



*The Right Choice*

**INERT WASTE RECOVERY FACILITY  
BROWNSWOOD, ENNISCORTHY, CO. WEXFORD**

**WASTE ACCEPTANCE AND HANDLING PLAN**

**JUNE 2011**

**SLR**



*Prepared by :*  
SLR Consulting Ireland  
7 Dundrum Business Park  
Windy Arbour  
Dublin 14

## CONTENTS

- 1 INTRODUCTION**
- 2 WASTE ACCEPTANCE**
  - 2.1 Prior Approval of Waste Producers / Waste Collectors
  - 2.2 Basic Characterisation
  - 2.3 Compliance Testing
  - 2.4 On-Site Verification
- 3 WASTE HANDLING**
  - 3.1 Soil and Stones
  - 3.2 Construction and Demolition Waste

**DRAFT**  
For inspection purposes only.  
Consent of copyright owner required for any other use.

## 1. INTRODUCTION

Roadstone Wood Ltd. proposes to establish an inert waste (soil) recovery facility at its site at Brownswood, Enniscorthy, Co. Wexford at Irish National Grid Reference E297700 N137300. The facility is located on lands used by the company for rock extraction and production of construction materials.

Activities at the waste recovery facility include

- (i) Use of imported inert natural materials, principally excess inert soil, stones and/or broken rock excavated on construction sites, to backfill and restore a large existing void created by previous rock extraction
- (ii) Separation of any non-inert construction and demolition waste (principally metal, timber, PVC pipes and plastic) unintentionally imported to site, prior to removal off-site to appropriately licensed waste disposal or recovery facilities
- (iii) Temporary stockpiling of topsoil and subsoil pending re-use as cover material for phased restoration of the site
- (iv) Phased restoration of the backfilled void (including placement of cover soils and seeding) and return to use as agricultural grassland
- (v) Environmental monitoring of noise, dust, surface water and groundwater for the duration of the site restoration works.

Backfilling and restoration of the quarry requires placement, compaction and capping of approximately 700,000m<sup>3</sup> (or approximately 1,330,000 tonnes) of inert soil and stone and minor quantities of recycled construction materials (for temporary haul road construction). Of this approximately 670,000m<sup>3</sup> (or 1,270,000 tonnes) must be sourced from external construction or demolition sites.

Secondary aggregate will not be produced at the site. A limited amount of inert concrete / brick or recycled secondary aggregate will be imported to the site for construction of temporary haul roads internally within Roadstone Wood's inert waste recovery facility.

## 2. WASTE ACCEPTANCE

Rock extraction continued at the Old Quarry at Brownswood up to the later 1980's. Production of concrete, concrete products and asphalt however continues at the site. It does not currently operate as a soil recovery facility. This current proposal to backfill the worked out quarry with in-situ and imported inert soil and stones is part of the quarry restoration proposal.

Only inert waste is recovered at this waste recovery facility. Soil and stones are generally recovered directly at the facility without any further processing. Very minor quantities of inert and/or recovered C+D waste is imported to the site for re-use in construction of temporary internal haul roads over and across backfilled soil. No processing of inert C+D waste takes place at the proposed waste facility.

### 2.1 Prior Approval of Waste Producers / Waste Collectors

Inert waste (principally soil) shall only be accepted at this facility from waste producers and/or waste collectors who have been pre-approved by the site operator, Roadstone Wood Ltd.

Approval to import inert waste to the facility shall only be issued to waste producers and/or waste collectors who can demonstrate that they have a valid waste collection permit and have a proven track record in the construction, waste management and/or haulage sectors.

Once approved, each waste collector will be issued with a unique customer code which must be presented at the weighbridge each time a consignment of inert soil waste is brought to the facility. Failure to present a valid customer code will mean the consignment will be rejected and not permitted to access the facility.

### 2.2 Basic Characterisation

Basic characterisation is the first step in the waste acceptance procedure and typically constitutes a full characterisation of the waste by gathering all necessary information to facilitate safe recovery in the long term. Basic characterisation is required for each type of waste.

The inert materials to be accepted at the site for use in backfilling / recovery activities are identified by their European Waste Catalogue reference number below

EWC Code	Waste Description
17 01 01	Concrete
17 01 02	Bricks
17 05 04	Soil and stones other than those mentioned in 17 05 03
17 05 06	Dredging spoil other than those mentioned in 17 05 05
20 02 02	Soil and stones

These materials are included on the list of wastes in Clause 2.1.1 in Section 2 of the Annex to Council Decision 2003/33/EC which are assumed to fulfil

- (i) the criteria set out for the definition of **inert waste** in Article 2(e) of the Landfill Directive (1999/31/EC) and
- (ii) the criteria listed in Section 2.1.2 of the Annex to 2003/33/EC.

As such, these wastes are deemed to be **exempt** from the general requirement for characterisation testing. All inert waste conforming to the EWC codes provided above are therefore considered acceptable for recovery at the Brownswood facility without prior characterisation testing.

Note that the exemption from prior characterisation testing only applies to waste streams imported from a single known source, irrespective of whether they are separated or mixed.

Notwithstanding the above, the following restrictions shall apply

- (i) consignments containing peat shall not be accepted at this facility
- (ii) consignments containing soil from known or suspect contaminated sites or sites having a potentially high risk of contamination (eg. garage forecourts) shall not be accepted at this facility
- (iii) consignments containing asbestos, chemicals or any potentially hazardous materials shall not be accepted at this facility
- (iv) waste from unknown and/or unrecorded sources shall not be accepted at this facility
- (v) all inert soil accepted at the facility must have minimal quantities of other non-inert waste types (like metals, plastic, wood, rubber etc.)

Although there may be an exemption from testing, there is still a requirement to collect and record some basic characterisation information in advance which clearly demonstrates that the imported waste is inert. The waste producer and/or waste collector is therefore required to provide the following basic characterisation information to Roadstone Wood prior to forwarding waste consignments to this waste facility

- (i) source and origin of the waste
- (ii) information on processes producing the waste (excavation, demolition etc.)
- (iii) composition and consistency of the waste
- (iv) physical appearance of the waste (smell, colour, physical form)
- (v) classification code according to European waste list (CD 2001/118/EC)

The producer of the waste and/or the waste collector will be responsible for ensuring that the basic characterisation information provided is correct.

Once Roadstone Wood is satisfied on the basis of the basic characterisation information provided that the wastes to be imported to site are inert, it shall issue an approval reference code to the waste producer / collector to be provided on documentation accompanying the waste consignment(s) forwarded for recovery at this facility.

### 2.3 Compliance Testing

When wastes have been deemed to be acceptable for recovery at this facility on the basis of a basic characterisation, they shall be subject to subsequent compliance testing to demonstrate that they do in fact comply with basic characterisation and acceptance criteria.

As previously indicated, all waste materials to be accepted at this waste facility are included on the list of wastes in Clause 2.1.1 in Section 2 of the Annex to Council Decision 2003/33/EC which are assumed to fulfil

- (i) the criteria set out for the definition of inert waste in Article 2(e) of the Landfill Directive (1999/31/EC) and
- (ii) the criteria listed in Section 2.1.2 of the Annex to 2003/33/EC.

As such, these wastes are also deemed to be **exempt** from the general requirement for compliance testing.

Although there may be an exemption from compliance testing, there is still a requirement to check the imported wastes to ensure compliance with the basic characterisation information provided (excluding testing).

All inert soils imported to the site shall be brought in HGV trucks from the weighbridge at the front of the site directly to the active backfilling face (soil and stones). Prior to unloading (end-tipping) the imported waste, the documentation accompanying the waste consignment shall be presented by the waste producer or waste collector for checking by a site operative employed directly by Roadstone Wood. The waste will be accepted at the facility provided

- (i) the waste being imported is the same as that described in the accompanying documentation and
- (ii) the accompanying documentation includes a valid approval code issued by Roadstone Wood.

If any waste consignment forwarded to the waste recovery facility

- (i) fails to comply with the acceptance policy outlined in Section 2.2 above
- (ii) is inconsistent with the basic characterisation information provided
- (iii) is discovered or suspected to have unacceptable waste intermixed with it
- (iv) does not have a valid approval code on the accompanying documentation

it shall be rejected and removed off-site. A record of the rejection of the waste consignment will be made in the Site Rejects Book. If records indicate that consignments from a particular waste producer and/or waste collector are being repeatedly rejected, Roadstone Wood will review whether or not to withdraw approval for its continued use of the facility.

In order to verify that the waste being accepted and used for restoration purposes at this recovery facility is inert, Roadstone Wood will undertake some limited compliance testing on soil and stones which have been placed and compacted at the site. A representative sample of waste shall be taken from one in every 500 loads of inert soil accepted at the recovery facility. A leachate sample derived from each soil sample (at 10:1 liquid:solid ratio typically) will be subject to compliance testing focusing on key contaminant indicators, principally

- Arsenic (As)
- Cadmium (Cd)
- Lead (Pb)
- Mercury (Hg)
- Zinc (Zn)
- Total Organic Carbon
- BTEX (Benzene, Toluene, Ethylbenzene and Xylene)
- Diesel Range Organics / Mineral Oil

Limit values for inert soils shall be in accordance with those set by *Council Decision 2003/33 of 19 December 2002 establishing criteria for the acceptance of waste at landfills*. Test data shall be used to confirm that the imported soils are inert and comply with established waste acceptance criteria.

### 2.3 On-site Verification

As material is being unloaded, end-tipped and/or stockpiled at the active backfilling face (soil and stones), it shall be subject to further visual inspection by site operatives to ensure that it is consistent with the characterisation data provided and that there is no excessive construction or demolition, non-hazardous or hazardous waste intermixed with it.

If some contamination of soil and stones is immediately evident from visual inspection (unusual colour, smell etc.) or if unacceptable quantities of other materials (like metals, plastic, soil, organics, wood, rubber etc.) are included in it, it shall be loaded back onto the HGV and transferred off-site.

The waste producer / waste collector who imported the suspect material to site will be advised that no further loads will be accepted from the same source as the suspect material, pending completion of more detailed waste characterisation (potentially including testing) to confirm that all waste generated at the same source is inert. Testing shall be undertaken at the expense of the waste producer / waste collector. In this instance, characterisation testing shall comprise a minimum of one batch leaching test for parameters listed in Section 2.1.2 of Annex 2 of Council Decision 2003/33/EC.

### 3 WASTE HANDLING

Following unloading at the active backfilling area, accepted consignments of soil and stones will immediately be spread and compacted in-situ using a bulldozer.

Any excessive quantities of inert construction and demolition wastes (most notably concrete and brick) imported to the site will be segregated and either re-used in temporary haul road construction around the application site or stockpiled at the waste quarantine area pending removal off-site to a local permitted construction and demolition waste recovery facility.

Should minor quantities of non-inert waste (principally metal, timber, PVC pipes and plastic) be inadvertently imported amongst the soil and stones, it shall be separated out (mechanically or by hand, as appropriate) and temporarily stored in skips at the waste inspection and quarantine area prior to removal off-site to appropriately permitted (or licensed) waste disposal or recovery facilities

In the unlikely event that suspected contamination of the soil matrix is subsequently identified during the spreading, placement and compaction operations, it will be segregated from the main waste body and transferred to the covered waste inspection and quarantine facility pending closer inspection and testing to establish whether it is inert or not. Suspect waste will be identified on the basis of visual inspection (unusual colour, intermixed wastes etc) or by smell. Detailed records will be kept of all inspections and testing of suspect wastes.

Should inspections and/or testing indicate that the materials transferred to the waste inspection and quarantine facility are non-inert and cannot be accepted and used for restoration purposes at this site, they will be placed in skips and covered pending removal off-site by permitted waste collectors to a suitably permitted (or licensed) waste disposal or recovery facility.

