility. There is a weighbridge in operation with a new reception building for the operatives on-site. There is a septic tank on-site and the water supply is abstracted from an off-site borehole. Leachate at present is transported off site to the Local Authority Waste Water Treatment Plants in Newcastle West and occasionally to Casteletroy and Clareville. Birds are controlled by means of a falcon and by use of flying kites / bird banger. Vermin are controlled by the placing of bait around the site. It is proposed to treat the leachate on-site prior to discharge to the White River.

The civic waste facility at present consists of a skip into which the public can deposit waste. The skip is then brought to the working face of the operational cell. A small scale civic amenity area enabling limited recycling facilities is in place. Proposals for upgrading of the civic amenity area to include farm plastics, composting, white goods etc are required in the PD.

## **(6) Facility Operation/Management**

### **• Waste Handling**

Municipal, commercial and industrial (non-hazardous) wastes are accepted at the site in addition to sewage and industrial sludges. Vehicles bringing the waste to the site are weighed at the weighbridge and the waste is brought to the working face of the operational cell for disposal. The former landfill area Cells 1-4 are unlined and are surrounded by a bentonite slurry cut-off wall. Cells 5 and 6 which are lined have recently been filled and will be capped in the near future. Cells 7 and 9 have just been lined and filling commenced in Cell 7 in February 1999. Cells 8 and 10 will be the next cells to be lined and filled. There will be 13 cells in total.

### **• Waste Acceptance Procedures**

The wastes types to be deposited as supplied in Article 16 information received 18/3/98 are listed below:

<b>WASTE TYPE</b>	<b>TONNES PER ANNUM</b>
Household	Maximum 58,092
Commercial	Maximum 45,170
Sewage Sludge	Maximum 12,596
Industrial Non-Hazardous Sludges	Maximum 2,563
Industrial Non-Hazardous Solids	Maximum 10,579

Sludges are only accepted before 2 p.m. on Monday to Friday, as part of an agreement with the local residents, in order to minimise odour emissions from the facility.

### **• Nuisance Control**

Nuisances to be controlled at the landfill site are as follows:

#### **a) Birds**

Bird control presently is by use of a falcon, a banger and flying kites. Condition 6.4 stipulates that the use of the banger will not be allowed.

***b) Fire***

Measures to avoid fire at the site include the prohibition of the burning of waste on the site and the use of compactors which reduces the possibility of spontaneous combustion within the waste. The applicant had requested to use leachate as a means of fire control. However, this is not allowed and Condition 4.21 requests that an assessment of fire control and firewater retention facilities be undertaken.

***c) Litter***

Temporary litter screen fencing (4.5m high) is erected around the area of active landfilling to contain any uncovered litter. The active area is to be covered on a daily basis (see Condition 6.7). There is a 2.4m chain link security fence around the site boundary which should catch any litter not otherwise caught. Routine litter patrols are conducted and Condition 6.7 will ensure that all vehicles entering the site will remain covered prior to tipping of the waste.

***d) Odour***

The primary sources of odour at the site are gases generated by the decomposition of the waste. The active cell is to be covered daily by biodegradable plastic. There is a requirement to use 150mm of soil cover at the end of the working week (see Condition 6.7). Filled cells are to be permanently capped in accordance with Condition 4.23. Details of an active landfill gas control system shall be submitted to the Agency for agreement within 6 months of the date of grant of the licence (see Condition 4.17).

***e) Roads***

The road accessing the active tipping face is to be kept clear and clean (see Condition 4.4.1). Proposals for the installation of a wheelwash shall be submitted to the Agency within 3 months of the date of grant of licence (see Condition 4.11).

***f) Traffic***

The main route to the Landfill Site from Limerick consists of the N69 from Limerick to Foynes as far as the turn off for Shanagolden. Turning off the N69, the route goes through Shanagolden on the R521 and then along the recently upgraded Country Road 306 (known locally as the "Kerry Line").

***g) Vermin***

Fortnightly baiting is carried out on the site and Rentokill reports indicate light rodent activity at the facility.

**Hours of Operation**

08.00 a.m. to 5.00p.m. Monday to Friday inclusive and 8.00a.m to 2.00p.m. on Saturdays.

<b>(7) Facility Design</b>
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**• Infrastructure**

***a) Site security***

There is a 2.4m high perimeter chainlink fence around the operational section of the landfill at present including 2.4m high lockable gates. A CCTV monitoring system will be installed and maintained within 3 months of the date of grant of licence (Condition 4.3.2).

**b) Site roads**

The main access road from the public road to the operational area of the site and the haul roads around the site including service roads to the cells are constructed as follows. The topsoil was stripped to a minimum depth of 200mm and the roads are constructed upon a sheet of Terram 1000 geotextile. The finished road consists of the following:-

- (i) a 225mm layer filled with 75mm gauge broken stone, thoroughly compacted with mechanical rammers so that the compacted surface finishes 75mm below the final levels.
- (ii) the next 75mm is finished with 40mm broken stone, blinded with stone dust, and rolled with a seven ton roller.
- (iii) the top of the road is sealed with a double layer of bituminous emulsion, each layer being coated with 10mm stone chips and rolled with a seven ton roller.

The haul roads are not surface dressed with tar and chip as they only have a finite life.

Ramps over the liner are constructed in the following sequence:

- 500mm pea gravel over the HDPE liner.
- Geotextile layer
- 500mm of broken stone
- 300mm Clause 804 material as a wearing course.

This construction detail ensures that the HDPE liner is protected from damage by the traffic and subsequent waste body.

**c) Design of hard-standing areas**

All hardstanding areas adjacent to the reception area will be constructed to the same specification as outlined in (b) above for access roads.

**d) Weighbridge**

The weighbridge in place at present is an Avery weighbridge model no J102-L200. The weighbridge platform has a platform size of 18m x 3 m and a weighing capacity of 60,000kg (x 10kg increments). The collection, processing and control system includes computer, VDU, keyboard, card reader, induction loops and barriers for unmanned weighbridge operation.

**e) Wheelwash**

Proposals for the installation of a wheelwash shall be submitted to the Agency within 3 months of the date of grant of licence (see Condition 4.11 ).

**f) Laboratory facilities**

There will be limited laboratory facilities in the Reception Building to enable routine analysis of leachate from the leachate treatment facility.

**g) Fuel storage**

All fuel for the operation of plant on-site will be stored in portable tanks. Condition 4.14 requires provision of bunded fuel storage areas.

**h) Waste quarantine**

A special waste storage area will be situated adjacent to the reception area (Condition 4.7). This area will be constructed of reinforced concrete walls and floor, minimum



thickness of 250mm. Waste water arising in this area will be drained to an adjacent sump and pumped to the leachate treatment plant.

***i) Waste inspection areas***

A Waste Inspection Area shall be installed within 6 months from the date of grant of the licence (Condition 4.7). In addition, Condition 5.4 requires that the proper procedures be followed in the examination of waste.

***j) Sewerage and surface water drainage infrastructure***

There is a septic tank on the site to which sewage from the canteen and toilet in the operators building is directed via a 100mm pvc sewer. Roofs and paved areas drain to road gullies which are connected to the surface water sewer system.

***k) Services***

The site is serviced as follows:

- i) 3 phase electricity supply for leachate treatment plant
- ii) Telephone line
- iii) Water pumped from an off-site borehole.

***l) Site accommodation***

A reception building incorporating office/reception, canteen, toilets, transformer room has been recently constructed and is in use.

***m) Civic waste facilities***

There is an existing civic amenity site which is open during normal operating hours for the site. The existing civic amenity area only provides a disposal area however it is intended to extend this facility under the terms of this proposed decision to provide recycling facilities for glass, metals, paper and white goods for collection by various contractors.

**• Liner Details**

Cells 1-4 which were filled up to 1997 were unlined. A bentonite slurry cut-off wall has been constructed around Cells 1-4 to stop groundwater ingress into the waste body. The wall is 600mm in width and varies in depth between 7m and 14m. Proposals for extraction of contaminated water from this area are requested in Condition 4.20.

The remainder of the site has been and will be an engineered landfill. Containment to the base and side slopes of the landfill will be provided by a composite liner with 2.5mm HDPE and geotextile clay liner (GCL-bentonite sandwich). The protection layer which is also the drainage layer consists of a 500mm layer of 20mm single size pea gravel. The applicant has confirmed that under Cells 7 and 9 and all subsequent new cells the minimum thickness of clay will be 600 mm in accordance with the requirements of the Proposed Landfill Directive.

**• Leachate Management**

The leachate collection system consists of 100-200 mm perforated HDPE pipes in a 500mm bed of pea gravel on the HDPE lined base of the landfill. The side slopes of the cells have a drainage layer through which leachate is collected. The leachate collection pipe-work, in each cell, drains to a leachate collection manhole. Leachate build-up in the manholes is drained to a central leachate collection sump from where it is pumped to the leachate holding lagoon.

At present leachate generated on the site is collected in a leachate holding lagoon before being tankered off site to wastewater treatment plants in Newcastle West (occasionally Castletroy and Clareville). This HDPE lined holding lagoon is constructed and has a normal capacity of 9,900m<sup>3</sup> with an additional 1,700 m<sup>3</sup> emergency capacity in the 0.75m freeboard (Condition 4.19.3). A leachate treatment plant has been designed for the site and consists of the following: mixing manhole, oxidation ditch, clarifier tank, sludge concentration tank, settling lagoon, sand filter and peat bed filter. This is presently being commissioned. Strict emission limits (to tertiary standard) and proposals to ensure that treated leachate is not discharged when the river is at low flow are included in the proposed decision (Schedule G.4).

- **Landfill Gas Management**

At present landfill gas is passively vented to the atmosphere through plastic standpipes in the completed area of the site. A survey to characterise landfill gas emissions from the site indicated low amounts of gas for the age of landfilled waste. The gas extraction system will be fitted subsequent to the filling of each cell. Condition 4.17 requires that details of an active landfill gas control system be submitted to the Agency for agreement.

In addition, a series of 15 boreholes (to a depth of approx. 5m) have been constructed around the perimeter of the site and monitoring results have been forwarded to the Agency. Monitoring frequencies will be on a weekly basis at the site office and monthly at perimeter boreholes and gas vents.

**Capping System**

- The licence conditions require details on a specification for the capping layer installed for cells 1 to 4 and proposals including timeframes for subsequent cells.

**(8) Restoration and Aftercare**

It is proposed to restore the facility to allow re-use as agricultural land. The Restoration Scheme and Aftercare Management Scheme are provided for in Condition 8.2.

**(9) Emissions to Air**

Emissions to air include odour, dust, landfill gas and aerosols.

***Odour:***

An assessment of the potential impact of odours on the environment was carried out on three occasions and it is the view of the inspector that properly controlled landfill gas flaring will minimise odour nuisance from the facility.

Limerick County Council have suggested that they will perform an annual odour assessment in the vicinity of the facility and this is covered in Condition 6.13.

***Dust:***

Total dust deposition measured on three occasions at three separate locations ranged from 9 to 218 mg/m<sup>2</sup>/d. Dust will be controlled under Condition 9.1 of the PD with the dust deposition limit given in Schedule G.

**Landfill Gas:**

Landfill gas composition is monitored at the fifteen gas monitoring locations around the perimeter of the site and will be monitored as per Condition 9. At fourteen of these locations the percentage methane was less than 0.5% (v/v) while at the background perimeter monitoring location C4 (peaty area) there was 1.8% (v/v) methane detected. A complete analysis of the minor constituents of landfill gas (including mercaptans, H<sub>2</sub>S etc) will be required on an annual basis.

**Aerosols:**

Two locations were established to sample ambient particulate concentrations (PM<sub>10</sub>) one within the site operational area and the other at an unused domestic property to the north of the site boundary. The levels obtained at the house were in the range 1-2 µg/m<sup>3</sup>. The results of sampling undertaken at the hut on-site were in the range 8-35 µg/m<sup>3</sup> for samples measured gravimetrically (samples were left 2-4 weeks). At locations around the boundary of the facility however it is likely that ambient concentrations of aerosols would be much lower. The proposed daily average air quality standard for aerosols (PM<sub>10</sub>) is 50 µg/m<sup>3</sup> in the EU Air Quality Directive.

## **(10) Hydrogeology**

The bedrock of the area has been classified as a poor aquifer, generally unproductive except in local zones (P1) (The Geological Survey of Ireland (Deakin, 1994). Yields are generally low and wells in the area are mainly used for domestic supplies.

The direction of flow of the groundwater is from the higher ground in the north towards the White River to the South.

There is evidence of groundwater contamination at a location (BH13) immediately downgradient of the unlined cells. The ammonia in this borehole has dropped from 113 mg/l to the current level of 4.95 mg/l since the installation of the bentonite cut-off wall.

In 1997 Limerick County Council sampled thirteen wells from dwellings within approx. 1 km radius of the site. Sampling of private wells surrounding the site showed no significantly elevated levels of BOD/ammonia. However, high coliform (total and faecal) and nitrate levels were detected in some samples which are most likely due to agricultural sources.

Groundwater monitoring is to be undertaken as specified in Schedule F.5. An alternative supply must be provided if there is evidence of pollution under Condition 10.5.

## **(11) Noise Emissions**

A noise survey was undertaken at four positions on the site boundary, at five positions representative of noise sensitive receptors (nearest houses) and at one position representative of background noise levels in the area. The most sensitive location is a residence to the west of the site but noise emissions from the facility were below the Agency BATNEEC Noise Note levels.

Annual monitoring is to be carried out under Condition 9.1 of the PD.

### **(12) Emissions to Sewer**

There are no emissions to sewer from this site.

### **(13) Emissions to Surface Waters**

The major discharge to the White River will be the treated leachate which will be treated to tertiary standard.

#### **13.1 Flow Control**

The treated leachate will discharge to the adjoining White River. The 95%ile flow in the White River is 6 l/sec and the dry weather flow is 3 l/sec. The average flow is 1610 l/sec.

When the flow is less than the 95%ile flow there shall be no discharge of treated leachate. Instead the treated leachate will be returned to the storage lagoon.

Schedule G.4 specifies that leachate may be discharged only when greater than 20 dilutions are available in the receiving water.

Proposals for the installation of a dedicated continuous flow monitoring station on the White River and a sampling and measurement chamber for the monitoring of leachate discharge shall be submitted to the Agency within three months from the date of grant of licence. The PD stipulates that there shall be no discharge of treated leachate until the flow control measures are in place and operational. Effluent samples are to be taken using a dedicated flow proportional composite sampler.

#### **13.2 Emission Limit Values**

The following table presents a comparison of the emission limit values set in the PD with those for UWWT discharges. In addition concentrations of various parameters in the receiving waters at the one to twenty dilution are compared with the Salmonid Water Quality Standards. Although the White River is not designated as a Salmonid River, the lower section of the White River is rated as a good to very good habitat for adult salmonids and the Dipper, Kingfisher and the Otter (protected species) have been observed along sections of the river.

**Table 13.1**

Parameter	UWWT Discharge Limits (All units in mg/l except pH)	Limit (All units in mg/l except pH)	Concentrations post dilution (20 : 1) (mg/l)	Salmonid Water Quality Standards (mg/l)
pH	6-9	6-8	-	6-9
BOD	25	5	0.25	<5
COD	125	15	0.75	-
SS	35-60	5	0.25	<25

Total N (as N)	15	15	0.75	-
Total P (as P)	2	2	0.1	-
Total Ammonia (as N)	-	3	0.15	<0.82

The limits proposed should ensure that the discharge of treated leachate to the White River will not result in a breach of the Salmonid Water Quality Standards. The PD requires that the licensee submit a monthly summary of the stream flows, discharge flows and a record of the final disposal route of the treated leachate.

The level of phosphate in leachates from the storage lagoon at this facility has not been determined to date. The median concentration of phosphate in leachates as reported in a recent UK DOE study (1995) is 1 mg/l. In general the experience with leachate treatment plants is that phosphorus needs to be supplemented to the leachate to satisfy the BOD/N/P ratio for optimal microbial activity.

The recent phosphorous legislation (S.I. No. 258 of 1998) sets out the long term goals for phosphorous in water courses and based on the average flow for the River White over the period (1981-1993) of 1.61 m<sup>3</sup>/sec, it is expected that ortho-phosphate discharges from the leachate treatment plant will comply with the requirements of the legislation. A limit of 2 mg/l is set for the discharge to ensure that excess phosphorus is not overdosed to the leachate influent.

### 13.3 Toxicity Testing of Treated Leachate

The treated leachate will have an ammonium and a BOD concentration of less than 3 and 5 mg/l, respectively. However, toxicity testing against the two most sensitive of four tropic groups will be also undertaken (twice yearly). If the results of the toxicity testing indicate that there are greater than 1 toxic units in the discharge the licensee will be required to undertake an action programme to examine the factors and parameters responsible for the toxicity (Condition 7.8.6). It should be noted that a minimum of twenty dilutions will always be available under the terms of the licence conditions.

### 13.4 Contaminated Run-Off

The surface water run off from the site is collected in perimeter drains which discharge into the White River. There has been evidence of contamination of these perimeter drains in the past prior to the installation of the cut-off wall around cells 1-4 and the engineering of subsequent cells. The licensee is required to submit proposals on the diversion of contaminated run-off from construction works and temporary capped areas to a storm water retention pond within nine months from the date of grant of licence.

Monitoring is to be undertaken at 8 locations on a quarterly basis to ensure that the quality does not decline (see Schedule F.4).

### 13.5 Biological Assessment

The landfill which has existed for approx. nine years is in the upper catchment of the White River. A Q-rating of 4, performed on behalf of the applicant, indicated unpolluted conditions was obtained in all sections of the river upstream and downstream of the landfill site. A biological assessment of the river in the immediate vicinity of the landfill is requested on an annual basis.

**13.6 Ecological Inspection**

The Dipper and Kingfisher (which are protected under the Wildlife Act, 1976) and the Otter (protected under Annex II of Habitats Directive) have been observed along sections of the river.

An annual inspection of the ecology around the site will be undertaken in accordance with Condition 9.3.

**(14) Other Significant Environmental Impacts of the Development**

None.

**(15) Waste Management, Air Quality and Water Quality Management Plans**

The following reports have been drawn up:

- County Limerick Groundwater Protection Scheme, April 1998
- Limerick County Council, County Development Plan, 1991.

No relevant Waste Management Plans exist.

Signed \_\_\_\_\_

Dated:

Dr. Brian Donlon

**APPENDIX 1**

## **LOCATION PLAN**

### **APPENDIX 2**

### **SITE LAYOUT**

## APPENDIX 3 - SUBMISSIONS

### 1. Dr. Kevin Kelleher Mid-Western Health Board submission received 9th February, 1998

Reports prepared by the Environmental Health Department were by James Cahill E.H.O based in MWHB, Health Centre in Newcastle West and Annette Fitzgerald P.E.H.O - St Camillus' Hospital, Shelbourne Road, Limerick were submitted by Dr. Kevin Kelleher Director of Public Health, MWHB, Catherine St., Limerick

*A summary of many issues relating to the application (provision of facilities associated with modern landfill, geology, hydrogeology, leachate treatment etc.) was prepared in this submission. It was noted that public health complaints have been investigated by this office on an intermittent basis and principally in the early years of operation.*

*Concerns raised and responses are below each item as follows:*

#### **Public Health Implications**

*The public health impacts of the following were outlined Air Quality (dust, odour, aerosols, landfill gas, traffic fumes), Nuisance (wind blown litter, scavenging, fly infestation, birds, pests), Water Pollution (groundwater sources, river source), Noise (construction phase, operational phase)*

*Level of complaints increases significantly during the period (May-Sept).*

#### **RESPONSE**

This facility is not subject to any specific permit or permission at this time. The various conditions in this proposed decision will address the issues raised in the correspondence from the Health Board and provide a greater degree of control of emissions and management of the facility that heretofore. The extent and type of monitoring frequency stipulated in this proposed decision is very stringent and reflects seasonality factors in relation to dust and aerosol monitoring.

In view of the inspector the Mid Western Health Board should conduct a study to assess the human health impacts on local residents that are living in close proximity to the landfill. The Agency would be willing to partake in this study in so far as it has the expertise to contribute. Any such study would be outside the scope of this licence but all monitoring results that arise as a result of implementation of the licence would be made available to the Health Board for its consideration. The Agency should write under separate cover to the Mid Western Health Board in this regard. In addition, Submission no 53 covers many human health concerns experienced by the residents which should be covered in any such study.

#### **Air Quality**

#### **ODOUR**

*Odour problem is one of the primary public concerns. The EIS does not put forward any realistic proposal for monitoring of odours within the site boundary. Notes that investigation of odour complaints from the general public cannot be adequately carried out where there is no provision to carry out analytical measurement of odour concentrations in the ambient air.*

#### **AEROSOLS**

*No proposals to monitor particular aerosol emissions within landfill on regular basis. They express worries about human health and aerosols from leachate treatment plant. They want a programme for ambient sampling of aerosols within the landfill site and in the locality of the nearest houses.*

#### **RESPONSE**

An assessment of air quality was performed and reported in Article 16 information supplied after the date of this submission. Odour nuisance is controlled in Conditions 6.12 and 6.13.

In the Article 16 notices sent on the 17/2/98 and 9/4/98 an estimation of aerosols emanating from the landfill was requested and received from the applicant. The results obtained indicated



that PM<sub>10</sub> results (taken at 2 locations) are below the proposed EU Air Quality Directive Standard. The main element of the leachate treatment plant in terms of BOD and ammonia removal will be a oxidation ditch which represents a major reduction in surface turbulence compared with activated sludge etc. Annual monitoring of PM<sub>10</sub> at three locations are required in Schedule F.

**DUST**

*They request siting of dust monitors at a number of selected residences and the measurement of dust deposition within the local community which may give rise to nuisance or complaint is not provided for.*

**RESPONSE**

Dust monitoring is required in Schedule F.

**LITTER / BIRD NUISANCE**

*Over the years that compaction and daily covering of waste is not adequate mitigation measure. He notes that the Council have installed netting system on the northern boundary to ensure that wind and bird transported rubbish is eliminated. He suggests the use of increased litter patrols on adjacent land.*

**RESPONSE**

Conditions 6.7 to 6.10 inclusive relate to litter control at the facility. Condition 5.5 requires proposals for landfilling under conditions of high winds for agreement with the Agency.

**GROUNDWATER**

*He notes the absence of detailed monitoring programme and baseline analytical information. They list in their submission the parameters from the EPA Monitoring Manual.*

**RESPONSE**

Groundwater monitoring is required in Schedule F5 of this licence for boreholes on-site and private wells.

**2. Mr. Timmy Mullane Gortadroma Action Group made a submission which was received on the 29 October 1997**

*Mr. Mullane made a submission on behalf of Gortadroma Action Group. He stated that they are a voluntary group of concerned locals working for the improvement of conditions on behalf of people severely disadvantaged by the Councils operation of the landfill in the past. He requested information on how best to make worthwhile submissions and informed the Agency that they are in communication with County Council officials and will have the inaugural meeting of a Joint Management Committee which they hope will allow access to plans, records or performance of the landfill. They would be making further submissions through the waste licensing process.*

**RESPONSE**

Information on the waste licensing process was provided to Mr. Mullane. In relation to communications with the County Council this is covered in Condition 2.7 of the PD.

**3. Mr. Tim Mullane Gortadroma Action Group made a submission which was received on the 24<sup>th</sup> February 1998**

*In this submission they are of the view that the EIS relates only to the possible additional impact of the proposed extension on the environment.*

**RESPONSE**

The inspector is of the view that the information received in the original application and in subsequent Article 13 and 16 replies received from the applicant relates to the impact of the entire facility on the environment.

**4. Mr. Donal Danaher Monemohill made a submission which was received on the 4<sup>th</sup> March 1998.**

*The following were detailed as his particular concerns: (i) scavenging birds, (ii) dead birds causing a risk to both humans and animals as they enter the food chain, (iii) likelihood of disease outbreak (brucellosis, leptospirosis) due to fly and rat infestation and (iv) the movement of families from the area due to poor operation of the landfill. He also notes that cattle have sometimes refused to drink from the nearby White River and farmers have had to make alternative arrangements.*

**RESPONSE**

Conditions 6.1 to 6.13 inclusive provide for the control of environmental nuisances. Bird control measures are covered in Condition 6.4. Fly and rodent nuisances are covered in Conditions 6.1, 6.2 and 6.3. These conditions should provide the protection to the environment which will eliminate the problems referred to in this submission.

Limerick County Council accept that there have been historical problems in relation to wind-blown plastic and have suggested that they will monitor for animal health problems. Given the level of controls proposed in the PD it is not considered appropriate to include the monitoring of animal health in the area. As the council have indicated a willingness to undertake such monitoring it is considered that this can best be carried out by way of a local agreement.

In the event that monitoring of private wells indicates that the facility is affecting the quantity and/or quality of the water supply this shall be treated as an incident (Condition 10.5). The licensee shall submit written proposals for the provision of an alternative supply of water to those affected to the Agency for its agreement

The conditions in Condition 2.1 to 2.10 inclusive make provision for the management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment.

**5. Mr. & Mrs. Tom & Mairead Normoyle Gortnadroma made a submission which was received on the 2<sup>nd</sup> March 1998.**

*Mr. & Mrs.. Normoyle who live approx 500 yards from the site made a submission and listed the following as their major concerns: (i) odour, (ii) papers, (iii) noise and lights at evening times, (iv) birds, (v) rats. The above mentioned nuisances are problems that are regularly rectified but recur again within a short time.*

**RESPONSE**

Odour nuisance is controlled by Conditions 6.1, 6.11, 6.12. Litter control is covered in Conditions 6.7 to 6.10 inclusive. See response to Submission No.4 in relation to bird and rodent control at the facility. Noise limits are contained in Schedule G. Landscape proposals are required and will ensure that concerns regarding light pollution are addressed (Condition 8.3).

**6. Mr. & Ms. Patrick & Geraldine Brouder, Moyreen, made a submission which was received on the 4<sup>th</sup> March 1998**

*Mr. & Ms. Brouder who live one km from the landfill made a submission in which they outlined human health, odour nuisance, unsightliness of the countryside, contamination of their water supply and property devaluation for ongoing and future landfilling operations as reasons why a licence should not be granted for the extension.*

**RESPONSE**

See response to Submissions No 4 and 5 in relation to environmental nuisance conditions.  
See response to Submission No 1 in relation to human health concerns. Schedule F.5 requires

monitoring of all private wells within 500 m upgradient and 1km downgradient of the facility. Condition 10.5 allows for the provision of an alternative supply of water in the event that monitoring of private wells demonstrates that the facility is affecting the quantity or quality of the supply.

**7. Mr. Raymond Brouder, Gortnadroma, made a submission which was received on the 4th March 1998**

*Mr. Brouder who resides 400m south west of the landfill made a submission in which he outlined his dissatisfaction with the management of the landfill and the present threats and future risks to the environment from litter and fish kills. He noted that people have moved from the vicinity and also expressed concerns for his bored well supply due to risks of leachate contamination.*

**RESPONSE**

See response to Submission No 6 in relation to water contamination concerns. Environmental monitoring conditions outlined in Condition 9 will ensure compliance with the requirements of the licence conditions by provision of a satisfactory system of measurements and monitoring of emissions.

The facility when operated in accordance with the conditions should not cause significant environmental pollution.

**8. Mr. & Ms. James & Philomena Moloney, Mohernagh, made a submission which was received on the 4th March 1998**

*Mr. & Ms Maloney who live two miles from the landfill made a submission in which they outlined an increase in rats and scavenging birds on their property. They also expressed concerns about the pollution of their springs, streams and rivers and that this facility may become a regional landfill.*

**RESPONSE**

See response to Submission No. 6 in relation to concerns regarding water quality.

Conditions 6.1 to 6.13 inclusive provide for the control of environmental nuisances.

The quantity of wastes to be accepted for disposal at the landfill is 130,000 tonnes per annum which should cover waste arisings in Limerick County only.

**9. Ms. Mary Brouder Gortnadroma, made a submission which was received on the 4<sup>th</sup> March 1998**

*Ms Mary Brouder who lives within 200m of the landfill raised concerns regarding the threat to their bored water supply and littering of the nearby White River which is a risk to their animals. Other concerns include bird and fly nuisance as a result of the landfill operation.*

**RESPONSE**

See response to Submission No. 6 in relation to concerns regarding water quality.

Environmental nuisance conditions which cover bird and fly nuisance are covered in Conditions 6.1 to 6.13 inclusive.

**10. Mr. & Mrs. Chris Brouder, Carnagh, made a submission which was received on the 4<sup>th</sup> March 1998**

*Their major concerns are family health problems, visual impact, odour emissions, litter in the vicinity of the landfill. Another concern is their water supply which comes from a bored well and they requested that the facility be closed.*

**RESPONSE**

Environmental nuisance conditions are covered in Conditions 6.1 to 6.13 inclusive. See response to Submission No. 6 in relation to concerns regarding water quality. Condition 8.3 requires extensive landscape proposals for the facility which include a report on on-going landscaping works. See response to Submission No 1 in relation to human health concerns.

**11. Mr./Ms. To whom it may Concern Monemohill sent 28<sup>th</sup> February 1998.**

*This submission detailed fly and rat nuisance, the lack of communication from the County council with respect to the type of fly-killer used and requested that the extension to the landfill not be granted.*

**RESPONSE**

Condition 6.2 relates to rodent control. Condition 6.3 relates to extensive proposals for the control of flies from the facility including operator training and details of the insecticide to be employed.

**12. Mr. & Ms. Michael & Siobhain Costello, Cahernagh, made a submission which was received on the 5<sup>th</sup> March 1998**

*Mr. And Mrs. Costello who live a half of a mile from the facility made a submission and raised concerns in relation to the misinformation that they received from the County Council in respect of the size and scale and future plans for the landfill. They have built a new house near the facility and expressed concerns regarding the lack of water testing, bin lorry traffic speeds and poor road infrastructure and the devaluation of their property.*

**RESPONSE**

Conditions included in the proposed decision will ensure that the landfill is operated and managed having regard to the best of environmental standards and will provide open accessibility to all relevant matters concerning the ongoing assessment, recording and reporting of matters affecting the environment.

Condition 6.6 requires proposals including road maintenance/improvements traffic control and management along the access roads. See response to Submission No. 6 in relation to concerns regarding water supply

**13. Mr. and Ms. Pat, Catherine & Kathleen O' Brien, Carnagh, made a submission which was received on the 5<sup>th</sup> march 1998**

*Mr. and Ms. Pat, Catherine & Kathleen O' Brien who live a quarter of a mile from the facility made a submission and raised concerns in respect of the siting of the landfill in close proximity to homes and people and that they have lost 4 families from the community. They also cited visual impact, road traffic. Their daughter has spent £900 clearing up a dyke and they are still concerned about their land waterlogging. They suggest that the Board of Health should investigate the health of people living near the landfill. Other concerns expressed include flies, rats and litter nuisance.*

**RESPONSE**

Conditions 6.1 to 6.13 provide for the control of environmental nuisances.

See reply to Submission No. 12 in relation to traffic concerns.

Condition 4.22 requires proposals for surface water management at the facility.

See response to Submission No 1 in relation to human health concerns.

**14. Mr. M.G. Martin R.P.N. M.M.R.I.I. Corbally, Ardagh, Co. Limerick Faxed a submission on the 6th March 1998**

*Mr. Martin made a submission and he suggested that this is a totally unsuitable site with regards to the environment/health and the area lacks adequate infrastructure.*

**RESPONSE**

Strict emission limits and trigger levels are included in the proposed decision which will ensure that the landfill is operated to the highest standards. Condition 4 will ensure that all site infrastructure will provide for the protection of the environment. See response to Submission No 1 in relation to human health concerns.

**15. Mr. Richard Kennedy, The Irish Farmers Association, made a submission which was received on the 9<sup>th</sup> March 1998**

*Mr. Kennedy made a submission on behalf of their members in the area and noted that it is almost impossible to live and farm in the vicinity of the landfill. For reasons of scavenging bird numbers, rodent problems, disease problems and gross mismanagement of the landfill Limerick IFA object to the granting of a licence for the extension to the landfill and called for the closure of the landfill entirely.*

**RESPONSE**

The conditions in Condition 2.1 to 2.10 inclusive make provision for the management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment. Condition 6.1 to 6.13 provide for the control of environmental nuisances. As indicated earlier in my report the expected life of the facility is seven years based on an annual tonnage of 130,000.

**16. Mr. Thomas O' hAodha, Ballyhahill Development Association made a submission which was received on the 9<sup>th</sup> March 1998.**

*Mr. O'hAodha made a submission on behalf of the Ballyhahill committee which was formed with the intention of attracting tourists in the Region in conjunction with West Limerick Resources. He states that the landfill should never have been allowed to open in an area renowned for its brown and white trout. On the basis of the increased presence of rats (and public concern in relation to Weils disease) and litter pollution he requests that the granting of a licence is refused*

**RESPONSE**

Conditions 3.1 and 9.2 sets out the requirements for the biological assessment of the White River in the immediate vicinity of the landfill and the requirements for an in-depth investigation if there is a disimprovement in the Q-rating of the river. Rodent and litter nuisance are covered in Conditions 6.2, 6.7 to 6.11 inclusive. The provision of the leachate treatment facility will also improve the quality in the receiving waters.

**17. Patsy & Mary Hayes, Carnagh, made a submission which was received on the 6<sup>th</sup> March 1998.**

*A submission was received in which they outlined their concerns about the landfill in relation to health hazards arising from the operation of the landfill. Nuisances arising from fly infestation (in summer in particular), wind-blown litter and litter dropped by birds and heavy traffic volumes on the roads were also of concern. They also noted that their property has devalued since the start-up of the landfill in the area.*

**RESPONSE**

Environmental monitoring conditions are outlined in 9.1 to 9.15. Environmental nuisance conditions are covered in Conditions 6.1 to 6.13 inclusive. Condition 5.5 requires proposals for landfilling under conditions of high winds for agreement with the Agency. See response to Submission No 1 in relation to human health concerns.

**18. Ms. & Mr. Mary & Tim Mullane, Carnagh, made a submission that was received on the 6<sup>th</sup> March 1998**

*Mr. and Mrs. Mullane live within 1 mile of the landfill and in their submission they expressed their strong objections for a licence to be granted to Limerick County Council. The grounds for their objection were fly infestation, odour litter pollution, health worries and traffic volume. They note that 3 families have left the locality as a consequence of living in close proximity to the landfill.*

**RESPONSE**

Environmental nuisance conditions are covered in Conditions 6.1 to 6.13 inclusive. See reply to Submission No. 12 in relation to traffic concerns. See response to Submission No 1 in relation to human health concerns.

**19. Mr. Patrick Hayes, Mohernagh, made a submission which was received on the 6<sup>th</sup> March**

**1998.**

*Mr. Hayes raised the point about the unsuitability of the area for a large landfill in relation to the topography of the region. On the basis of the glacial geology of the existing site and the surrounding area and the proximity of the Abha Bhan to the site it is going to be very difficult to control groundwater and prevent polluting matter from entering the river and its tributaries.*

**RESPONSE**

The leachate treatment plant will operate to a tertiary treatment standard. See response to Submission No. 6 in relation to concerns regarding water supply.

**20. Mrs. Peggie Hayes, Carnagh, made a submission which was received on the 6<sup>th</sup> March 1998.**

*The major items addressed in this submission related to fly infestation, odour nuisance, traffic volumes. Mrs. Hayes stated that she would get her Doctor and the Health Board out if necessary this summer in relation to smells and flies and also related some health problems that she had in 1997 which she says were related to the landfill operation. Mrs. Hayes requested that the landfill be closed.*

**RESPONSE**

See reply to Submission No. 12 in relation to traffic concerns. Condition 6.3 relates to extensive proposals for the control of flies at the facility including operator training and details of the insecticide to be employed. Odour nuisance conditions are set in Condition 6.1, 6.12 and 6.13. See response to Submission No 1 in relation to human health concerns.

**21. Mr Michael Lane, Monemohill, Ballyhahill made a submission which was received by the Agency on the 6<sup>th</sup> March 1998.**

*Mr. Lane who is a farmer residing about a quarter of a mile to the north east of the landfill has experienced many problems since the siting of the landfill near to his property without any consultation with him. The following issues were also detailed in the submission: odour, rat and scavenging birds and property devaluation.*

**RESPONSE**

Conditions relating to environmental nuisances are covered in Conditions 6.1 to 6.13 inclusive. Conditions relating to communications are covered in Condition 2.7.

**22. Mr. Patrick Kelly, Knocknasna, made a submission which was received on the 6<sup>th</sup> March 1998.**

*In this submission Mr. Kelly outlined many problems associated with the operation of the landfill such as odour nuisance, flies in warm weather, rats and scavenging birds which contaminate their silage, prevent him from planting crops/vegetables, litter debris onto his land which has resulted in fatal casualties in two of his cattle herd. The advent of the landfill has resulted in the land being raised above the level of his land and blocked off natural springs and altered the whole underground water system and drainage system. He feels that the development is trying to squeeze out the residents and requests that the extension is not granted as their problems will be hugely increased.*

**RESPONSE**

Conditions relating to environmental nuisances are covered in Conditions 6.1 to 6.13 inclusive. See also reply to Submission No. 4 in relation to animal health. Surface water management proposals are required in Condition 4.22.

**23. Mr. & Mrs. Michael & Maisie Guiney, Gortadroma, submission received 11<sup>th</sup> March 1998**

*Mr. and Mrs. Guiney who live a few hundred yards west overlooking the landfill made a submission. They farm 110 acres of mixed enterprise and the proximity to the landfill has devalued their property considerably. They have listed a number of concerns in their submission which include:*

*Noise and light pollution, scavengers entering site, loss of income due to dead birds and litter found in their bales (silage) and silage pit. Brucellosis has shown up in their milk supply - nauseating smell from the landfill, rat infestation, increased volume of traffic and safety*

concerns.

**RESPONSE:**

Condition 4.3 deals with site security while under Condition 5.10 scavenging shall not be permitted at the facility. See also reply to Submission No. 4 in relation to animal health. The reply to Submission No. 12 deals with traffic concerns.

Landscaping proposals are required in Condition 8.3. Noise emission limits are set in Schedule G.

*They questioned the implementation of the policy of meat not being allowed into the landfill as offal meat and bones are frequently found on their property.*

**RESPONSE:**

Condition 5.1 states that no animal by-products shall be accepted at the facility and Condition 5.4 requires that waste acceptance procedures be adopted.

*Other concerns raised related to increased traffic on the road, deterioration of local river and their cattle are refusing to drink from it, extra expense from added cleaning*

**RESPONSE:**

See response to Submission No. 6 in relation to concerns regarding water supply.

*They expressed concerns about the manner in which the County council have been tackling fly spraying at the house and rat infestation. The Council would not give any information as to what the fly spray contained and they purchased an electric rodent extinguisher themselves.*

**RESPONSE:**

Conditions 6.1 to 6.3 deal with the prevention, control and eradication of infestation of insects, pests and vermin.

*They cited examples of compensation paid by the Council to them in 1996 for damage due to scavenging birds and an animal lost in 1997 where plastic was found in the stomach of the animal. In light of over 10 years of mismanagement they state that a grant for the extension of the landfill will mean that their livelihoods and their sons will be ruined.*

**RESPONSE**

The licensee must comply with the Conditions attached to the licence. Conditions relating to managing the facility on a planned basis are outlined in Conditions 2.1 to 2.10. No loads comprising mainly of loose plastic shall be accepted at the facility (Condition 5.1).

**24. Mr. & Mrs. Stephen Kennelly, Monemohill made a submission received by the Agency on the 10<sup>th</sup> March 1998.**

*Mr. & Mrs. Stephen Kennelly made a submission in which they strongly objected to the granting of a licence to Limerick County Council on the basis that the present landfill has had a detrimental affect on their lives. They experience major problems with respect to fly and rat infestation, appalling smell and scavenging birds. Limerick County Council refused to provide them with the constituents of the fly spray used by them. They also suggest that those who legislate for landfills and give planing permission make sure that they are not situated in front of their own doors.*

**RESPONSE**

See reply to Submissions No 1, 4 and 5 in relation to environmental nuisances. See reply to Submission No. 20 in relation to improved fly control measures. These licence conditions will ensure that this landfill is managed on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of all matters affecting the environment. The comment in relation to the legislative and site selection process is noted.

**25. Mr. Declan Danaher, Irish Creamery Milk Supplies, made a 2<sup>nd</sup> submission which was received on the 17<sup>th</sup> April 1998.**

*Mr. Danaher made a submission on behalf of Limerick ICMSA in respect of the waste licence application extension in which he outlined control of pests as a major problem and also noted the contamination of surrounding lands by plastic. He states that no further extension should take place until the present problems are sorted out. The increased use of the landfill,*

*subsequent traffic increases and landscaping to minimise the negative impact on the environment are major concerns.*

**RESPONSE**

Proposals for upgrading the civic amenity centre (which include storage of farm plastics) are covered in Condition 4.8. See reply to Submission No. 12 in relation to traffic concerns. See reply to Submission No. 10 in relation to landscaping at the facility.

**26. Mr. Sean O' Mochain, Gortadroma Action Group, made a submission which was received on the 23<sup>rd</sup> June 1998.**

*Mr. O' Mochain sent in a short note thanking the Agency for the information supplied in respect of the application and wished to be kept informed of developments in relation to the application.*

**RESPONSE**

Mr. O'Mochain will be kept informed with regard to the issuing of a PD and dates for objections etc as per the Waste Licensing Regulations.

**27. Mr. Tim Mullane, Gortadroma Action Group, made a 2<sup>nd</sup> submission which was received on the 23<sup>rd</sup> June 1998.**

*Mr. Mullane made a submission regarding the legal status of proposals made by Limerick County Council in the licence application and EIS. Were these as important as the conditions to be included in any possible EPA waste licence? The level of detail to be included in subsequent submissions would be more substantial if the view was that Council was not bound by their proposals.*

**RESPONSE**

These matters were the subject of discussion at the meeting held with representatives of Gortadroma Action Group on the 10<sup>th</sup> September 1998 in Inniscarra was that all submissions from residents should cover all aspects that were of concern to them and to include the Impact Assessment Survey and their own privately commissioned consultants report.

Lengthy submissions including draft proposed licence conditions were received from the Action Group on November 23, 1998 and all of these were taken into consideration by the Inspector.

**28. Mr. Sean O' Mochain, Gortadroma Action Group, made a 2<sup>nd</sup> submission which was received on the 28<sup>th</sup> July 1998.**

*Mr. O' Mochain included a report regarding the design and construction of the leachate treatment plant. They questioned the changes in design at this stage and raised queries about the geological and hydrogeological investigations undertaken.*

**RESPONSE**

This matter was brought to the attention of the Council by telephone on 4<sup>th</sup> August 1998 and a satisfactory response outlining the situation was received by the Agency on the 13<sup>th</sup> August 1998 and is on public file.

**29. Ms. Annette Fitzgerald, Mid-Western Health Board, submission received on 30th September 1998.**

*In this submission they included a report following a site visit by James Cahill (EHO with the Mid-Western Health Board). He noted major fly infestation probably due to increased ambient air temperatures. He noted a change in the use of daily cover (inert clay being replaced by polythene sheeting). He expressed concern regarding time delays due to the use of a Specialist Pest Control Company. He raised concerns about the use of Actellic 25 insecticide which he states is an organophosphorous compound and the possibility of secondary impacts such as contamination of water courses due to its usage.*

**RESPONSE**

See reply to Submission No. 20 in relation to improved fly control measures. Biodegradable plastic may be used as cover material from Monday to Friday. However, on Saturdays 150mm of inert clay must be applied over the waste at the end of the working day.



**30. Mrs. Catherine O'Brien, Carnagh, made a submission which was received on the 11<sup>th</sup> August 1998**

*Mrs O' Brien who is a resident living in the first house east of the site made a submission complaining of the fly nuisance and possible health implications. She also noted that this problem has not been solved in 10 years of operation.*

**RESPONSE**

See reply to Submission No. 20 in relation to improved fly control measures. Emission Limits and Trigger levels for dust and PM<sub>10</sub> emissions shall ensure that the facility is operated to the highest environmental standards. In addition, see response to Submission No 1 in relation to human health concerns.

**31. Mr. & Mrs. Denis & Goretti Trant, Monemohill, made a submission which was received on the 6<sup>th</sup> March 1998**

*Mr. and Mrs. Trant made a submission in which they outlined the loss to the community of families due to the existence of the landfill. Other concerns expressed were odour nuisance (particularly in the morning), littering of their fields, bird nuisance resulting in loss of silage. In recent years there has been a problem with fly infestation in summer and autumn in particular at weekends when there had been no fly spraying. Traffic volumes have increased and safety issues are of concern for children and adults walking, cycling and driving. For the first time in their lifetime they have had a herd infected by Brucellosis and there has been rodent damage to their silage bales. They state that an extension to the landfill would only increase further the problems that they have to endure over the past number of years.*

**RESPONSE**

Environmental nuisance conditions are covered in Conditions 6.1 to 6.13 inclusive.  
See reply to Submission No. 4 in relation to animal health / farm productivity.  
See reply to Submission No. 12 in relation to traffic concerns.

**32. Mr. Declan Danaher, Secretary Limerick ICMSA, submission received on 9<sup>th</sup> March 1998**

*A submission signed by John Ennigle on behalf of Declan Danaher was made in which he stated that ICMSA wish to object to the current licence granted to Limerick County Council to operate a landfill in Gortadroma due to concerns among its members in the area regarding the impact on the local environment, animal and human health. He states that any licence granted to Limerick County Council must give the local community cast iron assurances that their concerns are being addressed. Their detailed concerns will be forwarded in subsequent correspondence.*

**RESPONSE**

At the time of this submission no licence was granted to Limerick County Council. A licence if granted and enforced will ensure that the landfill will operate to the highest standards.

**33. Mr. Tony Hayes, No. 8 Riverview, made a submission which was received on the 6<sup>th</sup> March 1998**

*Mr. Hayes made a submission in which he voiced his disapproval of possible granting of a licence for the landfill or the extension of same due to problems of odour, rat infestation, litter dispersal. He also outlined his concern regarding the Councils operation of the site without a licence and their acceptance of additional waste from Limerick City following closure of the Longpavement Landfill as the Council stated clearly at the outset that Gortadroma landfill would only take waste from West Limerick.*

**RESPONSE**

At the time of writing there was no requirement on Limerick County Council to hold a licence for landfill. Problems relating to odour, rodent and litter nuisance are covered in Conditions 6.1 to 6.13. The landfill can take up to 130,000 tpa in the proposed licence.

**34. Mr. Thomas Brouder, Duncaha House, Shanagolden submission received on 9<sup>th</sup> March 1998**

*Mr. Brouder who has land to the north of the landfill made a submission in which he outlined his problems with litter, odour and rodents emanating from the landfill. As he keeps his dairy replacements in this farm he is concerned about disease and has noted a decline in property value in the area. On these grounds he opposes the granting of a licence to operate the landfill.*

**RESPONSE:**

Conditions relating to litter, odour and rodents are covered in Condition 6. See also reply to Submission No. 4 in relation to animal health. The licence as issued and enforced will ensure that the landfill will operate to the highest standards.

**35. Mr. Michael Costello, Carnagh, made a submission which was received on the 13<sup>th</sup> November 1998**

*Mr. Costello made a further submission. The following issues were raised. The landfill is an eye sore from the side of the public road. The road network is in terrible condition. Odour, rats, flies are problems. He also notes the flooding of fields is becoming a problem and the likelihood of pollution of receiving water sources from existing and future cells on site.*

*He also states that Limerick County Council are unable to manage the present landfill never mind an extension.*

**RESPONSE:**

Condition 4.22 requires proposals for surface water management at the facility.

See response to Submission No.6 in relation to concerns regarding water supply.

See reply to Submission No. 12 in relation to traffic concerns.

The licence if issued and enforced will ensure that the landfill will be managed and operated to the highest standards.

**36. Mr. Tim Mullane, Gortadroma Action Group, made a submission which was received on the 2<sup>nd</sup> November 1998.**

*In this submission he noted that Limerick County Council have decided to abort the meetings of the Joint Monitoring Committee which he feels is a retrograde step and hopes that the council maintain a liaison committee with the local community.*

**RESPONSE:**

Condition 2.7 relates to a Communication Programme to ensure that members of the public can obtain information regarding the environmental performance of the facility at all reasonable times.

**37. Mr. Patrick Kelly, Knocknasna, Abbeyfeale, made a submission which was received on the 20<sup>th</sup> November 1998**

*Mr. Kelly made a further submission in which he stated that he has experienced considerable inconvenience as a result of the operation of the landfill. Scavenging birds, odour, litter, depositing in waste in high winds over the October bank holiday weekend. The Council were responsible for waterlogging his field by diverting a stream on their property. No procedure for checking waste. He contends that it is against the law to alter the direction of an existing stream. This matter has been brought to the attention of his solicitors. He also requests meetings with Limerick County Council personnel and independent monitoring.*

**RESPONSE:**

Conditions 4.22 requires proposals for surface water management at the facility. Condition 5.5 requires proposals for landfilling under conditions of high winds for agreement with the Agency. Conditions 4.7 and 5.4 relates to inspection and characterisation of wastes. A condition relating to Communications is included (Condition 2.7) and independent monitoring by the Agency will be undertaken as part of the licensing process.

**38. Mr. & Mrs. Tom & Mairead Normoyle, Gortnadroma, made a submission which was received on the 20<sup>th</sup> November 1998**

*A further submission was received. The following issues are continuing to be concerns: Rats, odour, papers, dust, noise and lights, birds. They note that these problems are regularly*

*seemingly rectified but reoccur within a short time period.*

**RESPONSE:**

Conditions relating to environmental nuisances are included in Condition 6. Conditions relating to control of environmental pollution due to noise are included in Schedule F. Landscaping proposals are required to take light pollution mitigation measures.

**39. Mr. Richard Kennedy, County Chairman Limerick IFA, submission received 20<sup>th</sup> November 1998**

*Mr. Kennedy made a further submission and raised concerns in respect of the landscaping, the population density, the loss of animal farm productivity due to poor management at the facility, the odours arising from the dump when the plastic covering used for sealing off cells is broken, and vermin nuisance and broken glass / litter been taken onto neighbouring farms.*

**RESPONSE:**

See reply to Submission No. 10 in relation to landscaping at the facility.  
See reply to Submission No. 4 in relation to animal health / farm productivity.  
Environmental nuisance conditions are contained in Condition 6.

**40. Mr. & Mrs. Christopher & Helen Brouder, Carnagh, made a submission which was received on the 20<sup>th</sup> November 1998**

*In their submission they raised concerns regarding the road infrastructure, road safety, roadside litter, the odour problems on frosty days, the lack of landscaping, vermin nuisance and the capability of the County Council to manage the landfill.*

**RESPONSE:**

See reply to Submission No. 12 in relation to traffic concerns.  
Odour and vermin nuisance conditions are contained in Condition 6.  
See reply to Submission No. 10 in relation to landscaping at the facility.  
Conditions contained in Condition 2 are included to make provision for management of the activity on a planned basis.

**41. Mr. Michael Lane, Monemohill, submission received on 20<sup>th</sup> November 1998**

*Mr. Lane made a further submission referring to his earlier letter of 5/3/98 and added to it by noting the additional problem of a bird scarer on-site.*

**RESPONSE:**

Condition 6.4 requires submit proposals for bird control at the facility excluding the use of the bird banger within three months of the date of grant of licence

**42. Mr. Donal Danaher, Monemohill, submission received on 20<sup>th</sup> November 1998**

*A further submission was received raising concerns about public and animal health in respect of nuisance from birds, rats, insects and odourous compounds. A further concern was raised in relation to the use of back roads by dump trucks, the lack of landscaping, and the devaluation of property due to proximity of the landfill.*

**RESPONSE:**

Conditions which provide for the control of nuisances are included in Condition 6. See reply to Submission No. 4 in relation to animal health / farm productivity. See response to Submission No 15 in relation to management of the facility. See reply to Submission No. 10 in relation to landscaping at the facility.

**43. Mr. Raymond Brouder, Gortnadroma, made a submission which was received on the 23<sup>rd</sup> November 1998**

*Mr. Brouder made a further submission and raised concerns regarding the poor management of the dump in light of its proximity to the large number of house properties. He mentioned foul smells, rodents and the unsightliness of the countryside. He noted the worry of all users of*

*domestic water supplies and the loss of the local river as a fishing amenity due to the potential of leachate contamination.*

**RESPONSE:**

See response to Submission No 15 in relation to management of the facility.  
Strict discharge limits for treated leachate have been set in this licence (See Schedule G ).  
See response to Submission No. 6 in relation to concerns regarding water supply.

**44. Mr. & Mrs. Michael & Siobhain Costello, Cahernagh, made a submission which was received on the 23<sup>rd</sup> November 1998**

*Mr. & Mrs. Michael & Costello made a further submission in which they cited property devaluation as a consequence of poor landfilling operations. They also mentioned problems with rats, flies and odours and the road surface breaking up and falling into a nearby dyke.*

**RESPONSE:**

Condition 4.22 requires proposals for surface water management at the facility. See response to Submission No 15 in relation to management of the facility. Environmental nuisance conditions are covered in Conditions 6.1 to 6.13.

**45. Ms. Peggie Hayes, Carnagh, dated 20 November 1998, made a submission which was received on the 23<sup>rd</sup> November 1998**

*Ms Hayes made a further submission in which she reported that road traffic has increased and has resulted in damage to her wall. Other concerns raised were fly nuisance all summer and resultant fears for her health.*

**RESPONSE:**

See response to Submissions No 1 and 20 in relation to human health concerns.  
See reply to Submission No. 20 in relation to improved fly control measures.  
See reply to Submission No. 12 in relation to traffic concerns.

**46. Dr. Kevin Kelleher, Mid-Western Health Board, made a submission which was received on the 23<sup>rd</sup> November 1998**

*This submission highlighted areas of public health concern where the EIS does not comprehensively deal with such issues. The following were listed as the main issues.*

**A. Increased tonnage**

*This would result in increased dust and air emissions arising from increased traffic and tipping of waste. He requests resubmission of mitigation measures and an amended operational management plan. He also suggests that the increased leachate production and quality following an increase in landfill tonnage is not properly addressed.*

**RESPONSE:**

Conditions relating to Environmental Monitoring are covered in Conditions 9.1 to 9.15.  
Conditions 2.1 to 2.10 require the facility to be managed on a planned basis. Conditions relating to leachate management and recirculation are covered in Conditions 4.18 and 4.19 while stringent emissions limits are set in Schedule G.4.

**B. Odour Control**

*The chemical measurement since their previous submission undertaken was welcome. This submission also refers to odour problems, difficulties in siting monitoring locations and the lack of quantifiable results*

**RESPONSE:**

Conditions relating to odour nuisance are set in Conditions 6.1, 6.12 and 6.13.

**C. Aerosol.**

*aerosol monitoring performed as part of the waste licence application is not comprehensive and the monitoring locations selected did not accurately reflect on-site conditions due to a*

*change in the prevailing wind direction. Provision should be made to establish an aerosol sampling location adjacent to the leachate treatment plant and any dust emissions monitoring should take account of increased levels during the period April to September.*

**RESPONSE:**

aerosol and dust monitoring (in the period May to September) required in Schedule F.2 of this licence also require locations in the vicinity of the leachate treatment plant.

**Vermin control.**

*The issue of vermin control in particular of fly infestation/control is a major cause of concern from an environmental and public health viewpoint. Home owners on the east of the landfill site are experiencing significant infestation and increase risk of infection during summer months. The use of insecticides on exposed faces and flanks of cells could give rise to secondary impacts such as contamination of water courses and leachate.*

**RESPONSE:**

Conditions relating to improved vermin control measures are required in Conditions 6.1, 6.2 and 6.3.

**E. Long term site management.**

*He states that a number of impacts (such as dust, litter, noise, surface run-off) can be controlled by good practices. He notes that the proposal as submitted does not adequately address the issue of site works aftercare programme. Other issues associated long term environmental issues with leachate and landfill gas.*

**RESPONSE:**

The facility when operated in accordance with the conditions will not cause significant environmental pollution. Condition 8.2 relates to site restoration and aftercare. Specific proposals for landfill gas control and utilisation and leachate management are required in Conditions 4.17 to 4.19.

**47. Mr. & Mrs. Michael & Maisie Guiney, Gortnadroma, made a submission which was received on the 23<sup>rd</sup> November 1998**

*Mr. & Mrs. Guiney made a further submission. In this submission they cited his personal experience regarding fly infestation from April to October of this year, rats have eaten through a solid teak door and have been dying under their turf stores and also reported an incidence of litter pollution over October holiday weekend in the neighbouring lands which were brought about by non covering of waste in windy conditions.*

*They also included communications that are on-going between their solicitor and Limerick County Council (and local TD Dan Neville) in relation to noise nuisance (pump on all night) and possible contamination of the nearby River*

*(included also a note from Dr Leonard for M s Guiney regarding her lack of sleep as she work shifts)) (Also a copy of a letter refusing an application for outline planning for 5 houses by Ms Guiney at Kildimo for reasons of traffic hazard, conflict with County Development plan, excessive density of septic tanks)*

**RESPONSE:**

Bird control measures to be agreed with the Agency shall not include the use of bird banger (Condition 6.4). Fly control and rodent control measures are included (Conditions 6.1, 6.2, 6.3)

Condition 5.5 requires proposals for landfilling under conditions of high winds for agreement with the Agency. Noise limits set for noise sensitive locations in Schedule G.

**48. Mr. & Mrs James & Philomena Moloney, Mohernagh, made a submission which was received on the 23<sup>rd</sup> November 1998**

*Mr. & Mrs. Moloney made a further submission in which they cited Council mismanagement and problems relating to environmental nuisances (rats, birds, odour) are reasons for objecting*

to the granting of the licence for the extension.

**RESPONSE:**

Environmental nuisance conditions are covered in Conditions 6.1 to 6.13. Management of the facility are covered in Conditions 2.1 to 2.10 inclusive.

**49. Mr. & Mrs Denis & Goretti Trant, Monemohill, made a further submission which was received on the 23<sup>rd</sup> Novemeber 1998.**

*Mr. & Mrs Trant made a submission in which they outlined their personal experiences with respect to fly infestation, bird nuisance, traffic increase safety problems, deterioration of road network due to heavy vehicles, odour nuisance. They also cited an example of litter strewn throughout the neighbourhood during high wind conditions as further reasons for refusing to grant an extension to the landfill.*

**RESPONSE:**

See responses to Submissions No. 1, 4 and 5 in relation to environmental nuisances.

See reply to Submission No. 12 in relation to traffic concerns.

Condition 5.5 requires proposals for landfilling under conditions of high winds for agreement with the Agency.

**50. Mr. & Mrs Stephen & Connie Kennelly, Monemohill, receieved 23<sup>rd</sup> November 1998**

*Mr. & Mrs Kennelly made further submission and cited nuisance from odours, fly infestation, scavenging birds and rats as reasons for their submission. They are also concerned with final contour levels, human health and landfill mismanagement.*

**RESPONSE:**

See responses to Submissions No. 1, 4 and 5 in relation to human health and environmental nuisances.

See reply to Submission No. 12 in relation to traffic concerns.

**51. Mr. & Mrs Tim & Mary Mullane, Carnagh, 23<sup>rd</sup> November 1998**

*The following environmental nuisances were regarded as detrimental to their quality of life (flies, odour, litter from vehicular traffic). Other concerns expressed were lack of landscaping, risk to wells and spring waters.*

**RESPONSE:**

See responses to Submissions No. 1, 4 and 5 in relation to environmental nuisances

See reply to Submissions No. 6 and 10 in relation to water quality concerns and landscaping at the facility.

**52. Mr. Tim Mullane, Gortadroma Action Group, submission received on 23<sup>rd</sup> November 1998**

1. Submission document
2. Gortadroma Action Group Impact Assessment Survey, August 1997
3. Report on Gortadroma Landfill prepared for GAG by Malone O'Regan
4. Copies of minutes of meetings held during 1997 and 1998.
5. Copy of letter from Gortadroma Action Group of August 1998 on the subject of the plague of flies in local houses.
6. Copy of two reports from Rentokil.

**52.1 Submission Document**

*There are seventeen separate sections in this document.*

**1. Consultation**

*The submission outlines the present situation with regard to the joint monitoring committee which comprises 5 members representing the Gortadroma Action Group, 4 members of the local authority and 1 county councillor. The Council have withdrawn from the Joint Monitoring Committee due to of a dispute with the Action Group. The submission requires that any*

condition must specify the make-up, the scope of access to information and the frequency of meetings.

A number of recommendations with respect to design details and management procedures outlined in the original site selection process which if implemented would have mitigated against several environmental impacts. There was no monitoring conducted at the site during the operational years 1990-1995.

2. *Date of Dump Opening*
3. *Basis of EIS*
4. *Extent of the proposed extension to which the EIS related*

The submission raised the question of the requirement for an EIS from the start date of landfilling at the facility. They raise a query in relation to the confusion in the application regarding the existing environment (i.e. 8 years of mismanagement) versus pre-landfill situation.. They suggest that Limerick County Council should not be given a licence in respect of an extension until it can manage the existing operation to a better standard with respect to vermins, rodents, insects etc..

#### **Response**

In the Minutes of the Gortadroma Joint Monitoring Committee (held 13/8/98) supplied with this submission it was confirmed that the landfill opened in September 1990. An EIS was requested by the Agency and accompanied the present application before the application date for existing landfills (October 1 1997) under the Waste Management Licensing procedure. See reply to submission No 3 in relation to the basis of the EIS study.

#### 5. *Human Health*

In this section the present situation at Gortadroma was outlined. They note that the information supplied regarding human health as outlined in the EIS and waste licence application was too narrowly focused and they outline a number of factors missed in this report (odour, noise/sleep disturbance, safety issue, dust nuisance, insect, dead birds, scavenging birds, stress to farmers due to risks to livestock and extra financial burden.

#### **Response**

The stringent emission limits and trigger levels are set in Condition 7 and Schedule G of the proposed decision in relation to emissions to air and water which will ensure that significant pollution does not arise as a result of this activity and consequently will significantly limit the impact on public health. However, it should be noted that some of the human health factors and concerns outlined in this submission do not lend themselves to or are appropriate to control by way of emission limit values. See also response to Submission No. 1 in relation to a proposed approach to addressing these human health concerns. Many of the points outlined in this section should be taken on board in any subsequent health study.

#### 6. *Agriculture*

Many of the items outlined in the earlier submissions by the residents were re-emphasised in this section. They stress that the main issue for farmers is the issue of cleanliness. And require a method of constant monitoring of treated leachate and diversion of potentially contaminated run-off to perimeter drains.

#### **Response**

See reply to submission No. 4 in relation to animal health problems. Conditions relating to leachate and surface water management are covered in Conditions 4.18, 4.19, 4.22 and 7.8.

#### 7. *Scenery*

In this submission they require a visual screen as fast as possible as a priority in order to improve visual aspects and to act as a filter for windblown debris, odour insects and rodents.

#### **Response**

Landscape proposals are required in Condition 8.3 and this also requires an appraisal of the on-going works and plans for future planting (including fast growing species).

#### 8. *Smell*

*They suggest continuous monitoring specifying standards and actual procedures for odours at locations where residents complain of constant or near continuous odours.*

**Response**

Conditions relating to odour nuisance are set in Conditions 6.1, 6.12 and 6.13.

9. *Rodents*

*They require that the issue of rodent control must be dealt with inside the facility and also bring the rodent numbers within a 2km radius to below pre-landfill levels.*

10. *Birds*

*They require that the falcon and falconer are retained on a continuous basis until scavenging birds are eliminated from the landfill.*

11. *Insects*

*They suggest that a written procedure be prepared for the control of insects from the facility.*

**Response to 9,10, 11**

Conditions relating to control of environmental nuisances are covered in Condition 6.1 to 6.13.

12. *Wildlife*

Their main concern relates to dead and dying animals in the vicinity of the landfill and require post-mortems on all wildlife found dead in suspicious circumstances around the landfill.

**Response**

Schedule F8 relates to investigating complaints received in relation to animal health/farm productivity as they arise and also ecological and a study of animal health in the area surrounding the landfill are required on an annual basis.

13. *Traffic*

*They were unhappy with the traffic modelling exercise performed after a one day field exercise. Their concerns in relation to road conditions, safety, increased traffic, speeding traffic etc were outlined. They suggest a proper study taking the above factors into account be undertaken.*

**Response**

See reply to Submission No 12 (from Mr. & Ms. Michael & Siobhain Costello) in relation to traffic concerns.

14. *Water*

*They noted that the original study in 1987 got the picture incorrect in relation to the amount of water at the site and they request that the whole issue of water (leachate, groundwater, surface water) be re-examined. They note that the level of monitoring has been practically non-existent. They require access to the site for independent monitoring on top of monitoring carried out by the Agency.*

**Response**

Independent monitoring will be performed on a regular basis by the Agency in relation to all emissions from the site. Limerick County Council are required to instigate a communications programme and the aspect of independent monitoring could be addressed at that forum. In addition, there is a requirement to analyse all private wells within 1km downgradient of the facility on an annual basis for a limited set of parameters.

Conditions 4.18 to 4.22 inclusive require further proposals for leachate, groundwater and surface water management within nine months from the date of the grant of licence.

15. *Noise*

*They note that there has been an increase in noise emissions from the site in the past 2 years due to increased traffic and use of bird scaring device. They note that the report reads well from a technical, professional point of view but does not reflect the actual level of nuisance in an area that was a quiet rural area prior to landfill start-up.*

**Response**

The use of the banger is not allowed under the terms of this licence. Noise limits set for noise sensitive locations in Schedule G.

16. *Cleanliness*

*They note that the track record is very poor in relation to the operation of this landfill and they require a high winds procedure being properly implemented.*

**Response**

Condition 5.5 requires proposals for a high winds procedure. Conditions 6.5, and 6.7 to 6.10 inclusive relate to control of litter.

17. *Security*

*Due to vandal activity at the landfill that the council install a number of CCTV cameras.*



**Response**

This is covered in Condition 4.3.

**52.2: Gortadroma action Group Impact Assessment Survey, August 1997.**

*This 93 page document consists of Contents list, summary, introduction, methodology and 15 separate chapters dealing with various aspects of environmental concern (scenery, smell, rodents etc.) and 4 Appendices. The 4 appendices consisted of a (i) sample questionnaire (long including scenery impacts, and short), (ii) map of the area,(iii) photographic evidence of environmental pollution and (iv) answer sheets. The respondents completed answer sheets were not included in the report received by the Inspector.*

*The tabulations were reduced to the situation inside a 2km radius from the landfill and the situation for the total of respondents up to 5km which became the outer boundary of the responses received. In all there were 123 respondents of which 24 live within 0.5km from the landfill.*

*Smell is the most frequently listed problem followed by cleanliness and insects. Traffic was another major concern in August 1997 even prior to the closure of Longpavement and Croom landfill sites.*

**RESPONSE:**

The document clearly outlined the major concerns relating to the on-going operations of the landfill. Many of the findings are addressed in conditions in the proposed decision.

**52.3: Malone O' Regan Environmental Services**

*This 44 page document contained information under the following 7 chapter headings.*

*1. Introduction, 2. Original site assessment, 3. Environmental impacts (15 separate impacts addressed) , 4. Monitoring, 5. Review of EIS/waste licence application, 6. Environmental Management, 7 Conclusions.*

*They note that the original site selection process conducted in 1987 did not appear to have followed guidelines which were available and published in Ireland at the time (AFF, 1985).*

*The operation of the facility from 1990-1998 has had a detrimental impact on the lives of residents living within close proximity to the landfill (15 separate impacts addressed).*

*There was no monitoring conducted at the site during the operational years 1990 to 1995. Although baseline information was conducted prior to opening it was not substantive but it did indicate unpolluted conditions at the site. The monitoring performed in the past 3 years was not in compliance with the monitoring requirements as outlined in the EPA Monitoring Manual.*

**RESPONSE**

Extensive monitoring of emissions is required in Conditions 9 and Schedule F of this proposed decision.

*They suggest that the EIS does not comply with statutory requirements for the following reasons: (i) that the EIS should address the impact of the entire facility as the facility had an established intake in excess of 25,000 tpa and (ii) that it relates to an extension with a proposed annual tonnage of 100,000tpa which is significantly less than the 130,000 tpa now proposed . They recommend that legal advice be sought to ascertain whether planning permission is necessary in accordance with Parts IX and X of the Planning Regs 1994.*

**RESPONSE**

See response to Submission no 3 in relation to the basis/extent and content of the EIS. The matter in relation to planning permission is a matter for the planners of Limerick County Council.

*General observations were made which were derived from the documentation which referred to site location, poor management history, implications of increased tonnage, the need for careful control in practising leachate recirculation, problems with leachate management and installing clay caps, utilisation of C&D waste, inefficient noise survey,*

*If the facility continues to operate in the future it will be under conditions attached to a waste licence which would require significant managerial and infra-structural changes at the site and the impacts associated with future operations should be greatly reduced. The example of the first waste licence (North Kerry) with its strict licence conditions was quoted.*

*They feel however that proposed improvements at the facility are unlikely to address the long-term consequences resulting from previous poor management at the facility such as visual appearance and potential risks of groundwater pollution from the first four unlined cells. They believe that the assessment was based on 100,000 tpa and not 130,000 tpa which is now the real volume to be handled at the facility.*

**RESPONSE**

The above comments were noted when drafting the PD and the conditions in this licence are no less strict than the first licence referred to above.