FEHILY TIMONEY & COMPANY

CONSULTANTS IN ENGINEERING & ENVIRONMENTAL SCIENCES

CORK DUBLIN

Ref: J:/LW09-660-04/Let013/DFM

Office of Climate, Licensing & Resource Use
EPA Headquarters
PO Box 3000
Johnstown Castle Estate
Co. Wexford

13 September 2011

RE: W0275-01: Notice in accordance with Article 14(2)(b)(ii) of the Waste Management (Licencing) Regulations 2004, as amended

Dear Sir/Madam,

Please find enclosed a submission responding to the notice in accordance with Article 14(2)(b)(ii) of the Waste Management (Licencing) Regulations 2004, as amended, in relation to W0275-01.

This submission comprises;

- 1 original and 1 copy of the response in hardcopy format
- 2 copies of the response in searchable .pdf on CD-ROM

I trust that this submission is in order. Please do not hesitate to contact the undersigned should you have any queries in respect of this submission.

Yours sincerely,

Derek Milton
For and on behalf of **Fehily Timoney & Company**

FLOOR 2 MILL HOUSE ASHTOWNGATE NAVAN ROAD DUBLIN 15 IRELAND
T: +353 1 6583500 **F:** + 353 1 6583501 **E:** ftc@ftco.ie **W:** www.fehilytimoney.ie

ENVIRONMENTAL BALANCE IN DESIGN AND CONSTRUCTION

BORD NA MÓNA PLC

RESPONSE TO ARTICLE 14(2)(b) REQUEST IN RELATION TO WASTE LICENCE APPLICATION W0275-01

ORIGINAL

BORD NA MÓNA PLC

FEHILY TIMONEY & COMPANY

BORD NA MÓNA PLC

RESPONSE TO ARTICLE 14(2)(b) REQUEST IN RELATION TO WASTE LICENCE APPLICATION W0275-01

COPY

BORD NA MÓNA PLC

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BORD NA MÓNA PLC

RESPONSE TO ARTICLE 14(2)(b) REQUEST IN RELATION TO WASTE LICENCE APPLICATION W0275-01

User is Responsible for Checking the Revision Status of this Document

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Client: Bord na Móna PLC

Keywords: waste licence application, materials recovery, waste transfer

Abstract: This document presents to response from Bord na Móna PLC in response to a request, made under Article 14 (2)(b)(ii) of the Waste Management Licencing Regulations 2004, regarding waste licence application W0275-01

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INTRODUCTION

This submission is made in response to an information request, made under Article 14 (2)(b)(ii) of the Waste Management Licencing Regulations 2004, regarding waste licence application W0275-01, in correspondence dated 10th August 2011.

The following items are required to be addressed.

1. *With reference to Article 12 (1)(f) of the Waste Management (Licensing) Regulations, provide a revised Table B.7.1 and Table H.1 (A) ..... identifying the relevant classes of activity according to the Third and Fourth Schedules to the amended Waste Management Acts 1996 to 2011.*

2. *Provide information to address the requirements of Article 12(1)(v) of the Waste Management (Licencing) Regulations 2004, as amended, in relation to a description of how the waste hierarchy in Section 21A of the amended Waste Management Acts 1996 to 2011 is applied. Please have regard to the requirements of Section 29 (2A) of the amended Acts in addressing this item.*

3. *Your reply to this notice should include a revised non technical summary which reflects the information you supply in compliance with the notice, insofar as that information impinges on the non-technical summary*

1. REVISED TABLES B.7.1 & H.1 (A)

Table B.7.1: Third and Fourth Schedules of the Waste Management Acts 1996 to 2010

Waste Management Acts 1996 to 2010					
Third Schedule Waste Disposal Operations		**Y/N**	**Fourth Schedule Waste Recovery Operations**		**Y/N**
D 1	Deposit into or on to land (e.g. including landfill, etc.).		R 1	Use principally as a fuel or other means to generate energy: This includes incineration facilities dedicated to the processing of municipal solid waste only where their energy efficiency is equal to or above: - 0.60 for installations in operation and permitted in accordance with applicable Community acts before 1 January 2009, - 0.65 for installations permitted after 31 December 2008, using the following formula, applied in accordance with the reference document on Best Available Techniques for Waste Incineration: Energy efficiency = (Ep - (Ef + Ei)/ (0.97x(Ew+Ef) where— 'Ep' means annual energy produced as heat or electricity and is calculated with energy in the form of electricity being multiplied by 2.6 and heat produced for commercial use multiplied by 1.1(GJ/year), 'Ef' means annual energy input to the system from fuels contributing to the production of steam (GJ/year), 'Ew' means annual energy contained in the treated waste calculated using the net calorific value of the waste (GJ/year), 'Ei' means annual energy imported excluding Ew and Bf(GJ/year), '0.97' is a factor accounting for energy losses due to bottom ash and radiation.	
D 2	Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.).		R 2	Solvent reclamation/regeneration.	
D 3	Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.).		R 3	Recycling /reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolisis using the components as chemicals.	**P**
D 4	Surface impoundment (e.g. placement of liquid or sludgy discards into pits, ponds or lagoons, etc.).		R 4	Recycling/reclamation of metals and metal compounds.	**X**
D 5	Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.).		R 5	Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.	**X**

D 6	Release into a water body except seas/oceans.		R 6	Regeneration of acids or bases.	
D 7	Release to seas/oceans including sea-bed insertion.		R 7	Recovery of components used for pollution abatement.	
D 8	Biological treatment not specified elsewhere in this Schedule which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12.		R 8	Recovery of components from catalysts.	
D 9	Physico-chemical treatment not specified elsewhere in this Schedule which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12 (e.g. evaporation, drying, calcinations, etc.).		R 9	Oil re-refining or other reuses of oil.	
D 10	Incineration on land.		R 10	Land treatment resulting in benefit to agriculture or ecological improvement.	
D 11	Incineration at sea (this operation is prohibited by EU legislation and international conventions).		R 11	Use of waste obtained from any of the operations numbered R 1 to R 10.	
D 12	Permanent storage (e.g. emplacement of containers in a mine, etc).		R 12	Exchange of waste for submission to any of the operations numbered R 1 to R 11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11).	**X**
D 13	Blending or mixing prior to submission to any of the operations numbered D 1 to D 12 (if there is no other D code appropriate, this can include preliminary operations prior to disposal including pre-processing such as, amongst others, sorting, crushing, compacting, pelletising, drying, shredding, conditioning or separating prior to submission to any of the operations numbered D1 to D12).	**X**	R 13	Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).	**X**
D 14	Repackaging prior to submission to any of the operations numbered D 1 to D 13.	**X**			
D 15	Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).	**X**			

Activities identified above are described in further detail as follows:

Third Schedule - Waste Disposal Activities

D13 - This activity is limited to the mixing of waste prior to baling/bulking.

D14 - This activity is limited to the baling/bulking of waste prior to the transfer for disposal off site.

D15 - This activity is limited to the storage of waste prior to the baling/bulking and transfer for disposal off-site.

Fourth Schedule – Waste Recovery Activities

R3 - This activity is limited to segregation and baling of plastics, cardboard and paper as well as collection of newsprint, textiles, timber, waste oils, wood, paints prior to recovery off-site. This activity is identified as the **Principal Activity** onsite as the majority of the material received at the facility is subjected to segregation and baling prior to recovery off-site.

R4 - This activity is limited to the segregation of aluminium cans, tin cans, scrap metal, batteries and white goods prior to recovery off-site.

R5 - This activity is limited to the segregation of construction and demolition waste, DIY waste, electronics, glass and tyres prior to recovery off-site.

R12 - This class of activity allows for waste containing recyclables to be processed at the facility.

R13 - This activity allows for the storage of waste accepted at the facility prior to recovery off-site.

Table H.1(a): Quantities of Waste in Relation to Each Class of Activity Applied for

Waste Management Acts 1996 to 2010 3rd Schedule (Disposal) Operations			Waste Management Acts 1996 to 2010 4th Schedule (Recovery) Operations		
Class of Activity Applied For		Quantity (tpa)	Class of Activity Applied For		Quantity (tpa)
Class D 1			Class R 1		
Class D 2			Class R 2		
Class D 3			Class R 3		**60,000**
Class D 4			Class R 4		**5,000**
Class D 5			Class R 5		**15,000**
Class D 6			Class R 6		
Class D 7			Class R 7		
Class D 8			Class R 8		
Class D 9			Class R 9		
Class D 10			Class R 10		
Class D 11			Class R 11		
Class D 12			Class R 12		**99,000**
Class D 13		**30,000**	Class R 13		**99,000**
Class D 14		**30,000**			
Class D 15		**30,000**			

2. REQUIREMENTS OF ARTICLE 12(1)(V)

Article 12 (1)(v) of the amended Waste Management (Licencing) Regulations 2004 requires that, when addressing the contents of an application for a waste licence or the review of a waste licence, the application must '*describe how the waste hierarchy in section 21A of the Act is applied*.'

The waste hierarchy, as described under Section 21A of the amended Waste Management Acts 1996 to 2011, identifies the waste hierarchy as follows:

- Prevention
- Preparing for re-use
- Recycling
- Other recovery (including energy recovery) and
- Disposal

Furthermore, Section 29(2A) of the amended Waste Management Acts 1996 to 2011, states that:

(a) it shall be the duty of waste producers and holders to ensure that waste undergoes recovery operations in accordance with sections 21A and 32(1)
(b) a person who contravenes paragraph 9(a) shall be guilty of an offence
(c) the Agency and the local authorities, in carrying out their functions under this Act and related to waste management legislation and policy, shall take the necessary measures to ensure that waste undergoes recovery operations in accordance with this section and section 21A and 32(1)

Response regarding Article 12(1)(v)

It is considered that the nature of the proposed plant i.e. a materials recycling facility and the activities that occur therein, ensures the application of the waste hierarchy, in keeping with Section 21A of the amended Waste Management Acts 1996 to 2011.

Of the five categories of the hierarchy identified, it is considered that the 'highest' two categories i.e. prevention and preparing for re-use are categories more applicable to waste materials before they come under the control of waste management companies i.e. the opportunity to prevent waste or prepare waste for re-use primarily occurs before waste is collected by waste management companies.

The activities proposed for the materials recycling facility, as identified previously, will contribute to satisfying the application of the recycling, other recovery and disposal elements of the waste hierarchy. As described in the following non technical summary, the facility will be divided into three sections:

- Materials recovery area
- Biowaste area
- Waste Transfer area

Materials Recovery Area

Mixed dry recyclable (MDR) waste material will be deposited in the incoming material deposit bunker and visually inspected. Material will be loaded into a metering hopper that feeds the material recovery plant using a loading shovel. Through a system of conveyors, picking stations, screens, magnetic and eddy current separators, optical separators and other plant, the waste material will be separated into its various fractions such as mixed papers, cardboard, plastics and ferrous and non-ferrous metals. The final configuration of the materials recycling plant will be determined based on, among other factors, market considerations and the characteristics of the accepted waste material.

Once segregated into the different fractions, the recyclable material will be baled with the bales of material being transported for storage to the Bale Storage Building using a forklift. When determined by the operations manager and based on market conditions, the baled material will be loaded into trailers and transported off site for sale on the recyclables market.

Biowaste Area

It is generally 'brown bin' biowaste material that will be accepted in this section of the building, typically from refuse collection vehicles that have collected organic waste from household and commercial premises. Vehicles will access the building through rapid opening and closing doors. This material will be deposited on the floor of the building and inspected for contamination. If it is expected that the material will have a high moisture content then material such as wood chip or paper/card will be laid on the floor in order to prevent spillage and difficulties in handling.

The biowaste material will be stockpiled within the building and when a sufficient volume has accumulated, will be loaded into a low sided trailer for transportation to a designated biological treatment facility.

Waste Transfer Area

Material accepted at the facility for bulking up will be unloaded in the waste reception area of the waste transfer section of the building and inspected. The material will then be placed in an appropriate bunker using a loading shovel until such time as a sufficient quantity of the material is received. These bunkers are likely to be constructed using moveable, precast concrete walls or blocks of the Alfabloc variety. Waste materials to be accepted in the waste transfer section will be construction and demolition (C&D) waste, 'black bag' residual waste and certain commercial and industrial (C&I) waste materials.

Once a sufficient quantity of a waste type is accumulated, this waste material will be loaded into high sided trailers in the loading pit in the waste transfer building and transported offsite for further treatment at other licenced facilities.

The operation of the materials recovery area and the biowaste area of the proposed facility strongly contributes to the application of the waste hierarchy through the processing of recyclable materials such that they are recycled or through the collection and storage of materials prior to a recycling process (in the case of collected biowaste). The movement of residual waste material offsite for further treatment at other licenced facilities will place the responsibility for the application of the waste hierarchy at those facilities.

By identifying the '*recycling/reclamation of organic substances (R3)*', as per Table B.7.1, as the principal activity, the facility can be deemed to be applying the highest level of the hierarchy possible, given that prevention and preparing for re-use are beyond the scope of the proposed facility.

Overall, it can be seen that, by the very nature of operations at the proposed facility, the waste hierarchy categories of recycling and other recovery (including energy) will be applied with a recycling activity being identified as the principal activity at the facility.

3. ATTACHMENT A – NON TECHNICAL SUMMARY (REVISED)

Attachment A.1

This Non-Technical Summary has been prepared in accordance with Article 12(1)(u) of the Waste Management (Licensing) Regulations S.I. 395 of 2004. Sub-articles (a) to (t) of Article 12 are addressed below.

For clarity, the paragraph numbering is in accordance with the numbering of Article 12(1), (a) to (t).

Article 12(1)

(a) General Details

Bord na Móna Plc
Main Street
Newbridge
Co. Kildare

Tel: 045 439000
Fax: 045 439001

Registered Company No: 297717

(b) Planning Authority

The development is proposed for a site in the functional area of Offaly County Council:

Arás an Chontae
Charleville Road
Tullamore
Co. Offaly

(c) Sanitary Authority

There will be no discharge of final treatment of effluent generated at the facility to sewer. Wastewaters generated at the facility will be treated using an installed proprietary wastewater treatment plant with discharge of final effluent to the Mongagh River. This issue is discussed in more detail in Attachments E & F.

(d) Location

The proposed facility will be located in the townland of Derrygreenagh in County Offaly. The location is approximately 8 kilometres from the village of Rhode, Co. Offaly and 3 kilometres from the village of Rochfortbridge, Co. Westmeath. The National Grid Reference for the site is:

E 2490 N 2386

(e) Nature of the Development

The proposed development will consist of a waste reception and processing building and a waste storage building. Access will be via a double weighbridge system and a staff accommodation and office building will also be constructed. A marshalling yard will be located to the front and rear of the waste reception and processing building with dedicated areas for skip, container and trailer storage and parking.

The proposed facility will accept 99,000 tonnes per annum of mixed dry recyclables, mixed municipal wastes, construction and demolition (C&D) wastes, commercial and industrial (C&I) wastes and brown bin organic wastes collected by AES Ireland Ltd., the waste management company owned by Bord na Móna Plc.

Approximately 50,000 tonnes of mixed dry recyclables will be accepted at the facility and this material will be processed within the facility prior to transport off site for recovery/ recycling.
This material will be brought from other AES Ireland Ltd. transfer stations for processing at the proposed facility such that the proposed facility will operate as the primary AES Ireland Ltd. mixed dry recyclables processing facility. Processing will comprise the mechanical separation, sorting and baling of the various recyclable waste streams.

The remaining 49,000 tonnes of material will be mainly C&D and C&I material with approximately 5,000 tonnes of brown bin organic material being accepted also. These materials will not be processed, other than some gross recovery from the C&D/C&I material and will be bulked up and transported off site, for disposal in the case of the C&D/C&I material and for biological treatment in the case of the brown bin organic material. 'Bulking up' refers to the process of accepting smaller volumes of waste from refuse collection vehicles (RCV's), skips etc. and transferring this material to larger volume trailers for more efficient and economic transportation of the waste material.

In summary, the proposed development will consist of the following:

(a) a waste reception and processing building
(b) a baled waste storage building
(c) an administration and welfare building
(d) the installation of a dual weighbridge system
(e) 60 no. car parking spaces
(f) the upgrading of an existing haul road and laying of appropriate haulage pavement
(g) proprietary wastewater treatment plant
(h) ESB substation surface water management system incorporating surface water lagoon
(i) underground rainwater harvesting tank
(j) the installation of dust extraction and biofiltration plant.
(k) site boundary fencing, hardstanding areas and other ancillary infrastructure

(f) Class of Activity

In accordance with the Third and Fourth Schedules of the Waste Management Acts, 1996 to 2011, the following classes of activity are proposed:

Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Acts 1996 to 2011

D13	**Blending or mixing prior to submission to any of the operations numbered D1 to D12 (if there is no other D code appropriate, this can include preliminary operations prior to disposal including pre-processing such as, amongst others, sorting, crushing, compacting, pelletising, drying, shredding, conditioning or separating prior to submission to any of the operations numbered D1 to D12).** This activity is limited to the mixing of waste prior to baling/bulking
D14	**Repackaging prior to submission to any of the operations numbered D1 to D13.** This activity is limited to the baling/bulking of waste prior to the transfer for disposal off site
D15	**Storage pending any of the operations numbered D1 to D14 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).** This activity is limited to the storage of waste prior to the baling/bulking and transfer for disposal off-site

Waste Recovery Activities, in accordance with the Third Schedule of the Waste Management Acts 1996 to 2011

R3	**Recycling /reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolisis using the components as chemicals.** This activity is limited to segregation and baling of plastics, cardboard and paper as well as collection of newsprint, textiles, timber, biowaste, waste oils, wood, paints prior to recovery off-site
R4	**Recycling/reclamation of metals and metal compounds.** This activity is limited to the segregation of aluminium cans, tin cans, scrap metal, batteries and white goods prior to recovery off-site
R5	**Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.** This activity is limited to the segregation of construction and demolition waste, DIY waste, electronics, glass and tyres prior to recovery off-site
R12	**Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11).** This class of activity allows for waste containing recyclables to be processed at the facility
R13	**Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).** This activity allows for the storage of waste accepted at the facility prior to recovery off-site

(g) Quantity of Nature of Waste (EWC Code)

The proposed quantities of waste are given in tonnes per annum in the following table.

Proposed Waste Types for acceptance as per EWC classification

Waste Type	Tonnes Per Annum	EWC Code
Municipal Solid Waste	80,000	15 01 06 – mixed packaging
		19 12 12 - other waste (including mixtures of materials) from mechanical treatment of waste other than those mentioned in 19 12 11
		20 03 01 – mixed municipal wastes
		20 03 02 – waste from markets
		20 03 03 – street cleaning residues
		20 01 01 – paper and cardboard
		20 01 02 - glass
		20 01 08 – biodegradable and kitchen waste
		20 01 38 – wood other that that mentioned in 20 01 37
		20 01 39 - plastics
Commercial & Industrial Waste	10,000	15 01 01 – paper and cardboard packaging
		15 01 02 – plastic packaging
		15 01 03 – wooden packaging
		15 01 04 – metallic packaging
		15 01 05 – composite packaging
		15 01 07 – glass packaging
C & D waste	8,800	17 01 07 – mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
		17 02 01 – wood
		17 02 02 – glass
		17 02 03 - plastic
		17 04 07 – mixed metals
		17 05 04 – solid and stones other than those mentioned in 17 05 03
		17 06 04 – insulation materials other than those mentioned in 17 06 01 and 17 06 03
		17 09 04 – mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
Household Hazardous waste	200	13 02 04 – mineral-based chlorinated engine, gear and lubricating oils
		13 02 05 – mineral-based non-chlorinated engine, gear and lubricating oils
		13 02 06 – synthetic engine, gear and lubricating oils
		13 02 07 – readily biodegradable engine, gear and lubricating oils
		13 02 08 – other engine, gear and lubricating oils
		16 01 07 – oil filters
		16 02 11 – discarded equipment containing chlorofluorocarbons,

		HCFC, HFC
		20 01 23 – discarded equipment containing chlorofluorocarbons
		20 01 27 - paint, inks, adhesives and resins containing dangerous substances
		20 01 28 - paint, inks, adhesives and resins other than those mentioned in 20 01 27
		20 01 33 – batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
		20 01 36 – discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
TOTAL	**99,000**	

It is proposed to accept 200 tonnes of household hazardous wastes e.g. waste electrical and electronic equipment (WEEE), paints, batteries etc. to allow for quantities of this material which may be inadvertently accepted in with municipal household waste.

(h) Raw Materials

The following are estimates for the annual consumption of fuel and energy on-site based on scaled data from other similar facilities operated by AES Ireland Ltd:

Diesel Fuel 140,000 Litres
Electricity 575,000 kW/h

Water usage onsite is difficult as ascertain at this juncture. However, it is proposed that rainwater harvesting be utilised onsite thus minimising the requirement for water abstraction from a bored well.
Small quantities of maintenance consumables i.e. oils, paints, detergents, vermin control material will be kept onsite and stored in a secured location for use as and when required.

(i) Plant, Processes and Operating Procedures

All waste accepted at the facility will be subject to waste acceptance measures which will be outlined in the facility's environmental management system (EMS) and approved by the EPA. The likely waste acceptance procedures will involve the use of an integrated waste software system.

Only waste from AES Ireland Ltd. own vehicles will be accepted at the site. When waste arrives on-site, it will be weighed at the weighbridge and the vehicle registration number and origin of the load entered into the software system. A weight docket will be printed for each waste load. The waste vehicle will then be directed to the appropriate area of the Waste Reception and Processing building. The Waste Reception and Processing Building will be divided into three sections:

- Materials recovery area
- Waste Transfer area
- Biowaste area

Materials Recovery Area

Mixed dry recyclable (MDR) waste material will be deposited in the incoming material deposit bunker and visually inspected. Material will be loaded into a metering hopper that feeds the material recovery plant using a loading shovel. Through a system of conveyors, picking stations, screens, magnetic and eddy current separators, optical separators and other plant, the waste material will be separated into its various fractions such as mixed papers, cardboard, plastics and ferrous and non-ferrous metals. The final configuration of the materials recycling plant will be determined based on, among other factors, market considerations and the characteristics of the accepted waste material.

Once segregated into the different fractions, the recyclable material will be baled with the bales of material being transported for storage to the Bale Storage Building using a forklift. When determined by the operations manager and based on market conditions, the baled material will be loaded into trailers and transported off site for sale on the recyclables market.

Waste Transfer Area

Material accepted at the facility for bulking up will be unloaded in the waste reception area of the waste transfer section of the building and inspected. The material will then be placed in an appropriate bunker using a loading shovel until such time as a sufficient quantity of the material is received. These bunkers are likely to be constructed using moveable, precast concrete walls or blocks of the Alfabloc variety. Waste materials to be accepted in the waste transfer section will be construction and demolition (C&D) waste, 'black bag' residual waste and certain commercial and industrial (C&I) waste materials.

Once a sufficient quantity of a waste type is accumulated, this waste material will be loaded into high sided trailers in the loading pit in the waste transfer building. The lower level of the loading pit allows the loading shovel operator to accurately and cleanly load the trailer prior to the transportation of this material offsite for further treatment or disposal.

Biowaste Area

It is generally 'brown bin' biowaste material that will be accepted in this section of the building, typically from refuse collection vehicles that have collected organic waste from household and commercial premises. Vehicles will access the building through rapid opening and closing doors. This material will be deposited on the floor of the building and inspected for contamination. If it is expected that the material will have a high moisture content then material such as wood chip or paper/card will be laid on the floor in order to prevent spillage and difficulties in handling.

The biowaste material will be stockpiled within the building and when a sufficient volume has accumulated, will be loaded into a low sided trailer for transportation to a designated biological treatment facility.

In all sections of the facility, waste deemed unacceptable for acceptance at the facility will be moved to the designated waste quarantine areas and loaded into designated compactor bins, prior to its removal off site and transfer to an appropriate facility for disposal or recovery.

(j) Regarding Paragraphs (a) to (g) of section 40 (4) of the Waste Management Act

The information contained within the waste licence application form and its attachments, including the enclosed Environmental Impact Statement, demonstrates that the proposed facility meets the above requirements of the Act.

(k) Emissions from the Site

Air

It is proposed to install a dust extraction system within the waste reception and process building from an occupational health and safety viewpoint. Air extracted at this location will pass through a dust filter prior to venting to atmosphere. Discharge will be through a vent situated on the northeastern flank on the waste processing building.

Process air from the biowaste reception area will be passed through a proprietary woodchip or peat based biofilter to ensure mitigation of potential odours resulting from the reception and bulking up of brown bin biowaste material. The biofilter unit will be located along the north eastern flank of the reception and processing building.

In normal operating conditions, the waste reception and processing building will be operating under negative pressure in an enclosed environment with rapid closing doors.

Noise

The noise sources to be associated with the operation of the proposed facility include:

- Delivery of waste material to the facility
- Processing and bulking up of waste material in the waste reception and processing building
- Transportation of waste material off site
- Outdoor site operation including marshalling of vehicles and movement of trailers and skips

It is proposed that noise monitoring be carried out at two site boundary locations as indicated in Drawing LW09-660-04_300-005.

A full assessment of the impact of noise from waste activities at the site is included in Attachment E.5 and in the accompanying EIS. This assessment concluded that there would be no significant impact as a result of the activities at the facility.

Surface Water

Surface water runoff will be generated from the hardstanding areas and roofs building on-site. This run-off will be collected in a network of drains and conveyed via hydrocarbon interceptor to a surface water attenuation lagoon, prior to discharge to the Mongagh River. In addition, a rainwater harvesting tank will be incorporated within the surface water management system.

Foul water generated in the facility will be from periodic washdown with the waste reception and processing building and from the welfare facilities in the administration building. This foulwater will be directed to a proprietary wastewater treatment unit prior to discharge to the Mongagh River. An assimilative capacity study carried out has indicated that the capacity of the receiving waters with respect to BOD and Orthophosphate is adequate to cater for the proposed discharge. The receiving waters have been found to contain elevated levels of naturally occurring ammonia. However, given the flows in the river and the associated dilution available, the proposed discharge will have a negligible effect on these concentrations.

A full assessment of the impact of surface water emissions from the site is included in Attachment E.2 and in the accompanying EIS.

Groundwater

There will be no direct emissions to groundwater from the proposed activities at the site. It is proposed that groundwater quality monitoring be conducted at the location of the groundwater bolehole that will supply the site, when this location is identified.

(l) Effects of Emissions

An assessment of the effects of the above listed emissions on the environment has been carried out and it has been concluded that the proposed development will not significantly effect the environment. Further details on emissions can be found in Attachment E of the Waste Licence Application and the relevant sections of the EIS. The facility will be designed to minimise the emission of pollutants and operational procedures will be implemented to reinforce these design features.

(m) Monitoring and Sampling Points

A complete and comprehensive regime of regular environmental monitoring will be implemented at the site by the Applicant. The Applicant proposes monitoring locations identified in Drawing LW09-660-04_300-005 and described in Attachment F. All environmental monitoring will be carried out by qualified persons and any laboratory analysis that is required will be carried out at an approved laboratory.

All monitoring will be carried out according to established procedures, approved by the Agency. Annual reports containing details of environmental monitoring will be prepared and presented to the Agency.

(n) Arrangements for Waste Arising from the Activity

A small quantity of waste will be generated on site from the use of the canteens, offices, etc and from the maintenance of plant and machinery. Source segregation of this waste will be carried out to recover as much recyclable material as possible.

(o) Arrangements for Off-site Treatment or Disposal of Wastes

Solid waste for recovery or disposal offsite will be sent to appropriate (licensed or permitted) outlets in agreement with the Agency.

(p) Unauthorised or Unexpected Emissions

Staff will be present on site at all times during opening hours to supervise and carry out operations and to deal with any emergencies. A CCTV security system will be installed onsite. Key staff will be on-call to respond to any emergency situation outside of normal working hours e.g. nighttime, Sundays and Public Holidays.

An Emergency Response Procedure will be developed for the facility operation which will deal with unexpected emissions such as odour/dust emissions to air, noise or emission to water and other eventualities e.g. fire or plant breakdown. The Emergency Response Procedure includes details of persons to contact, emergency services numbers and actions to be taken. These have been submitted and agreed with the Agency.

(q) Closure and Restoration

It is anticipated that the facility will be operated indefinitely. However, should the facility close for some unforeseen reason all waste and all equipment will be removed from the facility. Waste would be removed to authorised facilities. Equipment would be recycled where possible. The building where waste activities occur would, (if permissible) remain and would likely be used again.

If a decision is taken to decommission the facility, the Agency will be notified at least six months in advance of the closure and an aftercare management plan will be prepared and submitted to the Agency within this time period.

Activities at the site are unlikely to result in either groundwater or land contamination as the majority of the site is made up of concrete hardstandings and there is no permanent storage of waste on site. The nature of activities that occur at the site will ensure that no remediation of the site will be necessary in the event of closure of the facility.

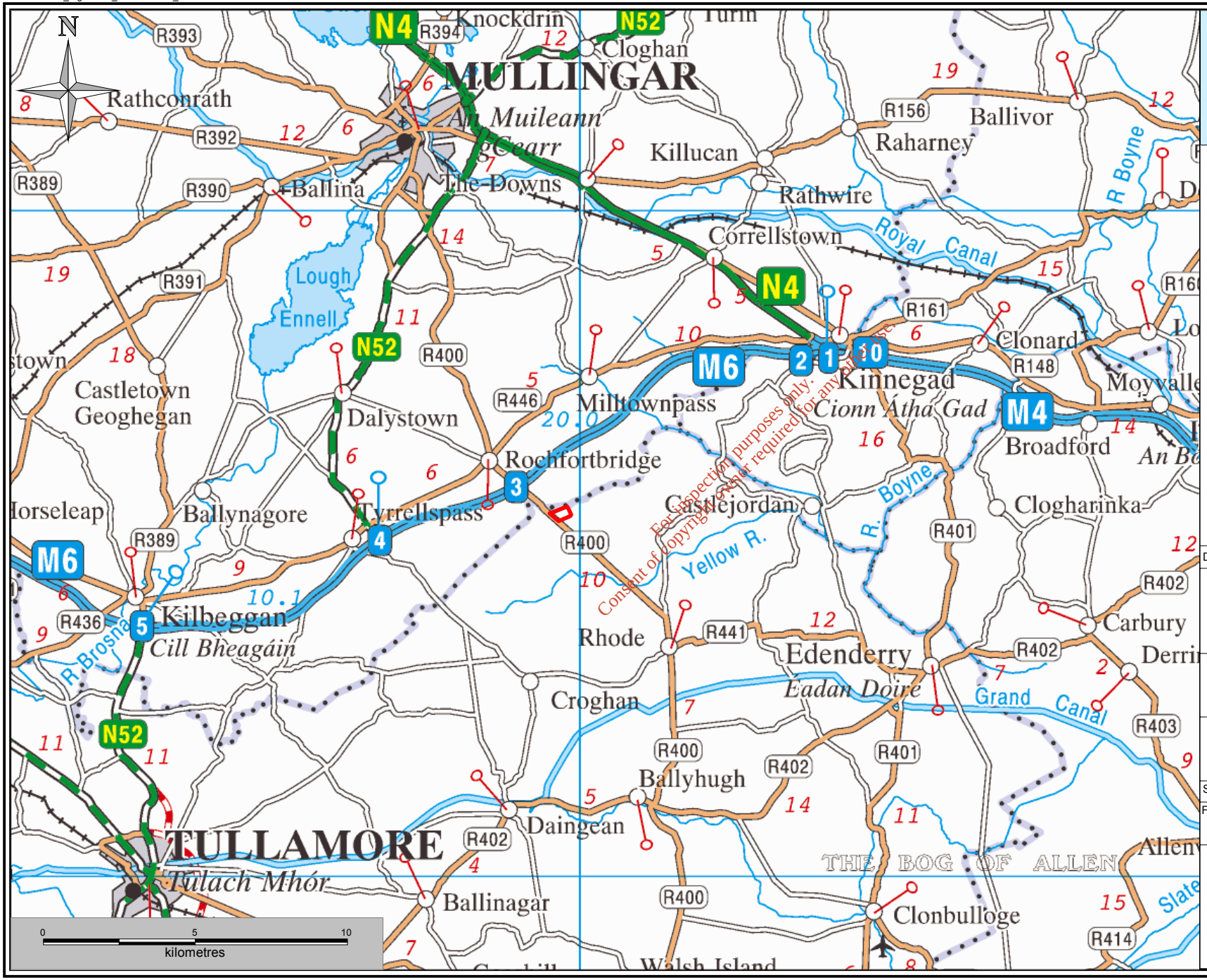
(r) Related to landfilling of waste and is not relevant to this development

(s) European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulation 200

This regulation does not apply to the proposed activity.

(t) Council Directive of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances

There will be no direct discharge to groundwater, as all proposed waste activities take place on hard standing surfaces and indoors.



Date	24/11/09
Name of Client	Bord na Mona
Name of Job	Drumman EIS
Title of Figure	Site Location
Scales Used	1 : 175,000 @ A4
Figure No.	1.1
Rev	A

FEHILY TIMONEY & COMPANY
CONSULTANTS IN ENGINEERING & ENVIRONMENTAL SCIENCES
Core House, Pouladuff Rd, Cork Ireland.
T:+353-21-4964133, F:+353-21-4464
Mill House, Ashtown Gate, Navan Rd, Dublin 15, Ireland.
T:+353-1-6583500, F:+353-1-6583501
W:www.fehilytimoney.ie, E: info@ftco.ie