

ENVIRONMENTAL PROTECTION  
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**REVIEW OF WASTE LICENCE FOR  
MIDLAND WASTE DISPOSAL  
COMPANY LTD.,  
PROUDSTOWN, NAVAN,  
COUNTY MEATH**

- An Environmental Impact Statement -

**NON-TECHNICAL SUMMARY**

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**Date:** March 2005

A Submission to the Environmental Protection Agency by Bord na Móna Environmental Limited on behalf of Midland Waste Disposal Company Ltd.

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## 1 INTRODUCTION

This Non-Technical Summary is a concise summation of the primary environmental aspects as outlined in the main Environmental Impact Statement.

Bord na Móna Environmental Limited was commissioned by Midland Waste Disposal Company Ltd., to complete an Environmental Impact Statement to accompany a Review of a Waste Licence (Reg. 131-1) to the Environmental Protection Agency (the Agency) concerning their facility at Clonmagaddan, Proudstown, Navan, County Meath.

Midland Waste Disposal Company Ltd., operate a waste transfer station at Clonmagaddan, Proudstown, Navan, Co. Meath (grid reference: E2868 N2698). The facility currently operate under a Waste Licence Reg. No. 131-1.

The application for the review of the waste licence (WL131-1) is to seek approval from the EPA for the following:

- Increase the annual tonnages;
- Extend the hours of operation;
- Increase the number of waste containers held outside over night at the facility.
- Introduce Class II of the fourth schedule "Use of waste obtained from any activity referred to in a preceding paragraph of this schedule"

## 2 PROJECT DESCRIPTION

### 2.1 Site Description

Midland Waste Disposal Company Ltd., have operated at the facility since 1991 and became part of the Advanced Environmental Services (AES) group in 2000.

The facility is located in a former limestone quarry, located on the northern outskirts of the town of Navan in County Meath. The site is situated within an industrial area of the town with industrial premises located to the north of the facility. There are agricultural lands situated to the east and west of the facility. There is a residential area located ca. 300 m south of the facility. The site is located off a cul-de-sac from the main R162 Navan-Kingscourt Road with other industrial units of the roadway.

The site location is shown on Figure 1.1/1 overleaf.

**Figure 1.3/1: Site Location**

There is no surface water features located within the immediate vicinity of the facility, with the nearest water coarse located ca 500m north of the site. This stream is a minor tributary of the River Blackwater.

## 2.2 Project Description

Midland Waste Disposal Company Ltd., Operate a waste transfer station at their facility in Clonmagaddan, Proudstown, Navan, County Meath. The nature of the waste is that of domestic household waste, industrial (non-hazardous), commercial and construction and demolition. It is proposed that when the facility is operating at full capacity that it will accept 95,000 tonnes of waste per annum.

The licenced waste disposal and waste recovery activities that take place at the site as per the Waste Management Act, 1996, are outlined as follows:

### Third Schedule -Waste Disposal Activities

- Class 11: Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this schedule.



- Class 12: Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
- Class 13: Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

#### Fourth Schedule -Waste Recovery Activities

- Class 2: Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
- Class 3: Recycling or reclamation of metals and metal compounds
- Class 4: Recycling or reclamation of other inorganic materials
- Class 12: Exchange of waste for submission to any activity referred to in a preceding paragraph of this schedule.
- 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.
- It is proposed to include the Class 11 of the Fourth Schedule "Use of waste obtained from any activity referred to in a preceding paragraph of this schedule" as part of the licence review.

#### FACILITY DESIGN

The following infrastructure is existing at the facility:

- Site security at the facility consist of 810m of 8 ft continuous palisade fencing along the entire boundary; 3 no. entrance ways into the site
- Hardstanding area over all operational areas of the site;
- Site accommodation consists of office building, port-a-cabin for canteen facilities and a mobile home for site security
- Workshop
- Weighbridge connected to computerised system
- Recycling Plant Building with leachate collection system; Trommell with picking line, Composting unit, in-floor baling system, waste storage areas;
- Glass storage bay;
- Fuel storage areas
- Waste Segregation Area
- Silt-trap and oil interceptor;

It is proposed to install the following;

- Increase area of hardstanding to 3500m<sup>2</sup>;
- Second composing unit.

Bulk fuel storage at the site consists a 6000 gallon main diesel tank, a 200 L kerosene storage tank, and 2 no. 300 gallon hydraulic oil/Engine oil tanks in workshop/diesel shed. These tanks are located within fully reinforced concrete bunded area that conform to the standard bunding specification (BS8007-1987) with the capacity of holding 110% of the tank capacity. Lubricating greases, gear oils, and steering oils are also used on-site and these are held within a bunded area within the workshop. All bunds have been integrity tested under the conditions of the existing waste licence. Minor quantities of cleaning agents, and paints are maintained on-site. Waste oil generated from plant is removed by an authorised contractor (Allied Waste Oil) on an annual basis.

Water used at the facility is sourced from Kilsaran Well and rainwater run-off from roofed areas. There are no meters on either of these supplies therefore calculation of water usage is not possible. Water usage is restricted to the canteen/sanitary requirements. Energy usage on site comprises of electricity, and diesel for the on-site plant equipment.

Surface water run-off from all hardstanding areas is directed into the surface water drainage system. Currently there is one surface water drainage systems at the facility which directs all water from the site towards the north-west corner of the site where the water is discharged to the ground through a soakpit via an oil interceptor. It is proposed to install a second drainage system at the facility to divert the surface water run-off from the southern section of the site towards the eastern boundary, where the water will be discharged to the ground through a soak pit (via an oil interceptor).

A small scale treatment system (Bord na Móna Puraflo™ system) is installed at the facility to services all domestic wastewaters emanating from the office buildings, canteen and site accommodation. The discharge from the treatment system discharges into the foul water holding tanks which are emptied on a regular basis and discharged into the local authority treatment plant.

#### **ON-SITE OPERATIONS:**

Currently, normal operational hours at the Midland Waste Disposal Ltd. facility are between the hours of 08:00 to 20:00 Monday to Saturday. It is proposed to extend the hours of operation within the facility from 06:00 to 20:00 Monday to Saturday.

These wastes are characterised as Domestic household waste; Commercial; Industrial; Construction and Demolition and Hazardous material limited to batteries, fluorescent tubes & tyres.

All wastes entering the site are forwarded to the weighbridge system which records the details and quantities of waste accepted on-site. After weighing, each waste load is brought to the enclosed Recycle Plant Building, where it is deposited on the floor for visual inspection to ensure that all wastes comply with the requirements of the existing Waste Licence, Register No. 131-1. The Waste Segregation Manager (Mr. Bernard Kelly) is responsible for carrying out the waste visual inspections and for maintaining a written record of all inspections. Written records of each inspection is recorded.

Within the Recycling Plant Building the waste is sorted according to its recycling potential and is either deemed suitable for recycling/recovery or compacted within one of the compactors on-site and transported off-site for final disposal (non-recoverable waste). The categories of waste deemed suitable for segregation and recycling is dependent on available markets for such materials. Materials commonly accepted for recycling include Steel/ Iron, Cardboard/Newsprint, Timber, Construction & Demolition waste, Green Waste, Plastic and Glass and on occasion empty gas cylinders and tyres. All waste not deemed suitable for recycling/recovery is loaded into designated Ro-Ro Bins, or a 40 foot injector trailer or is compacted within one of two compactors on site. All compacted wastes are sealed within specialised containers and are subsequently transported for authorised disposal. All waste being transported from the facility by Midland Waste Disposal Company Ltd. is weighed on the weighbridge. An individual weigh docket is printed for each waste load.

Construction and Demolition waste is sorted through the trommel and sorting line. All recyclable material is forwarded to off-site licenced facilities for recovery. Stone & bricks is used for the construction of roadways and soils/subsoils are used in land reclamation. Industrial & commercial waste is directed either to the trommel where recyclable matter is recovered or directly to the in-floor baler for recovery off-site. Any residual material is forward to landfill for disposal. Household waste is directed through the trommel and sorting line. Recovered organic fines are directed to the VCU unit for composting. Dry mixed recyclables are directed to the in-floor baler for bulk load to be forwarded off site for recovery.

Plant used at the facility will include a weighbridge, 2 no. Industrial compactors, 2 x Shredders, 1 no. Baler, 1 no. Bobcat, 1 no. Forklift, 1 no. Samsung grab, 1 no. Volvo loading shovel, 2 x Hitachi & grabs, 2 x Trommell & conveyor system, 1 no. Blender unit, 1 no. VCU Composting unit

### 3 ENVIRONMENTAL IMPACT STATEMENT

The environmental impacts of the waste transfer facility are described within the Environmental Impact Statement under the following categories:

Human Beings	Ecology
Geology	Water
Air	Traffic
Noise	Landscape
Climatic Factors	Interactions of the above
Cultural Heritage	

In order to determine the impacts of the proposed facility on the its environs an assessment was undertaken using the following information:

- As part of the initial EIS undertaken at the facility, environmental monitoring was carried out by Bord na Móna Environmental Consultancy Services in November 1999.
- Since the granting of the Waste Licence 131-1 in November 2001, on-going environmental monitoring has taken place at the facility.

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### 3.0 Impacts of the Proposed Facility

#### 3.1 Air

In addition, to initial air monitoring at the facility, as part of the previous EIS, and on-going monitoring and odour assessment at the facility has been carried out to determine the potential impacts of the operation of the facility.

Potential air emissions were examined under two separate headings:

- Odour
- Dust

*Odour:* Due to the nature of the development the generation of odours may occur through the handling of waste, mainly the household municipal waste fraction, at the facility. The generation of odours and the associated nuisance it can potentially cause depends on the (i) dispersion of the odours, (ii) the prevailing wind and (iii) the distance to the nearest sensitive receptors i.e. nearest residential dwelling. An odour assessment at the facility concluded that the upwind and downwind odour concentrations were similar on the day of sampling and visual observations on the site indicated that the potential odorous emissions from the Midland Waste Disposal Company Ltd's facility did not contribute to increased odour levels downwind of the site facility. On-going good operational practices at the site and inspections will ensure no odour nuisances are caused as a result of the activities at the facility.

*Dust:* Dust may be generated at the facility through the movement of HGV's within the site boundary and the movement of friable material within the site. The results of the dust monitoring at the facility indicate that levels of dust are higher along the northern boundary along the roadway, and close to an adjacent industrial site. Dust directional gauges at these monitoring stations predominantly indicate that dust is being generated from the east and west (traffic movement) and from the north (off-site activities), rather than from the working areas of Midland Waste Disposal Company Ltd. On-going good operational practices at the site and inspections will ensure no dust nuisances are caused as a result of the activities at the facility.

#### Mitigation Measures

1. Odour: In order to reduce the generation of odours at the facility all waste acceptance and handling procedures are carried out to ensure the waste is sorted as quickly as possible to reduce the generation of odours, all wastes are sorted within the Recycling Plant Building, all wastes are held within covered/sealed containers and nuisance inspections are carried out at the facility.

2. Dust: In order to minimise the generation of dust speed restrictions are in place at the facility, all waste acceptance and handling procedures are carried out to ensure the waste is sorted as quickly as possible to reduce the generation of odours, all wastes are sorted within the Recycling Plant Building, road sweeping is carried out and nuisance inspections are carried out at the facility

### 3.2 Soil & Geology

The operational areas of the site are overlain by an impervious hardstanding and as such there is no soil covering.

Quaternary sediments underlying the site are glacial in nature and originate from the Midlandian glaciation. This geological period span from about 14,000 to 10,000 years before present (BP)). These sediments are referred to as the Dublin Till. They consist of firm to stiff sandy gravely clays with clast (varying in size from cobbles to boulders) present.

According to published literature the bedrock geology in the vicinity of the site is documented as being dominated by Lower Palaeozoic Metasedimentary and Metavolcanic Bedrock units. Immediately to the south of the site, the surrounding area is indicated to be underlain by bedrock associated with the Navan Group Basal Lower Carboniferous Formations.

### Mitigation Measures

All wastes will be stored in areas within the leachate catchment areas in accordance with relevant environmental guidelines and recognised standards. All bunds will be tested in accordance with the waste licence conditions. In addition, oil absorbent materials will be kept on site in close proximity to any fuel storage tanks or bowsers during site development works.

As there are no geological features of any significance present at or beneath the site, the proposed development will have no impact on local geology.

### 3.3 Hydrogeology

Midland Waste Disposal Co. Ltd., is located on the outskirts of Navan in County Meath. There is no surface water features located within the immediate vicinity of the facility, with the nearest water course located ca. 500m north of the site. This stream is a minor tributary of the River Blackwater.

Any surface water run-off from hardstanding areas at the facility, is currently directed towards the front of the site, where it is collected in the surface water drainage system. This collected water is discharged through a soakaway (via a siltration trap and oil interceptor) to ground.

There are no discharges to surface water and no surface water bodies within the vicinity of the site, as a consequent of this there is no impact to surface waters at the facility, and as such is not dealt with in this EIS.

Desk-based information on the underlying hydrogeological conditions beneath the proposed development site was obtained through the Geological Survey of Ireland (GSI) and from information held on files within Bord na Móna Environmental Consultancy Services. There were no intrusive ground investigations undertaken as part of this study.

#### Aquifer Classification

The majority bedrock units underlying the site and surrounding area are classed by the Geological Survey of Ireland as poor aquifers except in localised zones (PI) with locally important aquifers which are moderately productive only in local zones to the south (LI).

#### Groundwater Vulnerability

Using the criteria as established by the GSI and based on current assessment data the groundwater resources in the vicinity of the Site may be classified as Extremely vulnerable (E). This is based on bedrock located at the surface.

#### Groundwater Quality

The results to date indicate that the quality of the groundwater beneath the site is clean and free from contamination. The majority of the parameters have remained constant since monitoring commenced in February 2002.

### **Potential Impacts of the Proposed Development/ Mitigation Measures**

The proposed development will entail the construction of a hardstand cover over a large area of the site and as such allows for the protection of groundwaters.

1. Groundwater Discharges: Surface water run-off from the hardstanding areas is directed through a soakaway via a siltration trap and oil interceptor, for discharges to ground. The monitoring of groundwater emissions from the facility is carried out on a quarterly basis in compliance with Schedule (E) the existing Waste Licence (Reg. No. 131-1).

All waters are directed through a siltration trap and oil interceptor prior to discharge to groundwater. As a result of the mitigation measures currently in place at the facility, it is considered that there is no impacts to groundwaters from discharges to ground.

2. Sewage: Sewage emanating from the office and site toilet facility (13 people at a hydraulic loading of 50 l per person per day = 0.65 m<sup>3</sup>/d) is directed into a wastewater treatment system (Puraflo™) for treatment. The final effluent is directed into the foul water storage tank which is emptied on a regular basis.

### (3) Leachate Generation

A leachate collection system is in place in order to collect leachate emanating from the recycling plant. Leachate is conveyed via dedicated drains to the foul water storage tank. The foul waters are temporarily stored within the tank for subsequent collection when required by tanker. Final disposal is through Navan wastewater treatment plant. The foul water storage tank is fitted with an automatic level alarm to ensure the tank does not overflow.

(4) Storage of Fuels: The major diesel storage tank is located within bunded structure. The integrity of existing bunds is not known. Midland Waste Disposal Company Ltd. propose to install new oil interceptor units for the diesel tank/dispensing unit and absorbent kits for placement at various strategic locations across the site.

## 3.4 NOISE

Noise emissions from the facility are generated through the operation of equipment on-site and the movement of vehicles within the facility. Noise predictions on the impact of the facility at the nearest sensitive receptor has been carried out and these indicate that the noise will remain below the emission limits as stipulated in the existing waste licence. The results of the on-going monitoring at the facility indicate that noise within the area is resulting predominantly traffic noise. The levels of noise coming from the facility at the noise sensitive receptor were insignificant in comparison to traffic noise and these locations. Good operational practises at the facility will be maintained to ensure no noise nuisances are caused as a result of the workings of the facility. These will include Proper maintenance of vehicles and equipment, waste handling operations carried out indoors and on-going monitoring of site noise levels.

### Potential Impacts of the proposed development

The main source of noise on-site will be from the delivery vehicles and the operational units.

### Mitigation Measures

Notwithstanding good operational practises at the facility, the following will be undertaken: Proper maintenance of vehicles and equipment, including the conveyors, screening equipment, shovel loaders and compacting machinery; All operations concerning sorting / recycling of material will take place indoors; Monitoring of site noise levels to ensure



compliance and implementation of cost effective control measures; The control of on-site activities through the implementation of good management practices will combine to ensure that the noise generated at the site will not have any undesirable effects on the existing neighbouring environment; Selection of plant with low inherent potential for generation of noise and / or vibration

### **3.5 Human Beings**

#### Noise

Noise is an identified form of air pollution and uncontrolled it can cause nuisance or a deterioration of amenities and the quality of human life. The potential impact of the waste transfer facility on noise levels within the area is associated with the noise generated through on-site activities. It was concluded that the noise levels from on-site activities associated with the operational phase of the facility site will not pose a significantly impact on the ambient noise levels. Specifically, it is concluded that noise levels at the nearest sensitive locations (occupied residential premises & GAA pitch) will not significantly deviation above background daytime noise levels and no clear audible tonal noise emissions will emanate from the facility.

#### Traffic

The Midland Waste Recycling plant is situated on the northern outskirts of Navan town. The site is accessed via the R162 Navan - Kingscourt Road and is situated approximately 500m down a cul-de-sac to the townland of Clonmagaddan. The facility is situated adjacent to the southern side of this cul-de-sac and is accessed via one of 3 No. entrance ways (Office complex, weighbridge and general entrance).

It was considered that the road is of good design and state of repair and is maintained by Midland Waste Disposal Company Ltd. Traffic management on-site is satisfactory and the hardstanding area on-site is of sufficient size to accommodate present and future volumes of traffic.

#### Human Health

A number of air pollutants have known or suspected harmful effects on human health and the environment. In many areas these pollutants are principally the products of combustion from space heating, power generation or from motor vehicle traffic. The air pollutants derived from the development is considered to be from particular dust emissions.

Dust emissions from the operations of the facility will be minimised by careful on site management. This will ensure that potential problems with fugitive dust emissions from the site will be negligible.

### Site Structure / Land Use

Any potential impacts of the facility on the existing structural and land usage of the area are considered insignificant. The area is being developed for industrial usage with a number of industrial units being developed along the roadway over the past four years. There will be no change to the operation of the site as a waste transfer station. This site is located within a disused quarry, with the old quarry walls acting as protective berms around the east, west and south. Views for the northern boundary are protected by existing line of mature trees.

### Nuisances

In compliance with condition 6.2 of the existing waste licence (re. No. 131-1), weekly environmental nuisance inspections are carried out at the facility. These inspections are carried out and recorded on the “*Weekly Environmental Nuisance Inspection Form EWF 1.3*”. Inspections are carried out for any nuisances caused by the presence of vermin, birds, flies, mud, litter, dust and odours.

### **3.6 Flora & Fauna**

A baseline ecological survey was conducted at the site. All the species identified within the site are common throughout the Irish countryside and neither the site nor its surrounds are designated as a conservation area, it is deemed that the site is of low conservation value. Hedgerows are located along the site boundary. Species composition in the area are relatively common and as such on-site activities would not be expected to impact in any way on current habitat conditions. The existing environment is not designated as a Natural Heritage Area or a Special Protection Area under the Birds Directive or as a Special Conservation Area in accordance with the Habitats Directive, nor, is it designated under any of the other nature conservation designations currently used.

### **Mitigation Measures**

There are no mitigation measures planned due to the nature of the site.

### **3.7 Landscape and Visual Impacts**

The Midland Waste Recycling plant is situated on the northern outskirts of the town of Navan in County Meath. The site is situated within an Industrial area with the nearest residential area located approximately 300m south of the facility. The site is accessed via the R162 Navan - Kingscourt Road and is situated approximately 500m down a cul-de-sac to the townland of

Clonmagaddan. The facility is situated adjacent to the southern side of this cul-de-sac and is accessed via one of 3 No. entrance ways.

It is considered that the proposed waste handling procedures will not visually impact on the surrounding areas. Visibility of the site (from the south, east, & west) is prevented by a local topography and the northern boundary is planted with trees which prevents a view of the facility.

### **3.8 Traffic**

The Midland Waste Recycling plant is situated on the northern outskirts of the town of Navan in County Meath. The site is situated within an Industrial area with the nearest residential area located approximately 300m south of the facility. The site is accessed via the R162 Navan - Kingscourt Road and is situated approximately 500m down a cul-de-sac to the townland of Clonmagaddan. The facility is situated adjacent to the southern side of this cul-de-sac and is accessed via one of 3 No. entrance ways.

The roadway to the facility is of good design and state of repair and is maintained by Midland Waste Disposal Company Ltd with association with the other industrial units utilising the roadway. Vehicles arrive on-site every 30 minutes approximately. Traffic management on-site is satisfactory and the hardstanding area on-site is of sufficient size to accommodate present and future volumes of traffic.

As part of the proposed increase of waste handling, it is anticipated that traffic movements will increase from 60 traffic movements to approximately 80 traffic movements per day.

Based on the existing industrialised nature of surrounding area it is contended that such a small increase in traffic movements will have a negligible effect on the surrounding road network or the environment.

### **3.9 Climatic Factors**

It is not considered that the development will have any impact on the climate in this area.

### **3.10 Cultural Heritage**

An archaeological assessment of the proposed development site and its environs was undertaken by a specialist. The assessment included a desk based study and a site walkover survey.

A preliminary investigation of the Cultural Heritage of the site and surrounding environs was carried out. There are no historically important sites within the immediate vicinity of the facility. It is anticipated that the operation of the waste transfer facility will not impact on the Cultural Heritage of the area.

The cultural heritage assessment did not identify the presence of any areas of archaeological or cultural interest within the site boundaries that would be impacted either directly or indirectly by the site development or operations.

#### **4.0 CONCLUSIONS**

In summary, it is contended that the negative impacts of the facility will be minimised or eliminated by adherence to the mitigation measures. The Environmental Impact Statement, therefore, shows that no significant adverse effect on the environment should occur as a result of the operation of the facility

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