

MEMO			
TO:	Board of Directors	FROM:	Michael Henry
CC:		DATE:	24th May 2001
SUBJECT: Technical Committee Report on Objections to Proposed Decision Reg. No. 109-1.			

Application Details	
Applicant:	Clare County Council
Location of Activity:	Central Waste Management Facility, Ballyduff Beg, Inagh, Co. Clare
Reg. No.:	109-1
Licensed Activities under Waste Management Act 1996:	Third Schedule: Classes 2, 4, 5, 6, 7, 11, 12, 13 Fourth Schedule: Classes 2, 3, 4, 9, 10, 11, 13
Proposed Decision issued on:	28/12/00
Objections received:	23/01/01; 24/01/01
Submissions on objections received:	06/04/01
Inspector:	Mr. Brendan Wall

Objections and submissions on objections received

Three objections to the proposed decision were received from:

1. Clare County Council
2. Jack O'Sullivan, Environmental Management Services on behalf of Inagh Anti Landfill Group and the Irish Forestry Unit Trust
3. An Taisce.

Submissions on the objections were received from

1. Clare County Council
2. Jack O'Sullivan, Environmental Management Services on behalf of Inagh Anti Landfill Group and the Irish Forestry Unit Trust.

One request for an oral hearing was received from Jack O'Sullivan, Environmental Management Services on behalf of Inagh Anti Landfill Group and the Irish Forestry Unit Trust. The Board of the Agency has already decided not to hold an oral hearing.

Consideration of the objections and submissions on objections

The technical committee (Michael Henry, Chairperson, Malcolm Doak and Regina Campbell committee members) has considered all of the issues raised and this report details the Committee's comments and recommendations following the examination of the objections.

Objection No.1: Clare County Council

Ground 1 (Condition 1.4)

It is requested that the words 'tonnes per annum' are inserted after the number '62,500'.

Technical Committee's evaluation

The technical committee consider that Condition 1.4 should be amended to include the words 'tonnes per annum' as recommended below.

Recommendation

Amend Condition 1.4 as follows:

The total quantity of wastes to be accepted for disposal or recovery at the facility shall not exceed 62,500 tonnes per annum, and the quantity of waste to be accepted for disposal at the landfill shall not exceed 56,500 tonnes per annum.

Ground 2 (Condition 3.14)

The Co. Co. do not understand the requirement to keep records of when (a) the filling of a container commenced and (b) the container was filled. It suggests that what should be recorded is when the container is removed.

Technical Committee's evaluation

The requirements of Conditions 3.14 (a) and (b) will provide useful information in relation to the use of the Civic Waste facility by members of the general public. Therefore, the technical committee consider that Condition 3.14 should remain unchanged.

Recommendation

No change.

Ground 3 (Condition 4.2)

The inclusion of 'alternative drinking water supplies' as 'Specified Engineering Works' in Schedule D should be removed because it is inappropriate to wait two months before a drinking water supply is replaced in the unlikely event of it becoming contaminated.

Technical Committee's evaluation

The timeframe of two months for submission of all Specified Engineering Works proposals is necessary to allow sufficient time for such works to be agreed with the Agency. The technical committee consider that the inclusion of the provision of an 'alternative drinking water supply' as a Specified Engineering Works should remain.

Recommendation

No change.

Ground 4 (Condition 4.5.2)

Condition 4.5.2 may imply that tree felling can only take place in respect of cell construction and this may prevent other areas being cleared to build the landfill. Also it seems to preclude tree felling for creation of fire breaks, ad-hoc removal due to storm damage or for encouraging wildlife/plants on the woodland floor. The condition should be amended to include the words 'within the landfill footprint'.

Technical Committee's evaluation

The felling of trees should take place on a phased basis only and it is essential that the breeding season for birds and the nesting sites for owls and birds of prey are fully protected. The technical committee consider it necessary to require the submission of a phasing plan for all proposed tree felling at the facility. This plan should be submitted to the Agency at least three months prior to

the development of the site. Condition 4.5.2 should also be amended to require such tree felling to be supervised by an appropriately qualified forester.

Recommendation

Amend Condition 4.5.2 as follows:

Within 3 months of the commencement of construction activities at the facility, a phasing plan for all tree felling proposed for the facility shall be submitted to the Agency for its agreement. Trees shall only be felled on a phased basis as agreed with the Agency in the phasing plan and the tree felling must be supervised by an appropriately qualified forester. The felling of trees shall only be undertaken outside the breeding season for birds and the nesting sites for owls and birds of prey shall be fully protected, as described in the Article 13 reply dated June 2000.

Ground 5 (Condition 4.7.1)

The requirements of Condition 4.71 which states that 'no development works shall be carried out at the facility' until the road improvements specified in this condition have been carried out present a highly unreasonable restraint on the commencement of tree felling and site construction. This wording could be replaced with 'no biodegradable waste shall be deposited' or at the very least site development works should be allowed prior to or in tandem with road widening.

Technical Committee's evaluation

The technical committee consider it essential that no development works are carried out at the facility until the necessary road improvements to the N85 as specified in Condition 4.7.1 have been carried out. This will minimise the risk of traffic accidents on this route and will ensure the proper movement of traffic to and from the facility during construction and operation of the landfill.

Recommendation

No change.

Ground 6 (Condition 4.16.5)

The requirement to undertake a leak detection survey of the surface water lagoon liner should be removed.

Technical Committee's evaluation

The requirement to undertake a leak detection survey on the lining system for the surface water lagoon should remain and this will ensure that the lining system has been installed in a satisfactory manner.

Recommendation

No change.

Ground 7 (Condition 4.17.5)

The Co. Co. want clarification on the term 'fully enclosed' as specified in Condition 4.17.5 for storage and/or treatment of untreated leachate. It considers that if the leachate lagoon has to be 'fully covered' it will cause significant health and safety problems, a build up of methane, odour problems and the design contained in the licence application (and in Condition 4.16.4) did not embrace an enclosed lagoon.

Technical Committee's evaluation

Having regard to the levels of rainfall in this region, the technical committee consider that the leachate lagoon should be a covered structure. This should further minimise the levels of leachate/contaminated water produced for off-site treatment. The licensee should ensure that a

build up of methane or other gases does not occur within the headspace of the lagoon. Condition 4.16.4 refers to the lining system for the leachate storage lagoon.

Recommendation

Amend Condition 4.17.5 as follows:
All structures for the storage and/or treatment of untreated leachate shall be fully covered except for inlet and outlet piping.

Ground 8 (Condition 4.18.7)

The requirement to construct perimeter landfill gas boreholes should apply to the periphery of the 'landfill footprint' and not the 'area being filled'.

Technical Committee's evaluation

The requirement to install perimeter landfill gas boreholes is necessary to measure the potential migration of landfill gas. Condition 4.18.7 should be amended to state that the boreholes are installed around the landfill footprint.

Recommendation

Amend Condition 4.18.7 as follows:
Perimeter landfill gas monitoring boreholes shall be constructed at 45m intervals around the periphery of the landfill footprint. The construction.....

Ground 9 (Condition 4.19.4)

This condition could require the storage of any geosynthetic material or granular materials for up to six months. It should only refer to topsoils and subsoils used for capping.

Technical Committee's evaluation

In order to ensure that there is an adequate supply of capping materials at the facility at all times, the licensee will be required to maintain a six month stockpile of such materials. This includes geosynthetic materials, subsoils and topsoils.

Recommendation

No change.

Ground 10 (Condition 4.20.5)

The requirement to line the stormwater lagoons with HDPE would preclude mechanical silt removal and the latter would damage the liner. It is considered a clay lined lagoon is adequate.

Technical Committee's evaluation

The technical committee consider that the use of a clay liner for the surface water lagoons is not BATNEEC for this facility. Therefore, the requirement for lining this lagoon with HDPE should remain. The HDPE liner can be overlain with a physical protection layer and this should facilitate the removal of silt from the lagoon.

Recommendation

No change.

Ground 11 (Condition 5.16.1)

The 2000 tonne limit for the quantity of waste to be composted is quite small, particularly in light of the Landfill Directive and national recycling and composting targets. Therefore some leeway is requested.

Technical Committee's evaluation

The technical committee note that the quantity of waste to be composted at the facility and as specified in Condition 5.16.1 (2,000 tonnes) was the quantity applied for by the applicant. Note 3

of Table G.2 of the proposed decision allows for an increase in the maximum tonnage of waste recovered at the facility provided that (i) there is a decrease in the quantity of waste disposed of at the facility and (ii) the total amount of waste accepted at the facility does not exceed 62,500 tonnes per annum. Therefore, the technical committee consider that Condition 5.16.1 should be amended to reflect the requirements of Note 3 of Table G.2.

Recommendation

Amend Condition 5.16.1 as follows:

Only source separated organic waste and green waste shall be accepted at this facility. The quantity of waste composted shall not exceed 2,000 tonnes per annum unless otherwise agreed with the Agency under Note 3 of Table G.2.

Ground 12 (Condition 5.16.8)

The Co. Co object to the requirement that all compost produced must meet the standards specified in Schedule H: Compost Quality in that it will not always be possible to manufacture compost to meet such standards. If this is the case, the condition should set down an alternative option (e.g. disposal in landfill).

Technical Committee's evaluation

The standards specified in Schedule H for all compost produced at the facility takes into account international practice in relation to composting. The technical committee consider that it is possible to achieve the limits specified in the proposed decision.

Recommendation

No change.

Ground 13 (Condition 6.10.1)

Condition 6.10.1 should be amended to allow the use of a mix of bird control measures which will have to be agreed with the Agency. The requirement for birds of prey to be flown every day from dawn to dusk is neither desirable or feasible.

Technical Committee's evaluation

The technical committee consider that the second sentence of Condition 6.10.1 should be amended to allow the use of birds of prey or other bird scaring devices as agreed with the Agency and Duchas. Such measures should be in place every day from before dawn to after dark and this should ensure adequate control over potential bird nuisance.

Recommendation

Amend Condition 6.10.1 as follows:

Birds shall be prevented from gathering on and feeding at the facility by the use of birds of prey or other bird scaring techniques, following consultation and approval from Duchas. The birds of prey and/or other techniques shall be in place at the facility at least two weeks prior to any waste being disposed of and shall maintain their presence every day, from before dawn to after dark, until the waste activities cease and all the waste is capped to the written satisfaction of the Agency. The use.....

Ground 14 (Condition 7.5.1)

Given that Condition 4.17.5 requires the leachate lagoon to be fully enclosed, it is inevitable that the trigger levels in Condition 7.5.1 will be breached at this location due to a build up of methane.

Technical Committee's evaluation

The trigger levels for landfill gas emissions apply to any service on, at or immediately adjacent to the facility and/or at any other point located outside the body of the waste. The technical committee consider that they should apply to the leachate storage lagoon and the licensee

should be required to monitor the gas levels at this location (See also response to Ground 7 above in relation to the requirement to cover the lagoon).

Recommendation

Add the following ‘Station’ to Table E.1.1 ‘Perimeter Monitoring Locations’:
Leachate Storage Lagoon

Amend Table E.1.2 as follows:

Parameter	Monitoring Frequency ^{Note1}		Analysis Method /Technique ^{Note 2}
	Gas Boreholes/ Vents/Wells	Site Office/Leachate Storage Lagoon	
Methane (CH₄) % v/v	Monthly	Weekly	Infrared analyser/flame ionisation detector
Carbon dioxide (CO₂)%v/v	Monthly	Weekly	Infrared analyser
Oxygen(O₂) %v/v	Monthly	Weekly	Electrochemical cell
Atmospheric Pressure	Monthly	Weekly	Standard
Temperature	Monthly	Weekly	Standard
Minor Landfill Gas Constituents	Annually	Annually	See Note 3

Note 1: Monitoring to commence one month prior to the commencement of waste activities.

Note 2: Or other methods agreed in advance with the Agency. All monitoring equipment used should be intrinsically safe. Perimeter boreholes shall be monitored by the use of Flame Ionisation Detector.

Note 3: Sampling to be carried out for minor landfill gas constituents (e.g. H₂S, mercaptans, aliphatic acids etc.) as required by the Agency following evaluation of monthly results.

Ground 15 (Condition 8.1)

By restricting the final height to 97.6m OD, this has the potential to reduce the life of the facility significantly. This will prevent the restoration of the site to the contours proposed in the EIS and will result in depressions forming on the restored surface thereby precluding effective surface water run-off. The height given in Condition 8.1 should be after settlement and should be specified at 101.25mOD.

Technical Committee’s evaluation

The technical committee note that Section 2.10 of the EIS (Closure and Aftercare) stated that the final height of the landfill would not exceed 2.6m above the highest point of the existing ground level (95m in Fig. 2.3 of the EIS). Therefore, the height restriction of 97.6 mOD specified in Condition 8.1 should remain and is as referred to in the EIS by the applicant. The restoration plan, which has to be agreed with the Agency under Condition 8.2, will ensure that the site is restored in order to minimise rainwater infiltration.

Recommendation

No change.

Ground 16 (Condition 9.4)

The requirement to undertake leachate level monitoring in each cell is too onerous given that there will be five cells in the first phase and five phases of filling. It is requested that Condition 9.4

is amended to require leachate level monitoring in each 'phase' (and not each cell) and that the following words are added after the word lagoon: 'in the manner set out in a scheme to be submitted to the Agency for agreement not later than two months prior to the receipt of biodegradable waste'.

Technical Committee's evaluation

The technical committee consider that the requirement to monitor leachate levels in each cell is not too onerous and this should ensure that significant leachate heads do not build up in an uncontrolled fashion (in accordance with the Landfill Directive). The leachate monitoring points will be agreed with the Agency as part of the Specified Engineering Works and monitoring is required to be carried out in accordance with Schedule E.

Recommendation

No change

Ground 17 (Condition 9.8.1(d))

Condition 9.8.1(d) refers to the installation of a telemetry system in enclosed structures at the facility. If this applies to the covered leachate lagoon, the Co. Co. does not understand the benefit of this.

Technical Committee's evaluation

The technical committee note that Condition 9.2 requires the installation of a permanent gas monitoring system at the site office and any other enclosed structures at the facility. The telemetry system should apply to the monitoring of gas at such locations and this includes the leachate lagoon. The telemetry system itself can be located in the site office or other convenient locations.

Recommendation

No change

Ground 18 (Condition 9.10)

The requirement that national grid references are maintained on all sampling points is excessive. Sampling points will be otherwise labelled in accordance with the condition.

Technical Committee's evaluation

The technical committee consider that the requirement to provide national grid references on all sampling points is not excessive and this information will, for example, be useful for all staff involved in sampling.

Recommendation

No change.

Ground 19 (Condition 9.12)

As written, Condition 9.12 requires that no additional monitoring can be done without the Agency's permission. This makes the unauthorised taking of samples, further checking for landfill gas etc. a criminal offence. This cannot be the intention and the condition should be amended to reflect this.

Technical Committee's evaluation

The technical committee consider that the licensee's contention that additional monitoring is not allowed under Condition 9.12 is incorrect. Condition 9.1 and the associated schedules specify the minimum monitoring which the licensee must undertake in order to comply with the monitoring requirements of the proposed decision. It is possible to amend the requirements of Condition

9.12 but only on written instruction of the Agency. Condition 9.12 does not prevent the licensee from increasing the scope of the monitoring.

Recommendation

No change.

Ground 20 (Condition 10.8)

The requirement to pump all contaminated water back to the leachate lagoon is questioned. The contaminated water could be removed directly from the stormwater lagoon, the distance between the lagoons presents an additional risk of spillages, the leachate lagoon is smaller than the stormwater lagoons. The condition should be amended to allow road tankers to remove contaminated water directly from the stormwater lagoons and this practice could continue while investigations are taking place.

Technical Committee's evaluation

The technical committee consider that Condition 10.8 should be amended to allow the licensee the option of removing contaminated water directly from the stormwater lagoon.

Recommendation

Amend Condition 10.8 as follows:

In the event that monitoring should indicate contamination of the water in the stormwater settling ponds, the outlet penstock shall be closed and the contaminated water shall be tankered off-site in accordance with Condition 7.8 or pumped to the leachate lagoon until such time as the source of the contamination has been identified and appropriate measures introduced to prevent further contamination of surface water.

Ground 21 (Condition 10.11)

Clarification should be given as to when a risk assessment is needed and the requirement for an independent third party to carry out a risk assessment prior to the use of any infrastructure is unreasonable.

Technical Committee's evaluation

The technical committee note the issues raised by the objector and consider that clarification should be provided to Condition 10.11. Condition 10.11 should be amended to require a risk assessment to be carried out by an independent third party and this assessment together with the agreed recommendations should be implemented within agreed timeframes.

Recommendation

Amend Condition 10.11 as follows:

At least six months prior to the disposal of any waste at the facility, an independent third party shall carry out a risk assessment for the facility which will address liabilities arising from the carrying on of the activities to which the licence relates. A report on this assessment shall be submitted to the Agency for its agreement. The recommendations shall be implemented within the agreed timescales.

Ground 22 (Table E.5.2)

The requirement to undertake groundwater monitoring within two months of the date of grant of the licence is unnecessarily onerous given that it may not be possible to gain access to the land immediately. Note 1 of Table E.5.2 should be amended to require groundwater monitoring to start three months prior to the deposition of biodegradable waste.

Technical Committee's evaluation

The technical committee consider that monitoring at the locations specified in Table E.5.2 should commence within four months of the date of grant of the licence. This should allow sufficient time for the licensee to put in place/gain access to the monitoring locations specified.

Recommendation

Amend Note 1 of Table E.5.2 as follows:

Monitoring to commence within four months of the date of grant of this licence.

Ground 23 (Schedule H - Compost)

The Co. Co. questions the necessity of the tests if the compost is to be used for landfill cover/restoration. Given that only 2000 tonnes is permitted to be made each year, the cost of the testing would preclude any composting at the facility.

Technical Committee's evaluation

In view of the quantity of waste to be composted at the facility, the technical committee consider that the monitoring frequency for the compost produced should be amended from 'monthly' to 'quarterly'. Monitoring of the compost for the parameters specified in Schedule H should remain.

Recommendation

Amend 'Point 5' of Schedule H as follows:

The licensee shall monitor the compost produced at least quarterly. The licensee shall submit to the Agency for its agreement, prior to commencement of compost operations, details of methods of analyses and sample numbers.

Objection No.2: Jack O'Sullivan, Environmental Management Services on behalf of Inagh Anti Landfill Group and the Irish Forestry Unit Trust

The objection by Environmental Management Services consists of 10 Sections and 11 Appendices. Also included as part of this objection is a separate document submitted by Inagh Anti-Landfill Group.

Section 1 (Introduction)

The principal concerns of residents living nearby and in the towns of Ennistymon and Lahinch are that the proposed landfill will (i) seriously diminish the quality of life (ii) damage tourism and agriculture on which the wider area depends (iii) have detrimental effects on flora and fauna (iv) pollute groundwater and surface waters (v) cause additional and unnecessary road traffic and (vi) cause unacceptable visual impact. The Irish Forestry Unit Trust (who are the owners of the land on which the facility will be constructed) argue that the proposed landfill is unnecessarily large, will have an adverse impact on its business and economies of scale, the use of forestry land for waste disposal is contrary to national forestry policies/standards and to socially responsible management of forests, and it is contrary to Ireland's international obligations in relation to carbon dioxide. The Group also requests that an Oral Hearing be held.

Technical Committee's evaluation

The technical committee note the concerns of the residents in relation to the proposed facility. The proposed decision contains a number of requirements and control measures which will ensure that the activities carried out at the facility will not cause environmental pollution. These include the need for a buffer zone to be maintained (Condition 4.5), the requirement for road improvements (Condition 4.7), the protection of groundwater and surface water (Condition 4), the control of potential nuisances (Condition 6) and the minimisation of potential visual impacts (Condition's 4 and 8). The proposed facility is one of a number of waste management elements contained in the Waste Management Plan for the Mid West Region and the proposed facility satisfies the need for a landfill in this region. It is considered that the waste management facility will also cater for the waste created by tourists visiting the region. The technical committee consider that (i) the amount of land lost from the development is not significant (~0.5% of the

total forestry controlled by the Irish Forestry Unit Trust) and (ii) the loss of forestry as a result of the development will be insignificant (~0.003% of national forest cover). The technical committee are not aware of any national forestry policies/standards which state the forestry land cannot be used for waste disposal. The Agency has already decided not to hold an oral hearing.

Recommendation

No change

Section 2 (Failure to take account of EU and National Waste management policies, and of waste minimisation activities in other countries)

The group lists a number of EU Directives and policies together with how they are reflected in this country. In relation to BATNEEC, it considers that the Agency should satisfy itself that all steps have been taken to minimise waste generation, to re-use and recycle, to deal with organic wastes by composting and to recover as much useful material before consigning the residual to landfill. Only in this way, can emissions be prevented, eliminated, minimised or reduced. Clare Co. Co. and the EPA should be aware of waste minimisation practices taking place in other countries. By granting a licence, this would be a strong disincentive to the development of a more appropriate waste management plan for Co. Co. and would be a misuse of public funds. This money would be better spent on more sustainable forms of waste management.

Technical Committee's evaluation

In reaching a decision on the application for this facility, the Agency has had regard to all relevant waste management legislation, directives and policies and this includes the Government's policy document 'Changing Our Ways' and the Waste Management Plan for the Mid West. The Agency was satisfied that Section 40(4) of the Waste Management Act 1996 will be complied with. The technical committee note that Section 40(4)(c) specifically states that BATNEEC applies to emissions from 'the activity concerned'. The Waste Management Plan for the Mid West states that the landfill at Doora will be closed by June 2001 and will be replaced by the proposed waste management facility at Inagh (subject to EPA licensing). The plan also provides for a range of waste recycling/recovery facilities including a Material Recovery facility, biological treatment for organic kitchen waste and garden waste, expansion of the existing composting of waste and construction/demolition recycling facilities. The proposed decision provides for the recovery of/recycling of various wastes accepted at the facility. In addition, Condition 5.13 requires the submission of a report which examines ways and means of increasing waste recovery provisions and reducing the quantities of waste sent for landfilling.

Recommendation

No change.

Section 3 (Failure to take account of other relevant policies e.g. national forestry policy, and EU and national policies on greenhouse gas limitation and reduction)

The granting of a waste licence would be in conflict with a well accepted policy that Irelands low percentage of land under forestry should be significantly increased. Also, the removal of this locally important woodland would be in direct conflict with national policy on the limitation of greenhouse gas emissions.

Technical Committee's evaluation

See response to Section's 1 and 2 of Objection No. 2 above.

Recommendation

No change.

Section 4 (Existing land ownership and uses – site and surroundings)

It would be premature for the Agency to grant a waste licence until such time as Clare Co. Co. has an interest in the lands to which the application relates. A list of the farmers and land uses in the vicinity of the proposed facility are provided and many of these are within 1km of the proposed site.

Technical Committee's evaluation

The issue regarding the acquisition of the land is not a matter for the Agency to consider. The technical committee note the information provided in relation to land uses in the vicinity of the proposed facility.

Recommendation

No change.

Section 5 (Ecology and wildlife)

The site is rich in diversity of both flora and fauna and provides feeding and shelter for a variety of wildlife. A list of flora and fauna species are given. Because of its compact size, the woodland interacts with the surroundings and the surroundings are equally affected by the woodland. This is evident by the penetration of the woodland by species normally found in open pasture.

Technical Committee's evaluation

The technical committee note the information provided in relation to ecological habitats at the proposed facility. Condition 9.15 of the proposed decision requires a detailed ecological and biological assessment to be undertaken on an annual basis and the scope of this assessment must be agreed in advance with the Agency. The proposed decision also includes conditions relating to (i) the maintenance of a buffer zone and the management of the existing forestry to maximise biodiversity and (ii) the phased tree felling outside the breeding season for birds and the protection of nesting sites for birds and owls of prey. The technical committee note that no definite evidence of the breeding of hen harriers at the proposed location was noted in the ecological report submitted in Appendix G of this objection. Condition 6.9 of the proposed decision specifies that an insect and vermin control programme is agreed with the Agency prior to the commencement of waste activities and this includes the need for a mitigation plan to ensure rodenticide usage follows international recommendations for the protection of owls. Such conditions should ensure that the proposed facility will not have a significant impact on local habitats.

Recommendation

No change

Section 6 (Environmental Impacts of proposed facility)

The construction and operation of the proposed facility will have an adverse impact on the Inagh river which is a proposed SAC, an important salmonid resource and possibly contains the freshwater pearl mussel (Endangered Species). The likely impacts on terrestrial ecology during the construction and operational phases of the development are listed and there is a danger that protected bird species such as the hen harrier and long eared owl could be forced elsewhere for breeding and feeding. Also, the use of rodenticides on site will inevitably lead to the direct and indirect killing of key predator species at the site.

Technical Committee's evaluation

The technical committee note that the Inagh river and estuary downstream of Ennistymon is a proposed SAC. However, the technical committee are not aware of the presence of the freshwater pearl mussel in the Inagh river. The licensee is required to ensure effective control of surface water discharges from the facility during the construction, operation and restoration. This includes the need to have the stormwater settling ponds and surface water management

infrastructure in place prior to the commencement of other construction works. Monitoring of surface water at various locations is specified in the proposed decision together with a requirement to comply with a surface water discharge limit for suspended solids (35mg/l). See also response to Section 5 of Objection No. 2 above.

Recommendation

No change

Section 7 (Leachate and stormwater control and impacts on groundwater)

There is inadequate provision for storm events which may cause leachate pond overload. There is inadequate data in EIS to determine aquifer vulnerability rating. Bedrock fissuring may show an increase in vulnerability. The removal of 13m of soil at site may increase vulnerability. Leachate leakage and solvent penetration through the liner is a possibility causing the potential for groundwater contamination.

Of the three sites originally selected, one was removed at an early stage. This elimination should have been made good by adding another site.

Technical Committee's evaluation

The technical committee considers that the requirement to cover the leachate lagoon will minimise the quantities of leachate necessary for disposal off-site. The proposed decision also requires the applicant to provide a surface water management programme for all surface water falling on the site. Aquifer vulnerability is a function of soil cover, permeability and depth; bedrock fissuring is unrelated. The present site shows subsoil thickness (gravelly clay) ranging from 9.7m to 23.6m with the increase occurring from south to north. Such thicknesses would give the soils a low aquifer vulnerability. It is specified in the EIS that depth of soil excavation will vary from 1m to 13m and the removal/stripping will cause soil depths to decrease to a thickness range of 7m to 12m – 'the low vulnerability rating will therefore increase to moderate or perhaps high'. Figures 4.2 and 4.3 of the EIS show the excavation profiles and proposed base of landfill liner. The landfill lining at this site is to be implemented as per Condition 4.16.2 of the proposed decision which complies with BATNEEC namely that it is a Single Composite liner. Furthermore the EPA Landfill Site Design manual and the Landfill Directive specify that the mineral soil layer under the liner should have a minimum thickness of 1m and hydraulic conductivity of 1×10^{-9} m/s, constructed in a series of compacted lifts no thicker than 250mm. This is matched by Condition 4.16.2 (i) of the proposed decision. The technical committee note the existing soil depths ranging from 9.7m to 23.6m will provide a stable geological barrier and consider such depths should be maintained as far as possible given that the natural intrinsic vulnerability is currently low. The technical committee note that the relatively deep depth of 23.6m is coincident with a positive drumlin feature to the centre of the site adjacent to BH 11. The design of the landfill means that much of the drumlin would need to be removed to 13m below present height. Notwithstanding the Single Composite Liner and that the mineral soil layer under the liner is to have a minimum thickness of 1m, the technical committee recommends that a new condition is included so that the soil excavation be limited to the dimensions specified in Figures 4.2 and 4.3 of the EIS. This will ensure that the landfill overlies a minimum clay depth of 7m.

The issues of landfill site selection and the number of sites chosen are a matter for the Local Authority concerned.

Recommendation

Add the following to sub condition to Condition 4.16 Landfill Lining:

4.16.2 The depth of subsoils below the landfill liner and within the landfill footprint should be at least 7m above the top of rockhead as shown in Figure 4.2 and 4.3 'Geological Cross Section' of the EIS.

Renumber existing 4.16.2 to 4.16.3, 4.16.3 to 4.16.4etc.

Section 8 (Adverse impacts on forest management)

The granting of a waste licence could affect investments in the Irish Forestry Unit Trust and the loss of the Ballyduffbeg property would impact on the economies of scale of operating this unit. Tourism related businesses and social interactions between forestry staff and the local community could be affected.

Technical Committee's evaluation

See response to Section 1 of Objection No. 2 above.

Recommendation

No change

Section 9 (Inadequacy of EIS)

The objection lists a number of principal inadequacies in the EIS prepared on behalf of the applicant. These include:

- *failure to comply with stated waste management objectives*
- *failure to consider the social implications of siting the facility in an area unspoiled by industry or domestic development*
- *failure to consider fully the value of the standing timber resource on the site*
- *failure to account for the normal procedure of reforestation and the increased vulnerability of the remaining trees due to windthrow factors*
- *undue haste in assessing the various options available to Clare Co. Co. because of the need to access more landfill space*
- *failure to address the fact that housing distances from the perimeter of the site do not indicate the degree of psychological and physical disturbance on the local community*
- *failure to show the location of a substantial number of houses (9)*
- *account for the changing land use patterns from year to year*
- *failure to comply with policy guidelines in relation to the creation of a major entrance/exit on the N87*
- *failure to fully consider the implications on the proposed SAC (Inagh River) nor indicate the criteria for choosing the surface water sampling points*
- *failure to fully consider the likelihood of the occurrence of certain species (otter and badgers) and adequately assess the impacts on hen harriers and pine martens*
- *failure to explain how access to rodenticides would be denied to predator species*
- *failure to consider the scavenger bird nuisance and the threat to local endangered species*

Technical Committee's evaluation

The technical committee note that many of the issues referred to have already been considered and taken into account by the Agency in reaching a decision on the application for this facility. The Agency has already decided that the EIS complies with the EIA Regulations.

Recommendation

No change

Section 10 (Inadequacy of Proposed licence conditions)

The unsuitability of the proposed site will make it very difficult for the landfill to be operated in accordance with the conditions of the licence and, in any event, these conditions are inadequate. Some indication of the possibility of conditions being breached may be obtained by examining the records of other licensed landfills in Ireland. Examples given relate to North Kerry landfill, Derrinnumera landfill and Ballydonagh landfill.

Technical Committee's evaluation

The technical committee consider that the environmental controls and conditions attached to the proposed decision are adequate and are necessary to prevent adverse impacts on the environment. The onus is on the licensee to ensure that the conditions of a waste licence are complied with. In the event that this is not the case, the Agency will take appropriate enforcement action.

Recommendation

No change.

Appendices A, B, C and D

Letters were submitted from various individuals and organisations in support of the objection to the proposed decision to grant a licence to Clare County Council. These were divided into four appendices as follows:

Appendix A - Letters from the Principal and Pupils of Inagh and Kilnamona National Schools (63 letters)

Appendix B – Letters from Parishioners (including a petition of 238 signatures and 152 letters)

Appendix C – Letters from people living outside the parish (16 letters)

Appendix D – Letters from organisations and groups (7 in total from i) North Clare Anglers Association, ii) Board of management of Inagh National School, iii) Clare Tourist Council, iv) Inagh-Kilnamona Branch of Fine Gael, v) Inagh Development Company Ltd., vi) Cumann Iomana Eidhneach and vii) Pauline Keavey on behalf of the University of Limerick Kayaking Club.

Many of the issues raised in these letters were originally expressed in submissions received during the application process and many of the issues are also referred to elsewhere in the objection. The issue referred to the most was the proximity in which the proposed landfill would be to farms, residences, schools and villages and the diminished quality of life which would result for everyone. Concerns about the pollution which would result from this facility was also referred to throughout the letters and the general economic losses which result due to the landfill were highlighted. The issues which were referred to in individual letters are categorised to avoid repetition and are described as below.

1. Water Pollution

The main issues highlighted were as follows: (i) surface water pollution of tributaries and the Inagh river (ii) contamination of groundwater supplies (iii) coastal pollution resulting from pollution of the Inagh river and pollution of Lahinch beach and the loss of it's blue flag status (iv) cause a decrease in amenity value and resulting loss in tourism and (v) fish-stocks and other aquatic life would be effected.

Technical Committee's evaluation

The technical committee consider the conditions of the proposed decision are adequate for the protection of groundwater and surface waters and thereby ensuring no adverse impact will result from the proposed facility.

Recommendation

No change

2. Human Health

This was a major concern with the following points being made: (i) people with asthma, cystic fibrosis (an article on CF was included) and Down's syndrome in the locality were referred to

together with the increased incidences of cancer in the area in the last 10-15 years (ii) the effects which pollution from the landfill would have on nearby residents and those currently suffering from illness (iii) the sworn enquiry into the CPO of the site was referred to whereby it was shown and admitted that the landfill would have effects on the health of nearby residents (iv) the Health and Safety Act was referred to and (v) chemicals which are found in municipal waste leachate are listed as causing birth and genetic effects and cancer and a report which referred to birth defects around 21 industrial landfill sites in Europe.

Technical Committee's evaluation

The technical committee note the information provided in relation to the health concerns of the local people. The proposed facility will be a modern waste management operation which the proposed decision requires to be operated to high standards. This should ensure that the facility has no adverse impact on human health in the locality. The proposed decision permits the landfilling of non-hazardous waste only and the licensee will be required to put in place various nuisance controls and infrastructural requirements including leachate management works. The technical committee note that a report referred to above related to industrial landfill sites.

Recommendation

No change

3. Environmental Nuisances

These included the following: rats and flies, birds, litter, scavengers, dust and noise

Technical Committee's evaluation

Potential nuisances are controlled by Condition 6 of the proposed decision. The proposed decision also requires the licensee to undertake various environmental monitoring and comply with emission limit values for dust and noise.

Recommendation

No change

4. Increased traffic, inadequate roads, increased risk of accidents

Issues included the following: (i) the present inadequate road network (ii) traffic congestion and (iii) increased risk of accidents.

Technical Committee's evaluation

Condition 4.7 of the proposed decision requires the licensee to carry out road improvements prior to any development works taking place at the facility. This should minimise the traffic issues referred to here.

Recommendation

No change.

5. Air Pollution

Concerns were expressed about: (i) odours (ii) landfill gas and its contribution to climate change (iii) toxins (iv) dioxins – the USEPA had released worrying information on dioxins from landfills and incinerators and (v) effects of fires.

Technical Committee's evaluation

Odours are controlled by Condition 6.2 of the proposed decision. The licensee is required to put in place landfill gas management works and this includes the collection and flaring of landfill gas. The technical committee consider that air emissions from the landfill will be minimised through the proper operation and management of the facility. Fires at the facility are required to be treated as an emergency (Condition 10.6) and Condition 10.3 requires a fire fighting and fire water risk assessment to be submitted to the Agency.

Recommendation

No change.

6. Tourism

The effect which the landfill would have on tourists was highlighted: (i) Inagh is on main tourist route to Cliffs of Moher and Lahinch (ii) the Biddy Early Brewery in Inagh would lose business (iii) the landfill would be an eyesore (iv) tourists may have to choose alternative routes because of having to travel behind rubbish lorries on roads (v) the landfill would effect tourist amenities such as the Inagh River, Ennistymon Falls and Lahinch and (vi) all of the above would lead to economic losses.

Technical Committee's evaluation

The location of the proposed facility was chosen by Clare Co. Co. as a result of a site selection procedure. The licensee will have to ensure that the facility is operated and managed in such a way as to allay any fears the local people may have about the potential impacts on tourism and tourism related business.

Recommendation

No change.

7. Alternative sites/ methods/ anti-recycling

It was stated that: (i) there were many other alternative sites to Inagh which are more remote and more suitable for a landfill (eg Lisseycasey) and Inagh was only picked because it had the least political clout and had a low population (ii) other methods of waste disposal should be investigated e.g. incineration and composting and that the Regional Waste Management Strategy advocates alternatives to landfill (iii) landfills are anti-recycling (iv) the landfill may result in the loss of the Green Flag award for the local national school (v) the E.U. requires a mandatory 50% reduction in landfills by 2005 and the Government's own policy defines landfill as a last resort.

Technical Committee's evaluation

As stated above, the proposed facility was chosen as a result of Clare Co. Co.'s site selection procedure. The proposed facility will be required to be operated in a manner which will not cause environmental pollution. The proposed waste management facility, which is one of various elements of the Mid West Waste Management Plan, provides for recovery of waste (e.g composting) in addition to landfilling. Condition 5.13 requires the submission of a report on the measures required for increasing recovery provisions and reducing the emphasis on landfilling.

Recommendation

No change.

8. Ecology/Fisheries/Flora & Fauna

The effect on wildlife and on the aquatic ecology of the Inagh River was raised. Also the negative impact on fish-stocks was highlighted several times and the river has had 3 fish-passes erected on it and had undergone a fish restocking programme.

Technical Committee's evaluation

See response to Section's 5 & 6 of Objection No.2 above.

Recommendation

No change.

9. Visual impact / elevated location

These include the following: (i) the landfill would be visible from houses and it would be an eyesore for both locals and tourists (ii) the site is in an elevated location and would be very prominent and (iii) a house which is within 300m of the facility would clearly see the infrastructure referred to in Condition 4.6.3. and so the licence could not be complied with by the Council.

Technical Committee's evaluation

The technical committee consider that the visual impact which this facility will have on the surrounding environment will be minimised by the visual screen provided by the existing forestry, through the maintenance of existing hedgerows, by the construction of a perimeter bund and by the height restrictions specified by Condition 8.1. The technical committee recommend that Condition 4.6.3 is amended as outlined below.

Recommendation

Amend Condition 4.6.3 as follows;

Subject to fire safety requirements, the existing fire breaks shall be screened by bunds or where possible replanted to minimise views of the facility from the surrounding countryside.

10.Economic Concerns

The issues raised include: (i) property devaluation – one person stated that he did not expect Bord Failte to approve a holiday letting so near to a landfill (ii) rural depopulation and resulting job losses and stagnation of development (iii) unemployment and livelihood fears and (iv) business fears e.g. local pub.

Technical Committee's evaluation

The proposed facility is required to be operated and managed in order to ensure no adverse environmental impacts result. It is possible that employment will be given to people in the vicinity of the proposed facility.

Recommendation

No change.

11.Agriculture

The effect which the landfill would have on agriculture was highlighted: (i) many farmers expressed concerns about how the landfill would effect their livelihoods (ii) REPS and organic farmers could lose their status due to pollution from the landfill (iii) birds would tear open silage bales and that silage in a mile radius from the landfill would be banned (iv) farm animals could be effected from drinking polluted surface waters and wells (v) the effects of contaminated dust-blow from the landfill on surrounding grazing fields and (vi) one person

stated that he owned a stud and knew of at least another dump in Ireland had caused birth defects and still-births to horses due to contamination of water, air and soil.

Technical Committee's evaluation

Compliance with the conditions of the proposed decision should minimise the impact which this facility will have on surrounding farms. The proposed decision requires the (i) maintenance of a buffer zone around the landfill (ii) control of potential nuisances – Condition 6 (iii) need to ensure protection of groundwaters and surface waters (iv) prohibition on the discharge of leachate or contaminated surface water to the Inagh River catchment – Condition 7.6 and (v) licensee to comply with an emission limit value for dust deposition. The technical committee are not aware of the facility referred to above which has caused birth defects/still births in horses as a result of contaminated water, air or soil.

Recommendation

No change.

12. Incompetence of Clare County Council

The mismanagement of the present landfill at Doora by the Council was referred to and the resulting High Court Order which the local residents had to get to close that facility.

Technical Committee's evaluation

The technical committee note that the landfill at Doora is an unlined facility which has been in operation since 1956 and which is due to close in June 2001 as a result of a High Court order. The proposed facility at Inagh incorporates a modern landfill which is required to be operated in accordance with the conditions of any waste licence granted. The Agency is the authority responsible for the enforcement of all waste licences issued under the Waste Management Act 1996. In the event that compliance is not achieved with the conditions of such licences, the Agency will then take appropriate enforcement action.

Recommendation

No change.

13. Waste from outside the area

Concerns were expressed that waste from the whole of County Clare and beyond would be sent to Inagh. Several people commented that Inagh produces little waste and that recycling was carried out in the area. A site near Ennis would be more suitable and the 'proximity principle' should come into play.

Technical Committee's evaluation

The issue of what region the Local Authority wishes to accept waste from is a matter for the licensee. The site was selected as a result of a site selection process undertaken by Clare Co. Co.

Recommendation

No change.

14. Culture/heritage

The children's graveyard or cilin was mentioned which is believed to have existed at the proposed site. It was stated that the survey undertaken to locate this feature was inadequate and proper consultation with local residents was not undertaken.

Technical Committee's evaluation

The technical committee consider that the surveys included in the EIS were inconclusive in finding the presence of a burial ground at the site. Condition 9.7 requires archaeological monitoring/surveys to be undertaken in association with Duchas.

Recommendation

No change.

15. Unknown/hazardous wastes

It was stated that household waste also contains hazardous waste such as batteries and there are also plans to store 3,000 tonnes of hazardous waste at the site.

Technical Committee's evaluation

The proposed decision prohibits the acceptance of hazardous waste for landfilling at the facility. The definition of household waste as provided for in the Waste Management Act 1996 includes waste produced within a building used for the purposes of living accommodation. Household waste is acknowledged to contain waste, which, if segregated and collected separately may constitute hazardous waste. While these wastes are collected as components of household waste, they are not legally defined as hazardous waste. The proposed decision specifies the types of household hazardous waste which may be accepted at the Civic Waste facility and such wastes are required to be stored in a designated Chemical Storage shed.

Recommendation

No change.

16. Querying EIS

Several letters queried the EIS stating that: (i) a property which was described as a disused residence was in fact occupied (ii) the school was in fact within 1km of the proposed facility and not as stated in the EIS (iii) the residential development cluster in the village is well within a 1 km limit and (iv) at the Sworn Inquiry into the C.P.O on the site it was proven that the EIS was 'faulty and doctored'.

Technical Committee's evaluation

The technical committee note the information provided and consider that it does not significantly change the decision by the Agency to grant a proposed decision for this facility. The Agency has already decided that the EIS complies with the EIA regulations.

Recommendation

No change.

17. Inadequate proposed decision

The following issues/concerns were raised:

- *the licensee isn't obliged to tell the local residents if there is an incident or an emergency at the facility and what measures have been put in place to deal with any occurrences. The lack of communication with residents required as part of the proposed decision is also mentioned.*
- *the use of pesticides or rodenticides at the facility and their effect on the wider environment and in particular farms near the facility*

- *the use of birds of prey at the facility and the effect this would have on wildlife in the area. Condition 6.10 should read ‘gas-operated – noise generating bird scaring devices’. Bird scarers would effect people’s leisure and would also contravene Condition 7.4.1. As noise travels in air, levels could be much higher further away from the site as the boundary is lower than the area of activity. The noise levels specified in Schedule F.1 measured at locations in Table E.4.2. were not sufficient to ensure no change would take place to the current noise-free status of the area.*
- *the monitoring requirement of the proposed decision are inadequate and monitoring of surface and groundwaters should be on a weekly basis. The monitoring of day to day activities and environmental effect should be undertaken by independent bodies and Clare County Council shouldn’t be allowed to self-regulate themselves*
- *pollution, especially of wells was not dealt with adequately in the proposed decision*
- *the proposed decision should clearly state that no foul odours should be detected either in the residences or outside the residences of nearby houses and that there must be no change to air quality to that currently enjoyed by residents*
- *the proposed decision does not state when the landfill should close and the provisions for emergencies at the facility were also questioned*
- *there is no mention of people in the proposed decision and one person says they are only mentioned in relation to handling and use of compost.*
- *is the infrastructure required by the proposed decision up to the required standard? Landfill liners will eventually leak and a number of household chemicals will degrade HDPE. Leachate collection systems fail in several ways (e.g. by clogging and by chemical attack) and leachate from municipal waste is as toxic as that from hazardous waste.*
- *the AER will not reflect reality and would only state what the licensee wanted it to state*
- *one letter stated that every obligation put on Clare County Council is amended with an alternative choice and that ‘by agreement with the Agency’ is mentioned 42 times in all.*

Technical Committee’s evaluation

The technical committee has considered all of the above points and considers that the conditions of the proposed decision adequately cover the issues raised. The licensee is required to inform the Agency of any incidents/emergencies which take place and Condition 10.1 requires the agreement of an Emergency Response Plan. Condition 2.1.2(v) will ensure that a Communications programme is established. The proposed decision requires the licensee to comply with noise limits adjacent to the boundary of the facility and also at/adjacent to noise sensitive locations. However, reference to the drawing showing the noise monitoring locations should be amended as recommended below to specify NS4 and NS5. The technical committee considers that the monitoring frequencies and locations specified in the proposed decision for groundwater and surface waters are adequate and such monitoring will be undertaken by Clare Co. Co. The Agency will also carry out monitoring. Odours are controlled by Condition 6.2 of the proposed decision. The proposed decision limits the area to be landfilled, an annual tonnage limit is specified and the height of the landfill is also specified in the proposed decision. The Agency is the appropriate body which is responsible for ensuring the conditions of the licence are adhered to and all reports submitted (including the AER) have to be agreed with the Agency. The issue of rodenticides, birds of prey and the landfill liner/leachate have been dealt with earlier.

Recommendation

Amend E.4 Noise as follows:

Noise monitoring locations shall be those as set out in Table E.4.1 and as shown on Drawing No. 99-01005.06.Rev.A "1:2500 Monitoring Location Plan" of the application.....

18.EPA questioned

Many letters questioned the Agency's proposed decision to grant a licence to Clare County Council. The credibility of the Agency was questioned and the role which it played in protecting the environment. It was also stated that the views of the local residents were ignored by the Agency.

Technical Committee's evaluation

In granting a proposed decision for this facility, the Agency were satisfied that Section 40(4) of the Waste Management Act 1996 will be complied with. The Agency considered that the conditions of the proposed decision were adequate to ensure protection of the environment. The Agency has taken into account all submissions received in relation to the application for this facility.

Recommendation

No change.

19.Lack of consultation

It was stated that the local residents were not consulted with properly during the site selection phase. There should have been a full and comprehensive risk assessment of the effects of the facility on the environment and its inhabitants prior to the proposed decision being issued.

Technical Committee's evaluation

The issue of landfill site selection and consultation with local residents during this process is a matter for the Local Authority concerned. The EIS submitted for this facility was considered by the Agency to comply with the EIA regulations in relation to the impacts of the facility on the environment.

Recommendation

No change.

20.Tree-felling

Several letters expressed concerns about the felling of trees which would take place to facilitate the site development. These included concerns about loss of an area of ecological and amenity value.

Technical Committee's evaluation

The issue of tree felling and its impacts have been dealt with earlier in this report.

Recommendation

No change.

21.Heavy rain, flooding, leakage of leachate

The site is in an elevated area with heavy rainfall and a consequential risk of flooding and this would result in leakage of leachate into surrounding groundwater and surface waters and result in pollution.

Technical Committee's evaluation

The proposed decision requires the licensee to undertake leachate and surface water management and the landfill will be lined in accordance with the requirements of the EU Landfill Directive. The technical committee consider that flooding of the site is not an issue as a drainage network to control inflows and divert surface water to a lagoon is required under the proposed decision. (See also response to Section 5 of Objection from Inagh Anti Landfill Group below).

Recommendation

No change.

22. Unsuitable soils and geology

It was stated that (i) the soils at the proposed facility were of a clay nature and therefore not suitable for a landfill and (ii) the soils had no absorptive capacity and therefore any contaminated run-off would wash straight into surface waters.

Technical Committee's evaluation

The nature of the soils are of gravel/clay nature which has a low permeability. Such soils are suitable for the siting of a landfill since they provide adequate protection to the underlying groundwater in the bedrock aquifer. These soils combined with the single composite liner are important for the overall protection of underlying groundwater. It is the nature of such soils that they have no adsorptive capacity but such soils will not be affected by run-off since the liner system prevents any run-off from entering the geological profile.

Recommendation

No change.

23. C.P.O. of property

Several letters stated that land would have to be compulsorily purchased for the facility development to be undertaken.

Technical Committee's evaluation

This is a matter for the Local Authority and the parties concerned and not the Agency.

Recommendation

No change.

24. Letters not answered

A letter received from Martin Longe talks about how letters he sent to Clare County Council were not replied too and that these were also sent to the Agency as submissions. He states that a house described by Clare County Council as a disused residence is in fact a habitable residence not presently occupied. He also states that Clare County Council said that he is on a Group water scheme but this is incorrect.

Technical Committee's evaluation

The issue of whether the objector receives replies from Clare Co. Co. is a matter for the parties concerned. The Agency has considered all submissions in reaching a decision on this application. The technical committee note that the information provided in Appendix F of

Objection No. 2 states that the Long family use well(s) on their own property as well as being connected to a Group water scheme.

Recommendation

No change.

25. Contravenes EU Directive

One letter stated that there are twenty houses inside the buffer zone of 500m as laid down in the E.U. Directive 5/3/97.

Technical Committee's evaluation

The EIS stated there are 18 residences within 500m of the site boundary. The technical committee are not aware of Directive 5/3/97 and no details were provided in the objection.

Recommendation

No change.

Appendix E (Supplementary Information)

This Appendix contains six documents:

- 1. Note on UNECE (Access to Information)*
- 2. Recycling and Waste by Declan O'Looney*
- 3. Extract of 'County Express' Newspaper December 2000 dealing with Planning Oral Hearing and CPO.*
- 4. Two 'Sunday Independent' Newspaper extracts on Waste and Landfill.*
- 5. CPO Oral Hearing. 9 page statement of evidence from FTW (12/10/00).*
- 6. CPO Oral Hearing. 5 page statement of evidence from Clare Co. Co. Acting Deputy Engineer.*

Technical Committee's evaluation

The documents submitted have been noted by the technical committee.

Recommendation

No Change

Appendix F (Groundwater)

This Appendix contains five documents:

- 1. Two page summary from Mr P Montague entitled 'EPA says all landfills leak, even those using Best Available liners'*
- 2. Copy of ENFO Briefing Sheet on Groundwater*
- 3. List of families confirming they use wells for water supply and who are also attached to Group Water Scheme.*
- 4. One A4 page entitled 'Landfills – Solid and Hazardous Waste and Groundwater Quality Protection'.*
- 5. Comments on EIS by Dr Lee (8 page document).*

Technical Committee's evaluation

The documents submitted have been noted by the technical committee. The details of item 5 are concerned with the EIS and in particular the generic aspects of the single composite liner system. The Agency has already considered that the EIS complies with the EIA Regulations. See also Section 7 of Appendices A, B, C & D of Objection Number 2 above.

Recommendation

No Change

Appendix G (Ecological and Environmental Reports)

This Appendix contains four documents:

1. *Ecological Report by Cathryn Hannon, May 1999 for Inagh Anti Landfill Group.*
2. *Submission from Gerry Tobin and Jack O’Sullivan of Environmental Management Services on behalf of Inagh Anti Landfill Group*
3. *CPO Oral Hearing, 1 page statement of evidence from FTW (Jean Hegarty, Env Scientist)*
4. *Extract of ‘Irish Independent’ Newspaper Nov 1999. Letter to Editor ‘Mayo is Magic’.*

Technical Committee’s evaluation

Ecological issues have already been addressed earlier in this report. The submission by Environmental Management Services has already been considered by the Agency in reaching a decision on this application. The documents submitted in relation to items 3 and 4 above have been noted by the technical committee.

Recommendation

No change.

Appendix H (Visual Impacts)

This appendix consists of a one page statement of evidence for CPO Oral Hearing from FTW (Padraig McElwain) 13/10/00

Technical Committee’s evaluation

The document submitted has been noted by the technical committee.

Recommendation

No change.

Appendix J (Copy of Unconfirmed Compulsory Purchase Order)

9 page Copy of Clare Co. Co. CPO detailing landowners affected.

Technical Committee’s evaluation

The documents submitted have been noted by the technical committee.

Recommendation

No change

Appendix K (Submission by Damien Breen)

The submission is 42 pages long with 23 Appendices and is based on a review of the EIS, Draft Waste management Plan and Waste Licence Application (Clare Co. Co.) only. The proposed decision or inspectors report were not reviewed by this party. Mr Breen has significant environmental concerns which he believes are ignored by the EIS:

- *The exposure risks from the disposal and compaction of Asbestos and Lead containing construction materials at the proposed facility.*
- *The dangers posed by the compaction of silica containing building materials and silica release during excavation.*
- *The dangers of air contaminants associated with the proposed site.*
- *Exposure to increased Radon release during site excavation*

- The production of toxic organic compounds such as Benzene, Carbon Tetrachloride, Chloroform, Ethylene Dichloride, Vinyl Chloride, etc.
- Exposure to toxic air contaminants such as dioxins produced by landfill gas flaring.
- Exposure to Ozone associated, with VOC generation in the landfill.
- Increased exposure to the toxic air contaminants associated with traffic exhausts.
- The dangers posed, to faunal conservation by pollution and habitat reduction associated with this development. With special regard to the protected species found on and off-site such as the Pigmy Shrew, the Pine Marten, the Irish Hare, the Fallow Deer, the Hen Harrier, the Sparrow Hawk, and the Freshwater Pearl Mussel.
- The single composite liner can at best be considered a stopgap against the pollution from the landfill.
- The possible waste lists to be accepted do not match the potential amounts of hazardous waste and materials which would be accepted such as asbestos, lead and household hazardous waste.
- The denial of surface Hydraulic concerns such as turbidity, siltation, recharge, flooding, pollution prevention and faunal conservation associated with the aforementioned.
- The pollution concerns relating to sub-surface hydraulics, specifically related to the lack of reliable aquifer classification data, the lack of monitoring of the unconfined aquifer on the site, the difficulties associated with site remediation and the threat posed by the single composite layer liner system.
- The complete disregard shown by the EIS for the effects of this facility on the local agricultural community.
- The insufficient monitoring conducted at the site which is the basis for all conclusions made about on-site conditions. Also, the deficiencies in the monitoring program as presented in the Waste Licence Application, the lack of monitoring for such groundwater pollutants such as asbestos, bio-toxins and MTBE, the lack of ambient monitoring for such air contaminants as Radon, Ozone, Exhaust constituents, Dioxins, NMOC, Asbestos and Lead, and the inadequate groundwater monitoring situation currently existing at the proposed site.

There are also flaws in both Clare County Councils "Draft Waste Management Plan" and "Waste License Application" which should render the development of this site- as a Central Waste Facility null and void. These are as follows:

- A flawed waste management strategy which relies heavily on incineration to achieve its goals without regard to the production of the toxic air contaminant Dioxin, which has been indicated by USEPA studies to be a by product the process.
- A flawed Waste Licence Application which deliberately disregards the proposed disposal of household hazardous waste and asbestos at the site.

Technical Committee's evaluation

The Agency has already considered that the EIS complies with the EIA regulations and that Section 40(4) of the Waste Management Act 1996 will be complied with. Many of the issues referred to above have already been considered and taken into account by the Agency in reaching a decision on the application for this facility. The technical committee considers that the issues raised above do not require any alterations to the proposed decision.

Recommendation

No change

Appendix L (Comments on the Proposed Decision by Eugene Daly Associates)

General: The presence of an Agency Inspector on site with individual parties is improper procedure and the Inspector should be in company with both parties. The issuing of the proposed decision over the Christmas holiday season was poor practice since the period for objection was

limited thereafter. The Co. Co. charge of £1/tonne for environmental improvement should be index linked.

Hydrogeological: The annual rainfall regime of 1,300mm/annum is very high with an added risk to leachate generation. Any groundwater pollution would have a residual risk of 100 years. All wells within 250m upgradient and 500m downgradient should be replaced with an alternative water supply since drawdown could affect wells at 250m distance. Condition 9.3 should be amended to reflect this. Construction and soil removal will create fines which will impact local streams. The prevention of silt laden run-off is not adequately addressed in the proposed conditions. The constructed base of landfill should be >5m above the winter water table. There appears to be an error in the permeability values (k) for the subsoil clays. The IR refers to a k value of 1×10^{-9} m/s. The value should read 1×10^{-8} m/s which will change the travel time to penetrate 7m of clay to 4.4 years rather than 13.7 years. Furthermore, site specific borehole rising head tests done by objector on BH10 gives a value of 1×10^{-6} m/s for k in the subsoils.

Technical Committee's evaluation

The inspector visited the facility on a number of occasions during the application process and prior to a decision being made in relation to this facility. On one occasion this took place in the presence of personnel from Clare Co. Co. while on another occasion the inspector met with local residents/Inagh Anti Landfill Group. The Agency regularly meets various parties (applicant, local residents etc.) separately. The timeframes for making objections are set out in the waste management regulations and there are no dates specified in the legislation as to when the Agency should not issue a proposed decision. Such decisions are issued as soon as possible after a decision has been made by the Agency. The issue of revenue for environmental improvements is addressed in the EMP.

The applicant is required to provide leachate management infrastructure and this includes the collection and proper disposal of all leachate generated at the facility. In relation to the monitoring of wells upgradient of the facility, drawdown is a function of transmissivity (kb). In this case transmissivity will be low since permeability of the rock is low (poor aquifer). Therefore, the drawdown curve for wells at the facility will be tight and deep and so will not impact sites greater than 100m upgradient of the landfill footprint. The proposed decision provides for the effective control of surface water discharges from the facility during construction, operation and restoration. There is no discussion by the objector on the reasons for specifying that the constructed base of landfill should be >5m above the winter water table. The technical committee note the above aspects on permeability values for the underlying subsoils. There has been much discussion on the permeability values of the underlying soils in this objection and in a submission on the objection. The technical committee has considered the detailed aspects but consider that the information discussed is overriden by Condition 4.16.2 of the proposed decision. Condition 4.16.2 (i) specifies that the top layer of soil should have a minimum thickness of 1m and a hydraulic conductivity of 1×10^{-9} m/s which is required to be constructed in a series of compacted lifts no thicker than 250mm.

Recommendation

No change.

Objection from Inagh Anti-Landfill Group (submitted as part of objection from Jack O'Sullivan, Environmental Management Services)

This consists of 12 sections which are summarised below.

Section 1 (Introduction)

The proposed landfill appears to go against the National Waste Management Policy: Changing our Ways and Clare County Council are making no attempts to find other solutions for reducing waste. There is no need for a landfill of the size that is proposed and it is also stated that the site

selection process was flawed and that the presence of human beings had no bearing on the selection of the site. Submissions made during the application process were not taken into account when the proposed decision was made and recommendations made by Duchas, the Irish Peatland Council and Teagasc are not addressed within the conditions of proposed decision.

Technical Committee's evaluation

See response to relevant sections of Objection No.2 above. The EIS addressed the issue of the impact of the proposed development on human beings. In reaching a decision on the application for this facility, the Agency has had regard to all submissions received.

Recommendation

No change.

Section 2(Description of Existing site and proposed development)

- (i) *The site is only 961.5m from the village and not 2km as stated and the site is 800m from the Inagh river which is a very important fishing river*
- (ii) *The areas set out for the civic amenity area and recycling activities are small when compared to the size of the landfill area (10ha). The group questions Clare County Council's priorities with regards to recycling and whether the financing of the facility will be shared in the same proportion.*
- (iii) *Concerns are expressed that waste from outside County Clare may also go to the landfill as part of the Regional Waste Management Plan.*
- (iv) *The landfill design is questioned and it is stated that all landfills eventually leak. Who will be responsible for ensuring that the leak detection survey (Condition 4.16.5) is carried out correctly and who will be responsible if the liner does leak.*
- (v) *The windthrow factor when trees are cleared for the site development is mentioned together with the visual implications of siting the landfill on a hill. Mr. Brendan Lacy of IFUT stated at the Sworn Enquiry that their management plans for the site were different to those assumed by Fehily Timoney & Co. and it is outrageous to presume that the trees will grow to 17.5m.*
- (vi) *Soil which is stored on site or used for bunds/embankments may be washed away causing pollution and environmental nuisance. The soil from the site does not fit the description of free-draining and of low clay content.*
- (vii) *The security fencing as recommended is not in keeping with the rural character of Inagh and will be a blight on the landscape and no mention is made of security at the leachate lagoon.*
- (viii) *No truckwash is required and the group questions why debris from the wheelcleaner must be disposed at the working-face.*
- (ix) *Trained personnel are required to be present at all times at the Civic Amenity Site to ensure compliance. The group also questions what is meant by industrial non-hazardous waste and who on site will be qualified to examine it. No testing procedures are in place to ensure sludge accepted is non-hazardous and that Condition 5 makes no mention of waste monitoring. Concerns are expressed about the dangers with having a chemical storage shed.*
- (x) *The inadequacy of the N85 to cope with the additional traffic generated due to the landfill is questioned.*
- (xi) *No untreated water should be allowed to discharge from the site and the high rainfall will cause the settling-ponds to overflow regularly and cause pollution. What will happen to the settled silt?*
- (xii) *Clare County Council's ability to manage the site is questioned and the proposed decision doesn't mention what staff qualifications are needed or how waste will be examined or where/how off-site waste will be disposed of (Condition 5.14).*
- (xiii) *No account was taken of submissions received by the Agency and that the EIS, proposed decision and licence application process are all flawed.*

Technical Committee's evaluation

- (i) The information submitted is noted by the technical committee and it considers that the information provided does not require any alterations to the decision.
- (ii) The area occupied by civic waste facilities are generally smaller than those occupied by the landfill footprint. See response to Section's 1 and 2 of Objection No. 2 above.
- (iii) The issue of what region the Local Authority wishes to accept waste from is a matter for the licensee.
- (iv) The issue of landfill lining has been dealt with earlier. The technical committee consider that the scope and extent of the leak detection surveys can be agreed with the Agency as part of Specified Engineering Works. The Agency is the responsible authority for enforcing the waste licence and the onus is on the licensee to ensure that the requirements of any waste licence are complied with.
- (v) The issue of tree felling, the visual impact and the CPO of the site have been dealt with earlier.
- (vi) Surface water management and the control of surface water have been dealt with earlier. If the on-site soil is not free draining or of low clay content, the licensee may have to source this soil off-site in order to comply with Condition 4.19.1.
- (vii) The technical committee consider that the security fencing proposed will not adversely impact on the landscape. Condition 4.4.1 already requires fencing to be installed around the leachate lagoon. However, Condition 4.4. should be amended to require fencing to be installed around 'other waste activity areas' (e.g. area reserved for waste separation by mechanical or other means).
- (viii) Condition 4.12 requires the installation of a wheel cleaner and any debris accumulating in it must be disposed of at the landfill or into a skip (during construction).
- (ix) Waste acceptance procedures are required to be developed under Condition 5 for all wastes accepted at the facility. This should ensure that only non-hazardous wastes are accepted at the facility and a procedure for the use of the chemical storage area is put in place. The proposed decision provides for the training of staff to ensure the proper operation and management of the facility.
- (x) The issue of traffic has been dealt with earlier.
- (xi) The issue of surface water management has been dealt with earlier. The settled silt will most likely be disposed of at the landfill.
- (xii) The onus is on Clare Co. Co. to ensure the facility is operated and managed to the highest standards. Condition 5.14 requires the agreement of the Agency.
- (xiii) The Agency has had regard to all submissions received and has already considered that the EIS complies with the EIA regulations. The technical committee consider the conditions of the proposed decision (and the amendments recommended in this report) are adequate.

Recommendation

Amend Condition 4.4.1 as follows:

Within one month of commencement of construction activities at the facility, security and stockproof fencing and gates shall be installed and maintained at the facility. Fencing shall be installed around the internal perimeter of the buffer zone as shown on Figure No.1 of the Article 16 reply dated July 2000 in the application (1:5000 Layout showing buffer zone and retained forestry around the proposed facility), any other waste management activities, the site access roads and the stormwater settling ponds. Fixed markers rather than fencing shall be erected to indicate the boundary of the facility.

Section 3 (Humans)

No consideration was given to people and the closeness of the site to a registered playschool (881m), the village (961.5m) and the primary school (1041m) is stated. Nuisances (noise, traffic, dust, methane, smells, odours and pollution) are dismissed by Conditions 1 to 11. The Agency is criticised for not protecting the local people and the incompetence of Clare County Council is mentioned. Compensation of the parish is not acceptable and nothing will replace the decrease in quality of life or environment if the landfill goes ahead.

Technical Committee's evaluation

Compliance with the conditions of the proposed decision should ensure that the proposed facility will not have an adverse impact on the environment. See also response to Section 2 above. The proposed decision (Content of the EMP) provides for a programme on the use of a portion of the income from waste charges/gate fees to mitigate the impact of the landfill on the local community.

Recommendation

No change.

Section 4(Soils and Geology)

The soils and geology of the site are unsuitable for a landfill and the drilling/boring were flawed, site security was non-existent and samples were left overnight in open boxes. The volume of water washed off the site will cause pollution of the Inagh river.

Technical Committee's evaluation

The technical committee consider that the site investigations undertaken by the applicant were detailed and comprehensive and adequately describe the soils, geology and hydrogeology beneath the proposed facility. The issue of surface water management has been dealt with earlier.

Recommendation

No change.

Section 5(Water)

The extent and frequency of which the Inagh river floods was never taken into account. Reporting an 'incident' by 10a.m. the next working day is not good enough and mitigation measures would not be good enough to cope with a major incident. The survey of wells used by humans and animals in the application process was inadequate and all wells weren't included. Groundwater abstraction on the site may affect both quantity and quality of water in the vicinity of the site and stripping of the overburden material may have a similar effect. Weekly monitoring should be specified in Table E.5.5 and this should be increased to daily during wet weather. Also they ask who is to ensure that the Council undertake the monitoring correctly.

Technical Committee's evaluation

The Inagh River lies 1.2km due west of the proposed facility at a high point of approximately 60 m OD while the proposed facility will be at approximately 80-90m OD. The technical committee consider that flooding of the Inagh River is not relevant to the proposed development. In the event of an incident taking place at the facility, the responsibility lies with the licensee to ensure that any incident is acted upon as soon as possible and reported to the Agency by 10 am on the following working day. Condition 9.3 requires the licensee to undertake monitoring of wells upgradient (100m) and downgradient (500m) of the facility. Compliance with the conditions of the

proposed decision should ensure no adverse impact on groundwater quality/quantity. See also response to Section 2 above.

Recommendation

No change.

Section 6 (Climate)

The rainfall and wind speed at Inagh are much greater than at Shannon. Nuisance will be caused by litter and no litter netting will be able to contain the problem. The plan for operating the facility in adverse weather conditions (Condition 6.5.4) should be submitted now and not three months after commencement of operations.

Technical Committee's evaluation

The proposed decision provides for the monitoring of meteorological conditions at the facility. As stated above, potential nuisances are controlled by Condition 6.0. The technical committee note that the plan for operating the facility in adverse wind conditions is due to be submitted within 3 months of the date of grant of the licence.

Recommendation

No change.

Section 7 (Cultural Heritage)

Cultural heritage was not addressed satisfactorily in the EIS. In particular, the inspection of the reported children's burial ground was inadequate. The reported burial ground should be found and preserved and the requirement to have an archaeologist on site during development is too late.

Technical Committee's evaluation

The Agency has already considered that the EIS complies with the EIA regulations. Cultural heritage was addressed in the EIS. The issue of cultural heritage has been dealt with earlier.

Recommendation

No change.

Section 8 (Ecology)

The ecology of the site is dealt with in a very comprehensive way in two studies included in Appendix G together with the evidence given as part of the Sworn Enquiry. The study undertaken by Fehily, Timoney & Co. as part of the application are alleged to be flawed and incorrect.

Technical Committee's evaluation

The issue of ecology has been dealt with earlier.

Recommendation

No change.

Section 9 (Landscape and visual impacts)

This issue is also addressed in the ecology studies in Section 8, submissions received previously by the Agency and the letters of objection accompanying the document. The site is on a hill and every residence will see the site. The landscape and visual impact assessment of the site are alleged to be incorrect and a set of very selective photomontages were included in the EIS. The

inspector was also told about aerial photographs taken of the site on 15th August 1988 and asked to request them from Clare County Council but that topic was never addressed.

Technical Committee's evaluation

The issues of landscape and visual impacts have been dealt with earlier.

Recommendation

No change.

Section 10 (Land use)

The distances measured from the site to the village are incorrect and there are more than 18 residences within 500m of the boundary. Tourism is very important to the village and a letter from the Inagh Development Company (Appendix D) is referred to. A map submitted to the Agency as a submission by EMS showing land-use in the area is said to be very different to the farming patterns mentioned in the EIS. The landfill will impact on surrounding land use and it will have far reaching consequences on the tranquil populated rural area.

Technical Committee's evaluation

The technical committee note that the EIS states there are 18 residences within 500m of the site boundary. The issue of tourism and land use have been dealt with earlier.

Recommendation

No change.

Section 11 (Material Assets)

Property values will fall in the area as a result of the landfill and a valuable habitat will be lost when the trees are cut down. Nuisances such as noise, dust, odours and traffic are referred to and the disruption they will cause to people's lives. Again it is reiterated that no amount of money offered will compensate for having a landfill in the parish. Landfill is an outdated and filthy solution to a problem not of their making.

Technical Committee's evaluation

The proposed facility will be required to be constructed, operated and managed to the high standards specified in the proposed decision. The issues raised here have been dealt with earlier.

Recommendation

No change.

Section 12 (Interaction of the foregoing)

The negative effects are many and there are no positive effects.

Technical Committee's evaluation

The technical committee note the comments provided.

Recommendation

No change.

Objection No.3: An Taisce

General grounds

This objection makes a number of general points:

- *The lining system which the applicant offers as BATNEEC is only a single liner.*
- *The proposed facility and its management lacks ambition and conviction in the maximum capacities set out for Composting, Recycling/Recovery and Construction/Demolition Wastes (Table G.2). These amounts remain static.*
- *There appears to be no provision for (i) source separation of recyclables (ii) hazardous wastes will be mixed with other wastes and the details of incoming and collection inspections are non-specific and unclear (iii) the ongoing reduction in the total landfilled and (iv) the specifics on how it will link in with the non-incineration aspects of the Mid-Western Waste Management Plan.*
- *The quantities reused/recycled will be approximately 8% while composting represents 4%.*
- *The proposed decision is clearly inadequate in terms of prevention, reduction, re-use, recycling and the environmentally sustainable disposal of waste and the objector urges the Agency to reconsider the proposed decision and reject this application.*

Technical Committee's evaluation

The lining system specified in the proposed decision complies with the requirements of the EU Landfill Directive. The proposed decision provides for the recovery of various waste streams at the facility e.g. the operation of a civic waste facility, the recovery of construction and demolition waste and the composting of source separated organic and green waste at the facility. Condition 5.13 requires the licensee to investigate ways for increasing the recovery provisions and reducing the annual tonnage of waste deposited at the landfill. This includes, amongst others, measures to meet the targets set out in the Waste policy document 'Changing our Ways'. The technical committee note that procedures for the acceptance and handling of all wastes are required to be developed under Condition 5.1 of the proposed decision and this should help the licensee in ensuring only non-hazardous wastes are landfilled at the facility.

Recommendation

No change.

Specific grounds

Ground 1 (Condition 2.1.1)

The minimum EMS required should be a third party audited internationally recognised standard such as ISO 14001 or EMAS.

Technical Committee's evaluation

The proposed decision requires a detailed Environmental Management System to be developed for the facility and this must have the prior agreement of the Agency. This will form the basis for continuous, structured and quantifiable improvement in a facility's environmental performance. There are strong similarities in the approaches to an EMS required by a waste licence and those required by an internationally recognised standard. Whether the licensee wishes to pursue accreditation under international standards is a matter for the licensee concerned. However, progression towards accreditation may be a natural follow-on for organisations interested in illustrating their commitment towards high environmental standards.

Recommendation

No change.

Ground 2 (Condition 2.1.2(i))

The Objectives and Targets should be binding and failure to achieve them should result in closure of the facility. The Targets should agree with those in the Changing our Ways Policy

Statement and should be across the spectrum of waste types as well as being specific and measurable.

Technical Committee's evaluation

The licensee is required to comply with all conditions of the waste licence and failure to do so will result in appropriate enforcement action being taken by the Agency. The Schedule of Objectives and Targets should be quantifiable and measurable and should have regard to all relevant waste policies.

Recommendation

No change.

Ground 3 (Condition 2.1.2(ii) and Schedule A – Content of the Environmental Management Programme)

Schedule A should reflect the requirements of ISO14001 or EMAS and targets for segregation of recyclable items should be set out clearly. Items such as food cans, drink bottles, tyres, paper, and batteries should not be accepted and inspections of all deliveries should verify if this is the case. The tables provided by the applicant (27/03/00) are non-specific, inadequate and aspirational. The specific targets contained in a revised EMP should be reviewed upward annually and the portion of the waste charges/gate fees used for the local community should be set at 15% and reviewed upward annually.

Technical Committee's evaluation

The contents of the Environmental Management Programme will have to be agreed with the Agency as part of the EMS for the facility on an annual basis. This will enable the Agency to monitor the progress of the licensee on the various targets included in the EMP in order to ensure the overall goal of improving the environmental performance of the facility. Schedule A of the proposed decision (Content of the EMP) provides for a programme on the use of a portion of the income from waste charges/gate fees to mitigate the impact of the landfill on the local community. The technical committee consider that the percentage of income used for this purpose can be agreed with the Agency under the EMP.

Recommendation

No change.

Ground 4 (Condition 2.1.2(iii))

The absence of prevention actions is inconsistent with ISO14001, EMAS and the waste hierarchy. Any EMS such as the suggested one is not ambitious and incomplete.

Technical Committee's evaluation

An integral part of the Corrective Action procedures specified in Condition 2.1.2 will require the implementation of preventative actions to ensure that similar non-compliances do not arise on a continuous basis. Such procedures will have to be agreed with the Agency.

Recommendation

No change.

Ground 5 (Condition 2.4)

The FAS waste management training programme is totally inadequate for the onerous responsibilities of managing a landfill site. The FAS Graduate Diploma/MSc in Environmental Protection or equivalent should be the minimum requirement for the landfill manager and deputy.

In the UK, the Higher National Certificate in Waste Management (2 years) is used for junior to middle management in the Waste management Industry.

Technical Committee's evaluation

The FAS waste management course provides a comprehensive and evolving set of training programmes for all those involved in waste management today. Persons accepted on to the course should have a background in a relevant area (e.g. degree, diploma, certificate). It ensures that they have an in-depth knowledge of all aspects of waste management, including legislative requirements, and an understanding of the techniques and systems for recovery, recycling and safe disposal. The training programme is made up of eight modules and consists of detailed training and reference manuals, together with the relevant legislation, which accompany each module. A "site specific" assessment, which rates the competency of the candidates in managing the particular waste facility in question, is another feature. The requirement to undertake the FAS course (or an equivalent agreed with the Agency) should ensure that key personnel have an extensive understanding of best practices in relation to waste management.

Recommendation

No change.

Ground 6 (Condition 5.13)

The waste recovery report required by Condition 5.13 should be agreed 12 months before the opening of any facility. The proposed reuse/recycling and composting rates specified in the application represent approximately 8% and 4%, respectively. The applicant proposes to ignore all the potential reduction, reuse and recycling opportunities known.

Technical Committee's evaluation

The waste recovery report specified in Condition 5.13 requires the licensee to examine ways and means of increasing waste recovery provisions and reducing the quantities of waste landfilled at the facility. The technical committee consider that this report should be submitted to the Agency within twelve months of the date of grant of the licence.

Recommendation

Amend Condition 5.13 as follows:

Within twelve months of the date of grant of this licence, a report examining

Ground 7 (Condition 5.14)

The management of the facility should compile an approved suppliers and subcontractor list and a documented procedure for approval, assessment and management of same.

Technical Committee's evaluation

Condition 5.14 requires the licensee to submit details on waste contractors and ultimate recovery/disposal facilities to the Agency for its agreement.

Recommendation

No change.

Ground 8 (Condition's 5.16.1 and 5.16.2)

Provision should be made for composting 40% of the household waste accepted at the facility. A date for source separation and green bin collection should be provided and failure to do so within a year of opening of the facility should mean closure. In view of the slow turnaround of compost, the technology should be reviewed annually to reach the 40% target.

Technical Committee's evaluation

As stated above, the proposed decision provides for the source separation of organic waste and green waste at the facility and the submission of a report to the Agency requiring the examination of means to increase recovery provisions at the facility.

Recommendation

No change.

This Section deals with Submission on Objections from 3 Parties:

1. Submission on Objection by An Taisce from Jack O'Sullivan, Environmental Management Services on behalf of Inagh Anti Landfill Group and the Irish Forestry Unit Trust;
2. Submission on Objection by Clare Co. Co. from Jack O'Sullivan, Environmental Management Services on behalf of Inagh Anti Landfill Group and the Irish Forestry Unit Trust;
3. Submission on the Objections from Clare County Council.

Specific arguments made in Submissions on Objections relating to the grounds set out in the objections were considered and are listed below; these aspects were discussed where relevant in the technical committee's consideration of each ground for objection above. However certain issues deserve separate comment by the technical committee.

1. Submission on Objection by An Taisce from Jack O'Sullivan, Environmental Management Services on behalf of Inagh Anti Landfill Group and the Irish Forestry Unit Trust

This submission consisted of details of the objection made by An Taisce (General grounds) together with additional comments on this objection (Specific grounds).

General grounds

Mr. O'Sullivan lists the issues raised by An Taisce, namely:

- (i) the containment of leachate by a single liner is not BAT*
- (ii) the targets for recovery, recycling and composting are inadequate*
- (iii) no provision is made in the management of the facility for source separation of recyclables*
- (iv) inspection/control of incoming wastes appears to be inadequate with hazardous likely to be accepted in the landfill*
- (v) the proposal does not include an EMS such as EMAS or ISO14001 and the training programme proposed is inadequate*
- (vi) inadequate capacity has been provided for composting and the proportion of the overall waste stream to be composted should be revised upwards annually.*

In addition Mr. O'Sullivan makes the following comments:

Specific grounds

Ground 1

The concentration by Clare Co. Co. on landfilling is in clear conflict with the objectives of the EU Waste Management Hierarchy and the Landfill Directive. It is inappropriate for the Agency to grant a licence without policies/measures on waste reduction at source, reuse and recycling being in place. Failure to reach waste management targets should result in significant penalties.

Ground 2

Arising from inspections at other landfill sites which have waste licences, it is strongly recommended that the Agency imposes more stringent conditions for training and management of licensed facilities. The FAS training programme does not appear to be adequate.

Ground 3

Transforming an area of forestry into a landfill is in direct conflict with the National Climate Change Strategy which also emphasises the need for substantial diversion of wastes away from landfill.

Technical Committee's evaluation

The technical committee note the issues referred to above and its views have been incorporated into the main body of the text dealing with the objections

Recommendation

No change

2. Submission on Objection by Clare Co. Co. from Jack O'Sullivan, Environmental Management Services on behalf of Inagh Anti Landfill Group and the Irish Forestry Unit Trust

This submission comments on the specific grounds to the objection made by Clare Co. Co.

Ground 1 (Condition 4.5.2)

This condition should be retained or strengthened. The amount of tree felling should be limited and it should be only undertaken outside the breeding season for owls and birds of prey.

Ground 2 (Condition 4.7.1)

If the construction of the landfill were allowed to begin before the completion of the road improvements, then the risk of road traffic accidents would be increased. Also simultaneous landfill development and road widening would cause severe disruption. This condition should be retained.

Ground 3 (Condition 4.16.5)

The surface water lagoon should not be excluded from the independent leak detection survey..

Ground 4 (Condition 4.17.5)

The expression 'fully enclosed' should be clarified. Mr O'Sullivan understands that it is intended that the structures for leachate storage/treatment should be securely fenced.

Ground 5 (Condition 4.20.5)

The requirement for the lining of the stormwater lagoons with a HDPE membrane liner should be retained as it will give additional security against leakage.

Ground 6 (Condition 5.16.1)

The 2000 tonne per annum limit for the quantity of waste composted should be increased and an additional condition should be added to control and eliminate unpleasant odour emissions from the composting area.

Ground 7 (Condition 5.16.8)

There is no reason why off-specification compost should not be mixed with fresh green waste and re-composted until the required quality is achieved. Schedule H should also be amended to include a maximum limit for the amount of synthetic polymers in the finished product.

Ground 8 (Condition 6.10.1)

There is enough flexibility in Condition 6.10.1 to allow the licensee to vary the bird control measures used. Bird scaring measures should be present at least 2 weeks prior to waste disposal and on each day (including weekends and bank holidays) from dawn to after dark.

Ground 9 (Condition 8.1)

Condition 8.1 should be retained and the Agency should not allow an unusually high or steep sloping mound to be created by landfilling to an excessive height.

Ground 10 (Condition 9.4)

It is essential that leachate will be monitored in each cell and the change suggested by Clare Co. Co. should be rejected.

Ground 11 (Condition 9.12)

The objector agrees with Clare Co Co.'s interpretation that this condition does not permit additional monitoring to be done without the Agency's permission. Any increase in the monitoring/sampling should take place without reference to the Agency while any reduction should require the written instruction of the Agency.

Ground 12 (Condition 10.11)

There may be a need for an amendment of this condition as suggested by Clare Co. Co. The requirement for an independent risk assessment and the list of issues to which the assessment should have regard to should remain.

Technical Committee's evaluation

In relation to Ground 6 above, the annual tonnage issues are dealt with in Objection 1, Ground 11. The technical committee considers that the PD addresses the control and management of odour emissions from composting area as provided in Conditions 5.16, 6.1, and 6.2 of the proposed decision.

The technical committee do not consider the need to specify a limit for synthetic polymers under Ground 7 above. The technical committee considers that the limits specified in Schedule H are adequate.

In relation to the other grounds above, the issues raised are discussed where relevant in the technical committee's consideration of each ground for the objection.

Recommendation

No change.

3. Submission on the Objections from Clare County Council

This submission is a 35 page document which is divided into 6 Sections as outlined below.

Section 1: Introduction

This submission concentrates on the technical content of the residents objection. It considers that some of the statements provided by Mr. O'Sullivan, Mr. Lee and Mr. Breen do little to further public understanding of what is proposed and serve to inflame local feeling. The material written by Mr Breen is flawed in that over 50% of the legislation cited is no longer law in Ireland. It also states that a significant number of the statutory instruments referred to have been repealed.

Section 2: Is the liner proposed at Ballyduff Beg adequate?

Clare Co. Co. state that the standards for the proposed landfill facility comply with those set out in the EU Landfill Directive which has been passed by member states. It is acknowledged that leakage may occur from the liner but this has been calculated at an insignificant amount - 29m³/year (Vol. 3 of EIS). The Co. Co. question the validity of assertions made by Environmental Management Services in relation to the liner and their reference to USEPA requirements. Protection of soil, groundwater and surface water will be met by meeting the standards of the Landfill Directive.

Section 3: Does the EIS adequately address possible impacts?

Clare Co. Co. consider that the EIS complies with the requirements of the EIA Regulations. It responds to the criticism of the EIS made by Mr. Lee and Mr. Breen as follows:

Mr. Lee's criticism of the EIS: The Co. Co. consider that (i) Mr. Lee's document (dated 27/03/00) has not taken into account additional information sent in by the applicant nor the Agency's proposed decision (ii) municipal and commercial waste contains insignificant quantities of hazardous waste (iii) the landfill will be designed to minimise the risk of leachate leakage (iv) the monitoring requirements of the EIS are substantiated by the conditions of the proposed decision and (v) the model used for landfill gas production was the most reliable known to them.

Mr. Breen's criticism of the EIS:

The Co. Co. consider that the objection by Mr Breen is limited since the Breen material does not refer to the Agency's proposed decision. It is also apparent that the Breen objection was written on 14 December 2000 two weeks prior to the issue of the proposed decision. The Co. Co. refer to the Breen objection by addressing 16 aspects as outlined below and each item is referred to with 11 pages of discussion which defends their position in a robust manner. It is apparent that the Co. Co. consider Mr Breen's facts are based on Irish legislation which is dated, and most of it is superseded by new legislation arising out of the WMA.

- Hazardous waste definition
- Asbestos
- Lead
- Silica
- Radon
- Organic Compounds
- Dioxins
- Ozone
- Methane
- Automobile Exhausts
- Faunal Conservation
- Single Composte Liner
- Waste Profiling
- Hydrology and Hydrogeology
- Local Agriculture
- Monitoring

Section 4: Does the application comply with the Waste Management Act 1996?

This submission makes the point that the proposed landfill is one element of a range of solutions for the Clare, Limerick and Kerry region. It contends that Section 40(4) of the Waste Management Act 1996 will be complied with and that BATNEEC will be used for the activity concerned. The Co. Co. also refute a number of allegations that the requirements of the Waste Management Licensing Regulations 1997 have not been followed.

Section 5: Adequacy of the conditions of the Proposed Decision

The Co. Co. contend that EMS's views of the proposed decision have failed to consider the adequacy of any of the individual conditions of the proposed decision. It provides details on why it

does not agree with the allegations made in relation to other landfills in the country. In relation to An Taisce's objection, it considers that (i) Condition 2.1 should not require accreditation to ISO 14001 (ii) failure to comply with any condition of the waste licence may result in legal action (iii) Condition 5.13 (Waste Recovery) and Schedule A are adequate and (iv) the employment of an experienced person as a landfill manager and their training under the FAS scheme is appropriate. The Co. Co. also consider that Condition 5.16 (composting) is linked to Condition 5.13 and they agree with An Taisce on the issue of the need for increased capacity for composting.

Section 6; Other matters raised by the objectors

Hydrogeology and Aquifer vulnerability: The Co. Co. makes the point that other landfills are located in similarly high rainfall areas and it considers that Condition 9.3 and 10.7 adequately addresses the issue of private wells. Additional permeability values are submitted for BH8, BH10, BH11 and BH12 and it is considered that the revised values do not change the rating of the site in terms of the GSI groundwater vulnerability matrix response.

Ecological impacts: The Co. Co. state that no party to the objection by EMS has established that hen harriers breed in this site and no evidence has been provided to confirm that long eared owls are breeding on the site. The ecological report submitted as part of the EMS objection did not find evidence of pine martens, pigmy shrews or fallow deer. The Co. Co. also consider the use of rat bait as rodent control will not impact on predators.

Effects on forestry: The Co. Co. state that the amount of land lost from the development will be 0.5% of the total forestry controlled by the Irish Forestry Unit Trust and the compulsory purchase of this land will result in a significant positive revenue for the trust. Also, the loss of forestry as a result of the development will be insignificant (0.003% of national forest cover).

Technical Committee's evaluation

The technical committee note the comments/issues raised in Sections 1-6 above. The technical committee have taken full cognisance of the issues raised by this submission on objection and incorporated its views on the matters within the main body of the text dealing with the objections.

Recommendation

No change

Signed: _____
Michael Henry
Technical Committee Chairperson