

Waste Management Act 1996 as amended

**NOTIFICATION OF A PROPOSED DECISION ON AN APPLICATION FOR A WASTE LICENCE
IN ACCORDANCE WITH SECTION 42(2) OF THE WASTE MANAGEMENT ACT 1996 AS AMENDED**

In pursuance of the powers conferred on it by the above mentioned Act, the Environment Protection Agency (the Agency) proposes, under Section 40(1) of the said Act, to determine the following application for a waste licence:

Waste Licence Register No: W0293-01
Applicant: Roadstone Limited, Fortunestown, Tallaght, Dublin 24.
CRO Number: 11035
Facility: Calary Quarry, Killough Upper and Glencap Commons Upper, Kilmacanogue, County Wicklow

The application was submitted by the applicant on 08/07/2016.

Proposed Decision: It is proposed, for the reasons hereinafter set out, to grant the licence to the above named applicant to carry on the following activities at the above named facility, subject to twelve Conditions:

Licensed waste recovery activities in accordance with the Fourth Schedule of the Waste Management Act 1996 as amended:

Class R 5 (P).	Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.
Class 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).

Refused waste recovery activities, in accordance with the Fourth Schedule of the Waste Management Act 1996 as amended

Class R 3.	Recycling /reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolysis using the components as chemicals.
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Reason: Organic substances are not suitable for deposit in unlined facilities due to the risk of groundwater contamination.
The activities listed in R3 are not relevant for the operation of an unlined inert soil and stone recovery facility.

Proposed Licence: A copy of the proposed decision, including the reasons for the proposed decision, the proposed twelve Conditions and the reasons therefor and associated schedules attached thereto accompanies this notification. A copy of the proposed licence may also be obtained from the Environmental Protection Agency, P.O. Box 3000, Johnstown Castle Estate, County Wexford.

OBJECTIONS & ORAL HEARINGS

Any person may object to the proposed decision, in accordance with Section 42 of the Waste Management Act 1996 as amended. In accordance with Sections 42(12) and 42A of the Waste Management Act 1996 as amended, objections must be received at any time no later than 5.00 pm on **16 January 2019**. A person making an objection may also request an oral hearing of the objection, in accordance with Section 42 of the Acts, at any time no later than the date specified above. It is important to note that any objection to a proposed decision/request for an oral hearing must be **received by the Agency before the appropriate period expires**.

An objection/request for an oral hearing must be made on-line on the Agency's website at www.epa.ie or by sending the objection or request by prepaid post to the Agency, or by leaving the objection or request with an employee of the Agency at the principal offices of the Agency in Wexford during office hours, i.e. 9.00 a.m. to 5.00 p.m. Monday to Friday.

An objection against the proposed decision must state in full the grounds of the objection. An objection and a request for an oral hearing of an objection must each be accompanied by the appropriate fee and also comply with the other statutory requirements set out in the Waste Management Act 1996 as amended and the Waste Management (Licensing) Regulations. Extracts from the Acts and the Regulations accompany this notification. For the purposes of making an objection and/or a request for an oral hearing, the address of the principal office of the Agency is **P.O. Box 3000, Johnstown Castle Estate, County Wexford**.

In the event that;

- (a) no objection is taken against the proposed decision or
- (b) an objection or objections is or are taken against the proposed decision and the objection or objections is or are withdrawn,

the decision of the Agency will be in accordance with the proposed decision and will be issued as soon as may be after the appropriate period expires.

Signed on behalf of the Agency:



on the 11th day of December, 2018 **Dr Karen Creed, Authorised Person**

re: Proposed Decisions of the Environmental Protection Agency in respect of Waste Licence applications



FEES FOR THE MAKING OF OBJECTIONS AND ORAL HEARING REQUESTS

Fees for making an Objection:

- Article 42 (1) A fee shall be paid to the Agency in respect of the making of an objection.
- (2) Subject to sub-article (3), the fee payable under sub-article (1) shall be the amount indicated in column (3) of Part II of the Second Schedule opposite the appropriate mention of objection in column (2) of the said Part of the Schedule.
- (3) Where an objection is made to the Agency by -
- (a) A local authority,
 - (b) A planning authority,
 - (c) A sanitary authority,
 - (d) The Central Fisheries Board,
 - (e) An Taisce - The National Trust for Ireland,
 - (f) Fáilte Ireland,
 - (g) In the case of an activity any part of which is situate within the functional area of the Shannon Free Airport Development Company Limited, that Company, a reduced fee shall be payable in respect of the said objection, in accordance with sub-article (2).

Fees for making a request for an Oral Hearing (payable *in addition to* the fee payable for making the associated objection)

- Article 44 (1) A fee shall be paid to the Agency in respect of a request for an oral hearing of an objection. (See table of fees below).
- (2) The fee payable under sub-article (1) shall be the amount indicated in column (3) of Part II of the Second Schedule opposite the mention of a request for an oral hearing in column (2) of the said Part of the Schedule.

Table of Fees for Objections and Requests for Oral Hearings

(1)	(2)	(3) Amount of fee (€)
Article 42	Objection by the applicant or licensee	€500
	Objection by an authority or body mentioned in Article 42(3)	€100
	Objection by any other person	€200
Article 44	Request for an oral hearing	€100



Making an Objection and requesting an Oral Hearing of an objection on a Proposed Decision of the Environmental Protection Agency on a Waste Licence Application.

Extracts from the relevant sections of the Waste Management Act 1996 as amended.

Section

- 42(2) Before making a decision under *Section 40* in respect of an application made to it for the grant of a waste licence, or *under Section 46(2)* in consequence of a review of a waste licence that has been conducted by it under that section, the Agency shall give notice in writing to—
- (a) the applicant or the holder of the licence, as the case may be,
 - (b) any person who has made a written submission to it in relation to the application or the review, in accordance with regulations under this Part,
 - (c) where relevant, the local authority in whose functional area the activity, the subject matter of the proposed waste licence or the waste licence, as the case may be, is intended to be, or is, carried on, and
 - (d) such other persons as may be prescribed,
- of the decision it proposes to make in respect of the application or in consequence of the review and, where the decision so notified is a decision to grant a waste licence or a revised waste licence, shall specify where a copy of the proposed licence or revised licence may be obtained.
- 42(3) Any person may, subject to compliance with the requirements of any regulations under *Sections 45* and *50*, and at any time before the expiration of the appropriate period, make an objection to the Agency in relation to a decision referred to in *subsection (2)* that it proposes to make.
- 42(4) An objection shall—
- (a) be made in writing,
 - (b) state the name and address of the objector,
 - (c) state the subject matter of the objection,
 - (d) state in full the grounds of objection and the reasons, considerations and arguments on which they are based, and
 - (e) be accompanied by such fee (if any) as may be payable in respect of the making of such objection in accordance with regulations *under Section 50*.
- 42(5) (a) An objection which does not comply with the requirements of *subsection (4)* shall be invalid.
- (b) The requirement of *subsection (4) (d)* shall apply whether or not the objector requests, or proposes to request, under *subsection (9)* an oral hearing of the objection.
- 42(6) An objection shall be accompanied by such documents, particulars, or other information relating to the objection as the objector considers necessary or appropriate.
- 42(7) Without prejudice to the provisions of any regulations under *Section 45*, an objector shall not be entitled to elaborate in writing upon, or make further submissions in writing in relation to, the grounds of objection stated in the objection, and any such elaboration, submissions or further grounds of objection that is or are received by the Agency shall not be considered by it.
- 42(8) Any documents, particulars or other information submitted by an objector, other than such documents, particulars or other information which accompanied the objection or which were furnished to the Agency under and in accordance with a requirement of, or made pursuant to, regulations under *Section 45*, shall not be considered by the Agency.
- 42(9) (a) A person making an objection under *subsection (3)* may request an oral hearing of the objection.

- (b) (i) A request for an oral hearing of an objection shall be made in writing to the Agency and shall be accompanied by such fee (if any) as may be payable in respect of such request in accordance with regulations under *Section 50*.
- (ii) A request for an oral hearing of an objection which is not accompanied by such fee (if any) as may be payable in respect of such request shall not be considered by the Agency.
- (c) A request for an oral hearing of an objection shall be made within the appropriate period, and any request received by the Agency after the expiration of that period shall not be considered by it.
- 42(10) An objection, or a request for an oral hearing under subsection (9), shall be made—
- (a) by sending the objection or request by prepaid post to the Agency, or
 - (b) by leaving the objection or request with an employee of the Agency, at the principal office of the Agency, during office hours, or
 - (c) by such other means as may be prescribed.
- 42(11) (a) Where a request for an oral hearing of an objection is made in accordance with *subsection (9)*, or otherwise where an objection has been made, the Agency shall have an absolute discretion to hold an oral hearing in relation to the objection and, if it decides to hold such a hearing, it shall give notice in writing of that decision to—
- (i) the applicant or the holder of the licence, as the case may be,
 - (ii) where relevant, the local authority in whose functional area the activity, the subject matter of the pro-posed waste licence or the waste licence, as the case may be, is intended to be, or is, carried on,
 - (iii) any person who requested an oral hearing, and
 - (iv) such other person as may be prescribed.
- (b) Where the Agency decides not to hold an oral hearing under this subsection, it shall give notice in writing of its decision to the person who requested the oral hearing.
- 42(12) In this section “the appropriate period” means the period of 28 days beginning on the day on which notification is sent under subsection (2) in respect of the matter concerned.
- 42A ***Calculation of appropriate period and other time limits over holidays***
When calculating the appropriate period (within the meaning of Section 42) or any other time limit under this Act or in any regulations made under this Act, the period between the 24th day of December and the 1st day of January, both days inclusive, shall be disregarded.
- 43(1) (a) Where
- (i) no objection is made in accordance with Section 42(3) to the Agency in relation to a decision that it proposes to make in respect of an application made to it for the grant of a waste licence or in consequence of a review conducted by it of a waste licence, or
 - (ii) any objection or objections that has or have been so made to it in relation thereto is or are withdrawn,
- the decision of the Agency in relation to that application or in consequence of the review shall be that as notified by it under Section 42(2).
- (b) Where the decision of the Agency is to grant a waste licence or a revised waste licence, such a licence shall be granted by it as soon as may be after the making of the decision.



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

**WASTE LICENCE
Proposed Decision**

Licence Register Number:	W0293-01
Company Register Number:	11035
Applicant:	Roadstone Limited
Location of Facility:	Calary Quarry, Killough Upper and Glencap Commons Upper, Kilmacanogue, County Wicklow

INTRODUCTION

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

This waste licence relates to the operation of an inert waste recovery facility at Calary Quarry, Killough Upper and Glencap Commons Upper, Kilmacanogue, County Wicklow by Roadstone Limited. The activity relates to the deposition for the purposes of restoration of a quarry void using imported inert greenfield and non-greenfield soil and stone and dredging spoil. The waste intake at the facility is 300,000 tonnes per annum.

The licence specifies a number of environmental controls in order to minimise the risk of environmental pollution and nuisance to the public arising from the activities at the facility. The environmental monitoring requirements include monitoring of discharge to adjacent stream, groundwater quality and ambient dust and noise.

The licence sets out in detail the conditions under which Roadstone Limited will operate and manage this facility.

Table of Contents

	Page No
Glossary of Terms	1
Decision & Reasons for the Decision.....	8
Part I Schedule of Activities Licensed	9
Part II Schedule of Activities Refused	9
Part III Conditions	10
Condition 1. Scope.....	10
Condition 2. Management of the Facility	11
Condition 3. Infrastructure and Operation	13
Condition 4. Interpretation.....	16
Condition 5. Emissions	16
Condition 6. Control and Monitoring	17
Condition 7. Resource Use and Energy Efficiency.....	19
Condition 8. Materials Handling.....	20
Condition 9. Accident Prevention and Emergency Response.....	22
Condition 10. Closure, Restoration and Aftercare Management	22
Condition 11. Notification, Records and Reports	24
Condition 12. Financial Charges and Provisions	26
SCHEDULE A: Limitations	27
SCHEDULE B: Emission Limits.....	30
SCHEDULE C: Control & Monitoring.....	32
SCHEDULE D: Specified Engineering Works.....	36
SCHEDULE E: Annual Environmental Report	37

Glossary of Terms

All terms in this licence should be interpreted in accordance with the definitions in the Waste Management Act 1996 as amended, unless otherwise defined in the section.

Adequate lighting	20 lux measured at ground level.
AER	Annual Environmental Report.
Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Agreement	Agreement in writing.
Annually	At approximately twelve-monthly intervals.
Application	The application by the licensee for this licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of this licence application.
Basic characterisation of waste	A thorough determination, according to standardised analysis and behaviour testing methods, of the short and long-term leaching behaviour and/or characteristic properties of the waste.
BAT	Best Available Techniques.
Backfilling	A recovery operation where suitable non-hazardous waste is used for purposes of reclamation in excavated areas or for engineering purposes in landscaping. Waste used for backfilling must substitute non-waste materials, be suitable for the aforementioned purposes, and be limited to the amount strictly necessary to achieve those purposes.
Biannually	At approximately six – monthly intervals.
Biennially	Once every two years.
BOD	5 day Biochemical Oxygen Demand (without nitrification suppression).
By-product	Material notified under Article 27 of the European Community (Waste Directive) Regulations 2011 (SI No. 126 of 2011) which the Agency has not determined (under article 27(3) of the Regulations) to be waste.
CEN	Comité Européen De Normalisation – European Committee for Standardisation.

COD	Chemical Oxygen Demand.
Compliance Point	The point (location, depth) at which a compliance value should be met. Generally it is represented by a borehole or monitoring well from which representative groundwater samples can be obtained.
Compliance Value	The concentration of a substance and associated compliance regime that, when not exceeded at the compliance point will prevent pollution and/or achieve water quality objectives at the receptor.
Compliance testing of waste	Periodical testing by standard analysis and behaviour-testing methods to determine whether a waste complies with a condition and/or specific reference criteria. The tests focus on key variables and behaviour identified by basic characterisation.
Contaminated soil and stone	Soil and stone that contains anthropogenic or man-made substances (such as rubble, concrete, bricks, metal and bitumen) that are not natural to the environment from which the material was extracted.
Construction and demolition (C&D) waste	Wastes that arise from construction, renovation and demolition activities: Chapter 17 of the LoW or as otherwise may be agreed.
Containment boom	A boom that can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.
CRO Number	Company Register Number.
Daily	During all days of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement on any one day.
Day	Any 24 hour period.
Daytime	0700 hrs to 1900 hrs.
dB(A)	Decibels (A weighted).
DO	Dissolved oxygen.
Documentation	Any report, record, results, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
Emission limits	Those limits, including concentration limits and deposition rates, established in <i>Schedule B: Emission Limits</i> of this licence.
EMP	Environmental Management Programme.

End-of-Waste status	As specified in Article 28 of the European Community (Waste Directive) Regulations 2011 (SI No. 126 of 2011).
Environmental damage	As defined in Directive 2004/35/EC.
EPA	Environmental Protection Agency.
Evening Time	1900 hrs to 2300 hrs.
Extractive waste	As defined in the Waste Management (Management of Waste from the Extractive Industries) Regulations, 2009, S.I. No. 566 of 2009.
Facility	Any site or premises used for the purpose of the recovery or disposal of waste.
Fortnightly	A minimum of 24 times per year, at approximately two week intervals.
Gas Oil	Gas Oil as defined in Council Directive 1999/32/EC and meeting the requirements of S.I. No. 119 of 2008.
GC/MS	Gas chromatography/mass spectroscopy.
Greenfield soil and stone	Soil and stone from land that has not been previously developed and is not contaminated soil and stone.
Green Waste	Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation.
ha	Hectare.
Hazardous Substances	Substances or mixtures as defined in Article 3 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures.
Heavy metals	This term is to be interpreted as set out in "Parameters of Water Quality, Interpretation and Standards" published by the Agency in 2001. ISBN 1-84095-015-3.
HFO	Heavy Fuel Oil as defined in Council Directive 1999/32/EC and meeting the requirements of S.I. No. 119 of 2008.
Hours of operation	The hours during which the facility is authorised to be operational.
Hours of waste acceptance	The hours during which the facility is authorised to accept waste.
ICP	Inductively coupled plasma spectroscopy.

Incident	<p>The following shall constitute as incident for the purposes of this licence:</p> <ul style="list-style-type: none">(i) an emergency;(ii) any emission which does not comply with the requirements of this licence;(iii) any malfunction or breakdown of key environmental abatement, control or monitoring equipment;(iv) any exceedance of the daily duty capacity of the waste handling equipment;(v) any trigger level specified in this licence which is attained or exceeded;(vi) any compliance value specified in this licence which is attained or exceeded; and,(vii) any indication that environmental pollution has, or may have, taken place.
Inert waste	<p>Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular must not endanger the quality of surface water and/or groundwater.</p>
Industrial waste	<p>As defined in Section 5(1) of the Waste Management Act 1996 as amended.</p>
IPPC	<p>Integrated Pollution Prevention & Control.</p>
K	<p>Kelvin.</p>
kPa	<p>Kilopascals.</p>
L_{Aeq,T}	<p>This is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period (T).</p>
Landfill Directive	<p>Council Directive 1999/31/EC.</p>
L_{A,T}	<p>The Rated Noise Level, equal to the L_{Aeq} during a specified time interval (T), plus specified adjustments for tonal character and/or impulsiveness of the sound.</p>
List of Waste (LoW)	<p>A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC, as amended by Commission Decision 2014/955/EU and any subsequent amendment published in the Official Journal of the European Community.</p>

Letter of suitability	A letter from a qualified person which states the following: (i) The waste is greenfield soil and stone. (ii) A description of the source and nature of the soil and stone. (iii) The location of the source of the soil and stone (including a map showing the source site boundary). (iv) The material is suitable for use as backfill at the facility. (v) The material will not cause environmental pollution at the facility.
Licensee	Roadstone Limited, Fortunestown, Tallaght, Dublin 24, CRO Number 11035.
Liquid waste	Any waste in liquid form and containing less than 2% dry matter.
List I	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.
List II	As listed in the EC Directives 2006/11/EC and 80/68/EEC and amendments.
Local Authority	Wicklow County Council.
Maintain	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function adequately.
Mass flow limit	An emission limit value expressed as the maximum mass of a substance that can be emitted per unit time.
Mass flow threshold	A mass flow rate above which a concentration limit applies.
Monthly	A minimum of 12 times per year, at intervals of approximately one month.
Night-time	2300 hrs to 0700 hrs.
Noise-sensitive location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Non-greenfield soil and stone	Soil and stone that is not greenfield soil and stone.
Oil separator	Device installed according to the International Standard I.S. EN 858-2:2003 (Separator system for light liquids, (e.g. oil and petrol) – Part 2: Selection of normal size, installation, operation and maintenance).
On-site verification of waste	Rapid check methods to confirm that a waste is the same as that which has been subjected to compliance testing and that which is described in any accompanying documents. It may merely consist of a visual inspection of a load of waste before and after unloading at the waste facility.

PRTR	Pollutant Release and Transfer Register.
Qualified person	A suitably qualified, trained and experienced person who is a registered professional with chartered status (or equivalent) awarded by a relevant professional body and who has the requisite knowledge and experience required to issue a letter of suitability.
Quarterly	At approximately three – monthly intervals.
SAC	Special Area of Conservation designated under the <i>Habitats Directive</i> , Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.
Sample(s)	Unless the context of this licence indicates to the contrary, the term samples shall include measurements taken by electronic instruments.
Sanitary effluent	Wastewater from facility toilet, washroom and canteen facilities.
Secondary aggregate	Recycled engineering material that has been recovered from inert construction and demolition waste and has achieved end-of-waste status.
SOP	Standard operating procedure.
Soil and stone	Excavation or dredge spoil comprising natural materials of clay, silt, sand, gravel or stone and which comes within the meaning of inert waste.
Soil and stone derived from construction and demolition (C&D) waste	Soil and stone (and equivalent material) that is recovered from construction and demolition waste.
Source segregated waste	Waste which is separated at source; meaning that the waste is sorted at the point of generation into a recyclable fraction(s) for separate collection (e.g., paper, metal, glass, plastic, bulk dry recyclables, biodegradables, etc.) and a residual fraction. The expression ‘separate at source’ shall be construed accordingly.
SPA	Special Protection Area designated under the Birds Directive, Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.
Specified emissions	Those emissions listed in <i>Schedule B: Emission Limits</i> of this licence.
Standard method	A National, European or internationally recognised procedure (e.g. I.S. EN, ISO, CEN, BS or equivalent); or an in-house documented procedure based on the above references; a procedure as detailed in the current edition of “Standard Methods for the Examination of Water and Wastewater” (prepared and published jointly by A.P.H.A., A.W.W.A. & W.E.F.), American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or an alternative method as may be agreed by the Agency.

Storm water	Rain water run-off from roof and non-process areas.
The Agency	Environmental Protection Agency.
TOC	Total organic carbon.
Trade effluent	Trade effluent has the meaning given in the Water Services Act, 2007.
Trigger level	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Water Services Authority	Wicklow County Council.
Weekly	During all weeks of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement in any one week.
WWTP	Waste water treatment plant.

Decision & Reasons for the Decision

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

The Agency accordingly proposes to grant a licence to Roadstone Limited to carry on the activities listed in *Part I, Schedule of Activities Licensed*, subject to the conditions set out in *Part III, Conditions*.

In reaching this decision the Agency has considered the documentation relating to the licence application Register Number: W0293-01, and the supporting documentation received from the Applicant; the submissions received; the Inspector's Report dated 6th December 2018, and has carried out an Environmental Impact Assessment (EIA) and an Appropriate Assessment Screening of the likely significant effects of the activity on European Sites.

It is considered that the Inspector's Report contains a fair and reasonable examination, evaluation and analysis of the likely significant effects of the activities on the environment, and adequately and accurately identifies, describes and assesses those effects. The assessment as reported in that document is adopted as the assessment of the Agency. Having regard to this assessment, it is considered that the proposed activity, if managed, operated and controlled in accordance with the licence will not result in the contravention of any relevant environmental quality standards or cause environmental pollution.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity, individually or in combination with other plans or projects is likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at Ballyman Glen SAC (Site Code: 000713), Bray Head SAC (Site Code: 000714), Carriggower Bog SAC (Site Code: 000716), Glen of The Downs SAC (Site Code: 000719), Knocksink Wood SAC (Site Code: 000725), Wicklow Mountains SAC (Site Code: 002122), The Murrough Wetlands SAC (Site Code: 002249), Wicklow Mountains SPA (Site Code: 004040) and The Murrough SPA (Site Code: 004186).

The activity is not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it can be excluded, on the basis of objective information, that the activity, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the activity was not required.

The reasons for which the Agency determined that an Appropriate Assessment of the activity is not required are as follows:

The facility does not have the potential for significant effects on any European site due to the nature of this inert waste recovery facility. In particular the only potential source-pathway receptor link between the facility and any of the European sites is via the hydraulic pathway created through a discharge of dewatered groundwater and surface water run-off from the quarry site to the Killough River, a tributary of the Dargle River, which outflows into the Southwestern Irish Sea - Killiney Bay.

Part I Schedule of Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Act 1996 as amended, the Environmental Protection Agency (the Agency) proposes, under Section 40(1) of the said Act to grant this Waste Licence to Roadstone Limited, Fortunestown, Tallaght, Dublin 24, CRO No 11035, to carry on the waste activities listed below at Calary Quarry, Killough Upper and Glencap Commons Upper, Kilmacanogue, County Wicklow, subject to conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Act 1996, as amended

Class R 5 (P).	Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.
Class 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).

Part II Schedule of Activities Refused

On the basis of the information before it, the Environmental Protection Agency (the Agency), pursuant to its powers under Section 40(1) of the Waste Management Act 1996 as amended, proposes to refuse the following classes of activity.

Refused waste recovery activities, in accordance with the Fourth Schedule of the Waste Management Act 1996 as amended

Class R 3.	Recycling /reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolysis using the components as chemicals.
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Reason: Organic substances are not suitable for deposit in unlined facilities due to the risk of groundwater contamination.
The activities listed in R3 are not relevant for the operation of an unlined inert soil and stone recovery facility.

Part III Conditions

Condition 1. Scope

- 1.1 Waste activities at this facility shall be restricted to those listed and described in *Part I Schedule of Activities Licensed* and shall be as set out in the licence application or as modified under Condition 1.4 of this licence and subject to the conditions of this licence.
- 1.2 Activities at this facility shall be limited as set out in *Schedule A: Limitations* of this licence.
- 1.3 For the purposes of this licence, the facility authorised by this licence is the area of land outlined in red on Drawing titled 'Land interest details' (Drawing No. B1-1 dated June 2016) of the application. Any reference in this licence to "facility" shall mean the area thus outlined in red. The licensed activities shall be carried on only within the area outlined.
- 1.4 No alteration to, or reconstruction in respect of, the activity, or any part thereof, that would, or is likely to, result in
- (i) a material change or increase in:
- the nature or quantity of any emission;
 - the abatement/treatment or recovery systems;
 - the range of processes to be carried out;
 - the fuels, raw materials, intermediates, products or wastes generated, or
- (ii) any changes in:
- site management, infrastructure or control with adverse environmental significance;
- shall be carried out or commenced without prior notice to, and without the approval of, the Agency.
- 1.5 The facility shall be controlled, operated and maintained, and emissions shall take place as set out in the licence. All programmes required to be carried out under the terms of this licence become part of this licence.
- 1.6 This licence is for purposes of waste licensing under the Waste Management Act 1996 as amended only and nothing in this licence shall be construed as negating the licensee's statutory obligations, or requirements under any other enactments or regulations.
- 1.7 Hours of Operation and Waste acceptance
- 1.7.1 The facility may operate and accept waste between 07:00 to 18:00 Monday to Friday and between 08:00 to 14:00 on Saturday (excluding Public Holidays).
- 1.7.2 The facility shall not operate on Sundays or on Public or Bank Holidays.

Reason: <i>To clarify the scope of this licence.</i>

Condition 2. Management of the Facility

2.1 Facility Management

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

2.1.2 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience as required and shall be aware of the requirements of this licence.

2.2 Environmental Management System (EMS)

2.2.1 The licensee shall establish and maintain and implement an Environmental Management System (EMS), which shall incorporate energy efficiency management, within six months of the date of grant of this licence. The EMS shall be reviewed by senior management for suitability, adequacy and effectiveness and updated on an annual basis.

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

2.2.2.1 Schedule of Environmental Objectives and Targets

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

2.2.2.2 Environmental Management Programme (EMP)

The licensee shall, not later than six months from the date of grant of this licence, submit to the Agency for agreement an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.1. Once agreed the EMP shall be established and maintained by the licensee. It shall include:

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

The EMP shall be reviewed annually.

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

2.2.2.3 Documentation

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

2.2.2.4 Corrective and Preventative Action

- (i) The licensee shall establish, maintain and implement procedures to ensure that corrective and preventative action is taken should the specified requirements of this licence not be fulfilled. The responsibility and authority for persons initiating further

investigation and corrective and preventative action in the event of a reported non-conformity with this licence shall be defined.

- (ii) Where a breach of one or more of the conditions of this licence occurs, the licensee shall without delay take measures to restore compliance with the conditions of this licence in the shortest possible time and initiate any feasible preventative actions to prevent recurrence of the breach.
- (iii) All corrective and preventative actions shall be documented

2.2.2.5 Awareness, Training and Competence

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

2.2.2.6 Communications Programme

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

2.2.2.7 Maintenance Programme

The licensee shall establish and maintain a programme for maintenance of all plant and equipment based on the instructions issued by the manufacturer/supplier or installer of the equipment. Appropriate record keeping and diagnostic testing shall support this maintenance programme. The licensee shall clearly allocate responsibility for the planning, management and execution of all aspects of this programme to appropriate personnel (see Condition 2.1 above).

2.2.2.8 Efficient Process Control

The licensee shall establish and maintain a programme to ensure there is adequate control of processes under all modes of operation. The programme shall identify the key indicator parameters for process control performance, as well as identifying methods for measuring and controlling these parameters. Abnormal process operating conditions shall be documented, and analysed to identify any necessary corrective action.

2.2.2.9 Invasive Species Prevention and Eradication Plan

The licensee shall establish, maintain and implement an invasive species prevention and eradication plan, to cover at least, Japanese Knotweed, Giant Knotweed, Bohemian Knotweed and any other relevant invasive species. The plan shall as a minimum identify specific actions for:

- (i) the prevention, to the extent possible, of acceptance of invasive species in loads of soil and stone arriving at the facility, actions to include requesting of information on the presence of invasive species at source sites,
- (ii) quarterly surveys of filled areas for the detection of the growth of invasive species,
- (iii) the method for plant detection and identification,
- (iv) the remedial actions for eradication of invasive species growing at the facility,
- (v) staff training on plant identification and eradication, and
- (vi) validation to confirm the absence of invasive species at the restored facility.

The licensee shall maintain evidence of having obtained the advice and implemented the recommendations of an independent and appropriately qualified consultant, in the establishment of the Plan and any amendments to it that concern the action items listed above.

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

Condition 3. Infrastructure and Operation

- 3.1 The licensee shall establish and maintain, for each component of the facility, all infrastructure referred to in this licence.
- 3.2 Specified Engineering Works (SEW)
- 3.2.1 The licensee shall submit proposals for any Specified Engineering Works, as defined in *Schedule D: Specified Engineering Works* of this licence, to the Agency for its agreement at least two months in advance of the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.
- 3.2.2 All specified engineering works shall be supervised by an appropriately qualified person, and that person, or persons, shall be present at all times during which relevant works are being undertaken.
- 3.2.3 Following the completion of any specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall, as appropriate, include the following information:
- (i) A description of the works;
 - (ii) As-built drawings of the works;
 - (iii) Records and results of all tests carried out (including failures);
 - (iv) Drawings and sections showing the location of all samples and tests carried out;
 - (v) Name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;
 - (vi) Records of any problems and the remedial works carried out to resolve those problems; and
 - (vii) Any other information requested in writing by the Agency.
- 3.3 Facility Notice Board
- 3.3.1 The licensee shall, within one month of the date of grant of this licence, provide a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm. The notice board shall be maintained thereafter.
- 3.3.2 The board shall clearly show:
- (i) the name and telephone number of the facility;
 - (ii) the normal hours of opening;
 - (iii) the name of the licence holder;
 - (iv) an emergency out of hours contact telephone number;
 - (v) the licence reference number; and
 - (vi) where environmental information relating to the facility can be obtained.
- 3.3.3 A plan of the facility clearly identifying the location of each storage and treatment area shall be displayed as close as is possible to the entrance to the facility. The plan shall

be displayed on a durable material such that is legible at all times. The plan shall be replaced as material changes to the facility are made.

3.4 Facility Security

- 3.4.1 Security and stock-proof fencing and gates shall be maintained at the facility. Subject to the implementation of the Closure, Restoration and Aftercare Management Plan (as required by Condition 10.2 of this licence) the requirement for such facility security may be removed.
- 3.4.2 The licensee shall maintain a CCTV monitoring system which records all waste vehicle movement into and out of the facility. The CCTV system shall be operated at all times with digital date stamping. Copies of recordings shall be kept on site and made available to the Agency on request.
- 3.4.3 There shall be no unauthorised public access to the facility.
- 3.4.4 Gates shall be locked shut when the facility is unsupervised.
- 3.4.5 The licensee shall remedy any defect in the gates and/or fencing as follows:-
 - (i) A temporary repair shall be made by the end of the working day; and
 - (ii) A repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

3.5 Facility Roads and Hardstanding

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

3.6 The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.

3.7 Facility Office

- 3.7.1 The licensee shall provide and maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 3.7.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.

3.8 Weighbridge and Wheel Cleaning

- 3.8.1 The licensee shall maintain a weighbridge and wheel cleaner at the facility.
- 3.8.2 The wheel cleaner shall be used by all vehicles leaving the facility as required to ensure that no wastewater, waste or storm water is carried off-site. All water from the wheel cleaning area shall be directed to a vehicle wash water interceptor sump.
- 3.8.3 The wheel cleaner shall be inspected on a weekly basis and drained as required. Silt, stones and other accumulated material shall be removed as required and sent off-site for disposal or, subject to agreement by the Agency, used as fill on-site.

3.9 Waste Inspection and Quarantine Areas

- 3.9.1 A Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the facility.
- 3.9.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be clearly identified and segregated from each other.
- 3.9.3 All waste deposited at the waste quarantine area shall be stored in a skip or other appropriate vessel as may be agreed by the Agency.

3.10 Storm Water Management

Storm water management infrastructure shall be provided and maintained at the facility during operation, closure and decommissioning of the facility. As a minimum, the infrastructure shall be capable of the following:

- the prevention of discharge of contaminated water into ground or surface water drains and courses; and
- the collection/diversion of run-off arising from paved areas.

3.11 The licensee shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency. The requirement with regard to off-site points is subject to the prior agreement of the landowner(s) concerned.

3.12 Tank, Container and Drum Storage Areas

3.12.1 All tank, container and drum storage areas shall be rendered impervious to the materials stored therein. Bunds shall be designed having regard to Agency guidelines 'Storage and Transfer of Materials for Scheduled Activities' (2004).

3.12.2 All tank and drum storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:

- (i) 110% of the capacity of the largest tank or drum within the bunded area; or
- (ii) 25% of the total volume of substance that could be stored within the bunded area

3.12.3 All drainage from bunded areas shall be treated as contaminated unless it can be demonstrated to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal, unless it can be deemed uncontaminated.

3.12.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.

3.12.5 All tanks, containers and drums shall be labelled to clearly indicate their contents.

3.12.6 All bunds shall be uniquely identified and labelled at the bund.

3.12.7 There shall be no underground tanks at the facility.

3.13 The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used, the absorbent material shall be disposed of at an appropriate facility.

3.14 Settlement Ponds and Oil Separator

3.14.1 The licensee shall maintain the oil separators and settlement pond on-site in the area indicated on Figure No. 6 titled 'Quarry Water Management System', of the application. The licensee shall ensure that all storm water, other than from roofs, and groundwater discharge from the facility shall pass through the settlement pond, oil separators and screening barrier in advance of discharge.

3.14.2 The oil separators shall be a Class I full retention separator and shall be in accordance with I.S. EN-858-2: 2003 (separator systems for light liquids).

3.15 All pump sumps, storage tanks, lagoons or other treatment plant chambers from which spillage of environmentally significant materials might occur in such quantities as are likely to breach local or remote containment or separators, shall be fitted with high liquid level alarms (or oil detectors as appropriate).

3.16 Groundwater Wells

3.16.1 All groundwater monitoring boreholes shall be adequately protected to prevent contamination or physical damage.

3.16.2 Any new groundwater monitoring wells shall be constructed having regard to the guidance given in the Guidance Note Landfill Manual – Guidance Note on Landfill Monitoring, which was published by the Agency.

3.17 The provision of a catchment system to collect any leaks from flanges and valves of all over-ground pipes used to transport material other than water shall be examined. This shall be

incorporated into a Schedule of Environmental Objectives and Targets set out in Condition 2 of this licence for the reduction in fugitive emissions.

- 3.18 The licensee shall, within three months of the date of grant of this licence, remove for disposal or recovery at an appropriate facility, all unauthorised waste currently stored at the facility.
- 3.19 The licensee shall, prior to commencement of waste acceptance, install in a prominent location on the facility a wind sock, or other wind direction indicator, which shall be visible from the public roadway outside the site.
- 3.20 The licensee shall provide and maintain wastewater treatment systems at the facility for the treatment of sanitary effluent arising on-site. Any waste water treatment system and percolation area shall satisfy the criteria, as might be relevant, set out in:
- *Code of Practice Wastewater Treatment and Disposal Systems Serving Single Houses (p.e. ≤ 10)*, or,
 - *Wastewater Treatment Manuals: Treatment Systems for Small Communities, Business, Leisure Centres and Hotels*,
- published by the Environmental Protection Agency.

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

Condition 4. Interpretation

- 4.1 Emission limit values for emissions to waters in this licence shall be interpreted in the following way:
- For discrete sampling of parameters other than pH and temperature, no grab sample value shall exceed 1.2 times the emission limit value.
- 4.2 Where the ability to measure a parameter is affected by mixing before emission, then, with agreement from the Agency, the parameter may be assessed before mixing takes place.
- 4.3 Noise
- Noise from the facility shall not give rise to sound pressure levels which exceed the limit values measured at the noise sensitive locations.
- 4.4 Dust
- Dust from the activity shall not give rise to deposition levels which exceed the limit value.

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

Condition 5. Emissions

- 5.1 No specified emission from the facility shall exceed the emission limit values set out in *Schedule B: Emission Limits* of this licence. There shall be no other emissions of environmental significance.
- 5.2 No emissions, including odours, from the activities carried on at the site shall result in an impairment of, or an interference with amenities or the environment beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary.
- 5.3 No substance shall be discharged in a manner, or at a concentration, that, following initial dilution, causes tainting of fish or shellfish.

- 5.4 All storm water and surface water run-off collected from ground and hardstanding surfaces and groundwater arising within the facility shall be monitored at location SW1 as specified in *Schedule C.1.2.: Monitoring of Emissions to Water*, of this licence.
- 5.5 The licensee shall ensure that all or any of the following:
- Vermin
 - Mud
 - Dust
 - Litter
- associated with the activity do not result in an impairment of, or an interference with, amenities or the environment at the facility or beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary. Any method used by the licensee to control or prevent any such impairment/interference shall not cause environmental pollution.
- 5.6 Other than uncontaminated storm water and surface water run-off, there shall be no direct emissions to ground, groundwater or surface water.

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

Condition 6. Control and Monitoring

- 6.1 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and as in accordance with *Schedule C: Control & Monitoring* of this licence.
- 6.1.1 Analyses shall be undertaken by competent staff in accordance with documented operating procedures.
- 6.1.2 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics shall be determined.
- 6.1.3 Such procedures shall be subject to a programme of Analytical Quality Control using control standards with evaluation of test responses.
- 6.1.4 Where any analysis is sub-contracted it shall be to a competent laboratory.
- 6.2 The licensee shall ensure that:
- (i) sampling and analysis for all parameters listed in the Schedules to this licence; and
 - (ii) any reference measurements for the calibration of automated measurement systems;
- shall be carried out in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards that will ensure the provision of data of an equivalent scientific quality shall apply.
- 6.3 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission/discharge (or ambient conditions where that is the monitoring objective).
- 6.4 All treatment/abatement and emission control equipment shall be calibrated and maintained in accordance with the instructions issued by the manufacturer/supplier or installer.
- 6.5 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the approval of the Agency following evaluation of test results.
- 6.6 The licensee shall prepare a programme, to the satisfaction of the Agency, for the identification and reduction of fugitive emissions using an appropriate combination of best available techniques. This programme shall be included in the Environmental Management Programme.
- 6.7 The integrity and water tightness of all tanks, bunding structures, containers and underground pipes and their resistance to penetration by water or other materials carried or stored therein

shall be tested and demonstrated by the licensee prior to use. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

- 6.8 The storm water drainage system (i.e., gullies, manholes, any visible drainage conduits and such other aspects as may be agreed) and bunds, silt traps and oil separators shall be inspected weekly and desludged as necessary. All sludge and drainage from these operations shall be collected for safe disposal. The drainage system, bunds, silt traps and oil interceptors shall be properly maintained at all times. The licensee shall maintain a drainage map on site. The drainage map shall be reviewed annually and updated as necessary.
- 6.9 The settlement ponds shall be inspected monthly and shall be de-silted as necessary. Subject to compliance with waste acceptance criteria and procedures established under this licence, the silt can be used as backfill on-site.
- 6.10 An inspection for leaks on all flanges and valves on over-ground pipes used to transport materials other than water shall be carried out weekly. A log of such inspections shall be maintained.
- 6.11 Dust and Noise Control
- 6.11.1 The licensee shall implement adequate measures for the control of noise, vibration and dust, including fugitive dust emissions, from the facility.
- 6.11.2 In dry weather all stockpiles, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance.
- 6.11.3 The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.
- 6.12 Noise
- The licensee shall carry out a noise survey of the site operations as required by the Agency. The survey programme shall be undertaken in accordance with the methodology specified in the 'Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)' as published by the Agency.
- 6.13 Litter Control
- 6.13.1 All loose litter or other waste, present on or in the vicinity of the facility, other than in accordance with the requirements of this licence, shall be removed, subject to the agreement of the landowners, immediately and in any event by 10.00am of the next working day after such waste is discovered.
- 6.13.2 The licensee shall ensure that all vehicles delivering waste to, and removing waste and materials from, the facility are appropriately covered.
- 6.14 Pollutant Release and Transfer Register (PRTR)
- The licensee shall prepare and report a PRTR for the site. The substance and/or wastes to be included in the PRTR shall be as agreed by the Agency each year by reference to EC Regulations No. 166/2006 concerning the establishment of the European Pollutant Release and Transfer Register. The PRTR shall be prepared in accordance with any relevant guidelines issued by the Agency and shall be submitted electronically in specified format and as part of the AER.
- 6.15 The licensee shall, within six months of the date of grant of this licence, develop and establish a Data Management System for collation, archiving, assessing and graphically presenting the monitoring data generated as a result of this licence.
- 6.16 Topographical Monitoring
- A topographical survey shall be carried out on an annual basis. The survey shall include measurement of the total void space that has been filled and the remaining available void space. The survey shall be in accordance with any written instructions issued by the Agency. The results of this survey shall be reported as part of the Annual Environmental Report (AER).

6.17 Stability Assessment

A stability assessment of the temporary side slopes at the facility shall be carried out on an annual basis. The results of this assessment shall be reported as part of the Annual Environmental Report (AER).

6.18 Groundwater

6.18.1 The licensee shall annually assess groundwater monitoring data and determine compliance under this licence with the European Communities Environmental Objectives (Groundwater) Regulations 2010, S.I. No 9 of 2010 as amended.

6.18.2 A report on this assessment shall be included in the AER.

6.18.3 The licensee shall, in the event of a failure to demonstrate compliance with the European Communities Environmental Objectives (Groundwater) Regulations 2010 as amended or if instructed by the Agency, arrange for the completion, by an appropriately qualified consultant/professional, of a hydrogeological risk assessment to:

- (i) identify the risk of groundwater contamination arising from licensed and past activities;
- (ii) assess the impact of extant groundwater contamination;
- (iii) propose preventative and, as appropriate, remedial actions to be undertaken;
- (iv) propose groundwater compliance values to be maintained at compliance points; and,
- (v) address other matters that may be identified by the Agency.

6.18.4 A hydrogeological risk assessment prepared under Condition 6.18.3 of this licence shall be submitted to the Agency.

6.18.5 The licensee shall implement the following:

- (i) any proposals or recommendations arising from the hydrogeological risk assessment;
- (ii) the installation of new groundwater monitoring boreholes where necessary to characterise groundwater quality; and
- (iii) any other matters that may be directed by the Agency.

6.18.6 The licensee shall ensure that groundwater monitoring well sampling equipment is available or installed on-site at the facility and is fit for purpose at all times. The sampling equipment shall be to Agency specifications.

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

Condition 7. Resource Use and Energy Efficiency

7.1 The licensee shall carry out an audit of the energy efficiency of the site as required by the Agency. The audit shall be carried out in accordance with the guidance published by the Agency, "Guidance Note on Energy Efficiency Auditing". The energy efficiency audit shall be repeated at intervals as required by the Agency.

7.2 The audit shall identify all practicable opportunities for energy use reduction and efficiency and the recommendations of the audit will be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.

7.3 The licensee shall identify opportunities for reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible. Reductions in water usage shall be incorporated into Schedule of Environmental Objectives and Targets.

- 7.4 The licensee shall undertake an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated. The assessment should take account of best international practice for this type of activity. Where improvements are identified, these shall be incorporated into the Schedule of Environmental Objectives and Targets.

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

Condition 8. Materials Handling

- 8.1 Disposal or recovery of waste on-site shall only take place in accordance with the conditions of this licence and in accordance with the appropriate National and European legislation and protocols.
- 8.2 Waste sent off-site for recovery or disposal shall be transported only by an authorised waste contractor. The waste shall be transported from the site of the activity to the site of recovery/disposal only in a manner that will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.
- 8.3 The licensee shall ensure that, in advance of transfer to another person, waste shall be classified, packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling.
- 8.4 Greenfield soil and stone
- 8.4.1 Prior to the acceptance of greenfield soil and stone from any individual source site, the licensee shall obtain a letter of suitability for the first 5,000 tonnes of the material obtained from that source.
- 8.4.2 The licensee shall obtain a further letter of suitability for each subsequent 5,000 tonnes of material obtained from that source.
- 8.4.3 The licensee shall, if directed by the Agency, carry out basic characterisation of greenfield soil and stone from any individual source site. The basic characterisation shall be carried out in a manner agreeable to the Agency.
- 8.5 Non-greenfield soil and stone
- 8.5.1 The licensee shall, in a manner and format agreeable to the Agency, propose maximum concentrations and/or trigger levels for relevant contaminants in non-greenfield soil and stone and dredged material proposed for acceptance and backfill at the facility. Non-compliant materials shall be dealt with in accordance with Condition 8.13.8 of this licence.
- 8.5.2 Non-greenfield soil and stone and dredged material shall be tested according to protocols agreed by the Agency. Sampling and testing shall be carried out by independent institutions with proven experience in waste testing and analysis.
- 8.6 Backfill
- 8.6.1 Only soil and stone and dredged material that meet the appropriate waste acceptance criteria as stipulated in *Schedule A.2: Waste Acceptance Criteria for Backfill Material* of this licence shall be used for backfill at the facility.
- 8.6.2 The following materials shall not be used for backfill at the facility:
- (i) Top soil;
 - (ii) Peat;
 - (iii) Soil and stone and fines derived from the treatment of construction and demolition waste; and,
 - (iv) Any other waste that the Agency deems to be unsuitable.

- 8.7 No hazardous waste, liquid waste or vector material shall be accepted at the facility.
- 8.8 Scavenging shall not be permitted at the facility.
- 8.9 The loading and unloading of materials, other than waste taken directly to the backfilling area and to be used for backfill, shall be carried out in designated areas protected against spillage and leachate run-off.
- 8.10 All vehicle and machinery refuelling and maintenance operations shall be carried out in designated areas protected against spillage and run-off.
- 8.11 Waste, other than waste taken directly to the backfilling area and to be used for backfill, shall be stored in designated areas, protected as may be appropriate against spillage and leachate run-off. The waste shall be clearly labelled and appropriately segregated.
- 8.12 Unless otherwise agreed only secondary or recovered aggregate that has achieved end-of-waste status shall be used for engineering purposes at the facility.
- 8.13 Waste Acceptance and Characterisation Procedures
- Prior to the acceptance of waste at the facility the licensee shall develop and maintain written procedures for the acceptance, characterisation, processing and backfill of waste arriving at the facility. The procedures shall, as a minimum, address the following conditions:
- 8.13.1 Waste shall only be accepted at the facility from holders of valid waste collection permits issued under the Waste Management (Collection Permit) Regulations 2007, as amended, unless exempted or excluded.
- 8.13.2 Waste shall only be accepted at the facility from known pre-cleared customers.
- 8.13.3 Waste shall be accepted from new customers only after initial waste profiling and waste characterisation off-site. The written records of this off-site waste profiling and characterisation shall be retained by the licensee for all active customers and for a two year period following termination of licensee/customer agreements.
- 8.13.4 Waste arriving at the facility shall be visually inspected (on-site verification) before and after unloading to confirm the nature of the waste and that it is as described in the accompanying documents.
- 8.13.5 The documentation of waste arriving at the facility shall be checked at the point of entry to the facility. Subject to its verification, the waste shall be weighed, recorded and directed to the waste acceptance/quarantine area as appropriate.
- 8.13.6 Waste accepted for backfill shall, prior to its use as backfill, be checked against the appropriate waste acceptance criteria as specified in *Schedule A.2: Waste Acceptance Criteria for Backfill Material* of this licence and, as appropriate, *Schedule A.3: Waste Characterisation for non-greenfield soil and stone and dredged material* of this licence.
- 8.13.7 In the case of suspicion of contamination (either from visual inspection or from knowledge of the origin of the waste) the waste shall be tested in accordance with *Schedule A.3: Waste Characterisation for non-greenfield soil and stone and dredged material* of this licence or the waste shall be refused/rejected.
- 8.13.8 Any waste deemed unsuitable for backfill at the facility and/or in contravention of this licence shall be immediately separated and removed from the facility at the earliest possible time to an off-site authorised facility. Temporary storage of such wastes shall be in the designated Waste Quarantine Area. Waste shall be stored under appropriate conditions in the quarantine area to avoid odour nuisance, the attraction of vermin and any other nuisance or objectionable condition.
- 8.14 The licensee shall neither import waste into the State nor export waste out of the State except in accordance with the relevant provisions of Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14th June 2006 on shipments of waste and associated national regulations.
- 8.15 Unless agreed by the Agency the licensee shall not dispose of any waste that has been accepted at the facility for the purpose of recovery.

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

Condition 9. Accident Prevention and Emergency Response

- 9.1 The licensee shall ensure that a documented Accident Prevention Procedure is in place that addresses the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.2 The licensee shall ensure that a documented Emergency Response Procedure is in place that addresses any emergency situation which may originate on-site. This procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.3 Incidents
- 9.3.1 In the event of an incident the licensee shall immediately:
- (i) carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
 - (ii) isolate the source of any such emission;
 - (iii) evaluate the environmental pollution, if any, caused by the incident;
 - (iv) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
 - (v) identify the date, time and place of the incident;
 - (vi) notify the Agency as required by Condition 11.1 of this licence.
- 9.3.2 The licensee shall provide a proposal to the Agency for its agreement within one month of the incident occurring or as otherwise agreed by the Agency, to:
- (i) identify and put in place measures to avoid recurrence of the incident; and
 - (ii) identify and put in place any other appropriate remedial actions.

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

Condition 10. Closure, Restoration and Aftercare Management

- 10.1 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the site in the licensed activity, the licensee shall, to the satisfaction of the Agency, decommission, render safe or remove for disposal/recovery any soil, subsoil, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution. A final validation report to include a certificate of completion to demonstrate there is no continuing risk to the environment shall be submitted to the Agency within three months of termination or planned cessation of the activity.
- 10.2 Closure, Restoration and Aftercare Management Plan (CRAMP)
- 10.2.1 The licensee shall maintain a fully detailed plan for the closure, restoration and long-term aftercare of the site or part thereof. The licensee shall submit a revised CRAMP for agreement by the Agency within six months of the date of grant of the licence.

- 10.2.2 The plan shall be reviewed annually and proposed amendments thereto notified to the Agency for agreement as part of the AER. No amendments may be implemented without the agreement of the Agency.
- 10.2.3 The licensee shall have regard to the Environmental Protection Agency's Guidance on Assessing and Costing Environmental Liabilities (2014) and, as appropriate, Guidance on Financial Provision (2015) when implementing Condition 10.2.1 above.
- 10.3 The Closure, Restoration and Aftercare Management Plan (CRAMP) shall include, as a minimum, the following:
 - (i) a scope statement for the plan;
 - (ii) the criteria that define the successful closure and restoration and aftercare of the activity or part thereof, which ensures minimum impact on the environment;
 - (iii) a programme to achieve the stated criteria;
 - (iv) where relevant, a test programme to demonstrate the successful implementation of the plan; and
 - (v) details of the long term supervision, monitoring, control, maintenance and reporting requirements for the restored facility.

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

Condition 11. Notification, Records and Reports

- 11.1 The licensee shall notify the Agency by both telephone and either email or webform, to the Agency's headquarters in Wexford, or to such other Agency office as may be specified by the Agency, as soon as practicable after the occurrence of any of the following:
- (i) Any waste imported to the facility for backfill that does not meet Waste Acceptance Criteria as specified in *Schedule A.2: Waste Acceptance Criteria for Backfill Material* of this licence;
 - (ii) an incident or accident as defined by the glossary;
 - (iii) any release of environmental significance to atmosphere from any potential emissions point;
 - (iv) any breach of one or more of the conditions attached to this licence;
 - (v) any malfunction or breakdown of key environmental abatement, control or monitoring equipment; and
 - (vi) any incident or accident, as defined in the glossary requiring an emergency response by the Local Authority.
- The licensee shall include as part of the notification, date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any emissions. All details required to be communicated must be in accordance with any Guidance provided by the Agency.
- 11.2 The following shall be notified as soon as practicable after the occurrence of any incident which relates to a discharge to water:
- (i) Inland Fisheries Ireland;
 - (ii) the Local Authority.
- 11.3 The licensee shall make a record of any notification made under Condition 11.1 or 11.2 of this licence. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident or accident. The record shall include all corrective actions taken to manage the incident or accident, minimise wastes generated and the effect on the environment, and avoid recurrence. In the case of a breach of a condition, the record shall include measures to restore compliance.
- 11.4 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant (if provided), and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.
- 11.5 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility.
- 11.6 The licensee shall as a minimum ensure that the following documents are accessible at the site:
- (i) the licence relating to the facility;
 - (ii) the current EMS for the facility;
 - (iii) the previous year's AER for the facility;
 - (iv) records of all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility;
 - (v) relevant correspondence with the Agency;
 - (vi) up-to-date site drawings/plans showing the location of key process and environmental infrastructure, including monitoring locations and emission points;
 - (vii) up-to-date Standard Operational Procedures for all processes, plant and equipment necessary to give effect to this licence or otherwise to ensure that standard operation of such processes, plant or equipment does not result in unauthorised emissions to the environment; and,

- (viii) any elements of the licence application or EIS documentation referenced in this licence.

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

- 11.7 The licensee shall submit to the Agency, by the 31st March of each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in *Schedule E: Annual Environmental Report* of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.

11.8 Waste Recovery Reports

The licensee shall as part of the AER submit a report on the contribution by this facility to the achievement of the recovery targets and strategy stated in national and European Union waste policies.

- 11.9 A full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall be maintained on a monthly basis and shall as a minimum contain details of the following:

- (i) the tonnages and LoW Code for the waste materials imported and/or sent off-site for disposal/recovery;
- (ii) the names of the agent and carrier of the waste, and their waste collection permit details, if required (to include issuing authority and vehicle registration number);
- (iii) details of the ultimate disposal/recovery destination facility for the waste and its appropriateness to accept the consigned waste stream, to include its permit/licence details and issuing authority, if required;
- (iv) written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site;
- (v) details of all waste consigned abroad for Recovery and classified as 'Green' in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended). The rationale for the classification must form part of the record;
- (vi) details of any rejected consignments;
- (vii) details of any approved waste mixing;
- (viii) the results of any waste analyses required under *Schedule C: Control & Monitoring of this licence*;
- (ix) the tonnage and LoW Code for the waste materials recovered/disposed on-site; and,
- (x) original copies of letters of suitability for greenfield soil and stone.

- 11.10 The licensee shall maintain a computer-based record for each load of waste arriving at the facility. The licensee shall record the following:

- (i) the date and time;
- (ii) the name of the carrier (including if appropriate, the waste carrier registration details);
- (iii) the vehicle registration number;
- (iv) the trailer, skip or other container unique identification number (where relevant);
- (v) the job/order/invoice number for the load;
- (vi) the name of the producer(s)/collector(s) of the waste as appropriate;
- (vii) the name of the waste facility (if appropriate) from which the load originated including the waste licence or waste permit register number;
- (viii) the type, source and origin of the waste;
- (ix) the type of process producing the waste;
- (x) reference to the applicable letter of suitability (for greenfield soil and stone);
- (xi) a description of the waste including physical form, colour and odour;
- (xii) the quantity of the waste, recorded in tonnes;
- (xiii) data on the waste, where available;

- (xiv) details of the treatment(s) to which the waste has been subjected;
 - (xv) the classification and LoW coding of the waste;
 - (xvi) the name of the person checking the load;
 - (xvii) where loads or wastes are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed; and
 - (xviii) confirmation that the load, or any part of the load, is not vector material.
- 11.11 The licensee shall submit report(s) as required by the conditions of this licence to the Agency's Headquarters in Wexford, or to such other Agency office as may be specified by the Agency.
- 11.12 All reports shall be certified accurate and representative by the facility manager or a nominated, suitably qualified and experienced deputy.

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

Condition 12. Financial Charges and Provisions

12.1 Agency Charges

- 12.1.1 The licensee shall pay to the Agency an annual contribution of €7,710, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activity as the Agency considers necessary for the performance of its functions under the Waste Management Act 1996 as amended. The first payment shall be a pro-rata amount for the period from the date of grant of this licence to the 31st day of December, and shall be paid to the Agency within one month from the date of grant of the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Waste Management Act 1996 as amended, and all such payments shall be made within one month of the date upon which demanded by the Agency.
- 12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased, the licensee shall contribute such sums as determined by the Agency to defray its costs in regard to items not covered by the said annual contribution.

12.2 Environmental Liabilities

- 12.2.1 The licensee shall as part of the AER, provide an annual statement as to the measures taken or adopted at the site in relation to the prevention of environmental damage, and the financial provisions in place, as appropriate in relation to the underwriting of costs for remedial actions following anticipated events (including closure) or accidents/incidents, as may be associated with the carrying on of the activity.
- 12.2.2 The Agency may amend this licence at any time in certain circumstances in accordance with section 42B of the Waste Management Act 1996 as amended, to require, or not require as the case may be, the putting in place of a financial provision to incorporate costings for CRAMP and/or Environmental Liabilities Risk Assessment. This amendment may be implemented by the Agency in the event of an incident that creates a significant residual environmental liability or where the environmental risk profile, changes on site.

SCHEDULE A: Limitations

The following waste recovery processes are authorised:

- Backfilling through the importation, stockpiling and recovery of soil and stones and dredged material through deposition for the purposes of quarry restoration.

No additions to these processes are permitted unless agreed in advance by the Agency.

A.1 Waste Acceptance

Only the wastes as specified in Table A.1.1 are acceptable for recovery at the facility unless otherwise agreed by the Agency.

Table A.1.1 Waste Categories and Quantities

LoW CODE	WASTE TYPE ^{Note 1}	MAXIMUM (Tonnes per calendar year)
17 05 04	Soils and stones other than those mentioned in 17 05 03	300,000 ^{Note 2}
17 05 06	Dredging spoil	
20 02 02	Soil and stones from gardens and parks, including cemetery waste	

Note 1: Any proposals to accept other compatible inert waste types shall be agreed in advance by the Agency.

Note 2: Unless otherwise agreed by the Agency, this is the maximum quantity of all soil and stone materials to be accepted for the backfill of the quarry. This annual figure does not include material required for final profiling as may be required by the Planning Authority and agreed by the Agency.

Table A.1.2 Total Waste Quantity for Backfill

Total quantity of soil and stone permitted for backfill at the facility	3,280,000 tonnes ^{Note 1}
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Note 1: Not including material required for final profiling as may be required by the Planning Authority and agreed by the Agency.

**A.2 Waste Acceptance Criteria for Backfill Material**

Soil and Stone	Minimum Criteria
Greenfield soil and stone	Letter of suitability from a qualified person
Non-greenfield soil and stone	1. Less than 2% contamination with non-natural solid materials in accordance with the definition of 'contaminated soil and stone' in this licence, and;
Dredged material	2. Characterised in accordance with <i>Schedule A.3: Waste Characterisation for non-greenfield soil and stone and dredged material</i> of this licence and compliant with concentration limits and/or trigger levels established under Condition 8.5.1 of this licence.



A.3 Waste Characterisation for non-greenfield soil and stone and dredged material

Amount/Source	Test Method ^{Note 1 & 2}	Frequency
Where the material comprises greater than 2,000 tonnes from a single source	Basic characterisation	To be carried out off-site prior to agreeing acceptance of the waste at the facility.
	Compliance testing	Once every 2,000 tonnes. ^{Note 3 & 4}
	On-site verification	Every load.
Where the material comprises less than 2,000 tonnes from a single source	Basic characterisation	To be carried out on-site prior to use of the material for backfill at a frequency of at least one sample on every 2,000 tonnes of waste from the collective of single sources each of which is less than 2,000 tonnes. ^{Note 3, 4}
	On-site verification	Every load.

Note 1: Testing to be carried out in accordance with Condition 8.5.2 of this licence.

Note 2: Maximum contaminant concentration levels and/or trigger levels to be developed in accordance with Condition 8.5.1 of this licence.

Note 3: To be carried out on representative samples of waste upon delivery.

Note 4: Part of each sample shall be retained at the facility for three years and be available for inspection/analysis by the Agency.



SCHEDULE B: Emission Limits

B.1 Emissions to Air

There shall be no emissions to air of environmental significance.

B.2 Emissions to Water

Emission Point Reference No:	SW1 (the location referred to as 'Connection to offsite discharge pipe' on Figure RFI2-1 titled ' <i>Proposed surface water management system</i> ', dated January 2017, of the application)
Location:	Inside the facility, adjacent the north-western facility boundary.
Volume to be emitted:	Maximum in any one day: 2,000 m ³

Parameter	Emission Limit Value
pH	6 - 9
	mg/l
BOD	2.6
Suspended Solids	10
Total Ammonia (as N)	0.140
Orthophosphate (as P)	0.075

B.3 Noise Emissions

Daytime dB L _{A1,T} (30 minutes)	Evening time dB L _{A1,T} (30 minutes)	Night-time dB L _{Aeq,T} (15-30 minutes)
55	50	45 ^{Note 1}

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

B.4 Dust Deposition Limits

Level (mg/m ² /day) ^{Note 1}
350

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



SCHEDULE C: Control & Monitoring

C.1.1 Control of Emissions to Water

Point Reference No.: Discharge from Settlement Ponds

Description of Treatment: silt trap, oil interceptor, settlement ponds

Control Parameter	Monitoring	Key Equipment ^{Note 1}
Flow	Flow	Flow meter
Siltation	Silt levels in settlement ponds	As agreed

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.



C.1.2 Monitoring of Emissions to Water**Emission Point Reference No:**

Discharge from Settlement Ponds

and WU and WD (upstream and downstream of discharge from the facility ^{Note 1})

Control Parameter	Monitoring Frequency	Analysis Method / Technique
Visual inspection	Daily	Sample and examine for colour and odour.
Flow	Daily	Flow meter
pH	Weekly	pH electrode/meter
BOD	Monthly	Standard Method
Suspended Solids (mg/l)	Weekly	Standard Method
Ammonia (as N)	Monthly	Standard Method
Orthophosphate (as P)	Monthly	Standard Method
Dissolved metals ^{Note 2}	Quarterly	Standard Method
Total Dissolved Solids	Quarterly	Standard Method
Total Petroleum Hydrocarbons	Biannually	Standard Method
Diesel Range Organics	Biannually	Standard Method
Petrol Range Organics	Biannually	Standard Method

Note 1: The upstream and downstream monitoring locations shall be agreed by the Agency.**Note 2:** Cd, Cu, Fe, Pb, Mg, Mn, Ni, Cr (total) and Zn.

C.2 Noise Monitoring

Location: N01, N02 and N03 (as shown on Figure 9-1 titled 'Noise Monitoring/ Receptor Locations', dated May 2016, of the EIS)

and at additional locations as may be agreed by the Agency

Period	Minimum Survey Duration ^{Note 1}
Daytime (07:00 to 19:00 hrs)	A minimum of 3 sampling periods at each noise monitoring location
Evening-time (07:00 to 23:00 hrs)	A minimum of 1 sampling period at each noise monitoring location.
Night-time ^{Note 2} (23:00 to 07:00 hrs)	A minimum of 2 sampling periods at each noise monitoring location.

Note 1: Sampling period T will be in accordance *Schedule B.3: Noise Emissions* of this licence. This applies to day, evening and night time periods.

Note 2: Night-time measurements shall be made between 2300hrs and 0400hrs, Sunday to Thursday, with 2300hrs being the preferred start time.

C.3 Ambient Monitoring

Location: D1, D2 and D3 as shown on Figure 8-1 titled 'Proposed Dust Monitoring / Receptor Locations', dated May 2016, of the EIS) and

one monitoring location (D4) near dust receptor locations No. 6 to 9 as shown on Figure 8-1;

and at additional locations as may be agreed by the Agency

Parameter	Monitoring Frequency	Analysis Method/Technique
Dust deposition	Bi-annual	VDI 2119 (Bergerhoff method)

C.4 Waste Monitoring

Waste	Frequency	Parameter	Method
Deposited waste ^{Note 1}	Dependent on rate of waste deposition. See Note 1. Maximum 5 samples per year	To be agreed	To be agreed
Other ^{Note 2}			

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

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

C.5 Groundwater Monitoring

Reference No: GW2, GW3, GW4 and GW5 (as shown on Figure A titled 'Proposed groundwater monitoring wells, dated November 2017)

and at additional locations as may be agreed by the Agency

Parameter	Monitoring Frequency	Analysis Method/Techniques
Level	Quarterly	Standard Method
Visual Inspection	Quarterly	Standard Method
pH	Quarterly	pH electrode/meter
Conductivity	Quarterly	Standard Method
Ammonia (as N)	Biannually	Standard Method
Nitrate	Biannually	Standard Method
Nitrite	Biannually	Standard Method
Orthophosphate (as P)	Biannually	Standard Methods
Total Dissolved Solids	Biannually	Standard Method
Dissolved Metals ^{Note 2}	Annually	Standard Method
Total Petroleum Hydrocarbons	Annually	Standard Method
Diesel Range Organics	Annually	Standard Method
Petrol Range Organics	Annually	Standard Method
Total Coliforms	Annually	Standard Method
Faecal Coliforms	Annually	Standard Method

Note 1: Cd, Cu, Fe, Pb, Mg, Mn, Ni and Zn.

SCHEDULE D: Specified Engineering Works

Specified Engineering Works

Construction of settlement ponds.

Any other works notified in writing by the Agency.
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SCHEDULE E: Annual Environmental Report

Annual Environmental Report Content <small>Note 1</small>
Emissions from the facility.
Waste management record.
Resource consumption summary.
Complaints summary.
Schedule of Environmental Objectives and Targets.
Environmental management programme – report for previous year.
Environmental management programme – proposal for current year.
Pollutant Release and Transfer Register – report for previous year.
Pollutant Release and transfer Register – proposal for current year.
Noise monitoring report summary.
Tank and pipeline testing and inspection report.
Reported incidents summary.
Energy efficiency audit report summary.
Report on the assessment of the efficiency of use of raw materials in processes and the reduction in waste generated.
Report on progress made and proposals being developed to minimise water demand.
Development/Infrastructural works summary (completed in previous year or prepared for current year).
Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.
Review of Closure, Restoration & Aftercare Management Plan.
Statement of measures in relation to prevention of environmental damage and remedial actions (Environmental Liabilities).
Reports associated with control and monitoring of emissions.
Reports associated with specified engineering works.
Any other items specified by the Agency.

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

Signed on behalf of the said Agency
On the 11th day of December , 2018



Dr Karen Creed, Authorised Person