

EPA Application Form

9.1 - Environmental Management Techniques - Attachment

Organisation Name: *

GCHL Ltd

Application I.D.: *

LA001644

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

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

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

Error! Unknown document property name.
Error! Unknown document property name. No. Error! Unknown document property name.

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.

Error! Unknown document property name.

Error! Unknown document property name. No. Error! Unknown document property name.

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 *
Bunding for storage of hydrocarbons	One 2,000 L diesel tank is envisaged for site operations and it will be double skin banded and stored on a hardstanding area.	monthly visual checks annual integrity testing	Visual checks, reported in EMS An annual bund integrity test will be carried out using water tightness methodology
Provision of spill kits	Appropriate hydrocarbon spill kits will be provided in maintenance and storage areas	biannually	spill kits will be checked biannually
Dust suppression	A water bowser/sprayer will be available at all times to minimise dust during dry and windy conditions	continuous	Visual assessment will determine requirement for dust suppression
Dust Monitoring	Four dust monitoring locations have been established	monthly	Bergerhoff method
Surface Water Monitoring	Surface water sampling and testing will be undertaken as per the requirements of any waste licence issued by the EPA. Sample locations will likely include any temporary surface water ponds or features which may either be created or form naturally at low points within the application site.	biannually	Surface water samples will be tested for a range of physical and chemical parameters in order to assess water quality and detect possible contamination
Groundwater Monitoring	Four pre-existing groundwater monitoring wells are located within the pit. These wells are in good condition and available to be monitored, however, as backfilling activities progress, it is envisaged that	biannually	Groundwater samples will be tested for a range of physical and chemical parameters in order to assess water quality and detect possible contamination

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

Error! Unknown document property name.

Error! Unknown document property name. No. Error! Unknown document property name.

Measure *	Surveillance Measures		
	Description *	Frequency of Surveillance *	Method / Standard *
	borehole (GW2) will be decommissioned as it is sited central to the area of the backfilling activities		
Compliance with EMS	not applicable	continuous	as defined by EMS
Compliance with Waste Licence	not applicable	continuous	as defined by Waste Licence

*add rows to the table as necessary

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

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): *

Due to the nature of proposed activities, the risk of emergency situations is considered low. An emergency contact number will be provided at the Site entrance for contact 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 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

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

Error! Unknown document property name.
Error! Unknown document property name. No. Error! Unknown document property name.



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

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

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
GMW1	269378	239035
GMW2	269277	239198
GMW3	269172	239315
GMW4	269556	239150

*add rows to the table as necessary

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

⁶ Six Digit GPS Irish National Grid Reference

⁷ Six Digit GPS Irish National Grid Reference

Error! Unknown document property name.

Error! Unknown document property name. No. Error! Unknown document property name.

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
Dissolved Calcium	mg/l	200	EPA Interim Guideline Values for Groundwater Protection	biannually	purge 3 times well volume and sample with bailer	Analysis of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for dissolved metals and acidified if required.
Total Dissolved Iron	µg/l	1,600	Maximum value detected in 2018 baseline monitoring			
Dissolved Magnesium	mg/l	50	EPA Interim Guideline Values for Groundwater Protection			
Dissolved Manganese	µg/l	750	Maximum value detected in 2018 baseline monitoring			
Dissolved Nickel	µg/l	15	EU S.I. No.9 (2010)			
Dissolved Potassium	mg/l	5	EPA Interim Guideline Values for Groundwater Protection			
Dissolved Sodium	mg/l	150	EPA Interim Guideline Values for Groundwater Protection			
Dissolved Zinc	µg/l	100	EPA Interim Guideline Values for Groundwater Protection			
Hardness (as CaCO ₃)	mg/l	450	Maximum value detected in 2018 baseline monitoring			
Sulphate as SO ₄	mg/l	200	EPA Interim Guideline Values for Groundwater Protection			Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser.
Chloride	mg/l	187.5	EU S.I. No.9 (2010)			
Nitrate as NO ₃	mg/l	37.5	EU S.I. No.9 (2010)			
Nitrite as NO ₂	mg/l	0.1	EPA Interim Guideline Values for Groundwater Protection			

Error! Unknown document property name.

Error! Unknown document property name. No. Error! Unknown document property name.

Parameter	Unit	Trigger Level	How was the trigger level determined?	Proposed Monitoring Frequency	Sample Method	Analysis Method / Technique
Total Oxidised Nitrogen as N	mg/l	NAC	EPA Interim Guideline Values for Groundwater Protection			
Ammoniacal Nitrogen as NH ₄	mg/l	0.10	Maximum value detected in 2018 baseline monitoring			
Alkalinity as CaCO ₃	mg/l	NAC	EPA Interim Guideline Values for Groundwater Protection			Metrohm automated titration analyser
Dissolved Oxygen	mg/l	-	not applicable			Hach HQ30D Oxygen Meter
Electrical Conductivity	µS/cm	1875	EU S.I. No.9 (2010)			measured on-site using handheld water quality meter
pH	pH Units	6.5 - 9.5	EPA Interim Guideline Values for Groundwater Protection			Modified USEPA 9060
Total Organic Carbon	mg/l	NAC	EPA Interim Guideline Values for Groundwater Protection			Modified BS 1377-3: 1990/USEPA 160.3
Total Dissolved Solids	mg/l	1000	EPA Interim Guideline Values for Groundwater Protection			Modified US EPA method 5021 GC
Extractable Petroleum Hydrocarbons	µg/l	<10	Maximum value detected in 2018 baseline monitoring			headspace analysis.
BTEX	µg/l	<10	Maximum value detected in 2018 baseline monitoring			

"NAC" = no abnormal change.

Error! Unknown document property name.
Error! Unknown document property name. No. Error! Unknown document property name.

Authorisation Application Form

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



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:

not applicable

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

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

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:

Not applicable

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:

9.1 Financial Provisions Proposal

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).

Consent of copyright holder required for any other use.

Emergency Response Procedure

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

No

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

not applicable

* 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	No	Soils and stones accepted at the Site will be free of putrescible waste	In the unlikely event that any biodegradable waste is identified among imported materials, it shall be immediately removed to the waste quarantine area pending removal off-site to a licenced waste disposal or recovery facility
Fire Control	No	The inert soil and stone material being recovered at the site should be free of flammable materials and biodegradable waste which could create a fire risk. The risk of fire at the Site is considered to be low.	Any 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; Plant and equipment will be regularly serviced to prevent over heating; No burning of waste shall be permitted at the Site; and Fire extinguishers shall be available at the Site office and with Site plant and machinery.
Dust and Mud	Yes	Use of wheel-wash to ensure mud and dust is not trafficked As the level of the backfilled 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, generation of mud, and potential dust emissions Areas of exposed soils will be kept to a minimum where practical	Dust blows will be partially screened by the pit side walls and screening berms as backfilling progresses upwards; The amount of dust or fines carried onto the public road network will be further reduced by periodic sweeping of internal paved site roads and the existing public roads, if required.
Litter	No	The materials being placed or recovered at this site will be free of litter.	In the unlikely event that any litter waste is identified among imported materials, it shall be immediately removed to the

* 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
			waste quarantine area pending removal off-site to a licenced waste disposal or recovery facility. All canteen waste will be contained in an appropriate enclosed bin prior to disposal to an appropriate waste facility.
Birds	No	Soils and stones accepted at the Site will be free of putrescible waste	In the unlikely event that any biodegradable waste is identified among imported materials, it shall be immediately removed to the waste quarantine area pending removal off-site to a licenced waste disposal or recovery facility
Flies	No	Soils and stones accepted at the Site will be free of putrescible waste	In the unlikely event that any biodegradable waste is identified among imported materials, it shall be immediately removed to the waste quarantine area pending removal off-site to a licenced waste disposal or recovery facility
Vermin	No	Soils and stones accepted at the Site will be free of putrescible waste	In the unlikely event that any biodegradable waste is identified among imported materials, it shall be immediately removed to the waste quarantine area pending removal off-site to a licenced waste disposal or recovery facility. All canteen waste will be contained in an appropriate enclosed bin prior to disposal to an appropriate waste facility.
Other	not applicable		

Consent of copyright owner required for any other use.
For information purposes only.

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.

* indicates required field



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) *

not applicable

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

not applicable

State the standard of accreditation achieved:

not applicable

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. *

No vehicles or plant will be left idling unnecessarily; and Vehicles and plant will be well maintained and serviced regularly.

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

State the standard of accreditation achieved:

not applicable

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

* indicates required field

Authorisation Application Form

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.

The Applicant proposes that the permitted hours of operation for the development are from 07:00 hours to 18:00 hours Monday to Friday and 07:00 hours to 14:00 hours on Saturdays, with the facility being closed on Sundays and Public/Bank Holidays.

(b) Proposed hours of construction and development works and timeframes.
not applicable

(c) For waste activities, the proposed hours of waste acceptance.
The hours of waste acceptance are the same as for operation

(d) Any other relevant hours of operation expected (e.g., waste handling, etc.).
not applicable

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

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

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

*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