

ATTACHMENT H2 WASTE ACCEPTANCE PROCEDURES

The proposed waste acceptance procedures for inert soil waste imported to Calary Quarry for backfilling and restoration purposes are detailed in the Outline Waste Acceptance and Handling Plan, a copy of which is provided under cover of this Attachment.

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Calary Quarry, Kilmacanogue, Co. Wicklow

**Proposed Inert Soil Recovery Facility
Restoration and Backfilling of Calary Quarry**

WASTE ACCEPTANCE AND HANDLING PLAN

SLR Ref: 501.00180.00109.3

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1. INTRODUCTION

Roadstone Ltd. proposes to establish an inert waste (soil) recovery facility at its site at Calary Quarry, Killough Upper, Kilmacanogue, Co. Wicklow at Irish National Grid Reference E322800 N212800. The principal waste activity at the facility is the importation, placement and compaction of inert waste soils in an existing large quarry void. The proposed recovery activity will provide for the ultimate backfilling of the quarry to its original ground level and its restoration to former land use(s).

Activities at the proposed waste recovery facility include

- (i) Use of approximately 1,830,000 tonnes of imported inert natural materials, principally excess soil, stones and/or broken rock to backfill and restore a large existing void created by previous extraction of bedrock;
- (ii) Construction of temporary site infrastructure including, site office and staff welfare facilities, weighbridge, wheelwash, hardstand areas, fuel storage facilities, waste inspection and quarantine area and storage sheds;
- (iii) Separation of any construction and demolition waste (principally concrete, metal, timber, PVC pipes and plastic) unintentionally imported to site prior to removal off-site to licensed waste disposal or recovery facilities;
- (iv) Temporary stockpiling of topsoil and subsoil pending re-use as cover material for final restoration of the site;
- (v) Restoration of the backfilled void (including placement of cover soils and seeding) and return to use as agricultural grassland / natural habitat;
- (vi) Environmental monitoring of noise, dust, surface water and groundwater for the duration of the site restoration works and for a short period thereafter.

Backfilling and restoration of the quarry requires placement, compaction and capping of approximately 1,830,000m³ (1.83 million cubic metres), equivalent to approximately 3,300,000 tonnes of inert soil and stone and minor quantities of aggregate for temporary haul road construction.

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2. WASTE ACCEPTANCE

The existing quarry at Calary was originally opened and operated by Wicklow County Council. Roadstone acquired the quarry in 1973. Quarry operations were suspended in 2010 in response to the sharp downturn in activity in the construction sector at that time. This current proposal to backfill the quarry void with 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. Minor quantities of aggregate are imported to the facility for re-use in construction of temporary internal haul roads over and across backfilled soil.

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 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 intake.

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 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 for intake to inert waste landfills 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 in principle for recovery at the waste recovery 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.

The following intake restrictions shall apply at this facility:

- (i) consignments containing peat shall not be accepted
- (ii) consignments containing soil from known or suspect contaminated sites or sites having a potentially high risk of contamination (eg. garage forecourts or former industrial sites) shall not be accepted
- (iii) consignments which could potentially contain asbestos, chemicals or any hazardous materials shall not be accepted
- (iv) waste from unknown and/or unrecorded sources shall not be accepted
- (v) all inert soil accepted at the facility must have minimal quantities (<2%) of other construction and demolition wastes intermixed with it (eg. metals, plastic, wood, rubber etc.) shall not be accepted.

Although an exemption on soil testing may apply, there is nonetheless a requirement to collect and record some basic characterisation information in advance which clearly demonstrates that the imported waste is inert. In these circumstances, a letter of suitability will be required from an appropriately qualified or competent person which provides the following information to Roadstone prior to forwarding waste consignments to this waste facility

- (i) a declaration that the waste is natural, undisturbed soil and stone;
- (ii) a description of the source and nature of the soil and stone;
- (iii) details of the source location for the soil and stone (including a plan showing the source site boundary)
- (iv) a declaration that the material is suitable for use as backfill at the facility
- (v) a declaration that the material will not cause environmental pollution at the facility.

The producer of the waste and/or the waste collector will be responsible for ensuring that the information provided is correct and pertains to the soil waste being imported to the facility.

Once Roadstone is satisfied on the basis of the information provided to it that the soil wastes to be imported to the facility 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.

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 for intake to inert waste landfills 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. Notwithstanding this exemption however, it is considered that there is still a requirement to check the imported wastes to ensure compliance with the basic characterisation information provided (which often may not have included any soil testing).

All 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 based operative employed directly by Roadstone, either at the weighbridge or the tipping face.

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.

In order to verify that the waste being accepted and used for restoration purposes at this recovery facility is inert, Roadstone will undertake some limited compliance testing on soil and stones which have been imported to site. A representative sample of waste shall be taken from one in every 100 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
- Poly Aromatic Hydrocarbons (PAH's)

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.

If any waste consignment forwarded to the waste recovery facility

- (i) fails to comply with the acceptance policy outlined 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 Rejection Book. If records indicate that consignments from a particular waste producer and/or waste collector are being repeatedly rejected, Roadstone will review whether or not to withdraw approval for its continued use of the recovery facility.

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 non-hazardous / hazardous waste or excessive construction or demolition waste (>2%) intermixed with it.

If some contamination of soil and stones is immediately evident from visual inspection (unusual colour, smell etc.) or if excessive quantities of other construction and demolition waste materials (like metals, plastic, concrete, bricks, 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 and substantially free of other waste materials. 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) inadvertently imported and accepted at the site will be segregated, stockpiled and transferred to storage skips at the waste quarantine area pending removal off-site to a local authorised construction and demolition waste recovery facility.

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

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