

This report has been cleared for submission to the Board by Patrick Byrne.

Signed A. Loughnane Date 22/4/10

OFFICE OF CLIMATE, LICENSING & RESOURCE USE



INSPECTORS REPORT ON A LICENCE APPLICATION

TO:	DIRECTORS	
FROM:	Aoife Loughnane	- Environmental Licensing Programme
DATE:	22 nd April 2010	
RE:	Application for a waste Licence from Lennon Quarries Ltd., Tallagh, Belmullet, Co. Mayo. Licence Register W0256-01	

Type of facility:	Soils Recovery Facility
Classes of Activity (P = principal activity):	4 th Schedule: 4(P) and 13
Category of Activity under IPPC Directive (2008/1/EC)	Not in Annex 1
Quantity of waste managed per annum:	24,900 tonnes
Classes of Waste:	Soil and stones (EWC Code 17 05 04)
Location of facility:	Tallagh, Belmullet, Co. Mayo
Licence application received:	29/01/09
Third Party submissions:	None
EIS Required:	No
Article 14 Notice sent:	20/04/09
Article 14 responses received:	18/06/09, 14/12/09
Site Inspection:	20/03/09

This application by Lennon Quarries Limited relates to the recovery of waste soil and stones by deposition on land at Tallagh, Belmullet, Co. Mayo. The facility currently operates under a waste permit issued by Mayo County Council in January 2006. Under the Waste Management (Facility Permit and Registration) Regulations 2007, S.I. No. 821 of 2007 (as amended by S.I. No. 86 of 2008), the activity exceeds the 100,000 tonnes threshold in Class 5¹ of the Third Schedule, and therefore now requires a waste licence. The waste permit will remain active until such time as a decision is made on this licence application, in accordance with the transitional arrangements under the regulations.

Lennon Quarries Limited provides employment to *circa* 25 people in the Belmullet area. The company is primarily a quarry/rock aggregate provider, with a large quarry located at Glencastle, Bunnahowen, Ballina. The company entered the waste management sector in 2005 when they obtained a waste collection permit from Mayo County Council. They have been operating as collectors of construction & demolition (C&D) waste in the region for the last number of years. They obtained a more recent C&D waste collection permit (WCP-MO-09-0276-01) in February 2009.

¹ Third Schedule, Part 1, Class 5: Recovery of excavation or dredge spoil, comprising natural materials of clay, silt, sand, gravel or stone and which comes within the meaning of inert waste, through deposition for the purposes of the improvement or development of land, where the total quantity of waste recovered at the facility is less than 100,000 tonnes.

1. Facility

The 27 hectare site is located in a rural area approximately 3km north of Belmullet. The site is dominated by cutover bog habitat and has been used in the past for peat cutting, sheep grazing and as a firing range for the local gun club. There are a number of open surface water drains throughout the site. These drains enter the Clooneen River which runs in an easterly direction along the northern site boundary.

Approximately 25,000 tonnes of waste soil and stones, concrete, bricks, tiles and ceramics has already been deposited at the site under the waste permit. The deposited wastes are partially covered with natural vegetation. The photograph shown in Figure 1 below was taken during my site visit on 20/03/2009. Figure B in the Appendix of this report shows the photograph aspect. The deposited wastes are visible in the central background, in front of the facility entrance. These wastes have not yet been spread over the site.



Figure 1. Photograph of site deposition activities.

A map of the site location and a drawing of the site layout is shown in Appendix A of this report. The site is broadly triangular in shape and slopes from the highest point in the south (20m AOD Malin Head) to the lowest point in the north (3m AOD). The site is bordered to the north, south and west by adjacent bog habitat, and to the south-east by a mushroom growing facility and a derelict Roman Catholic church. The Clooneen River runs in an easterly direction along the northern site boundary. A GAA pitch is being developed on lands to the west of the site. A public water main runs along the main Belmullet to Ballyglass road to the south of the site. The nearest residences are located 350m south-west and 650m north-east of the site.

The applicant states that the site is of little use for agricultural purposes and that by raising the land with two metres of waste soil and stones, the land will become useable agricultural land for grazing and/or tillage. To allow for the proposed two metre land-raise, the applicant calculates that a total of 373,039 m³ of waste soil and stones would be required over the lifetime of the facility. This is equivalent to 596,862 tonnes, using a density of 1.6 tonnes/m³ for soil and stones. Based on an annual intake of 24,900 tonnes, this means that the facility will be active for 24 years.

The EPA considers that in order for a waste soils facility to classify as waste recovery, there needs to be a planning, amenity, further development, safety or landscaping imperative supporting the need for the waste filling/deposition works, i.e. beneficial use. The applicant commissioned an independent agricultural advisor to comment on the proposed development.

The report of the agricultural consultant states:

“The continued acceptance of 24,900 tonnes per annum of non-hazardous/inert material and its recovery, by spreading the material over the site deposition area (to a depth of 2m) will have a consequential benefit of improving the land for agricultural purposes”.

The site is owned by Erris Farm Services Co-Op Society Limited and is on long-term lease to Lennon Quarries Ltd. The existing lease expires on 1st October 2010. A letter from the owners has been provided in support of the licence application. The letter states that they agree to draw up a new lease agreement with Lennon Quarries Ltd. prior to the expiration of the existing lease agreement. The new lease will be for four years and nine months duration. They understand the nature, scale and duration of the proposed development, and they believe that by building up the land with two metres of soil and stones, that the land will become usable agricultural land for grazing and/or tillage.

The planning authority, Mayo County Council, has confirmed, in a letter to the applicant dated 18th November 2009, that *“the deposition of natural soil and stones for the purposes of reclamation for agricultural purposes does not constitute a material change in use of the land and such deposition would be regarded as exempt development under Class 11 of the 2001 Planning and Development Regulations².”* An Environmental Impact Statement was not required by the planning authority.

While the proposal has been deemed exempt from the need for planning permission, the planning authority has not indicated whether they accept the need for improvement of agricultural land in this location, nor have they indicated any concerns regarding the proposal. This presents the Agency with a number of issues:

- (i) Is the proposed development appropriate in this location? Will a market or demand exist for the improved agricultural land that will result from this long term (24 year) land restoration project?

These are land-use matters which fall under the remit of the planning authority. The circumstances under which the Agency shall not grant a waste licence are set out in Section 40(4) of the Waste Management Acts 1996 to 2010. The proposed development satisfies the criteria specified in Section 40(4) and the Recommended Decision (RD) conditions the development and restoration of the site from an environmental perspective.

- (ii) The basis for licensing soil recovery facilities as waste recovery activities is taken, *inter alia*, to be consistent with European case law in that *“the essential characteristic of a waste recovery operation is that its principal objective is that the waste serve a useful purpose in replacing other materials which would have had to be used for that purpose, thereby conserving natural resources”.*

It can be asked whether the land would be improved for agricultural purposes if there were no waste soil and stone available for filling purposes and whether the developer would import non-waste materials to develop the site. It is more likely to be the case here that it is the availability of waste soils and stones that creates the opportunity for developing the land for agricultural purposes. The supporting statement from the applicant's agricultural advisor states that the activity will have a consequential benefit of improving the land for agricultural purposes. In the absence of any concerns raised by the planning authority regarding the need for improved agricultural land in the area, it is reasonable to consider that the proposal is a soil recovery activity and can be licensed as such by the Agency, subject to the requirements of Section 40(4) of the Waste Management Acts 1996 to 2010.

² Planning and Development Regulations 2001, (S.I. No. 600 of 2001) Schedule 2 Exempted Development, Part 3 – Rural, Class 11:- Development consisting of the carrying out, on land which is used on for the purpose of agriculture or forestry, of any of the following works:- (a) field drainage, (b) **land reclamation**, (c) the removal of fences, (d) the improvement of existing fences, (e) the improvement of hill grazing, or (f) the reclamation of estuarine marsh land or of callows, where the preservation of such land or callows is not an objective of a development plan for the area.

- (iii) The applicant's proposal for natural revegetation does not support their case for the need to recover the land for improved agricultural purposes. However, the applicant's ecological assessment recommends that the deposited wastes be allowed to re-colonise naturally to keep in character with the surrounding area.

In accordance with other licences issued by the Agency for soil recovery facilities, Condition 10.2 of the RD requires a final capping layer of 150 to 300mm topsoil above the deposited wastes. Condition 6.11 (dust control) requires developed areas to be seeded as soon as practicable after placement of cover soils, in a manner appropriate to the surrounding area. Condition 10.2 also specifies that within twelve months of completion of each phase of waste deposition, that phase shall be completed and progressively restored to agricultural use.

The principal waste activity is identified as Class 4 of the Fourth Schedule of the Waste Management Acts 1996 to 2010: '*Recycling or reclamation of other inorganic materials*'. The proposed activities are also covered by Class 13 of the Fourth Schedule: '*Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.*'

The management structure for the facility involves the Managing Director of Lennon Quarries Limited, the facility manager and the deputy facility manager/machine operator. There are currently no services on the site (water, telephone, electricity or sewer) nor any proposal to provide these services to the site. The only current and proposed item of plant at the facility is a mobile tracked excavator which works intermittently throughout the day/week. The deputy facility manager/machine operator will be the only employee on site during operating hours, and will have a mobile phone so as to be contactable at all times.

The proposed hours of operation are those currently authorised by the waste permit: 08:00 to 18:00 hours Monday to Friday and 08:00 to 14:00 hours on Saturday. The proposed hours of waste acceptance are 08:30 to 17:30 Monday to Friday and 08:30 to 13:30 Saturday. No works will be undertaken on Sundays or Public Holidays. Condition 1.7 of the Recommended Decision (RD) specifies these hours of operation and waste acceptance.

2. Operational Description

The proposed waste activity involves the acceptance and deposition of 24,900 tonnes per annum of waste soil and stones (EWC code 17 05 04 *Soils and stones other than those mentioned in 17 05 03*). The soils will originate from construction sites where the natural overburden is being excavated and removed. The applicant proposes to raise the level of the site by two metres, by placing the waste over the surface of the deposition area.

The applicant does not propose to install a basal or side slope mineral liner at the facility. Similarly, there is no proposal for leachate collection at the base or sides of the deposited materials. Given that the proposed waste types comprise natural earth-forming materials which are non-leachate forming, the activity presents low risk to the soil and water environment. I am satisfied on this basis that there is no requirement for an engineered liner or leachate management system at this facility.

The applicant has outlined their proposed waste acceptance procedures, however the RD includes conditions which augment the applicant's proposals to ensure that the level of testing of the intake wastes are in accordance with *Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC*.

- Level 1: Basic Characterisation

All wastes in Schedule A of the RD which can be accepted at the facility are included in Section 2.1.1 (List of wastes acceptable at landfills for inert waste without testing) of Council Decision 2003/33/EC. These wastes are considered acceptable for recovery at this facility without prior testing, provided they are imported from a single known source. Although there may be an exemption from testing, there is still a requirement to collect and record some basic characterisation information in advance to demonstrate that the waste is inert, e.g. source and origin of waste, description of the waste, waste type and EWC code, physical form, colour and odour. Prior to unloading of any waste consignment at the facility, the documentation accompanying the waste will be checked by a site operative. Any unacceptable waste consignments shall be rejected and removed off-site.

- Level 2: Compliance Testing

The applicant proposes to undertake annual compliance testing on a representative sample of intake waste. The RD requires one sample in every 250 loads be taken, i.e. 5 samples per annum using the applicant's projection of 1,245 loads per annum. This will involve laboratory testing of soil samples, focusing on key contaminant indicators³. Test data will be used to confirm that the accepted soils are inert and comply with acceptance criteria.

- Level 3: On-site Verification

Visual and odour inspections will be carried out by the site operative on each waste load to ensure that the load is consistent with the characterisation data provided and that there is no intermixed non-hazardous or hazardous waste.

The applicant proposes to develop a hardcore area, with a surface dressing of clean broken stone, at the northern end of the site access road. The deputy facility manager/machine operative will inspect the waste as it is unloaded at the edge of the hardcore. If the waste is non-compliant with the waste acceptance criteria, it will be reloaded onto the delivery truck and removed from the site for authorised disposal elsewhere. When the waste is being moved and spread over the deposition area, if objects are identified which are not compliant with the waste acceptance criteria (e.g. plastic, metal, wood), the operator will remove these items and transport them to the waste quarantine skip, for storage pending removal off-site for recovery/disposal.

In addition to monitoring of the incoming waste, *Schedule C.4 Waste Monitoring* of the RD requires the applicant to undertake monitoring of the deposited wastes a maximum of five times per year. A representative sample of the deposited wastes shall be taken by trial pit or other appropriate method, at least every 3,000m² area of fill and to a depth of 1.5 metres, or at an equivalent frequency as may be agreed with the Agency.

The development sequence is to fill the site progressively from east to west in three phases. The deposition area measures approximately 20.5 hectares, with a 4.46 hectare buffer zone adjacent to the Clooneen River. The applicant proposes that all perimeter surface water drains will remain untouched, with a slope of 3:1 (18.5 degrees) rising from the drains to the top of the deposited waste. They also propose to raise the open drains which traverse the site by two metres, in line with the deposition of waste across this area. This proposal is not considered appropriate as it may lead to flooding of areas where surface water flowing in the perimeter drain currently enters the internal site drains, particularly along the southern site boundary. The existing waste permit prohibits the filling or reclamation of land within 15m of any drain and/or stream. Condition 3.13 of the RD specifies this limitation.

The applicant does not propose to install a weighbridge at the facility. However, they have proposed an alternative method for recording waste quantities based on the proposed annual intake of 24,900 tonnes, giving approximately 1,245 truckloads of waste delivered to the site on an annual basis (i.e. 25 loads per week). All waste arriving at the site will be delivered in haulage trucks owned and operated by Lennon Quarries Ltd., authorised under their existing

³ Principally arsenic, cadmium, lead, mercury, zinc, total organic carbon, BTEX, diesel range organics and mineral oil.

waste collection permit. The operator will have a record of the capacity of each truck, which will enable them to keep records of sufficient accuracy regarding the quantities of waste being accepted at the facility on a daily basis. This is considered a satisfactory system, having regard to the nature and scale of the activity. Nonetheless, condition 6.7 of the RD requires the weight of one in every 25 loads to be verified at an off-site weighbridge (e.g. at the applicant's quarry), and the weighbridge records to be maintained at the facility.

Wheel cleaning is not proposed as vehicles delivering waste will enter the site on the existing hardcore access road, turn and deposit their load along the perimeter of the hardcore area. The excavator will then shift the material and spread it over the site. It is not expected that the wheels of the trucks will come into contact with any waste soils, etc. Condition 6.10 of the RD allows vehicles delivering and dispatching waste to enter onto the site only as far as the hardcore area, to ensure no mud or waste is carried off-site.

The applicant does not propose to provide a site office at the facility, however Condition 3.6 of the RD specifies this as a requirement to be provided within three months of the date of grant of licence. This is considered necessary for the processing and storage of documentation relating to the waste licence and to ensure that members of the public can obtain information at the facility concerning its environmental performance. The RD requires the facility manager/deputy to be contactable by mobile phone at all times during facility operations, and to ensure that telephone, fax and email facilities are made available to the facility at an alternative location agreed by the Agency.

3. Use of Resources

The only fuel required will be diesel (approximately 100 litres per week) and hydraulic oil (approximately 40 litres per annum) to run the excavator. It is not proposed to store any fuel on-site. A fuel tanker will visit the site when required to fill the excavator.

4. Emissions

4.1 Air

Emissions to atmosphere from plant and vehicle exhausts are not considered significant. No landfill gas management infrastructure is required on the basis of the inert nature of the wastes. There is negligible risk of odour nuisance as the facility will not be handling odour-forming waste. The following activities have the potential to generate fugitive dust emissions at the facility:

- Unloading of waste by haulage trucks;
- Storage of stockpiles of waste, prior to spreading over the deposition area; and
- Traffic movements on hardcore areas and access road.

A dust deposition survey was carried out using Bergerhoff gauges in December 2008 (30-day period) at three locations on the site boundary, D1, D2 & D3. The results at locations D2 and D3 were well below the TA Luft threshold of 350 mg/m²/day, measuring 130 and 194 mg/m²/day respectively. The result at D1 was 657 mg/m²/day. This location is on the western site boundary, adjacent to a public road and the GAA facilities under development. No waste has been deposited in this area of the facility to date, therefore it is not thought that these dust levels are related to the existing waste activity.

The applicant has proposed to relocate dust sampling location D1 away from the public road. They have also proposed the following dust mitigation measures:

- Reduction in the volume of waste stockpiles;
- Use of a water bowser to sprinkle water over stockpiles and access roads to dampen down any dust during periods of extended dry weather; and
- Further mitigation measures will be incorporated into the facility operations if necessary.

Schedule B.5 sets a dust deposition limit of 350mg/m²/day for a 30 day composite sample at locations D1 (relocated), D2 & D3. Dust monitoring shall be carried out biannually.

4.2 Emissions to Sewer

No process effluent is generated at the site. No sanitary effluent is generated as there are no toilet, washroom or canteen facilities at the facility.

4.3 Storm water Run-off / Emissions to Surface Waters

The site is drained by a number of open surface water drains around the site perimeter and traversing the deposition area. The surface water collected in these drains discharges into the Clooneen River at five locations. The discharge volume depends on rainfall and the level of retention in the open drains on site.

The applicant proposes to install five settlement ponds on the open drains to allow suspended solids drop out of suspension prior to the surface water discharging from the site. The ponds have been designed for a 1 in 50 year storm, allowing 12 hours of rainfall to be retained and settled prior to discharge. Table 1 shows the details for the settlement ponds, designed in accordance with *CIRIA B14 Design of Flood Storage Reservoirs*.

Table 1. Settlement Ponds Design

Settlement Pond	Zone of Contribution	Pond Dimensions (length x width x depth)	Storage Volume	Retention time in Pond	Discharge to river
1	33,000 m ²	15 m x 5m x 1m	75m ³	5.9 hours	3.5 litres/sec
2	112,500 m ²	24m x 10m x 1m	240m ³	6.1 hours	11 litres/sec
3	61,000 m ²	20m x 6.5m x 1m	130m ³	6.1 hours	6 litres/sec
4	18,000 m ²	11m x 5m x 1m	55m ³	6.1 hours	2.5 litres/sec
5	2,300 m ²	11m x 5m x 1m	55m ³	6.1 hours	2.5 litres/sec

The applicant's calculations represent a worst-case scenario as it is assumed the area contributing to the flow is paved. The proposed average 6 hour retention time in the ponds is less than the theoretical 11 hour retention time to settle out medium silt particles (0.006mm or greater) in the EPA's *Guidelines on Environmental Management in the Extractive Industry (Non-Scheduled Minerals)*. However, the proposal is considered satisfactory in this case as the surface run-off does not arise from process water (e.g. aggregate washing in the extractive industry) but rather natural rainfall events. Rainfall will percolate diffusely into the deposited soils which, as the site is progressively filled and foliage is reinstated, will reduce the amount of run-off entering the ponds, provided the soils are more permeable than peat, which is to be expected.

Condition 3.13 of the RD provides for these settlement ponds to be constructed at the facility. The applicant is required to submit a method statement to the Regional Fisheries Board for approval prior to construction of ponds, having regard to the Fisheries guidance document '*Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites*'. The proposals for these works (including method statement) shall be submitted to the Agency for agreement as 'specified engineering works' under Condition 3.3 of the RD. *Schedule B.2 Emissions to Water* of the RD specifies limits for the discharge of suspended solids from the ponds. The applicant proposes to maintain (i.e. desludge) the ponds biannually. Condition 6.12 requires the open drains and settlement ponds to be inspected on a weekly basis and desludged as necessary.

The EPA's Office of Environmental Assessment undertakes biological quality monitoring of the Clooneen river. The river is rated moderately polluted (Q3) 900m upstream and immediately downstream of the site, and continues to be impacted by, apparently, peat harvesting and drainage activities in the catchment. Under the Water Framework Directive, the Clooneen (Aghadoon) river is classified as poor status and risk category *1a (at risk of not achieving good status in 2015)*. The risk is attributed to diffuse sources. The objective is to restore this waterbody to good status by 2015. The river enters the sea at Moyrahan Bay, 850m downstream of the site. The bay is part of Belmullet Bay, classified as high status and risk category *2b (not at risk of not achieving good status in 2015)*.

Schedule C.2.2 of the RD requires the applicant to undertake a weekly visual inspection and quarterly grab sampling of the discharges from each settlement pond.

No fuels, oils or chemicals will be stored at the facility. An oil interceptor is not required as there will be no impermeable hardstanding area. The wastes proposed to be accepted at the facility are non-flammable and do not present a fire risk, therefore the RD does not require the provision of contaminated firewater retention facilities at the site.

4.4 Emissions to ground/groundwater:

There are no proposed emissions to ground from the facility. The soils on site are low-permeability peats. According to Geological Survey of Ireland (GSI) data, the site is underlain by Precambrian Quartzites, Gneisses and Schists, which are highly metamorphosed hard bedrocks, some of the oldest in Ireland. This bedrock has an aquifer classification of PI (poor aquifer), which is generally unproductive except for local zones. An interim study of aquifer vulnerability in this area has classified the site and surrounding areas as high to low (i.e. it has not been given a true vulnerability).

The applicant states that there are no groundwater supply wells identified in the vicinity of the site. It is proposed to recover only uncontaminated natural soil and stones on the site, which will not cause a pollution risk to groundwater. The RD requires the applicant to implement robust waste acceptance and inspection procedures to ensure that only uncontaminated natural soil and stones are used in the waste deposition works.

4.5 Wastes Generated:

No waste will be generated at the facility, with the exception of any C&D waste unintentionally imported to the site, e.g. metal, timber, plastic. These wastes will be segregated, stored in the waste quarantine skip and removed off-site for recovery/disposal to authorised waste facilities.

4.6 Noise:

Noise levels at the site are typical of a rural area. The nearest noise sensitive locations (NSLs) are two residences located 350m south-west and 650m north-east of the site. The nature of the waste activity is such that there will be no long-term noise impacts. During facility operations, the only sources of additional noise will be the excavator and haulage trucks entering and departing from the site (estimated at one HGV movement per hour).

A noise survey was carried out in January 2009 at three locations on the site boundary and the two NSLs. The baseline noise levels recorded when the facility was not operating ranged between 39 – 55.4 dB(A) LAeq, 30 mins. The noise levels recorded when the facility was operating ranged between 37 – 56.9 dB(A) LAeq, 30 mins. Therefore noise from the facility is not considered significant. The dominant noise source was identified as intermittent passing road traffic. Other noise sources identified were agricultural machinery, farm animals and passing aircraft.

The RD sets noise limits of 55/45 dB(A) daytime/night-time, measured at the noise sensitive locations. Condition 6.6 requires a noise survey to be undertaken as required by the Agency.

4.7 Nuisance:

As this is a soils recovery facility, it is not expected to give rise to nuisance from odour, scavenging birds, vermin, windblown litter, or to present a fire/explosion risk. Condition 5 of the RD specifies controls in the event of potential nuisance arising from the waste activities.

5. Restoration & Aftercare

The applicant proposes that following completion of the waste deposition works, the site will revegetate naturally and the five settlement ponds will be left in place. Condition 6.11 of the RD requires that developed areas be seeded as soon as practicable after placement of cover soils. The OEE may require the settlement ponds to be decommissioned. The fate of the

ponds can be determined through the Closure, Restoration and Aftercare Management Plan (CRAMP), required under Condition 10 of the RD. The CRAMP shall be submitted to the OEE for agreement within six months of the date of grant of the licence.

6. Cultural Heritage, Habitats & Protected Species

Ecological assessments were undertaken in June 2005 in support of the waste permit application, and in January 2009 in support of the waste licence application. Cutover bog habitat occupies the greatest area within the site and is of low ecological value as it has been highly modified. Other habitats identified at the site are spoil and bare ground, acid grassland, wet grassland, drainage ditches and depositing/lowland rivers. With the exception of the latter habitat which forms the northern site boundary, the site can be considered to have a low ecological value. A buffer zone of 4.46 hectares will be provided between the waste deposition area (Phases 1, 2 and part of Phase 3) and the northern site boundary, which will afford protection to the depositing/lowland rivers habitat. Under the applicant's proposal, part of waste deposition area 3 will be filled up to the river bank with no buffer zone. Condition 3.13 of the RD requires the licensee to maintain the 4.46 ha buffer zone adjacent to the river and prohibits, in any case, waste deposition within 25 metres of the Clooneen river. Condition 3.13 also requires the applicant to submit a method statement to the Regional Fisheries Board for approval prior to the construction of the proposed settlement ponds, in order to protect the fisheries habitat.

The site is located within 200m of Broadhaven Bay SAC and within 500m of Blacksod Bay/Broadhaven SPA. The site itself is not included within a conservation designated area but it is within the catchment of the Broadhaven Bay complex, draining into Moyrahan Bay. The ecological assessment assessed the potential impacts of the development on the designated sites and identifies a number of mitigation measures to reduce the impact of the proposal on the surrounding area, including:

- (i) Settlement ponds will be installed to ensure that any run-off draining from the site will be treated before entering the Clooneen River;
- (ii) A sampling programme will be implemented for the discharge from the settlement ponds to ensure suspended solids concentrations are within limits prescribed by the Agency;
- (iii) A planned programme of waste recovery will be implemented to reduce disturbance to any mammals or bird life using the site;
- (iv) The deposited material should be allowed to re-colonise naturally to keep in character with the surrounding area;
- (v) A yearly breeding bird survey is recommended if waste is to be deposited between April and August as a number of birds of conservation concern potentially breed on the site, including skylark, stonechat and snipe.

These mitigation measures have been incorporated into the RD with the exception of (iv) on the basis that in order to restore the site to beneficial agricultural use, the licensee is required to install a topsoil cover and to seed the developed areas in a manner appropriate to the surrounding area. This requirement is also considered appropriate to minimise dust emissions and to avoid colonisation of developed areas by weeds. With the implementation of these mitigation measures, it is not anticipated that there will be any impact on the designated sites arising from the waste activities at the facility.

7. Regional Waste Management Plan

According to the Connaught Waste Management Plan 2006 – 2011, approximately 1.1 million tonnes of C&D waste was generated in the Connaught Region in 2004, reflecting the economic growth and associated level of activity in the construction industry at that time. Of this total, approximately 500,000 tonnes (~ 45%) comprised soil and stone, the rest comprised mixed C&D waste (~ 52%), wood, rubble and metals (~ 3%).

It is policy in the Connaught Waste Management Plan 2006-2011 to maximise the reuse and recycling of C&D waste. An objective of the Plan is to reduce and/or eliminate quantities of C&D recyclable waste used in land reclamation, other than clays or subsoils. The Plan states that a C&D recovery facility can be permitted to accept soil or construction waste for 'recovery' to land provided it is uncontaminated and the landspreading activity is of benefit to the land. The Plan also states that while this practice is a relatively low-cost option for the construction industry, there are some concerns over this practice:

- Regulating a large number of small sites is more challenging and costly for local authorities, and the risk of illegal disposal at these sites is potentially higher;
- There is a risk that 'marginal land' high in biodiversity and ecological value (but low in economic value) will be damaged in a piecemeal fashion (wetlands, marshy land, hedgerows, natural grasslands); and
- The opportunity to re-instate existing quarries, landfills and other 'brownfield' sites is being lost.

The Plan advises local authorities to encourage the use of quarries/pits for sustainable management of C&D waste as opposed to using agricultural land, with an emphasis on resource recovery. The Plan also advises local authorities to divert suitable C&D waste to relevant landfill sites where there is potential to use it for restoration and environmental protection. Applications for waste permits for deposit of soil on agricultural land should be closely inspected, with a view to potential environmental impacts. Where alternative regulated sites are available, the use of virgin land for C&D waste should be discouraged.

The applicant's proposal satisfies the objectives of the plan insofar as they have provided evidence from an agricultural advisor that the recovery of waste soil and stones to land is of agricultural benefit. The RD addresses the environmental concerns associated with the proposed activity. The applicant is required to implement robust waste acceptance and inspection procedures to ensure that only uncontaminated natural soil and stones are used in the waste deposition works. The applicant has undertaken ecological assessments which have found the site to be of low ecological value, with the exception of the lowland river habitat. A buffer zone is proposed as a mitigation measure to protect this habitat.

8. Environmental Impact Statement

An EIS was not submitted with the waste licence application. The proposed development is considered by the planning authority to be exempt from planning permission, as confirmed in writing by the planning authority.

9. Best Available Techniques (BAT)

BAT for this activity is taken to be represented by the guidance given in the Agency's *Draft BAT Guidance Note for the Waste Sector: Landfill Activities (April 2003)*, insofar as it relates to the waste recovery activities at this facility.

I have examined and assessed the application documentation and I am satisfied that the site, technologies and techniques specified in the application and as confirmed, modified or specified in the attached Recommended Decision comply with the requirements and principles of BAT. I consider the technologies and techniques as described in the application, in this report, and in the RD, to be the most effective in achieving a high general level of protection of the environment having regard - as may be relevant - to the way the facility is located, designed, built, managed, maintained, operated and decommissioned.

10. Compliance with Directives/Regulations

The Landfill Directive and IPPC Directives do not apply to this facility. The requirements of the Water Framework Directive have been taken into account in considering the application. The licence conditions have been specified in accordance with the principles of BAT.

11. Fit & Proper Person Assessment

The Fit and Proper Person assessment requires three areas of examination:

(i) *Technical Ability*

The facility is currently operating under a waste permit. Within six months of the date of grant of this licence, the facility manager and deputy shall complete a FÁS Waste Management Training Programme or equivalent. I am satisfied that the applicant has the technical ability to satisfactorily carry out the proposed waste activities in accordance with the RD.

(ii) *Legal Standing*

The applicant is free from any convictions under environmental legislation.

(iii) *Financial Standing*

The applicant has provided a letter of support from their bank, which states that the applicant is likely to be in a position to meet any financial commitments or liabilities that may have been, or will be entered into or incurred in carrying on the proposed waste activity, or in consequence of ceasing to carry out that activity.

It is my view that the applicant can be deemed a Fit & Proper Person for the purpose of this licence application.

12. Cross Office Liaison

Consultations have taken place between the Environmental Licensing Programme and the OEE in relation to licensing of soils recovery facilities. Advice and guidance from OEE and senior licensing experts was followed in my assessment of this application.

13. Submissions

No submissions were received in relation to this application.

14. Charges

A charge of €5,896.72 is proposed in the RD, based on the enforcement effort predicted for the facility.

15. Recommendation

I have considered all the documentation submitted in relation to this application and recommend that the Agency grant a licence subject to the conditions set out in the attached RD and for the reasons as drafted. I am satisfied that the conditions set out in the RD will adequately address all emissions from the facility and will ensure that the carrying on of the activities in accordance with the conditions will not cause environmental pollution.

Signed



Aoife Loughane

Inspector

Environmental Licensing Programme

Procedural Note

In the event that no objections are received to the Proposed Decision on the application, a licence will be granted in accordance with Section 43(1) of the Waste Management Acts 1996-2010.

APPENDIX A: Site Location & Layout

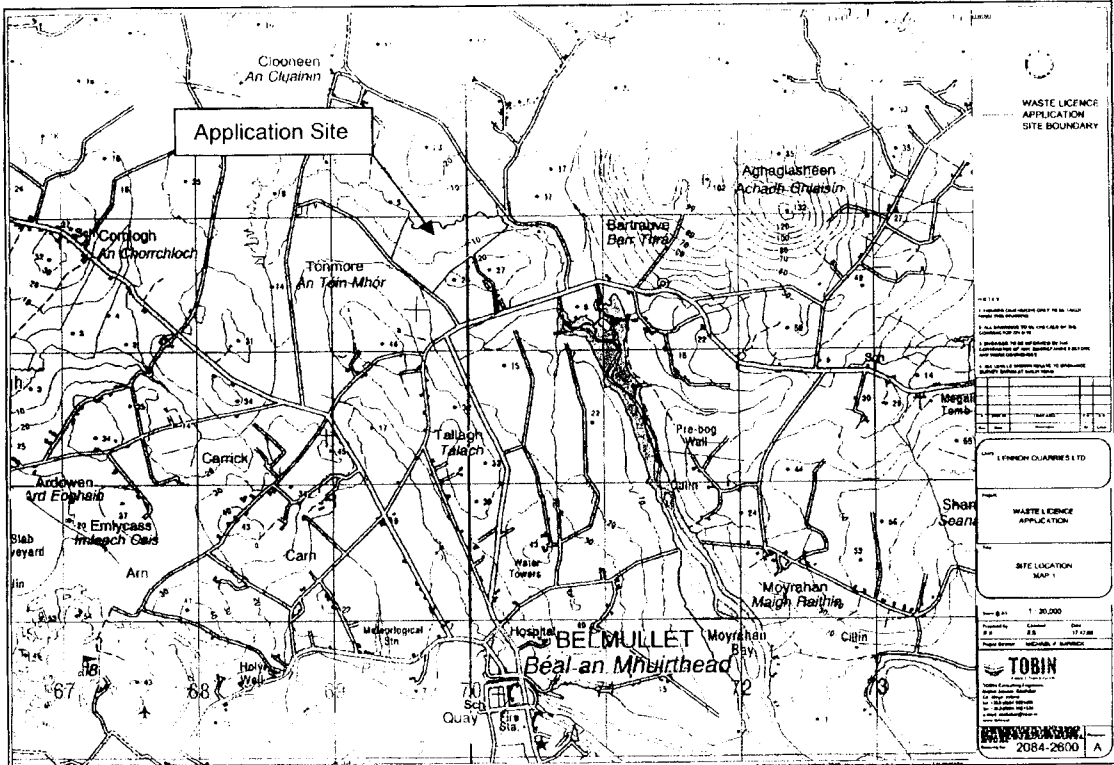


Figure A. Site Location

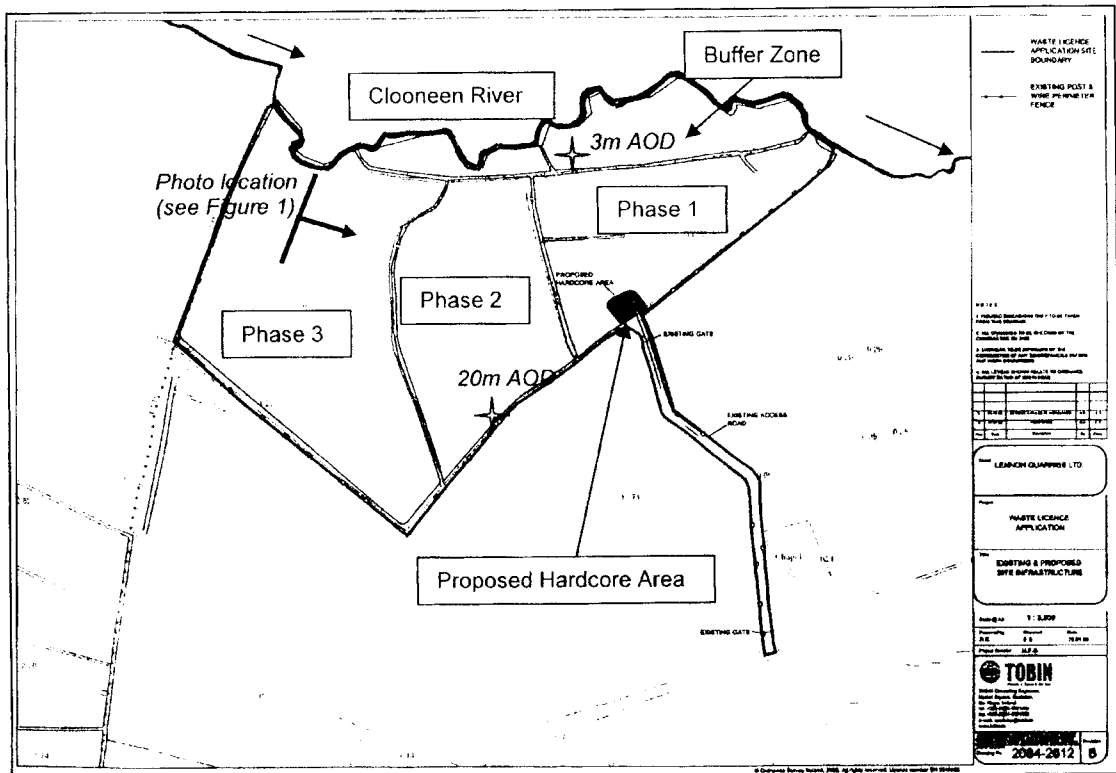


Figure B. Site Layout



Headquarters
P.O. Box 3000
Johnstown Castle Estate
County Wexford
Ireland

WASTE LICENCE

Recommended Decision

Licence Register Number:	W0256-01
Applicant:	Lennon Quarries Limited
Location of Facility:	Tallagh, Belmullet, Co. Mayo

INTRODUCTION

This introduction is not part of the licence and does not purport to be a legal interpretation of the licence.

This waste licence relates to the recovery of waste soil and stones by deposition on land at Tallagh, Belmullet, Co. Mayo by Lennon Quarries Limited. A maximum of 24,900 tonnes per annum of waste soil and stones will be used to raise the level of the site by two metres in order to improve the land for agricultural purposes. The amount of waste soil and stones to be imported and placed at the facility over a 24 year period is approximately 596,862 tonnes (approximately 373,039 cubic metres).

This facility is classed as a soils recovery facility, with the principal activity identified as Class 4 of the Fourth Schedule to the Waste Management Acts 1996 to 2010; *recycling or reclamation of inorganic materials*.

The development sequence is to fill the site progressively from east to west in three phases. The existing open surface water drains on the site will remain untouched. A buffer zone will be maintained between the area of waste deposition and the Clooneen river which runs in an easterly direction along the northern site boundary. Five settlement ponds will be constructed on the open drains to ensure that any surface water draining from the site will undergo settlement before discharging into the Clooneen river.

The licence requires the implementation of robust waste acceptance and inspection procedures to ensure that only uncontaminated, natural soil and stones are used in the waste activity. The licence specifies a number of environmental controls in order to minimise the risk of environmental pollution and nuisance to the public arising from the waste activity at the facility. The environmental monitoring requirements include surface water run-off, dust and noise.

The licence sets out in detail the conditions under which Lennon Quarries Limited, Glencastle, Bunnahowen, Ballina, Co. Mayo will operate and manage this facility.

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Glossary of Terms

All terms in this licence should be interpreted in accordance with the definitions in the Environmental Protection Agency Acts 1992 to 2007 / Waste Management Acts 1996 to 2010, unless otherwise defined in the section.

Adequate lighting	20 lux measured at ground level.
AER	Annual Environmental Report.
Agreement	Agreement in writing.
Annually	At approximately twelve-monthly intervals.
Application	The application by the licensee for this licence.
Appropriate Facility	A waste management facility, duly authorised under relevant law and technically suitable.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of this licence application.
BAT	Best Available Techniques.
Biannually	All or part of a period of six consecutive months.
Biennially	Once every two years.
BOD	5 day Biochemical Oxygen Demand (without nitrification suppression).
CEN	Comité Européen De Normalisation – European Committee for Standardisation.
COD	Chemical Oxygen Demand.
Construction and demolition (C&D) waste	Wastes that arise from construction, renovation and demolition activities: Chapter 17 of the EWC or as otherwise may be agreed.
Containment boom	A boom that can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.
Daily	During all days of plant operation and, in the case of emissions, when emissions are taking place: with at least one measurement on any one day.
Day	Any 24 hour period.
Daytime	0800 hrs to 2200 hrs.

dB(A)	Decibels (A weighted).
DO	Dissolved oxygen.
Documentation	Any report, record, results, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
EMP	Environmental Management Programme.
Emission limits	Those limits, including concentration limits and deposition rates, established in <i>Schedule B: Emission Limits</i> of this licence.
Environmental damage	As defined in Directive 2004/35/EC.
EPA	Environmental Protection Agency.
European Waste Catalogue (EWC)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC and any subsequent amendment published in the <i>Official Journal of the European Community</i> .
Facility	Any site or premises used for the purpose of the recovery or disposal of waste.
Fortnightly	A minimum of 24 times per year, at approximately two week intervals.
GC/MS	Gas chromatography mass spectroscopy.
ha	Hectare.
Heavy metals	This term is to be interpreted as set out in "Parameters of Water Quality, Interpretation and Standards" published by the Agency in 2001. ISBN 1-84095-015-3.
Hours of operation	The hours during which the facility is authorised to be operational.
Hours of waste acceptance	The hours during which the facility is authorised to accept waste.
ICP	Inductively coupled plasma spectroscopy.
Inert waste	Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or

harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular must not endanger the quality of surface water and/or groundwater.

Incident	The following shall constitute as incident for the purposes of this licence: (i) an emergency; (ii) any emission which does not comply with the requirements of this licence; (iii) any exceedance of the daily duty capacity of the waste handling equipment; (iv) any trigger level specified in this licence which is attained or exceeded; and, (v) any indication that environmental pollution has, or may have, taken place.
Industrial waste	As defined in Section 5(1) of the Waste Management Acts 1996 to 2010.
IPPC	Integrated Pollution Prevention & Control.
K	Kelvin.
kPa	Kilopascals.
Landfill Directive	Council Directive 1999/31/EC.
L_{eq}	Equivalent continuous sound level.
Licence	A Waste Licence issued in accordance with the Waste Management Acts 1996 to 2010.
Licencee	Lennon Quarries Limited, Glencastle, Bunnahowen, Ballina, Co. Mayo.
List I	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.
List II	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.
Local Authority	Mayo County Council.
Maintain	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function adequately.
Mobile plant	Self-propelled machinery used for the emplacement of wastes or for the construction of specified engineering works.
Monthly	A minimum of 12 times per year, at intervals of approximately one month.

Night-time	2200 hrs to 0800 hrs.
Noise-sensitive location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Quarterly	At approximately three monthly intervals.
Regional Fisheries Board	North Western Regional Fisheries Board.
Sample(s)	Unless the context of this licence indicates to the contrary, the term samples shall include measurements taken by electronic instruments.
Sanitary effluent	Wastewater from facility toilet, washroom and canteen facilities.
Settlement Pond	A reservoir of still water in which very fine material is allowed to settle, to permit discharge of clean water.
SOP	Standard operating procedure.
Source segregated waste	Waste which is separated at source; meaning that the waste is sorted at the point of generation into a recyclable fraction(s) for separate collection (e.g., paper, metal, glass, plastic, bulk dry recyclables, biodegradables, etc.) and a residual fraction. The expression 'separate at source' shall be construed accordingly.
Specified emissions	Those emissions listed in <i>Schedule B: Emission Limits</i> of this licence.
Specified Engineering Works	Engineering works listed in <i>Schedule D: Specified Engineering Works</i> of this licence.
Standard method	A National, European or internationally recognised procedure (e.g. I.S. EN, ISO, CEN, BS or equivalent); or an in-house documented procedure based on the above references; a procedure as detailed in the current edition of "Standard Methods for the Examination of Water and Wastewater" (prepared and published jointly by A.P.H.A., A.W.W.A. & W.E.F.), American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or an alternative method as may be agreed by the Agency.
Storm water	Rain water run-off from roof and non-process areas.
Temporary storage	In relation to waste is a period of less than six months as defined in the Waste Management Acts 1996 to 2010.
The Agency	Environmental Protection Agency.
TA Luft	Technical Instructions on Air Quality Control - TA Luft in accordance with art. 48 of the Federal Immission Control Law (BImSchG) dated 15 March 1974 (BGBl. I p 721). Federal Ministry for Environment, Bonn 1986, including the amendment for Classification of Organic Substances according

to section 3.1.7 TA. Luft, published in July 1997.

TOC	Total organic carbon.
Trade effluent	Trade effluent has the meaning given in the Water Services Act. 2007.
Trigger level	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Water Services Authority	Mayo County Council.
Weekly	During all weeks of plant operation and, in the case of emissions, when emissions are taking place: with at least one measurement in any one week.
WWTP	Waste water treatment plant.

Decision & Reasons for the Decision

The Environmental Protection Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this licence, any emissions from the activity will comply with and will not contravene any of the requirements of Section 40(4) of the Waste Management Acts 1996 to 2010.

In reaching this decision the Environmental Protection Agency has considered the application and supporting documentation received from the applicant and the report of its inspector.

Part I Schedule of Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Acts 1996 to 2010, the Environmental Protection Agency (the Agency) proposes, under Section 40(1) of the said Acts to grant this Waste Licence to **Lennon Quarries Limited, Glencastle, Bunnahowen, Ballina, Co. Mayo** to carry on the waste activities listed below at **Tallagh, Belmullet, Co. Mayo** subject to conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Acts 1996 to 2010

Class 4.	Recycling or reclamation of other inorganic materials.
Class 13.	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

Part II Schedule of Activities Refused

None of the proposed activities as set out in the licence application have been refused.

Part III Conditions

Condition 1. Scope

- 1.1 Waste activities at this facility shall be restricted to those listed and described in *Part I Schedule of Activities Licensed*, and shall be as set out in the licence application or as modified under Condition 1.4 of this licence and subject to the conditions of this licence.
- 1.2 Activities at this facility shall be limited as set out in *Schedule A: Limitations* of this licence.
- 1.3 For the purposes of this licence, the facility authorised by this licence is the area of land outlined in red on Drawing No. 2084-2612/Revision B Existing & Proposed Site Infrastructure submitted on 14th December 2009, of the application. Any reference in this licence to "facility" shall mean the area thus outlined in red. The licensed activities shall be carried on only within the area outlined.
- 1.4 No alteration to, or reconstruction in respect of, the activity, or any part thereof, that would, or is likely to, result in
- (i) a material change or increase in:
- the nature or quantity of any emission;
 - the abatement/treatment or recovery systems;
 - the range of processes to be carried out;
 - the fuels, raw materials, intermediates, products or wastes generated, or
- (ii) any changes in:
- site management, infrastructure or control with adverse environmental significance;
- shall be carried out or commenced without prior notice to, and without the agreement of, the Agency.
- 1.5 The facility shall be controlled, operated and maintained, and emissions shall take place as set out in the licence. All programmes required to be carried out under the terms of this licence become part of this licence.
- 1.6 This licence is for purposes of waste licensing under the Waste Management Acts 1996 to 2010 only and nothing in this licence shall be construed as negating the licensee's statutory obligations, or requirements under any other enactments or regulations.
- 1.7 **Waste Acceptance Hours and Hours of Operation**
- 1.7.1 **Waste may be accepted at the facility only between the hours of 08.30 and 17.30 Monday to Friday inclusive (excluding Public Holidays), and between 08.30 and 13.30 hours on Saturdays.**
- 1.7.2 **The facility may be operated only between the hours of 08.00 to 18.00 Monday to Friday inclusive (excluding Public Holidays), and 08.00 to 14.00 on Saturdays.**
- 1.7.3 **The facility shall not operate or accept waste on Sundays or on Public Holidays.**

Reason: To clarify the scope of this licence.

Condition 2. Management of the Facility

2.1 Facility Management

2.1.1 The licensee shall employ a suitably qualified and experienced facility manager who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced deputy shall be present on the facility at all times during its operation or as otherwise required by the Agency.

2.1.2 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience as required and shall be aware of the requirements of this licence. In addition, the facility manager and his/her deputy shall, **within six months of the date of grant of this licence**, successfully complete a FAS waste management training programme or equivalent agreed by the Agency.

2.2 Environmental Management System (EMS)

2.2.1 The licensee shall establish and maintain an Environmental Management System (EMS) within six months of the date of grant of this licence. The EMS shall be updated on an annual basis.

2.2.2 The EMS shall include, as a minimum, the following elements:

2.2.2.1 Management and Reporting Structure.

The licensee shall maintain onsite written details of the management structure of the facility. Any proposed replacement in the management structure from that submitted in the application shall be notified in advance in writing to the Agency. Written details of the management structure shall include the following information:

- a) The names of all persons who are to provide the management and supervision of the waste activities authorised by the licence, in particular the name of the facility manager and any nominated deputies;
- b) Details of the responsibilities for each individual named under a) above; and
- c) Details of the relevant education, training and experience held by each of the persons nominated under a) above.

2.2.2.2 Schedule of Environmental Objectives and Targets.

The licensee shall prepare and maintain a Schedule of Environmental Objectives and Targets. The schedule shall, as a minimum, provide for a review of all operations and processes, including an evaluation of practicable options, for energy and resource efficiency, the use of cleaner technology, and the prevention, reduction and minimisation of waste and shall include waste reduction targets. The schedule shall include time frames for the achievement of set targets and shall address a five-year period as a minimum. The schedule shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).

2.2.2.3 Environmental Management Programme (EMP)

The licensee shall, not later than six months from the date of grant of this licence, submit to the Agency for agreement an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.2. Once agreed the EMP shall be established and maintained by the licensee. It shall include:

- designation of responsibility for targets;
- the means by which they may be achieved;
- the time within which they may be achieved.

The EMP shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).

A report on the programme, including the success in meeting agreed targets, shall be prepared and submitted to the Agency as part of the AER. Such reports shall be retained on-site for a period of not less than seven years and shall be available for inspection by authorised persons of the Agency.

2.2.2.4 Documentation

- (i) The licensee shall establish and maintain an environmental management documentation system which shall be to the satisfaction of the Agency.
- (ii) The licensee shall issue a copy of this licence to all relevant personnel whose duties relate to any condition of this licence.

2.2.2.5 Corrective Action

The licensee shall establish and maintain procedures to ensure that corrective action is taken should the specified requirements of this licence not be fulfilled. The responsibility and authority for persons initiating further investigation and corrective action in the event of a reported non-conformity with this licence shall be defined.

2.2.2.6 Awareness and Training

The licensee shall establish and maintain procedures for identifying training needs, and for providing appropriate training, for all personnel whose work can have a significant effect upon the environment. Appropriate records of training shall be maintained.

2.2.2.7 Communications Programme

The licensee shall establish and maintain a Public Awareness and Communications Programme to ensure that members of the public can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility.

2.2.2.8 Maintenance Programme

The licensee shall establish and maintain, within six months of the date of grant of this licence, a structured programme for maintenance and service of vehicles and equipment. This programme shall be supported by appropriate record-keeping systems and diagnostic testing.

Reason: To make provision for management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment.

Condition 3. Infrastructure and Operation

- 3.1 The licensee shall establish and maintain all infrastructure referred to in this licence, as required by the conditions of this licence.
- 3.2 Facility Notice Board
 - 3.2.1 The licensee shall, within one month of the date of grant of this licence, provide a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm. The notice board shall be maintained thereafter.
 - 3.2.2 The board shall clearly show:
 - (i) the name and telephone number of the facility;

- (ii) the normal hours of opening;
- (iii) the name of the licence holder;
- (iv) an emergency out of hours contact telephone number;
- (v) the licence reference number; and
- (vi) where environmental information relating to the facility can be obtained.

3.3 Specified Engineering Works (SEW)

- 3.3.1 The licensee shall submit proposals for any Specified Engineering Works, as defined in *Schedule D: Specified Engineering Works* of this licence, to the Agency for its agreement at least two months in advance of the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.
- 3.3.2 All specified engineering works shall be supervised by an appropriately qualified person, and that person, or persons, shall be present at all times during which relevant works are being undertaken.
- 3.3.3 Following completion of any specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall, as appropriate, include the following information:
 - (i) A description of the works;
 - (ii) As-built drawings of the works;
 - (iii) Name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;
 - (iv) Records of any problems and the remedial works carried out to resolve those problems; and
 - (v) Any other information requested in writing by the Agency.

3.4 Facility Security

- 3.4.1 Security and stockproof fencing and gates shall be installed and maintained. The base of the fencing shall be set in the ground. Subject to the implementation of the restoration and aftercare plan and to the agreement of the Agency, the requirement for such site security may be removed.
- 3.4.2 Gates shall be locked shut when the facility is unsupervised.
- 3.4.3 The licensee shall remedy any defect in the gates and or fencing as follows:
 - (i) A temporary repair shall be made by the end of the working day; and
 - (ii) A repair to the standard of the original gates and-or fencing shall be undertaken within three working days.

3.5 Facility Roads and Hardstanding

- 3.5.1 Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.
- 3.5.2 The facility entrance and hardstanding areas shall be appropriately paved and maintained in a fit and clean condition.

3.6 Facility Office

- 3.6.1 The licensee shall provide and maintain a site office at the facility, **within three months of the date of grant of this licence**. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 3.6.2 **The facility manager and deputy facility manager shall be contactable by mobile phone at all times during facility operation.**
- 3.6.3 The licensee shall ensure that a working telephone, fax machine and a method for electronic transfer of information are made available to the facility, at an alternative location agreed by the Agency.

- 3.7 Waste Inspection and Quarantine Areas
- 3.7.1 A waste inspection area and a waste quarantine area shall be provided and maintained at the facility.
- 3.7.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be clearly identified and segregated from each other.
- 3.7.3 All waste deposited at the waste quarantine area shall be stored in a skip or other appropriate vessel as may be agreed with the Agency.**
- 3.8 Tank, Container and Drum Storage Areas
- 3.8.1 All tank, container and drum storage areas shall be rendered impervious to the materials stored therein. Bunds shall be designed having regard to Agency guidelines 'Storage and Transfer of Materials for Scheduled Activities' (2004).
- 3.8.2 All tank and drum storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:
- (i) 110% of the capacity of the largest tank or drum within the bunded area; or
 - (ii) 25% of the total volume of substance that could be stored within the bunded area.
- 3.8.3 All drainage from bunded areas shall be treated as hazardous waste unless it can be demonstrated to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal.
- 3.8.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 3.8.5 All tanks, containers and drums shall be labelled to clearly indicate their contents.
- 3.9 The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.
- 3.10 The licensee shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency. The requirement with regard to off-site points is subject to the prior agreement of the landowner(s) concerned.
- 3.11 The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used, the absorbent material shall be disposed of at an appropriate facility.
- 3.12 The licensee shall, **within three months** of the date of grant of this licence, provide and maintain in a prominent location on the site a wind sock, or other wind direction indicator, which shall be visible from the public roadway outside the site.
- 3.13 Surface water
- 3.13.1 **The licensee shall maintain all existing open surface water drains on site. No waste shall be deposited within 15 metres of any open surface water drain or stream.**
- 3.13.2 **The licensee shall maintain a 4.46 hectare buffer zone adjacent to the Clooneen River, in accordance with Drawing No. 2084-2603 *Site Layout Plan* of the application, and shall not, in any event, deposit waste within 25 metres of the Clooneen River.**
- 3.13.3 **The licensee shall install and maintain settlement ponds at the facility to ensure that all storm water discharges from the facility pass through a settlement pond prior to discharge. The settlement ponds shall be as described in the application information submitted on 18th June 2009, and as detailed on Drawing No. 2084-2614/Revision B *Surface Water Drainage System including Treatment / Abatement System* of the application.**

- 3.13.4 The licensee shall submit a method statement to the Regional Fisheries Board for approval prior to the construction of the proposed settlement ponds, having regard to the Fisheries guideline document "*Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites*". The method statement shall also be submitted to the Agency as part of the SEW proposal for the settlement ponds, required under Condition 3.3 and Schedule D of this licence.
- 3.14 The licensee shall have regard to the guidance given in the Environmental Protection Agency Landfill Manuals (Site Design, Operational Practices, Monitoring, Site Investigation, and Restoration and Aftercare), as may be relevant, in the development, operation and closure of the facility.
- 3.15 No waste shall be deposited to a final profile depth greater than 2 metres while maintaining the need to comply with condition 10.2.3 of this licence.

Reason: To provide for appropriate operation of the facility to ensure protection of the environment.

Condition 4. Interpretation

- 4.1 In the case of emissions to waters, no grab sample value shall exceed 1.2 times the emission limit value.
- 4.2 Where the ability to measure a parameter is affected by mixing before emission, then, with agreement from the Agency, the parameter may be assessed before mixing takes place.
- 4.3 Noise from the facility shall not give rise to sound pressure levels ($L_{eq, T}$) measured at noise sensitive locations, which exceed the limit values.
- 4.4 Dust from the activity shall not give rise to deposition levels at the facility boundary which exceed the limit value.

Reason: To clarify the interpretation of limit values fixed under the licence.

Condition 5. Emissions

- 5.1 No specified emission from the facility shall exceed the emission limit values set out in *Schedule B: Emission Limits* of this licence. There shall be no other emissions of environmental significance.
- 5.2 No emissions, including odours, from the activities carried on at the site shall result in an impairment of, or an interference with amenities or the environment beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary.
- 5.3 The licensee shall ensure that all or any of the following:
- Mud
 - Dust
 - Litter

associated with the activity do not result in an impairment of, or an interference with, amenities or the environment at the facility or beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary. Any method used by the licensee to control or prevent any such impairment/interference shall not cause environmental pollution.

- 5.4 The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.
- 5.5 There shall be no direct emissions of polluting matter to groundwater or surface water.

Reason: *To provide for the protection of the environment by way of control and limitation of emissions.*

Condition 6. Control and Monitoring

- 6.1 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and as in accordance with *Schedule C: Control & Monitoring* of this licence.
- 6.1.1 Analyses shall be undertaken by competent staff in accordance with documented operating procedures.
- 6.1.2 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics shall be determined.
- 6.1.3 Such procedures shall be subject to a programme of Analytical Quality Control using control standards with evaluation of test responses.
- 6.1.4 Where any analysis is sub-contracted it shall be to a competent laboratory.
- 6.2 The licensee shall ensure that:
- (i) sampling and analysis for all parameters listed in the Schedules to this licence; and
- (ii) any reference measurements for the calibration of automated measurement systems; shall be carried out in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards that will ensure the provision of data of an equivalent scientific quality shall apply.
- 6.3 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission/discharge (or ambient conditions where that is the monitoring objective).
- 6.4 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the agreement of the Agency following evaluation of test results.
- 6.5 The integrity and water tightness of all pipes, tanks, bunding structures and containers and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee prior to use. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.
- 6.6 Noise
- 6.6.1 The licensee shall carry out a noise survey of the site **operations as required by the Agency**. The survey programme shall be undertaken in accordance with the methodology specified in the 'Environmental Noise Survey Guidance Document' as published by the Agency.
- 6.6.2 The licensee shall construct or install temporary screening embankments/barriers at the facility as necessary, in order to achieve the limits specified in *Schedule B.4: Noise Emissions* of this licence.
- 6.7 The licensee shall record the quantities of waste accepted at the facility on a daily basis, based on the capacity of each waste collection vehicle. The weight of one in every 25

waste loads shall be verified at an off-site weighbridge. The weighbridge records shall be maintained at the facility.

6.8 The licensee shall ensure that waste activities at the facility shall be carried out in such a manner as not to have an adverse effect on the drainage of adjacent lands, on watercourses, on field drains or any other drainage system including the public roadway.

6.9 The licensee shall, within six months of the date of grant of this licence, develop and establish a Data Management System for collation, archiving, assessing and graphically presenting the monitoring data generated as a result of this licence.

6.10 Operational Controls

6.10.1 There shall be no public access to the facility.

6.10.2 Vehicles delivering and dispatching waste shall enter onto the site only as far as the hardcore area, and the licensee shall ensure no mud or waste is carried off-site.

6.10.3 Wastes, once deposited and covered, shall not be excavated, disturbed or otherwise picked over unless with the prior agreement of the Agency.

6.10.4 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.

6.10.5 All loose litter or other waste, placed on or in the vicinity of the facility, other than in accordance with the requirements of this licence, shall be removed, subject to the agreement of the landowners, immediately and in any event by 10.00am of the next working day after such waste is discovered.

6.10.6 No smoking shall be allowed at the facility.

6.10.7 No fuels shall be stored at the facility.

6.11 Dust Control

6.11.1 In dry weather, the site access road and hardcore area shall be sprayed with water as and when required, to minimise dust emissions.

6.11.2 Temporary stockpiles of waste shall be stored in a manner which minimises dust emissions.

6.11.3 Developed areas shall be seeded as soon as practicable after placement of cover soils, in a manner appropriate to the surrounding area.

6.12 Surface Water Management

6.12.1 The drainage system (i.e. open surface water drains and settlement ponds) shall be inspected weekly and desludged as necessary. All sludge and drainage from these operations shall be collected for safe disposal. The drainage system shall be properly maintained at all times.

6.12.2 A visual inspection of the settlement ponds for any evidence of contamination shall be carried out on a weekly basis. A log of such inspections shall be maintained.

6.13 Topographical Monitoring

A topographical survey shall be carried out on an annual basis. The survey shall be in accordance with any written instructions issued by the Agency. The licensee shall submit a survey report to the Agency as part of the Annual Environmental Report, demonstrating that the deposition works are in accordance with condition 10.2.1 of this licence.

6.14 Stability Assessment

The licensee shall carry out an annual stability assessment of the side slopes along the filling/deposition area at the facility. The results of this assessment shall be reported as part of the Annual Environmental Report.

6.15 Bird Survey

The licensee shall carry out an annual breeding bird survey, unless otherwise required by the Agency. The survey shall record the number of birds of conservation concern utilising the site. The results of this assessment shall be reported as part of the Annual Environmental Report.

Reason: To provide for the protection of the environment by way of treatment and monitoring of emissions.

Condition 7. Resource Use and Energy Efficiency

7.1 Prior to the acceptance of waste for deposition at the facility, the licensee shall establish and operate a programme to measure resources and energy use. This programme shall also identify actions or measures that will be implemented to maximise efficiency of use of resources and energy at this facility. A copy of this programme shall be available on-site for inspection by authorised persons of the Agency and a summary report of consumption figures as well as efficiency measures/actions/innovations shall be submitted as part of the Annual Environmental Report.

Reason: To provide for the efficient use of resources and energy in all site operations.

Condition 8. Materials Handling

8.1 Recovery of waste on-site shall only take place in accordance with the conditions of this licence and in accordance with the appropriate National and European legislation and protocols.

8.2 Waste sent off-site for recovery or disposal shall be transported only by an authorised waste contractor. The waste shall be transported from the site of the activity to the site of recovery/disposal only in a manner that will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.

8.3 The licensee shall ensure that, in advance of transfer to another person, waste shall be classified, packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling.

8.4 The loading and unloading of materials (**including re-fuelling of machinery**) shall be carried out in designated areas protected against spillage and leachate run-off.

8.5 Waste shall be stored in designated areas, protected as may be appropriate against spillage and leachate run-off. The waste shall be clearly labelled and appropriately segregated.

8.6 No waste classified as green list waste in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended) shall be consigned for recovery without the agreement of the Agency.

8.7 Waste for disposal/recovery off-site shall be analysed in accordance with *Schedule C: Control & Monitoring* of this licence.

8.8 Waste Acceptance and Characterisation Procedures

8.8.1 Waste shall only be accepted at the facility from Local Authority waste collection or transport vehicles, or holders of valid waste collection permits, unless exempted or excluded, issued under the Waste Management (Collection Permit) Regulations 2007, as amended.

- 8.8.2 Within three months of the date of grant of this licence, the licensee shall submit for Agency approval written procedures for the acceptance and handling of all wastes at the facility. These procedures shall be in accordance with the requirements of *Schedule A: Limitations* of this licence.
- 8.8.3 No hazardous or liquid wastes, nor any waste not listed in *Schedule A: Limitations* of this licence, shall be accepted, recovered or disposed of at the facility.

Reason: *To provide for the appropriate handling of material and the protection of the environment.*

Condition 9. Accident Prevention and Emergency Response

- 9.1 The licensee shall, within six months of date of grant of this licence, ensure that a documented Accident Prevention Procedure is in place that addresses the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.2 The licensee shall, within six months of date of grant of this licence, ensure that a documented Emergency Response Procedure is in place, that addresses any emergency situation which may originate on-site. This procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.3 Incidents
- 9.3.1 In the event of an incident the licensee shall immediately:
- (i) carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
 - (ii) isolate the source of any such emission;
 - (iii) evaluate the environmental pollution, if any, caused by the incident;
 - (iv) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
 - (v) identify the date, time and place of the incident;
 - (vi) notify the Agency and other relevant authorities.
- 9.3.2 The licensee shall provide a proposal to the Agency for its agreement within one month of the incident occurring or as otherwise agreed by the Agency, to:
- (i) identify and put in place measures to avoid recurrence of the incident; and
 - (ii) identify and put in place any other appropriate remedial actions.

Reason: *To provide for the protection of the environment.*

Condition 10. Closure, Restoration and Aftercare Management

- 10.1 The facility shall be developed in accordance with Drawing No. 2084-2615 *Phasing Sequence for Waste Deposition* of the application, submitted on 18th June 2009.
- 10.2 Finished Levels/Profile

- 10.2.1** Unless otherwise required by the Planning Authority, the final ground levels at the facility shall be as shown on Drawing No. 2084-2608 (Revision B) *Proposed Topographic Map of Application Site Showing Final Ground Levels of the application, submitted on 19th April 2010*, with the exception of the existing open surface water drains which shall remain untouched.
- 10.2.2** Within twelve months of completion of each phase of waste deposition, that phase shall be completed and progressively restored to agricultural use.
- 10.2.3 Developed areas shall be profiled so that no depression exists in which water may accumulate. Any depressions arising after profiling shall be rectified by the emplacement of suitable capping or restoration materials.
- 10.2.4 Final contours and landscaping should be such that the finished slopes of the facility are structurally stable, resistant to erosion, and protective of pollutant control and monitoring infrastructure.
- 10.3 Final Capping
- 10.3.1 Unless otherwise agreed by the Agency, filled areas shall be permanently capped within 6 months of the areas having been filled to the required level.
- 10.3.2 Unless otherwise agreed by the Agency, the final capping shall consist of the following:
- (i) Top soil (150 – 300mm); and
 - (ii) Subsoils, such that total thickness of top soil and subsoils is at least 1m.
- 10.4 No material or object that is incompatible with the proposed restoration of the facility shall be present within 1m of the final soil surface levels.
- 10.5 All waste activities at the facility shall cease upon the installation of the final capping unless otherwise agreed by the Agency.
- 10.6 The licensee shall undertake measures as necessary to prevent the release of suspended solids to receiving waters during the site restoration activities, in particular during final capping, final contouring and landscaping works.
- 10.7 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the site in the licensed activity, the licensee shall, to the satisfaction of the Agency, decommission, render safe or remove for disposal/recovery any soil, subsoil, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution.
- 10.8 Closure, Restoration and Aftercare Management Plan (CRAMP)
- 10.8.1 The licensee shall prepare, to the satisfaction of the Agency, a fully detailed and costed plan for the decommissioning or closure of the site or part thereof. This plan shall be submitted to the Agency for agreement within six months of the date of grant of the licence.
- 10.8.2 The plan shall be reviewed annually and proposed amendments thereto notified to the Agency for agreement as part of the AER. No amendments may be implemented without the agreement of the Agency.
- 10.8.3 The licensee shall have regard to the Environmental Protection Agency Guidance on Environmental Liability Risk Assessment, Decommissioning Management Plans and Financial Provision when implementing Condition 10.8.1 above.
- 10.9 The CRAMP shall include, as a minimum, the following:
- (i) a scope statement for the plan;
 - (ii) the criteria that define the successful decommissioning of the activity or part thereof, which ensures minimum impact on the environment;
 - (iii) a programme to achieve the stated criteria;
 - (iv) where relevant, a test programme to demonstrate the successful implementation of the decommissioning plan; and

- (v) details of the costings for the plan and the financial provisions to underwrite those costs.
- 10.10 A final validation report to include a certificate of completion for the CRAMP, for all or part of the site as necessary, shall be submitted to the Agency within three months of execution of the plan. The licensee shall carry out such tests, investigations or submit certification, as requested by the Agency, to confirm that there is no continuing risk to the environment.

Reason: *To make provision for the proper closure of the activity ensuring protection of the environment.*

Condition 11. Notification, Records and Reports

- 11.1 The licensee shall notify the Agency by both telephone and facsimile, if available, to the Agency's headquarters in Wexford, or to such other Agency office as may be specified by the Agency, as soon as practicable after the occurrence of any of the following:
- (i) any release of environmental significance to atmosphere from any potential emissions point including bypasses;
 - (ii) any emission that does not comply with the requirements of this licence;
 - (iii) any malfunction or breakdown of key control equipment or monitoring equipment set out in *Schedule C: Control and Monitoring* of this licence which is likely to lead to loss of control of the abatement system; and
 - (iv) any incident with the potential for environmental contamination of surface water or groundwater, or posing an environment threat to air or land, or requiring an emergency response by the Local Authority.
- The licensee shall include as part of the notification, date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any emissions.
- 11.2 In the case of any incident relating to discharges to water, the licensee shall notify the Local and Water Services Authority and the Regional Fisheries Board as soon as practicable after such an incident.
- 11.3 The licensee shall make a record of any incident. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident. The record shall include all corrective actions taken to manage the incident, minimise wastes generated and the effect on the environment, and avoid recurrence. The licensee shall, as soon as practicable following incident notification, submit to the Agency the incident record.
- 11.4 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant (if provided), and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.
- 11.5 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility.
- 11.6 The licensee shall as a minimum keep the following documents at the site:
- (i) the licences relating to the facility;
 - (ii) the current EMS for the facility;
 - (iii) the previous year's AER for the facility;
 - (iv) records of all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility;
 - (v) relevant correspondence with the Agency;
 - (vi) up to date site drawings/plans showing the location of key process and environmental infrastructure, including monitoring locations and emission points;

- (vii) up to date Standard Operational Procedures for all processes, plant and equipment necessary to give effect to this licence or otherwise to ensure that standard operation of such processes, plant or equipment does not result in unauthorised emissions to the environment;
- (viii) the current Environmental Management Plan (EMP); and
- (ix) any elements of the licence application or EIS documentation referenced in this licence.

This documentation shall be available to the Agency for inspection at all reasonable times.

- 11.7 The licensee shall submit to the Agency, by the 31st March of each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in *Schedule D: Annual Environmental Report* of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.
- 11.8 The licensee shall maintain a written record for each load of waste arriving at the facility. The licensee shall record the following:
- (i) the date and time;
 - (ii) the name of the carrier (including if appropriate, the waste carrier registration details);
 - (iii) the vehicle registration number;
 - (iv) the trailer, skip or other container unique identification number (where relevant);
 - (v) the origin of the waste load;
 - (vi) the name of the producer(s) collector(s) of the waste as appropriate;
 - (vii) a description of the waste including the associated EWC codes;
 - (viii) the quantity of the waste, recorded in tonnes;
 - (ix) the name of the person checking the load; and
 - (x) where loads or wastes are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed.
- 11.9 A full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall be maintained on a monthly basis and shall as a minimum contain details of the following:
- (i) the tonnages and EWC Code for the waste materials imported and or sent off-site for disposal/recovery;
 - (ii) the names of the agent and carrier of the waste, and their waste collection permit details, if required (to include issuing authority and vehicle registration number);
 - (iii) details of the ultimate disposal/recovery destination facility for the waste and its appropriateness to accept the consigned waste stream, to include its permit licence details and issuing authority, if required;
 - (iv) written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site;
 - (v) details of all waste consigned abroad for Recovery and classified as 'Green' in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended). The rationale for the classification must form part of the record;
 - (vi) details of any rejected consignments;
 - (vii) details of any approved waste mixing;
 - (viii) the results of any waste analyses required under *Schedule C: Control & Monitoring*, of this licence; and
 - (ix) the tonnage and EWC Code for the waste materials recovered/disposed on-site.
- 11.10 The licensee shall submit report(s) as required by the conditions of this licence to the Agency's Headquarters in Wexford, or to such other Agency office as may be specified by the Agency.

11.11 All reports shall be certified accurate and representative by the facility manager or a nominated, suitably qualified and experienced deputy.

11.12 Waste Recovery Reports

The licensee shall as part of the Annual Environmental Report for the site submit a report on the contribution by this facility to the achievement of the waste recovery objectives stated in Condition 2.2.2.2 and as otherwise may be stated in National and European Union waste policies and shall, as a minimum, include the tonnage of C & D derived waste materials recovered.

Reason: *To provide for the collection and reporting of adequate information on the activity.*

Condition 12. Financial Charges and Provisions

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of **€5,896.72**, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activity as the Agency considers necessary for the performance of its functions under the Waste Management Acts 1996 to 2010. The first payment shall be a pro-rata amount for the period from the date of grant of this licence to the 31st day of December, and shall be paid to the Agency within one month from the date of grant of the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Waste Management Acts 1996 to 2010, and all such payments shall be made within one month of the date upon which demanded by the Agency.

12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased, the licensee shall contribute such sums as determined by the Agency to defray its costs in regard to items not covered by the said annual contribution.

12.2 Environmental Liabilities

12.2.1 The licensee shall as part of the AER, provide an annual statement as to the measures taken or adopted at the site in relation to the prevention of environmental damage, and the financial provisions in place in relation to the underwriting of costs for remedial actions following anticipated events (including closure) or accidents/incidents, as may be associated with the carrying on of the activity.

12.2.2 The licensee shall arrange for the completion, by an independent and appropriately qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment (ELRA) to address the liabilities from past and present activities. The assessment shall include those liabilities and costs identified in Condition 10 for execution of the CRAMP. A report on this assessment shall be submitted to the Agency for agreement as part of the first AER. The ELRA shall be reviewed as necessary to reflect any significant change on site, and in any case every three years following initial agreement. The results of the review shall be notified as part of subsequent AERs.

12.2.3 As part of the measures identified in Condition 12.2.1, the licensee shall, to the satisfaction of the Agency, make financial provision to cover any liabilities identified in Condition 12.2.2. The amount of indemnity held shall be reviewed and revised as necessary, but at least annually. Proof of renewal or revision of such financial indemnity shall be included in the annual 'Statement of Measures' report identified in Condition 12.2.1.

12.2.4 Unless otherwise agreed, any revision to that part of the indemnity dealing with restoration and aftercare liabilities (refer Condition 10.7) shall be computed using the following formula:

$$\text{Cost} = (E:\text{COST} \times \text{WPI}) + \text{CiCC}$$

Where:

- Cost – Revised restoration and aftercare cost
- ECOST – Existing restoration and aftercare cost
- WPI – Appropriate Wholesale Price Index [Capital Goods, Building & Construction (i.e. Materials & Wages) Index], as published by the Central Statistics Office, for the year since last closure calculation/revision.
- CiCC – Change in compliance costs as a result of change in site conditions, changes in law, regulations, regulatory authority charges, or other significant changes

12.2.5 The licensee shall have regard to the Environmental Protection Agency Guidance on Environmental Liability Risk Assessment, Decommissioning Management Plans and Financial Provision when implementing Conditions 12.2.2 and 12.2.3 above.

Reason: To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.

SCHEDULE A: Limitations

A.1 Waste Acceptance

Only the inert wastes as specified in Table A.1 are acceptable for recovery at the facility unless otherwise agreed by the Agency. These wastes must satisfy the criteria in *Schedule A.2: Acceptance Criteria for materials to be used at the facility* of this licence.

Table A.1 Waste Categories and Quantities

EWG CODE	WASTE TYPE ^{Notes 1 & 2}	MAXIMUM (TONNES PER ANNUM)
17 05 04	Soils and stones other than those mentioned in 17 05 03	24,900

Note 1: In the case of suspicion of contamination (either from visual inspection or from knowledge of the origin of the waste) testing in accordance with *Schedule A.2* below shall be applied or the waste should be refused/rejected.

Note 2: Any proposals to accept other compatible waste streams must be agreed in advance by the Agency and the total amount of waste must be within the total amount specified.



A.2 Acceptance Criteria for materials to be used at the facility

The general characterisation and testing must be based on the following three level hierarchy:

Level 1: Basic Characterisation

This constitutes a thorough determination, according to standardised analysis and behaviour testing methods, of the short and long-term leaching behaviour and/or characteristic properties of the waste.

Level 2: Compliance Testing

This constitutes periodical testing by simpler standard analysis and behaviour-testing methods to determine whether a waste complies with condition and/or specific reference criteria. The tests focus on key variables and behaviour identified by basic characterisation.

Level 3: On-site verification

This constitutes rapid check methods to confirm that a waste is the same as that which has been subjected to compliance testing and that which is described in any accompanying documents. It may merely consist of a visual inspection of a load of waste before and after unloading at the waste facility.

Each and every load of waste (and accompanying documents) accepted at the facility shall undergo Level 3 verification/inspection as a minimum. And, notwithstanding Condition 11.8, the following information shall be recorded in relation to each and every waste load following such inspection:

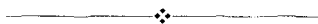
Waste producer	Type of process producing the waste
Source and origin of waste	Amount of waste
Licensee's job/order/invoice number	Existing data on the waste
Vehicle registration number	Physical form
Description of the waste	Colour
Waste Type and EWC code	Odour

Soil and stones (EWC code 17 05 04) from single sources where the total quantity of waste expected to be generated is greater than or equal to 2,000 tonnes shall be subject to Level 1 and Level 2 testing. Level 1 (characterisation) testing shall be carried out prior to agreeing acceptance of the waste. Level 2 (compliance) testing shall be carried out on representative samples of waste upon delivery. A representative sample shall be taken once from the first 2,000 tonnes of waste deposited and once for every 250 loads of waste thereafter. Part of each sample shall be retained at the facility for three months and be available for inspection/analysis by the Agency. The criteria for Level 1 and Level 2 testing shall be agreed in accordance with Condition 8.8.2.

Where single sources generate less than 2,000 tonnes of soil and stones (EWC code 17 05 04), one sample for every 2,000 tonnes of waste accepted from the collective of small single sources shall be characterised according to criteria to be agreed in accordance with Condition 8.8.2 (and to incorporate appropriate elements of Level 1 and/or Level 2 testing).

In relation to all wastes proposed to be tested according to agreed protocols, the licensee shall, in accordance with Condition 8.8.2, propose maximum concentrations and/or trigger levels for contaminants in the materials proposed to be recovered. The exceedance of these maximum concentrations and/or trigger levels shall be considered an incident and non-compliant materials shall be dealt with in accordance with Condition 9.3. Arrangements shall be made for the removal of the material for disposal at an authorised facility.

Sampling and testing shall be carried out by independent and qualified persons and institutions. Laboratories shall have proven experience in waste testing and analysis and an efficient quality assurance system.



SCHEDULE B: Emission Limits

B.1 Emissions to Air

There shall be no emissions to air of environmental significance.



B.2 Emissions to Water

Emission Point Reference No.'s: Discharge from settlement ponds
SW1, SW2, SW3, SW4 and SW5.

Name of Receiving Waters: Clooneen River

Parameter	Emission Limit Value
Suspended Solids	25 mg/l



B.3 Emissions to Sewer

There shall be no process effluent emissions to sewer.



B.4 Noise Emissions

Daytime dB(A) L_{Aeq} (30 minutes)	Night-time dB(A) L_{Aeq} (30 minutes)
55 ^{Note 1}	45 ^{Note 1}

Note 1: There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise-sensitive location.

**B.5 Dust Deposition Limits**

Measured at the monitoring points indicated in *Schedule C: Control and Monitoring, Table C: Environmental Monitoring Locations*, unless otherwise agreed with the Agency.

Level (mg/m ² /day) ^{Note 1}
350

Note 1: 30 day composite sample with the results expressed as mg/m²/day.

**SCHEDULE C: Control & Monitoring****Table C: Environmental Monitoring Locations**

SURFACE WATER ^{Note 1}	DUST ^{Notes 2 & 3}	NOISE ^{Notes 2 & 3}
SW1	D1a	N1a
SW2	D2	N2
SW3	D3	N3
SW4		
SW5		

Note 1: Monitoring of the discharges from settlement ponds 1 to 5, as shown on Drawing 2084-2614 Revision B *Surface Water Drainage System including treatment / abatement system* submitted on 18th June 2009

Note 2: Monitoring locations as shown on Drawing 2084-2606 Revision B *Proposal Environmental Monitoring Locations* submitted on 18th June 2009

Note 3: These monitoring locations may be amended with the agreement of the Agency under Condition 6.4 of this licence.

**C.1.1. Control of Emissions to Air**

There shall be no emissions to air of environmental significance.



C.1.2. Monitoring of Emissions to Air

Dust Monitoring

Table C.1.2 Dust Monitoring Frequency and Technique

Parameter	Monitoring Frequency	Analysis Method/Technique
Dust deposition (mg/m ² /day)	Bi-annually ^{Note 1}	Bergerhoff ^{Note 2}

Note 1: Once during the period May to September, or as otherwise specified in writing by the Agency.

Note 2: Standard Method VD12119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute).

C.2.1 Control of Emissions to Water

Emission Control Location: SW1, SW2, SW3, SW4 & SW5

Description of Treatment: Settlement ponds

Control Parameter	Monitoring	Key Equipment
Suspended Solids removal	Suspended Solids content in water at discharge points	Settlement ponds Shut-off valves

C.2.2 Monitoring of Emissions to Water

Emission Point Reference No: SW1, SW2, SW3, SW4 & SW5

Parameter	Monitoring Frequency	Analysis Method/Technique
Visual Inspection	Weekly	Sample and examine for colour and odour
pH	Quarterly	pH meter
Conductivity	Quarterly	Conductivity meter
Suspended Solids	Quarterly	Standard method
Mineral Oils	Quarterly	Standard method
Total Heavy Metals	Quarterly	Standard method

C.2.3 Control & Monitoring of Emissions to Groundwater

There shall be no emissions to groundwater of environmental significance.

C.2.4 Control & Monitoring of Emissions to Sewer

There shall be no process effluent emissions to sewer.



C.3 Noise Monitoring

Table C.3 Noise Monitoring Frequency & Technique

Parameter	Monitoring Frequency	Analysis Method/Technique
L(A) _{F0} [30 minutes]	As required	Standard ^{Note 1}
L(A) ₁₀ [30 minutes]	As required	Standard ^{Note 1}
L(A) ₉₀ [30 minutes]	As required	Standard ^{Note 1}
Frequency Analysis (1/3 Octave band analysis)	As required	Standard ^{Note 1}

Note 1: International Standards Organisation, ISO 1996, Acoustics – description and measurement of Environmental noise. Parts 1, 2 and 3.



C.4 Waste Monitoring

Waste Class	Frequency	Parameter	Method
Non-compliant waste to be removed off-site for recovery/disposal	Per consignment	Basic Characterisation	Standard Method
Deposited waste ^{Note 1}	Dependent on rate of waste deposition. Maximum 5 samples per year	To be agreed	To be agreed
Other ^{Note 2}			

Note 1: A representative sample of the deposited waste shall be taken at least every 3,000m² area of fill and to a depth of 1.5 metres, or at an equivalent frequency as may be agreed. Samples of the deposited waste shall be taken by trial pit or other appropriate method.

Note 2: Analytical requirements to be determined on a case by case basis.



SCHEDULE D: Specified Engineering Works

Specified Engineering Works

Installation of surface water management infrastructure (including construction of settlement ponds).
 Installation of waste management infrastructure.
 Any other works notified in writing by the Agency.

SCHEDULE E: Reporting

Completed reports shall be submitted to:

The Environmental Protection Agency
 Office of Environmental Enforcement
 Headquarters
 PO Box 3000
 Johnstown Castle Estate
 County Wexford

or Any other address as may be specified by the Agency

Reports are required to be forwarded as required in the licence and as may be set out below:

Report	Reporting Frequency ^{Note 1}	Report Submission Date
Annual Environment Report (AER)	Annually	By 31st March of each year.
Record of incidents	As they occur	Within five days of the incident.
Specified Engineering Works reports	As they arise	In advance of the works commencing.
Bund, tank and container integrity assessment	As they arise	Within nine months of the date of grant of licence, and every three years thereafter as part of AER.
Licence monitoring requirements	Annually	As part of AER.
Any other monitoring/reports	As they occur	Within ten days of obtaining results.

Note 1: Unless altered at the request of the Agency.

SCHEDULE F: Annual Environmental Report

Annual Environmental Report Content ^{Note 1}
<p>Emissions from the facility</p> <p>Waste management record.</p> <p>Waste recovery report.</p> <p>Progress of waste deposition works, projected completion date.</p> <p>Resource consumption summary.</p> <p>Complaints summary.</p> <p>Schedule of Environmental Objectives and Targets.</p> <p>Environmental management programme – report for previous year.</p> <p>Environmental management programme – proposal for current year.</p> <p>Noise monitoring report summary.</p> <p>Dust monitoring report summary.</p> <p>Topographical survey report.</p> <p>Stability assessment report.</p> <p>Bird survey report.</p> <p>Tank and pipeline testing and inspection report.</p> <p>Reported incidents summary.</p> <p>Resource use and energy efficiency summary report.</p> <p>Development/Infrastructural works summary (completed in previous year or prepared for current year).</p> <p>Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.</p> <p>Review of Closure, Restoration & Aftercare Management Plan.</p> <p>Statement of measures in relation to prevention of environmental damage and remedial actions (Environmental Liabilities).</p> <p>Environmental Liabilities Risk Assessment Review (every three years or more frequently as dictated by relevant on-site change including financial provisions).</p> <p>Any other items specified by the Agency.</p>

Note 1: Content may be revised subject to the agreement of the Agency.

Signed on behalf of the said Agency

On the xx day of xxxxx, 200X xxxxxxxxxxxx **Authorised Person**