

EPA Application Form

9.1 - Environmental Management Techniques - Attachment

Organisation Name: *

Dunlavin Land Restoration Limited

Application I.D.: *

LA007045

Authorisation Application Form

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

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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.

Authorisation Application Form

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 *
<i>Oversight of Filling / Delivery Procedures</i>	All potentially polluting materials delivered to site will be unloaded by suitably qualified employees from the delivery company, and overseen by a designated site operative. This will prevent the overfilling of tanks and mobile fuel bowzers in particular.	As required	Audit of EMS Standard Procedures
<i>Use of Appropriate Storage Vessels / Containers</i>	<p>Potentially polluting liquids (principally fuel) will be stored in bunded storage tanks or in mobile, double skinned bowzers constructed to the appropriate Irish, British or International Standard, meeting the requirements of the Local Government (Water Pollution) Acts 1977 to 1990 and associated regulations.</p> <p>Other potentially polluting liquids such as lubricating oils, waste oils derived from vehicle maintenance, pesticides etc, will be stored in appropriately labelled containers located in a sealed container.</p> <p>All solid wastes arising on site and other solid potentially polluting materials will be segregated according to category, stored within bins or containers designed to ensure the contents do not spill or escape and covered as necessary.</p>	As required	Audit of EMS Standard Procedures

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

* indicates required field

Authorisation Application Form

Measure *	Surveillance Measures		
	Description *	Frequency of Surveillance *	Method / Standard *
<i>Inspection and Maintenance of Storage Facilities</i>	<p>All containers and bowsers will be inspected on a daily basis by designated site personnel to ensure their continued integrity, and identify requirements (if any) for remedial action.</p> <p>Any evidence of spillage or leakage will be reported immediately to the Facility Manager (or his deputy) for appropriate remedial action.</p> <p>In the event that remedial action is required, arrangements will be made to transfer any potentially polluting materials to secure alternative storage pending completion of remedial work.</p> <p>Remedial work will be undertaken as soon as possible thereafter. Containers and bowsers found to be faulty will not be used for the storage of polluting materials until appropriate remedial action is completed.</p> <p>All site personnel will be required to monitor and report evidence of spillage and leakage, during their day-to-day activities.</p>	Daily	Audit of EMS Standard Procedures
<i>Availability of Absorbent Materials</i>	A supply of materials suitable for absorbing and containing any minor spillage (spill kit) will be held at designated locations at the recovery facility.	As required	Audit of EMS Standard Procedures
<i>Availability of Spill Containment Equipment</i>	Materials and equipment suitable for containing accidental spills including sealing devices and substances for damaged containers, drain seals and booms, and overdrums will be held at the recovery facility.	As required	Audit of EMS Standard Procedures

* indicates required field

Authorisation Application Form

Measure *	Surveillance Measures		
	Description *	Frequency of Surveillance *	Method / Standard *
<i>Plant Maintenance</i>	All plant and equipment will be subject to maintenance in accordance with the suppliers / manufacturer's recommendations to avoid the failure of items of plant and equipment giving rise to potential spills / leaks / emissions to the environment.	Weekly	Audit of EMS Standard Procedures
<i>Emergency Preparedness and Response Plan</i>	<p>In the event of spillage of polluting materials, immediate action will be taken to contain the spillage.</p> <p>The spillage will be reported to the Site / Facility Manager, who will assess the situation and decide on the most appropriate course of action.</p> <p>The action taken will depend upon the size of the spillage, the location of the spillage in relation to sensitive receptors and the chemical and physical nature of the spilled material.</p> <p>In the event of an accidental spill or leakage, procedures to be set out in the site Emergency Preparedness and Response Plan will be implemented.</p>	As / If Required	As per (future) Emergency Response Procedures
<i>Fire Prevention</i>	<p>Potential fire risks arise as a result of use of overheating of electrical appliances in site offices, combustion of litter and other materials and maintenance activities on plant and equipment.</p> <p>Measures to prevent and minimise the risk of fires from these particular sources include</p>	Ongoing	<p>Audit of EMS Standard Procedures</p> <p>As per ERP Procedures</p>

* indicates required field

Authorisation Application Form

Measure *	Surveillance Measures		
	Description *	Frequency of Surveillance *	Method / Standard *
	<ul style="list-style-type: none"> • Ensuring all electrical appliances in use at the facility are tested in accordance with the Electrical Testing Regulations; • Maintaining offices / staff facilities in a tidy condition, cleaning them regularly to avoid accumulation of paper, litter and potentially combustible debris that may accumulate and increase fire risk; • Ensuring employees undergo training relevant to their role in fire prevention, use of fire extinguishers, and emergency procedures. • Restricting smoking to designated areas, separate from site offices / staff facilities; • Ensuring plant is fitted with automated fire protection equipment where feasible / appropriate; • Implementing a formal permit to work system to ensure appropriate precautions are taken / approvals obtained prior to undertaking hot work on site plant and equipment. • Providing fire-fighting equipment at site offices / staff facilities • Fitting smoke and fire alarms in site offices and staff facilities. <p>In the event of a fire outbreak, the procedures set out in the Emergency Preparedness and Response Plan will be implemented.</p>		

*add rows to the table as necessary

* indicates required field

Authorisation Application Form

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): *

A member of the Applicant's staff (with back-up support as required) will be nominated as an out-of-hours contact person who will be available at night and weekends and during holiday periods to implement contingency / emergency response procedures in the event of an accident or environmental incident at the facility.

The contact number will be notified to all site-based personnel, the Local Authority, the Environmental Protection Agency and any locally based emergency responders (including Garda, fire and ambulance service).

Soil Monitoring Points

Periodic monitoring of soil and groundwater is required having regard to the possibility of soil and groundwater contamination of the site³.

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

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

* indicates required field



Authorisation Application Form

Soil Parameters

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

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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): *

Monitoring Point Code	Monitoring Point Grid Ref. (ITM)	
	Easting ⁶	Northing ⁷
BH01	284812	201936
BH02	285094	201762
BH03	285095	201473
BH04	284750	201597

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*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



Authorisation Application Form

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
Level				Quarterly		
Visual Inspection				Quarterly	Standard ^a	
pH	pH units			Quarterly	Standard ^a	Electrometry
Conductivity	μScm^{-1}			Quarterly	Standard ^a	Electrometry
Ammonia (as N)	mg/l			Biannually	Standard ^a	Colorimetry
Nitrate	mg/l			Biannually	Standard ^a	Colorimetry
Nitrite	mg/l			Biannually	Standard ^a	Colorimetry
Orthophosphate (as P)	mg/l			Biannually	Standard ^a	Colorimetry
Total Dissolved Solids	mg/l			Biannually	Standard ^a	Gravimetric
Dissolved Metals (Cd, Cu, Fe, Pb, Mg, Mn, Ni, Zn)	mg/l			Annually	Standard ^a	ICP-MS
Total Petroleum Hydrocarbons	mg/l			Annually	Standard ^a	GC-MS
Diesel Range Organics	mg/l			Annually	Standard ^a	GC-MS
Petrol Range Organics	mg/l			Annually	Standard ^a	GC-MS
Total Coliforms	mg/l			Annually	Standard ^a	MPN
Faecal Coliforms	mg/l			Annually	Standard ^a	MPN

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^a Borehole purged / pumped (of at least 3 well volumes), sampled using decontaminated bailer and placed in sample bottles



Authorisation Application Form

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 ELRA⁸ as part of the licence, or licence review application.

Costed Environmental Liabilities Risk Assessment (ELRA) required to be submitted? (Yes/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:

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:

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:

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.

* indicates required field

Authorisation Application Form

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 activities⁹. 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:

Costed CRAMP

Indicate if the activity, through pre-application meeting with the Agency or other means, is required to have a CRAMP⁹ 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.



Authorisation Application Form

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).

Refer to details on cessation of recovery activities and facility closure are provided in Attachment-9-2-3-UskSRF-SiteClosure.

Emergency Response Procedure

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

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

^b WRF Emergency Preparedness and Response Plan to be prepared in compliance with EPA Guidance following licence award

* indicates required field

Authorisation Application Form

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	Not Applicable		
Fire Control	Not Applicable	<ul style="list-style-type: none"> • The soil and stones being placed / recovered at this recovery facility are free of flammable materials and biodegradable waste which could create a fire or explosion risk. Site recovery activities <i>per se</i> will not therefore present a fire risk. • Notwithstanding this, the following operational practices will be implemented in order to prevent fire at the facility: <ul style="list-style-type: none"> (i) smoking at the application site and at the site office or staff welfare facilities will be prohibited (ii) any biodegradable or flammable waste identified or suspected in waste materials imported to site shall be immediately transferred to the waste quarantine area pending removal off-site to a licensed waste disposal or recovery facility (iii) plant and equipment will be removed if they exhibit signs of overheating etc. • In the unlikely event that a fire does occur, the local fire station in Naas and/or Athy will be contacted and emergency response procedures will be implemented. Fire extinguishers (water and foam) are provided at the site office to deal with any small outbreaks which may occur. 	

* indicates required field

Authorisation Application Form

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
Dust		<ul style="list-style-type: none"> • water will be sprayed from a tractor drawn bowser on any dry exposed surfaces (roads and hardstand areas) • dust blows will be partially screened on some sides by the existing pit side walls as filling progresses upwards. • as the level of the filled materials approaches final surface levels, the site will be seeded with grass on a phased basis, as soon as practicable after placement of cover soils (subsoil and topsoil). This will help to minimise soil erosion and potential dust emissions; • the area of bare or exposed soils will, insofar as practicable, be kept to a minimum. If excessive dust emissions arise, consideration will be given to establishing temporary vegetation cover over exposed soil surfaces and stockpiles pending subsequent filling and restoration to final ground levels; • all HGV's exiting the site shall be routed through the existing wheelwash facility in order to minimise transport of mud and/or fines by HGVs onto the public road network; • stockpiling of imported soil materials will be minimized. Soils will ideally be placed and compacted in-situ immediately after being imported to site and end tipped. If and when temporary stockpiling of soil is required, it will be placed as far as practicable from nearby residences. 	
Litter		<ul style="list-style-type: none"> • In the unlikely event that any litter waste is identified among imported materials, it shall be removed to the waste quarantine area pending removal off-site to a licenced waste disposal or recovery facility. 	
Birds	Not Applicable		

* indicates required field

Authorisation Application Form

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
Mud		<ul style="list-style-type: none"> • In order to prevent transport of clay / mud onto the public road network, a wheelwash will be installed along the access road to the recovery facility (in compliance with Condition No. 21 of Planning Ref. No. 19/949). All HGV and tipper trucks exiting the facility are required to pass through the existing wheelwash. • Regularly clean and maintain the wheelwash facility; • Use a road sweeper to clean local public roads as and when required • Maximise travel over paved road sections within the facility; • Regularly inspect and maintain any unpaved road sections within the facility so as to minimise potential accumulation of mud on wheels of HGV lorries. 	
Flies	Not Applicable		
Vermin	Not Applicable		
Other			

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

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



Authorisation Application Form

9.3. Environmental Management System (EMS)

Do you have an environmental management system? (Yes/No) *

No

If 'Yes', is the environmental management system accredited? (Yes/No) *

N/A

State the date accreditation was achieved or is expected to be achieved, where applicable:

Applicant can present for accreditation
12 months post licence award

State the standard of accreditation achieved:

ISO 14001 Environmental Management Systems

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. *

Much of the plant and equipment to be used at the Usk waste recovery facility is powered by diesel fuel, the consumption of which is closely tied to intake / recovery rates. In the absence of any alternative energy sources, the potential to significantly reduce fuel consumption is limited.

Notwithstanding this, procedures will be put in place at the recovery facility to monitor fuel and electricity consumption and ensure that there is no unnecessary wastage arising from plant and equipment being powered up / on-stand-by / revved-up / left idling when they are not required to be.

The Applicant will consider undertaking an energy efficiency audit of its recovery facility at Usk, once it is well established and fully operational in order to identify possible opportunities to reduce energy consumption.

Has an energy audit been carried out? (Yes/No) *

No

Do you have an energy efficiency management system? (Yes/No) *

No

If 'Yes', is the energy efficiency management system accredited? (Yes/No)

Not Applicable

State the date accreditation was achieved or is expected to be achieved, where applicable:

Not Applicable

* indicates required field



Authorisation Application Form

State the standard of accreditation achieved:

Not Applicable

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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.

**08.00 hours to 17.30 hours Monday to Friday : No working Saturday, Sundays or Bank Holidays
(as per Condition 5 of Planning Permission Ref 19/949)**

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

Key infrastructure elements will be constructed / installed / commissioned over a 3 to 6 month period following licence award, during permitted working hours only.

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

08.00 hours to 17.30 hours Monday to Friday : No waste accepted Saturday, Sundays or Bank Holidays

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

Any / all other waste activities – within the permitted working hours identified above.

Authorisation Application Form

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

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*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? *

* indicates required field