EPA Application Form

9.1 - Environmental Management Techniques - Attachment

Organisation Name: *

Roadstone Limited

Application I.D.: *

LA003602

* indicates required field

Amendments to this Application Form Attachment

Version No.	Date	Amendment since previous version	Reason
V.1.0	July 2017	N/A	Online application form attachment
As above	Mar 2018	Identification of required fields	Assist correct completion of attachment

9 Environmental Management Techniques [1]

9.1. Accident Prevention Measures

Measures to prevent accidental emissions and liabilities

Incidents and accidents are unplanned events. Emissions from incidents and (major) accidents usually occur within a relatively short time frame but with greater intensity than under normal operating conditions. Incidents such as fire or fuel spillages can result in liabilities such as contaminated soil and groundwater. Proactive risk management reduces the potential for an incident.

Abnormal operating conditions must be managed without endangering human health and harming the environment, and in particular without risk to water, air, soil, plants or animals, without causing a nuisance through noise or odours, and without adversely affecting the countryside or places of special interest.

The applicant must firstly undertake a risk assessment in accordance with EPA guidance on assessing and costing environmental liabilities. Having identified the key risks, the applicant should populate the following table with the measures to be taken to treat the key risks, e.g., bunding, integrity testing, fire prevention, etc.

The range of measures is dependent on the complexity of the site. Pollution prevention measures may, inter alia, include the following information:

- Conclusions on BAT set out in the EU Reference document on BAT on emissions from storage such as a safety management system; corrosion prevention measures on tanks, etc.
- Details of storage of all raw materials, products and wastes such as segregation, labelling, designation and impervious surface;
- Details of spill or emergency containment measures and structures such as bunds, high level alarms, absorbent materials;
- Details of fire detection and fire-water retention facilities in the event of emergencies or other measures to contain fire-water;
- Details of transport of material within the site, solid, liquid or sludge transported by pipe, vehicle or conveyor; etc.,
- The Agency has published a guidance document on Fire-Water Retention Facilities and on the Storage and transfer of materials.

[1] This part of the form collects information on environmental management at the installation/ facility. It seeks to understand the maturity of the management system in terms of knowledge of abnormal operating conditions, prevention and early detection measures and emergency response procedures. The level of detail required in this part of form relates to the environmental risk posed.

Describe in the table below existing and/or proposed measures, including emergency procedures, to minimise the impact on the environment of an accidental emission or spillage. (This table should include the measures to be taken under abnormal operating conditions, including start-up, shutdown, leaks, malfunctions, breakdowns and momentary stoppages that will demonstrate that any emission arising will not cause significant environmental pollution)[2].

Measure *	Surveillance Measures		
	Description *	Frequency of Surveillance *	Method / Standard *
Accident Prevention Procedure	Roadstone Limited has in place a Health and Safety System and an Environmental Management System (EMS) which addresses such matters. The Accident Prevention Procedure in place addresses potential hazards on site, in particular those which may give rise to possible adverse impact on the environment.	Ongoing	N/A
Emergency Response Procedure	Roadstone Limited has in place a Health and Safety System and an Environmental Management System (EMS) which addresses such matters. The Emergency Response Procedure in place as part of the EMS includes a Spill Response Procedure which sets out a series of measure to manage spillage of liquids including fuel and other oils on site. Staff will receive regular training on this procedure. Emergency spill kits with oil boom, absorbers etc will be kept on site for use in the event of an accidental spillage; these shall be placed on site and checked regularly as per existing EMS 31	Ongoing	Visual
Management of Vehicle Refuelling	There shall be no storage of any fuels or oils on site. All refuelling of vehicles on site will be completed in a designated area and from a mobile double-skinned fuel bowser. The designated refuelling area will be located in a hardstanding area with	Ongoing	N/A

[2] Information relating to the integrity, impermeability and recent testing or pipes, tanks and bund areas should be included.

* indicates required field

Measure *	Surveillance Measures		
	Description *	Frequency of Surveillance *	Method / Standard *
	surface water drainage collected and passed through an oil interceptor and constructed wetlands.		
Maintenance and Inspection of Plant	All plant and machinery will be serviced off-site, Regular leak inspections will be completed during the backfilling works.	Continuous	Visual
Dust Suppression	Use of fixed water spraying system and mobile water bowser on access road and storage and deposition areas.	Continuous	Visual
Control of Waste Material Imported and Backfilled	Stringent Waste Acceptance Procedures and compliance testing procedures will be in place to control the nature of soil and stone material imported. As per Roadstone procedures already used at other licenced facilities, updated as required to reflect latest guidance and best practice. By ensuring that only clean, inert soil and stone is accepted onto site, this will mitigate the risk of potential risk of accepting material containing contaminants. This is the primary mitigation measure to minimise potential impact on groundwater vulnerability.	Various Continuous (visual inspection of loads)	Various accredited laboratory methods for analysis of different parameters Visual

*add rows to the table as necessary

Outline what provisions have been made to ensure an adequate response to emergency situations outside of normal working hours, i.e., during night-time, weekends and holiday periods (attach additional pages to this document if required): *

An emergency contact number will be provided to contact the appropriate persons outside of normal working hours. This will be displayed at the entrances to the site. Staff members will be available in the event of an emergency call outside of normal working hours.

Soil Monitoring Points

Periodic monitoring of soil and groundwater is required having regard to the possibility of soil and groundwater contamination of the site[3].

Complete the table below with details of soil monitoring locations and in particular where a baseline report has been/is required in accordance with Section 86B of the EPA Act 1992 as amended.

Is periodic soil monitoring proposed at the installation/facility? (**Yes/No**): * **No**

Soil Monitoring Point Code	Monitoring Point Grid Ref.	
	Easting [4]	Northing [5]

*add rows to the table as necessary

Soil Parameters

3 Inherent in the monitoring of soil and groundwater is accepting the possible necessity for remediation of the soil / groundwater. Regular monitoring of soil and groundwater provides an early detection of any contaminations.

4 Six Digit GPS Irish National Grid Reference

5 Six Digit GPS Irish National Grid Reference

Complete the table below with details of soil monitoring parameters (where a baseline report is required in accordance with Section 86B of the EPA Act 1992 as amended). (If different parameters are associated with different monitoring points this should also be identified in the table below.)

Parameter	Unit	Trigger Level	How was the trigger level determined?	Proposed Monitoring Frequency	Sample Method	Analysis Method / Technique

*add rows to the table as necessary

Groundwater Monitoring Points

Based on the assessment(s) carried out previously or as part of this licence application, complete the table below with summary details of the groundwater monitoring points.

Is groundwater monitoring proposed at the installation/facility? (**Yes/No**): * **Yes**

Monitoring Point Code	Monitoring Point Grid Ref.	
	Easting [6]	Northing [7]
MW1	189694.9410	72480.6176
MW2	189941.1000	72471.1133
MW3	190054.9250	72687.8501
MW4	190338.9692	72238.1346
MW5	189705.6043	72331.5660
MW6	190514.0951	72771.3039

*add rows to the table as necessary

[6] Six Digit GPS Irish National Grid Reference
[7] Six Digit GPS Irish National Grid Reference

* indicates required field

Groundwater Parameters

Complete the table below with summary details of the groundwater parameters. (If different parameters are associated with different monitoring points this should be identified in the table below.)

Parameter	Unit	Trigger Level	How was the trigger level determined?	Proposed Monitoring Frequency	Sample Method	Analysis Method / Technique
Alkalinity	mg/L CaCO3	NAC	EPA Interim Guideline Values	Quarterly	Purge 3 well volumes and ensure field chemistry is stable before sampling with waterra tubing/ disposable bailer	Titration
Total Hardness	mg/L as CaCO3	344	Maximum value detected in 2018 baseline monitoring	Quarterly		Titration
Electrical Conductivity	Us/cm	1875	Groundwater Regulations	Quarterly		Titration
pH	pH Units	6.5-9.5	EPA Interim Guideline Values	Quarterly		Titration
Orthophosphate	mg/l as P	0.03	EPA Interim Guideline Values/Groundwater Regulations	Quarterly		Titration
Phosphate (Total)	mg/l as P	0.03	Median concentration in the Phosphate Regulations (applicable to karstic aquifers)	Quarterly		Ganimede
Potassium (Dissolved)	mg/l	5	EPA Interim Guideline Values	Quarterly		ICPMS
Sodium (Dissolved)	mg/l	150	Groundwater Regulations	Quarterly		ICPMS
Ammonia (as Ammonium)	mg/L NH4	0.175	Groundwater Regulations	Quarterly		Discreet Spectrometry
Chloride	mg/L	187.5	Groundwater Regulations	Quarterly		Discreet Spectrometry
Nitrate	mg/L as NO3	37.5	Groundwater Regulations	Quarterly		Discreet Spectrometry
Nitrite	mg/L as	0.1	EPA Interim Guideline Values	Quarterly		Discreet

* indicates required field

Parameter	Unit	Trigger Level	How was the trigger level determined?	Proposed Monitoring Frequency	Sample Method	Analysis Method / Technique
	NO2N					Spectrometry
Total Dissolved Solids	mg/L	1000	EPA Interim Guideline Values	Quarterly		Gravimetric
Total Organic Nitrogen	mg/l	NAC	EPA Interim Guideline Values	Quarterly		Calculation
Sulphate	mg/L as SO4	187.5	Groundwater Regulations	Quarterly		Discreet Spectrometry
Total Coliforms	Cfu/100ml	0	EPA Interim Guideline Values	Quarterly		Coliert
E Coli	Cfu/100ml	0	EPA Interim Guideline Values	Quarterly		Coliert
Calcium	mg/L	200	EPA Interim Guideline Values	Quarterly		ICPMS
Iron	mg/L	0.2	EPA Interim Guideline Values	Quarterly		ICPMS
Magnesium	mg/L	50	EPA Interim Guideline Values	Quarterly		ICPMS
Manganese	mg/L	0.05	EPA Interim Guideline Values	Quarterly		ICPMS
Nickel	ug/L	0.015	Groundwater Regulations	Quarterly		ICPMS
Total Petroleum Hydrocarbons	ug/L	10	EPA Interim Guideline Values	Quarterly		GCMS

*add rows to the table as necessary

Costed Environmental Liabilities Risk Assessment (ELRA)

Indicate if the activity, through pre-application meeting with the Agency or other means, is required to submit a costed ELRA[8] as part of the licence, or licence review application.

Costed Environmental Liabilities Risk Assessment (ELRA) required to be submitted? (**Yes/No**): *	**No**

If '**Yes**', upload a costed Environmental Liabilities Risk Assessment (ELRA), prepared in accordance with the *Environmental Protection Agency's Guidance on Assessing and Costing Environmental Liabilities* (2014) (select Document Type: '**ELRA**' in the application form).

Costed **ELRA** document filename:	N/A

Indicate your preferred form of financial provision instrument to meet ELRA costings have regard to the Environmental Protection Agency's Guidance on Financial Provision (2015), e.g., Environmental Liability Insurance:

N/A

Upload a financial provision proposal have regard to the Environmental Protection Agency's Guidance on Financial Provision (2015) (where required at application /review application stage) (select Document Type: '**Financial Provision Proposal**' in the application form)

Financial Provision Proposal filename:	N/A

[8] There is an explicit requirement in EU and Irish law for financial provision for certain activities. The following categories of activities have an ELRA/CRAMP/FP requirement:

1. Landfills (excl. closed L.A. Landfills closed before 16th July 2009)
2. CAT A Extractive Waste Facilities
3. High Risk Contaminated Land Facilities
4. All Haz-Waste Transfer Stations
5. Non-Haz WTS (Accepting >50,000 tons/annum)
6. Incineration (incl. co-incineration of hazardous waste)
7. Upper & Lower Tier Seveso Sites
8. Exceptional circumstances associated with the site, e.g., significant ground/groundwater contamination.

Regard should be had by applicants to relevant Agency guidance on these matters.

Closure, Restoration and Aftercare Management Plan (CRAMP)

A restoration/aftercare period will be required where there are on-going environmental liabilities following closure. Applicants are required to describe the existing or proposed measures to avoid any risk of environmental pollution and to return the site to a satisfactory state or the state established in the baseline report where applicable, after the activity or part of the activity ceases operation.

A key measure is the preparation of a Closure, Restoration and Aftercare Management Plan (CRAMP) by the operator, for certain activities[9]. Notwithstanding the requirements of the EC Environmental Objectives (Groundwater) Regulations 2010, S.I. No. 9 of 2010, the closure and restoration/ aftercare target is the site condition at the time of the original application or the baseline report. The applicant shall have regard to the Environmental Protection Agency's Guidance on Assessing and Costing Environmental Liabilities (2014) in the preparation of the CRAMP.

Upload a CRAMP, where applicable (select Document Type: '**Site Closure**' in the application form).

CRAMP filename:	N/A

Costed CRAMP

Indicate if the activity, through pre-application meeting with the Agency or other means, is required to have a CRAMP [9] submitted as part of the licence, or licence review application.

CRAMP required to be submitted at application/licence review application stage? (**Yes/No**): *	**No**

[9] There is an explicit requirement in EU and Irish law for financial provision for certain activities. The applicant shall have regard to the Environmental Protection Agency's Guidance in determining CRAMP requirements and on Financial Provision (2015) in making financial provision to cover any liabilities.

The following categories of activities have an ELRA/CRAMP/FP requirement:
1. Landfills (excl. closed L.A. Landfills closed before 16th July 2009)
2. CAT A Extractive Waste Facilities
3. High Risk Contaminated Land Facilities
4. All Haz-Waste Transfer Stations
5. Non-Haz WTS (Accepting >50,000 tons/annum)
6. Incineration (incl. co-incineration of hazardous waste)
7. Upper & Lower Tier Seveso Sites
8. Exceptional circumstances associated with the site e.g. significant ground/groundwater contamination.

Indicate your preferred form of financial provision instrument to meet CRAMP costings (where appropriate), e.g., Secured fund, On-demand performance Bond, Parent Company Guarantee, Charge on Property (have regard to the Environmental Protection Agency's Guidance on Financial Provision (2015) on the Agency's website):

State preferred form of financial provision instrument?	

Upload a financial provision proposal (where required) having regard to the Environmental Protection Agency's Guidance on Financial Provision (2015) in making financial provision to cover any liabilities (select Document Type: '**Financial Provision Proposal**' in the application form)

Financial Provision Proposal filename:

Cessation of Activity

Where a CRAMP is not required, describe the measures to be taken on and following the permanent cessation of the activity or part of the activity to avoid any risk of environmental pollution and to return the site of the activity to a satisfactory state. (Input your response in the text box below or attach the information in to this attachment).

Decommission and remove the site infrastructure.

Emergency Response Procedure

Do you have an emergency response procedure (ERP)? (**Yes/No**) * **Yes**

Is the ERP compliant with the EPA guidance? (**Yes/No**) * Yes

9.2. Nuisance

Complete the table below in relation to each potential nuisance. Identify if the activity may cause or contribute to the type of nuisance in the area of the installation/facility and, where applicable, identify the techniques used to prevent/minimise the nuisance.

Type of Nuisance	Applicable to the activity? * (Yes/No/ Not Applicable)	Techniques to prevent nuisances *	Where nuisances cannot be prevented, techniques to be used to minimise and reduce nuisances
Odour	No	Only clean, inert soil and stones shall be accepted. This waste stream is non-putrescible.	Any non-compliant material inadvertently accepted shall be placed in the waste quarantine area pending immediate removal off-site to an appropriately authorised facility.
Fire Control	No	Only clean, inert soil and stones shall be accepted. Inert material by its nature is not flammable.	The operator has put in place an emergency response procedure as part of the existing EMS for the quarry which addresses measures to be taken in the event of a fire.
Dust	Yes	Use of fixed water spraying system and mobile water bowser on access road and storage and deposition areas. A wheel wash facility will be installed onsite and all vehicles required to pass through the wheel wash on exiting the site. Provision of vegetation on areas as they are restored. Continuous monitoring	Restrict use of certain routes during periods of prolonged dry weather.
Litter	No	Only clean, inert soil and stones shall be accepted.	Any non-compliant material inadvertently accepted shall be placed in the waste quarantine area pending immediate removal off-site to an appropriately authorised facility.
Birds	No	Only clean, inert soil and stones shall be accepted. This should not attract birds.	N/A
Mud	Yes	Use of wheelwash to clean vehicles exiting the site.	Sweeping of access road and public road.
Flies	No	Only clean, inert soil and stones shall be accepted. This	N/A

* indicates required field

Type of Nuisance	Applicable to the activity? * (Yes/No/ Not Applicable)	Techniques to prevent nuisances *	Where nuisances cannot be prevented, techniques to be used to minimise and reduce nuisances
		should not attract flies.	
Vermin	No	Only clean, inert soil and stones shall be accepted. This should not attract vermin.	N/A
Other (Noise)	Yes	The type of mitigation techniques implemented to reduce noise are detailed below • All machinery used will be CE certified for compliance with EU noise control limits • All vehicle engines will be switched off when not in use • Internal haul road gradients will be kept as low as possible to reduce engine/brake noise from heavy vehicles • All contractors will employ the best practicable means to minimise noise emissions	Provision of temporary screen bank.

If '**Other**' is selected define the other nuisance(s): Noise

Note: Odour must also be addressed in the fugitive emissions section of the '*7.4 Emissions to Atmosphere – Main and Fugitive*' template, where applicable.

9.3. Environmental Management System (EMS)

Do you have an environmental management system? (**Yes/No**) *	Yes
If '**Yes**', is the environmental management system accredited? (**Yes/No**) *	Yes
State the date accreditation was achieved **or** is expected to be achieved, where applicable:	09/04/2002
State the standard of accreditation achieved:	I.S. EN ISO 14001:2015

Energy Efficiency

Outline the measures taken to ensure that energy is used efficiently having regard to the relevant decision on BAT conclusions and/or BAT guidance and where appropriate, an energy audit with reference to the EPA Guidance document on Energy Audit should be carried out. *	Electricity usage on site shall be mainly required for: ▪ Pump for groundwater abstraction and fixed water spraying system ▪ Wheelwash ▪ Weighbridge and office ▪ Site lighting Diesel shall be used as fuel in the mobile plant on site. The plant shall be maintained regularly to ensure efficient running of the engines. Engines shall be turned off when not in use to limit fuel usage. All staff on site shall be trained in energy and resource efficiency as part of the Environmental Management System.
Has an energy audit been carried out? (**Yes/No**) *	Yes
Do you have an energy efficiency management system? (**Yes/No**) *	Yes
If '**Yes**', is the energy efficiency management system accredited? (**Yes/No**)	Yes
State the date accreditation was achieved **or** is expected to be achieved, where applicable:	08/12/2009
State the standard of accreditation achieved:	I.S. EN ISO 50001:2011

* indicates required field

9.4. Hours of Operation

Provide details of the hours of operation for the installation/facility * (hours and days per week, etc.), including:

(a) Proposed hours of operation.

- Monday to Friday: 07.00 Hrs to 18.00 Hrs, and
- Saturday: 07.00 Hrs to 14.00 Hrs.
- No operations shall take place on Sundays or Public Holidays.

(b) Proposed hours of construction and development works and timeframes.

- Monday to Friday: 07.00 Hrs to 18.00 Hrs, and
- Saturday: 07.00 Hrs to 14.00 Hrs.
- No operations shall take place on Sundays or Public Holidays.

(c) For waste activities, the proposed hours of waste acceptance.

As per (a) Proposed hours of operation

(d) Any other relevant hours of operation expected (e.g., waste handling, etc.).

Not applicable

9.5. Review of a Licence

Where the Office of Environmental Enforcement (OEE) has agreed any variations or adjustments to the conditions or schedules of the existing licence, the licensee must provide details of these agreed variations and adjustments to the existing licence conditions in the table that follows.

An updated, scaled drawing of the site layout (no larger than A3) providing visual information on such adjustments or variations where appropriate should be uploaded in the **site tab** – 'site plan(s)' upload.

In the case of once-off assessments/reports required under conditions/schedules of the existing licence the licensee must provide details of those assessments/reports that have been completed and agreed with the OEE or as otherwise agreed, in the table below.

Condition/ Schedule No.	Existing Condition	OEE Agreement Reference	Description

*add rows to the table as necessary

9.6 Environmental Management Techniques – Upload Files

State the number of 'upload files' referred to and named in this attachment document? * **0**