

# Licence Transfer Application Form

## Step 1: Guidance

### Current Licensee

Contact Name	Brian Downes
Contact Position	Group Property Manager
Date	27/07/2015

### Proposed Transferee

Contact Name	Mervyn Ross
Contact Position	Director
Date	30/07/2015

## Step 2: Current Licensee

Licence Reg No	W0254-01
Licensee	Cemex (ROI) Limited
Licence County	Kildare
Site Location	Walshestown, Blackhall, Tipperkevin and Bawnoge, Naas,, Co. Kildare, Kildare

### ELRA / CRAMP Review

Provide additional information on ELRA / CRAMP	<p>ELRA and CRAMP were submitted to the EPA in June 2013 and the Licence was granted by the EPA in October 2013. Activities at the subject lands have not commenced and the Licence has therefore not been enacted.</p> <p>The full EPRA &amp; CRAMP file is too large to upload (6mb&gt;). However, the main body of the report has been uploaded below (excluding figures).</p>
Request ELRA / CRAMP Status?	ELRA/CRAMP Approved

### Contact Information

Proposed Transferee Organisation	WALSHESTOWN RESTORATION LIMITED
Proposed Transferee Contact Email	mervyn@loadwise.ie
Reason for licence transfer request	The current Licensee, CEMEX (ROI) Limited have entered into a binding contract to sell the subject lands to the proposed Transferee, subject to obtaining consent from the EPA to transfer the current waste licence to them.
Desired date for proposed transfer to take effect	01/09/2015
Confirm Enforcement Charges Paid	Yes
Specify Outstanding Enforcement Charges	€0.00

### Additional Information

Additional Information	Revised CRAMP/ELRA/FP dated July 2015 has been uploaded under documents folder.
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### Step 3: Proposed Transferee

Name	WALSHESTOWN RESTORATION LIMITED
Address	BLOCK A, CASHEL BUSINESS CENTRE, CASHEL ROAD, Dublin County
Transfer Contact	Mervyn Ross

### Additional Transfer Contacts

Name	Position	Home Phone	Mobile Phone	Email
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### General Background

Business Activity	Walshestown Restoration Limited was established on the 3rd of July 2015 by Patrick Meade and Mervyn Ross to purchase and operate Cemex's Inert Waste Facility at Walshestown, Naas, Co. Kildare. Following discussions with both Cemex and the committee of Punchestown Race Course, agreement was reached whereby Walshestown Restoration Limited would purchase and, subject to Environmental Protection Agency approval, operate the Inert Waste Facility. Walshestown Restoration Limited's business activity is to import inert waste material for recovery and to restore the lands at Walshestown in accordance with the Waste Licence and Planning Permission conditions. Walshestown Restoration Limited is in the process of agreeing the necessary Financial Provision for the transfer of the Licence with the Office of Environmental Enforcement of the Environmental Protection Agency.
Date Established	03/07/2015
Total Assets Value	€
Turnover	€
Profit	€
State whether your organisation is a Holding Company	No

### Fit and Proper Person Checks

Environmental Protection Agency Act 1992 as amended?	No
Waste Management Act 1996 as amended?	No
Local Government Acts 1977 and 1990 or Air Pollution Act 1987?	No

## Management and Supervisory Details

Name	Details of Relevant Education, Training and Experience	Responsibilities
Mervyn Ross	<p>Mervyn Ross, Director, has been involved in mining, quarrying, green energy and waste industries since 1991. He previously was an Environmental Consultant with John Barnett Limited, before becoming Head of the Mine Engineering Department in Irish Salt Mines in Co. Antrim. In 2003 he joined NTR, who subsequently developed Greenstar, and was made Landfill Manager of KTK Landfill, an Environmental Protection Agency Licenced Non-Hazardous Facility based in Kilcullen, Co. Kildare. In 2004 he joined KTK Sand &amp; Gravel Limited as Landfill Manager of their Environmental Protection Agency Licenced Inert Waste Facility based in Ballymore Eustace, Co. Kildare. In 2009 he was a founding member and a Director of Turbowind Energy Limited, a company established to supply medium wind turbines to the expanding UK wind turbine market. In 2015 Mervyn joined Loadwise Logistics as Project Manager in order to establish Walshestown Restoration Limited, with a view to managing and operating the Inert Waste Facility at Walshestown, Naas, Co. Kildare. Mervyn has extensive experience in landfill design, layout, planning and control of day to day operations, resource allocation, environmental monitoring, providing and presenting reports, budget planning and control, liaison with regulatory authorities, liaison with other interested parties and ensuring compliance with Planning and Waste Licence conditions.</p>	Facility Manager

## Licence Application History

Has the Proposed Transferee, their parent company or any relevant person had an application for a licence...

Granted?	No
Rejected?	No
Revoked?	No
Transfer Refused?	No

## Additional Information

Financial Provision in place?	Yes
Additional Information	<p>Patrick Meade, Managing Director, has been involved in the cold storage and logistics industries for over 25 years, he is the owner and Managing Director of Loadwise Logistics which has a net asset value in excess of €1m. Loadwise Logistics carries out cold storage and food distribution, operating a fleet of 18 trucks carrying out daily deliveries nationwide. Patrick has extensive experience in managing and directing commercial operations involving regulatory bodies such as Department of Agriculture and the Road Safety Authority. He has also owned and operated a sand &amp; gravel quarry in the Kildare area and is experienced in the operation, environmental and planning regulations associated with facilities of this nature.</p>

#### Step 4: Fees, Declaration and Submit

Payment Amount	€5,000
Payment Method	Cheque
Payment Date	07/07/2015
Application Submission Date	18/08/2015



June 2013

## CEMEX (ROI) LTD - WALSHSTOWN PIT - W0254-01

# CRAMP & ELRA & FINANCIAL PROVISION

**Submitted to:**

Administration,  
Licensing Unit,  
Office of Climate Change,  
Licensing & Resource Use  
Environmental Protection Agency  
Headquarters  
PO Box 3000  
Johnstown Castle Estate  
Co. Wexford

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REPORT



**Report Number.** 13507150048.R02.B0

**Distribution:**

EPA - 3 hard copies and 16 CDs  
Cemex (ROI) Ltd - 1 Copy  
Golder Associates Ireland Ltd - 1 Copy





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### 1.0 INTRODUCTION

Cemex (ROI) Ltd (the Applicant) is in the process applying for a Waste Licence (W0254-01) for an inert waste management facility at their Site located at Walshestown, Blackhall, Tipperkevin and Bawnoge, Naas, Co Kildare – refer to Figure 1.2 for location details. The purpose of the Facility is to restore a worked out sand & gravel pit.

The Environmental Protection Agency (EPA) issued an Article 16(1) Request for Further Information to the Applicant Cemex (ROI) Ltd on 19 April 2013 (EPA Ref. No. W0254-01). This Further Information is requested to provide assurances that Cemex (ROI) Ltd. has the ability to meet the financial commitments of addressing potential environmental liabilities that may be incurred in undertaking the proposed activity at the Walshestown facility.

The Request for Further Information includes the following requests:

- Preparation of a fully detailed and costed Closure Restoration and Aftercare Management Plan (CRAMP) for the facility (Request 1a);
- Preparation of a detailed and costed Environmental Liability Risk Assessment (ELRA) (Request 1b);
- Provide a proposal for financial provision to cover any liabilities associated with the operation and identified in the ELRA (Request 1c);
- Information on the mechanism for setting landfill gate fees such that the requirements of section 53A of the Waste Management Acts 1996 to 2012 are met (Request 2);
- Provision of a description of any works carried on at the facility where the details of these works have not previously been submitted in the application or further information to the Agency (Request 3); and
- Provision of any additional environmental monitoring information that has not been previously forwarded to the Agency as part of the application. An assessment of the results should also be provided. (Request 4).

This report presents the Applicant's proposed Closure, Restoration and Aftercare Management Plan (CRAMP) - Request 1a - and a detailed and costed Environmental Liabilities Risk Assessment (ELRA) – Request 1b - for the proposed facility. Further the Financial Provisions (FP) – Request 1c - have been identified for the proposed facility. This submission has been developed in accordance with Guidance on Environmental Liabilities Risk Assessment, Residual Management Plans and Financial Provision (EPA, 2006).

Cemex (ROI) Ltd has retained Golder Associates Ireland (Golder) to provide advice and consultancy services in relation to the closure plan and to prepare this report.

### 1.1 Operational Risk Assessment

An operational risk assessment has been completed for the Facility, in accordance with Section 2 of Guidance on Environmental Liabilities Risk Assessment, Residual Management Plans and Financial Provision (EPA, 2006). An Overall Risk Score of <7 indicates that the Facility is considered low risk and that it falls within Risk Category 1, as outlined in Table 2.3 of the EPA's Guidance. A summary of these calculations are provided in Tables 1 and 2 below.



**Table 1: Operational Risk Assessment.**

Item	Score
Complexity	2
Environmental Sensitivity	2
Compliance Record	1
<b>Overall Risk Score</b>	<b>4 (2 x 2 x 1)</b>

A more detailed calculation is provided in following Table 2.

**Table 2: Detailed Risk Category Calculation.**

<b>COMPLEXITY</b>			
Activity	Classification	Band (G1 – G5)	Score
Class D5	Specially Engineered Inert LF	G2	2
<b>ENVIRONMENTAL SENSITIVITY</b>			
Environmental Attribute	Classification	Sub-Matrix Score	Score
Human Occupation	50m – 250m	3	
Groundwater Protection	Gravel – Locally Important (1) Bedrock – Poor Aquifer (0)	1	
Groundwater Vulnerability	High (GSI) – 2, Moderate (Golder) - 1	2	
Sensitivity of Receiving Waters	Morell River – Q4, Fair Quality (EPA)	3	
Non-Eutrophic Status	n/a	0	
Air Quality and Topography	Simple Terrain	0	
Protected Ecological Sites	>1km from nearest protected Site	0	
Sensitivity Agricultural Receptors	>150m from the activity footprint	0	
<b>TOTAL</b>		<b>9</b>	
Environmental Sensitivity Class (Moderate – Score between 7–12)			2
<b>COMPLIANCE RECORD</b>			
Compliance Record / New Facility	Classification		Score
Compliance Record / New Facility	No Non-Compliances		1
<b>Product of Individual Scores (2 x 2 x 1 = 4)</b>			<b>4</b>
<b>Corresponding Site-specific Risk Category = 1 (Low)</b>			

## 2.0 CLOSURE, RESTORATION AND AFTERCARE MANAGEMENT PLAN (CRAMP)

Table 3.1 of the EPA Guidance, requires facilities falling within this category (low risk – as classified in above section 1.1) to complete one element of the Closure, Restoration and Aftercare Plan, that being a Closure Plan.

The aim of a Closure Plan is to provide criteria against which the successful closure of the facility can be measured. The closure plan should address the known environmental liabilities associated with the facility,



such as the decommissioning and removal of plant. Moreover, monitoring undertaken should demonstrate that there are no outstanding environmental issues at the facility.

As mentioned above, low risk facilities are only required to complete a Closure Plan of the CRAMP. To this end, the Applicant has developed the following Closure Plan. Table 3 below provides a summary of the Closure Plan.

Table 3: Closure Plan Summary.

Stage	Activity	Assessment
Closure	Wastes will be stopped from entering the Facility when it has been restored to its final contours, as agreed with the Agency.	The type of closure can be categorised as either a Clean Closure or a Non-Clean Closure. Upon cessation of operations and subsequent decommissioning, there will be no remaining liabilities, thus this is considered a "clean closure". On-going monitoring at the Site will be required as part of the closure process, for a limited period of 5 years post closure.
Decommissioning	The decommissioning of the Inert Waste Facility will take the form of the removal of the non-permanent infrastructure at the Site. All plant equipment and vehicle use will cease and the final capping will be checked.	The activity at the Site will cease except for the on-going medium-term monitoring (5 years).
Restoration	The restoration stage will be undertaken in conjunction with the closure and decommissioning stages. After placement of the capping layer, the subsoil and growth medium will be placed across the capped surface. The final restored levels are shown in Figure WLA17.  The restored surface will be developed into a variety of habitats to promote biodiversity, and will include a surface drainage system comprising perimeter infiltration drains. The area will be fenced by enhancing existing dense hedgerows and installing 1.2 metre high post-and-wire fencing where required.	The restoration process will be full and complete, leaving a landscaped finish and ultimately improving the condition of the area both visually and in terms of the reduced health and safety risks.
Aftercare Management Plan	An aftercare management plan comes in the form of engineering works maintenance, landscape management and potential emission control. The Facility will not be surrendered or transferred until the 5 year monitoring period has elapsed.	Monitoring for 5 years, annual grazing each September.

## 2.1 Scope of the Closure Plan

This Closure Plan covers the cessation of operations at the proposed Cemex (ROI) Ltd inert waste disposal facility located at Walshestown, Blackhall, Tipperkevin and Bawnoge, Naas, Co Kildare.

As mentioned previously, the purpose of the Facility will be to restore a worked out sand pit.

The Closure Plan will be considered completed once the facility has been successfully capped and a closure validation report has been produced.

Activities that will be undertaken as part of the Closure Plan, will include the following; capping of the waste body, decommissioning of the plant and equipment used in the facilities operation, the completion of site landscaping plan and the inspection of the completed capping system.



## 2.2 Programme of the Closure Plan

The Applicant proposes the following programme for the completion of a Closure Plan for the Walshestown facility – refer to Table 4 below.

**Table 4: Programme for Closure Plan.**

Stage	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Continue filling void to the required restoration plan	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Place capping layer												■	■	■	■	■	■	■	■	■
Undertake landscaping plan													■	■	■	■	■	■	■	■
Decommission and removal of plant and infrastructure																■	■	■	■	■
Commence monitoring of final cap																				
Aftercare environmental monitoring																				
Surrender licence																				
Decommission environmental monitoring infrastructure																				

The programme for the Closure Plan assumes that the Site is restored within 15 years of commencement of waste activities. The stages following the restoration have been assumed to last a further 5 years up to the licence surrender and decommissioning of environmental monitoring infrastructure.

## 2.3 Criteria for Successful Closure of the Facility

The Applicant proposes that successful closure of the Facility will be achieved when the following criteria are met:

- The site has been restored to its final contours (Figure WLA17) as agreed with the Agency;
- The landfill has been capped in accordance with Waste Licence Register W0254-01, or as subsequently agreed with the Agency;
- All plant and equipment not required for the future use of the facility has been decommissioned and removed from site;
- All wastes generated from the operation of the Facility, have been removed from site and disposed of to a suitably authorised facility;
- Records of waste received and removed from the site are held on file by the Applicant;
- The landscaping plan presented in Licence Application W0254-01 is completed and the Site has been left suitable for its intended after use;
- Environmental monitoring indicates that there are no outstanding environmental issues associated with the site;
- Monitoring of the final capping indicates that there are no outstanding issues associated with its stability or integrity; and
- A Closure Validation Report has been submitted to the Agency.



## 2.4 Site Evaluation

### 2.4.1 Description and History of Operations at the Facility

The Application Site is owned by Cemex (ROI) Ltd and located within the townlands of Walshestown, Tipperkevin, Bawnogue and Blackhall, ca. 5 km south east of Naas and ca. 6 km north west of the town Blessington, Co. Wicklow – refer to Figure 1.2 for location.

The general topography of the application area and surroundings is one of undulating rolling landscape, and is located within the Eastern Kildare Uplands (Transition) character area as defined in the Kildare County Development Plan.

The subject Site is approximately 68 hectares in size and has been worked as a gravel pit since the early 1970s. Restoration activities have been on-going at the Site under previous planning permissions and under Waste Permit register numbers 71/2002 and 236/2006.

It is noted that should the Agency grant a Waste Licence for this Facility, the waste materials historically deposited under Waste Permit register numbers 71/2002 and 236/2006, will be removed in preparation of the inert waste cells at the Facility. The volumes of historically deposited inert materials at the Site have been estimated at approximately 76,560 tonnes or 34,800 m<sup>3</sup> as described in Article 16(1) response (Golder, 2012).

### 2.4.2 Compliance History of the Facility

The Applicant has had a good compliance history with its waste permits 71/2002 and 236/2006. There have been no incidents of emission non-compliances at the Site served on the Applicant. One notice (Section 55) is understood to have been served on the former owner Readymix, which was subsequently resolved with Kildare Co. Council in ca. 2007.

### 2.4.3 Proposed Process and Activities to be Undertaken

It is proposed to accept, process, recover and use inert materials, including inert wastes to restore the Site that includes extensive areas of worked out sand and gravel extraction, partially restored lands, silt ponds, processing plant, concrete batching plant and surface water ponds.

The historically recovered concrete (under waste permits 71/2002 and 236/2006) will be recycled at the Inert Waste Processing Area (Figure WLA05) and reused as secondary aggregate for development at the Facility, subject to Agency's approval.

Source segregated inert materials (ca. 85% of the proposed waste volume) and on-site processed and segregated inert wastes will be used at the Site to achieve the final restoration surface. It is assumed that circa 15% of inert waste materials arriving at the Site have not been source segregated and require processing on-site, prior to emplacement.

The types of imported materials to be used to restore the Walshestown pit will be confined to inert dry wastes arising mainly from civil engineering and building construction and demolition projects. The types acceptable for restoration purposes will include inert material such as soil and stone, glass, concrete, brick, tiles and ceramics. Putrescible household and commercial wastes will not be accepted at the Facility.

Best practice engineering requirements of the EPA will be satisfied by:

- Placing inert materials into individual cells with engineered base liner and capping system;
- Internal surface water management, such as internal drainage systems to handle runoff, and settlement ponds; and
- Perimeter bunds or berms to control runoff, as required, and provide visual screening.



### 2.4.4 Site Building, Infrastructure and Plant

The existing and proposed site buildings, infrastructure and plant at the Facility are displayed on Figure WLA05 and are outlined below.

#### 2.4.4.1 Site Buildings

Site existing and proposed Site buildings comprise:

- Office/Store (existing);
- Canteen/toilets (existing);
- Shed (existing);
- Equipment compound (proposed); and
- Site laboratory (proposed).

#### 2.4.4.2 Site Infrastructure

Site existing and proposed Site infrastructure will comprise:

- Weighbridge x 2 (existing/proposed);
- Fresh water well (existing);
- Waste processing area (proposed);
- Fresh water well (existing);
- Foul water treatment (proposed);
- Wheelwash (proposed);
- Fuel storage areas (proposed);
- Full retention oil water separator with associated percolation area (proposed);
- Waste inspection area (proposed);
- Waste quarantine area (proposed);
- Macadam paved roads (existing/proposed); and
- Site access roads (existing/proposed).

#### 2.4.4.3 Plant

The proposed machinery used on site will include;

- Crusher;
- Screener;
- Loading shovels;
- Excavators;
- Dump trucks;
- Tractor; and





- Bowser.

## 2.5 Closure Considerations

### 2.5.1 Type of Closure

Due to the inert nature of the material received at the Facility, and the absence of any record of environmental pollution, the Applicant considers that **clean closure** will be achieved when the criteria set out in Section 2.1 are achieved.

Clean closure, as outlined in Section 3.3.3 of the EPA Guidance requires that 'upon cessation of operations and subsequent decommissioning at the Facility, there are no remaining environmental liabilities.'

The tasks required to achieve clean closure of the Facility and to meet the criteria set out Section 2.1 of this report, are outlined below:

#### A. *Permanent Capping Works*

The Facility will be capped in accordance with Attachment D.6 of Waste Licence Application (Golder, December 2008), which describes the cap to comply with BAT for inert waste landfill facilities comprising a minimum of 150 mm of topsoil and no less than 850 mm of subsoil, so that thickness of the topsoil and subsoil is at least 1 metre.

Surface water drainage works will be undertaken so that any runoff from the capped surface will be collected via perimeter infiltration swales and associated surface water feature.

Details of the final restoration surface and associated surface drainage patterns are depicted on Figure 8.4.

#### B. *Plant and Infrastructure Requiring Disposal, Decommissioning or Recovery*

The proposed facility will be a temporary development in operation for the lifetime of the restoration programme, which is estimated to be a 13 year period plus a 2 year final restoration period.

Successful decommissioning will only be complete when all buildings, equipment, material wastes or any other materials, which could result in environmental pollution, are removed from the Facility in accordance with the conditions of the planning permission, waste licence and other pertinent regulations.

All plant will be decommissioned in accordance with the steps outlined below.

#### C. *Plant and Infrastructure Decontamination Requirements*

The following decontamination steps will be undertaken prior to the removal, decommissioning or disposal of plant from the facility;

- An assessment of the level of residual contamination contained on or in any piece of plant or infrastructure will be undertaken prior to its removal or disposal;
- All contaminants will be removed, drained or flushed from all plant prior to its removal or disposal. Any residuals containing fuels, oils or other contaminants will be disposed of by a licensed contractor in accordance with statutory requirements;
- All plant and surfaces will be hosed down and/or flushed out with high pressure water. The wash water will be retained as necessary; and
- Any area of ground with visual evidence of contamination will be excavated directly for testing and treatment where required.

#### D. *Restoration Plan*

The proposed final restoration Site layout is depicted on attached Figure WLA17.

- Monitoring of the Capped Surface



It is anticipated that the Applicant will undertake regular inspections of the capped surfaces for period of 12 months after capping works have been complete. These inspections will consider the following;

- The health of site vegetation and any requirements for further landscaping due to vegetation die back,
- The stability of the capped surface in particular consideration will be given to surface depressions, cracks or loss of material due to erosion; and
- The effectiveness of drains and silt traps to remove surface water from the facility. Where inadequacies are noted in the drainage system repairs/ alterations will be made accordingly.

## 2.6 Closure Plan Costing

The following Table 5 depicts estimated Closure costs for a Clean Closure scenario, i.e. upon cessation of operations and subsequent decommissioning at the Facility, there are no remaining environmental liabilities.

**Table 5: Estimated Costs for Facility Closure - known Liabilities.**

Closure Item	Estimated Costs
Plant Removal	€50,000
Decontamination	€40,000
Waste Disposal / Recovery	€40,000
Decommissioning Supervision	€10,000
Demolition	€15,000
Test Programme	€15,000
Verification Audit / Certification	€5,000
Reporting to the EPA	€7,500
Other Relevant Items	€30,000
<b>TOTAL in Euro</b>	<b>€212,500</b>

The following Table 6 depicts estimated Aftercare Management costs for a Clean Closure scenario.

**Table 6: Estimated Costs for Aftercare Management - known Liabilities.**

Closure Item	Estimated Costs
Environmental Monitoring (for 5 years – assumed €10,000 per annum)	€50,000
Reporting to the EPA	€10,000
<b>TOTAL in Euro</b>	<b>€60,000</b>

The above estimated costs are valid at the time of this report. These costs need to be updated annually or as agreed with the Agency.

## 2.7 Update and Review of the Closure Plan

This Closure Plan will be reviewed annually after the waste activities have commenced at the Site. Any changes in the Closure Plan will be reported to the Agency in the Annual Environmental Report.

## 2.8 Notice Period

The Applicant will notify the Agency, upon the decommissioning and removal of the site buildings, plant and infrastructure, that the Facility has been closed. The Applicant will then undertake twelve months of monitoring of the capped surface. Once this period is complete, and the stability of the cap is confirmed, the Applicant will submit to the Agency, a validation report as outlined in Section 2.9 below.



## 2.9 Validation of the Closure Plan

A final validation report, including a certificate of completion, will be produced upon the successful completion of the Closure Plan. The validation report will consider the criteria set out in Section 2.1 of this report.

It is anticipated that the Applicant will seek to surrender the Waste Licence upon the submitting the Validation Report and completion of the 5 year aftercare monitoring at the facility.

## 3.0 ENVIRONMENTAL LIABILITY RISK ASSESSMENT (ELRA)

Risk may be defined as the combination of the probability or frequency of occurrence of a defined hazard and the magnitude of the consequences of the occurrence on a receptor. A key consideration in this regard is the pathway between the identified hazards and receptors. If there is no connection or pathway between the hazard and receptor, then intuitively there can be no risk.

The framework for Risk Assessments may include the following elements:

- Source and Hazard Identification;
- Pathway Description;
- Receptor Identification;
- Estimating Exposure Frequency;
- Toxicity Assessment; and
- Health Risk Assessment.

Given that the Cemex (ROI) Ltd facility at Walshestown, Naas, Co Kildare is a proposed inert facility, it is not necessary to consider all of these elements to identify the environmental liabilities associated with it. Also, the Risk Assessment may take the form of a qualitative and/or semi quantitative assessment.

In regard to the Cemex Walshestown facility, the framework of the assessment is as follows:

- Source Identification;
- Hazard Identification;
- Pathway Description;
- Receptor Identification;
- Potential Environmental Liabilities Assessment; and
- Mitigation Measures and Risk Management.

The risks associated with the Cemex Walshestown facility may represent environmental risks, which may result in a financial liability. These are inferred to be environmental liabilities against which costs may be assigned.

Other risks associated with the Cemex Walshestown facility may be related to injury or death of humans or damage to plant, equipment or other property. These other risks also may result in financial liabilities against which costs may be assigned.



### 3.1 Category 1 Facility – Approach

As described in Section 1.1 of this report, the Cemex Walshestown facility scored an overall Risk Score of <7 indicating that the Facility is considered low risk and that it falls within Risk Category 1, as outlined in Table 2.3 of the EPA's Guidance.

According to the EPA's Guidance for Category 1 facilities, there is no requirement for detailed environmental liabilities assessment. The main requirement is to ensure that there is financial provision through the company's ability to financially operate.

### 3.2 Hazards/Pathways/Receptors/Liabilities

The recognised hazards/pathways/receptors and liabilities that have been evaluated are presented below.

#### 3.2.1 Formation of Leachate

Leachate forms when water is in contact with waste. The strength and hazard associated with leachate is dependent on contact time, the nature of the waste and numerous other physical parameters.

##### 3.2.1.1 Hazard

The volume or mass of leachate and the constituents of the leachate would quantify the hazard. In this case the constituents of the leachate are not expected to be of concern due to the nature of the wastes that may be accepted at the facility (inert only).

##### 3.2.1.2 Receptors

The primary receptors of leachate in the environment are groundwater and surface water. The secondary receptors of leachate in the environment are humans or livestock. The latter two are the only receptors if a pathway is established between leachate contaminated water and humans or livestock via ingestion of leachate contaminated water.

##### 3.2.1.3 Pathways

The primary pathway of leachate from the waste to the receptors is overland or through the ground into the groundwater or surface water bodies or the adjoining watermain. The pathway between leachate and offsite groundwater and surface water is through the man-made soil fills and natural geological deposits that underlie the floor and comprise the side slopes of the pit. The pathway is long and comprises materials that will attenuate the constituents of the leachate. The pathway also comprises the natural groundwater and surface water flow, which will also attenuate the constituents of the leachate, via dilution.

##### 3.2.1.4 Potential Environmental Risk and Liability

The potential environmental risk and liability is leachate seeping into the groundwater or surface water.

##### 3.2.1.5 Potential Financial Liabilities

Should impairment of groundwater and surface water result in the worst case the financial liabilities may include groundwater cut-off walls, pumping systems, replacement wells or provision of alternative drinking water supplies and third party claims due to property damage or injury.

##### 3.2.1.6 Mitigation Measures and Risk Management

- Surface water drainage works will be undertaken so that any runoff from the capped surface will be collected via perimeter infiltration swales and associated surface water feature. Runoff from the inert waste processing area, fuel pad, wheelwash and quarantine areas will be collected and treated by an oil water separator prior to discharge to ground;
- The base and sides of the proposed waste handling and inert waste recovery/disposal areas will comprise engineered/constructed mineral soil layers, which will be in place for the protection of the groundwater;



- Monitoring of incoming inert wastes/fill materials will be carried out at a designated area for inspecting/holding, recovery and quarantine of wastes as described in the Waste Acceptance and Characterisation Procedures submitted to the Agency along with the Waste Licence Application report. Any unsuitable wastes for recovery or disposal at the facility will be quarantined in the designated area; and
- Monitoring of surface water; groundwater and incoming wastes will be carried out to provide an early warning of a potential risk to the nearby surface water and groundwater.

### 3.2.2 Leakage of Fuels during operations

Diesel fuel used for the plant on-site will be stored in tanks located near the entrance to the facility. The tanks will be bunded by concrete walls and floor to hold a volume of 110% of the combined capacity of the tanks in accordance with available BAT Guidelines.

#### 3.2.2.1 Hazards

Hazards include leaks in the bunded fuel tanks and fuel being spilled during refuelling activities.

#### 3.2.2.2 Receptors

Potential primary receptors include soil and groundwater beneath the site. Secondary receptors include humans and the local surface water drains.

#### 3.2.2.3 Pathways

The pathway would be from the concrete fuel bund or refuelling vehicle or equipment being refuelled to the surrounding environment.

The vertical pathway would include vertical migration of product into subsurface environment; potentially impacting soil and groundwater beneath the site.

#### 3.2.2.4 Potential Environmental Risk and Liability

The potential environmental risk and liability is fuel leaching into the soil, groundwater and surface water.

#### 3.2.2.5 Potential Financial Liability

The potential financial liability, without the mitigation measure in place, is related to clean up of minor spills that have a low risk or major spills, which are considered to be unlikely.

#### 3.2.2.6 Mitigation Measures and Risk Management

To mitigate the potential risk, the Applicant will be installing the following mitigation measures:

- The bunded and lined fuel loading area will be placed adjacent to the storage tanks to collect any spillages that might occur during refuelling. The area will be connected to a silt trap and full retention oil interceptor. This will mitigate the potential effects of a fuel spill on the hardstands;
- An engineered soil fill liner at the base of the waste recovery/handling areas. This material will provide the same level of protection, as a layer of mineral soil 1 metre thick with a hydraulic conductivity of  $1 \times 10^{-7}$  m/sec; and
- Absorbent booms and absorbent materials are kept close to fuel storage and re-fuelling areas in the event of a spill. Any contaminated absorbent material will be collected and stored in a designated container within the quarantine area pending disposal by a suitably certified waste disposal contractor.

### 3.2.3 Waste Lorries and Plant Involved in Accidents

The accidents that may be conceived are:

- i) Collisions between lorries or plant and pedestrians/workers onsite or offsite, and



ii) Vehicles overturning on roads.

In these circumstances there may be a risk to human health and of damage to third party property. Litter nuisances may also arise if wastes are dumped on or beside a public road.

### **3.2.3.1 Hazards**

The hazards are moving lorries, plant or cars.

### **3.2.3.2 Pathways**

The pathways are the physical interactions of vehicles and humans.

### **3.2.3.3 Receptors**

The receptors are humans and third party property.

### **3.2.3.4 Potential Environmental Risk and Liability**

The potential environmental risk and liability would be waste spilled on the road from an overturned lorry.

### **3.2.3.5 Potential Financial Liabilities**

Financial liabilities may include third party claims due to death, injury or property damage if the vehicles are owned and operated by the licensee. This liability will be covered by the licensee's third party insurance. Another financial liability is the clean-up of waste if it is spilled on a road. This would not be a significant financial liability and may not necessarily be the responsibility of the licensee if the waste is from a third party's vehicle.

### **3.2.3.6 Mitigation Measures and Risk Management**

The environmental risks and thus the associated financial liabilities may be mitigated at the licensed facility by providing adequate lighting, adequate road designs and markings and posting a low speed limit on the site such as 20 mph.

## **3.2.4 Fugitive Emissions**

### **3.2.4.1 Hazards**

There are two potential fugitive emissions associated with the facility – dust and noise that represent a potential hazard.

Dust arises as wastes are tipped, particularly during periods of dry weather prior to reloading. Dust will also arise from lorry traffic in the inert waste processing area.

Noise emissions arise from equipment used during unloading and reloading at the site, lorry traffic and the waste processing area.

### **3.2.4.2 Pathway**

The pathway for these emissions is air.

### **3.2.4.3 Receptors**

Receptors of emissions are site operatives and local residents.

### **3.2.4.4 Environmental Risks and Liabilities**

Excessive levels of dust and noise at the facility may affect the health and welfare of the operatives on the site. Excessive levels off-site may be a nuisance to the local residents. The financial liability would be a third party claim and the cost of a court defence. The licence requires that measures be taken to ensure that the levels of all emissions are maintained below a maximum limit value.



The licensee will be installing the necessary equipment and undertaking good management practices to ensure that the environmental risks are managed and the financial liabilities are minimised. An estimate of the cost of third party actions cannot be predicted.

### **3.2.4.5 Potential Financial Liability**

The potential financial liabilities may include third party claims due to nuisances caused by noise and dust.

### **3.2.4.6 Mitigation Measures and Risk Management**

Regarding noise emissions, the licensee will ascertain that all facility operations will be carried out during the licensed facility opening hours. Regarding dust emissions, the site will be wetted as required during periods of dry weather to minimise dust levels.

Further, all equipment will be maintained to meet max/min noise emission specifications and appropriate personal protection equipment i.e. ear defenders will be provided to all staff that may be affected.

## **3.3 Review of Risk Assessment**

At this point it appears that a measurable hazard at the site is a fuel spill occurring at the fuel storage area from fuelling or fuel storage activities. Mitigation measures to minimise a possible impact to the environment have been planned. At this point the risk is considered to be low.

Leachate appears to be a potentially minor hazard. The effects of any leachate that forms can be monitored in boreholes or in surface water bodies. There will be no direct pathway for leachate to migrate to groundwater, surface water or the water main. The risk is considered to be minimal to insignificant as the wastes managed at the facility will be inert in accordance with the licence.

## **3.4 Risk Classification and Identification**

The principal source of risk at the site is the inert waste that is being handled and disposed on the site. It is envisaged that ca. 85% of the proposed inert waste volume will be source segregated prior to on-site recovery to achieve the final restoration surface. Further it is assumed that circa 15% of inert waste materials arriving at the Site have not been source segregated and require processing on-site, prior to emplacement.

The inert wastes handled on the site will be inert construction and demolition (C&D) wastes.

Ancillary activities on the site – lorry movements and fuel storage/dispensing – may also give rise to environmental risks and liabilities. The lorry movements may give rise to dust and/or noise nuisances. A fuel leak could result in an unacceptable discharge to surface water or groundwater.

The following Table 7 depicts a summary of potential environmental liabilities at the facility.



**Table 7: Summary of Potential Environmental Liabilities at the Facility.**

Potential Risk	Leachate	Fuel Leakage	Waste Lorries / Plant	Fugitive Emissions
<b>Hazard</b>	Forms when water in contact with waste	Leakage during fuelling	Moving lorries, plant or cars.	Dust and noise emissions.
<b>Pathway</b>	Migration via soils and waters	Migration via soils and waters	Interactions between humans and vehicles.	Air
<b>Receptor</b>	Ground and surface waters, humans and livestock	Soils and groundwater, further surface water and humans.	Humans and third party property.	Site operatives and local residents.
<b>Environmental Risk and Liabilities</b>	Leachate seeping into groundwater and/or surface water.	Fuel leaching into soils, ground and surface waters.	Waste spilled on the road from the lorry.	Affecting the health and welfare of humans.
<b>Potential Financial Liability</b>	Remediation costs for groundwater and/or surface water clean-up.	Fuel spill clean-up.	Third party claim due death, injury or property damage. Clean-up of waste.	Third party claims due to nuisances caused by dust and noise.
<b>Mitigation Measures</b>	Inert wastes only. Proposed infrastructure (engineered landfill), procedures and good housekeeping.	Engineered liner, procedures, bunded tank, lined fuel pad, interceptor, spill kits and containment booms.	Adequate lighting, road design and low speed limits.	Inert waste only. All equipment maintained and roads wetted during dry periods.

The following Risk Classification follows the EPA Guidance section 4.4.3.1 – Risk Classification Tables. Each potential risk or liability is assigned a rate of ‘Occurrence’ (the probability of an event occurring) and ‘Severity’ (the magnitude of impact if the event occurs).

**Table 8: Risk Classification for Occurrence and Severity.**

Potential Risk	Leachate	Fuel Leakage	Waste Lorries / Plant	Fugitive Emissions
<b>Risk Classification - Occurrence</b>	2 (low)	2 (low)	2 (low)	3 (medium)
<b>Basis for Occurrence</b>	Proposed infrastructure, procedures and good housekeeping.	Engineered liner, procedures, bunded tank, lined fuel pad, interceptor, spill kits and containment booms.	Adequate lighting, road design and low speed limits.	All equipment maintained and roads wetted during dry periods.
<b>Risk Classification - Severity</b>	4 (major)	4 (major)	3 (moderate)	3 (moderate)
<b>Basis for Occurrence</b>	Leachate seeping into groundwater and/or surface water.	Fuel leaching into soils, ground and surface waters.	Waste spilled on the road from the lorry.	Affecting the health and welfare of humans.
<b>Risk Score (Severity x Occurrence)</b>	<b>8</b>	<b>8</b>	<b>6</b>	<b>9</b>

The above Table 8 has identified the risk occurrence and severity (as per Table 4.5 of EPA Guidance) to be lowest level risks and indicates a need for continuing awareness and monitoring on a regular basis. The guidance notes that whilst the identified risks are currently low or minor risks, some have potential to increase to medium risks and must therefore be regularly monitored.





### 3.5 Quantification of Unknown Environmental Liabilities

The known environmental liabilities for the facility were calculated as part of the CRAMP (Section 2.5 of this report).

For the unknown liabilities a financial model is necessary to estimate the environmental liability associated with the risks. These cost shave been estimated following the EPA Guidance section 4.4.7.

**Table 9: Financial Model for a Most Likely Scenario.**

Potential Risk	Occurrence Rating	Likelihood of Occurrence Range	Severity Rating	Cost Range	Median Probability	Median Severity	Most Likely Scenario Cost
Leachate	2	5 – 10%	4	€10,000 – €100,000	7.5%	€55,000	€4,125
Fuel Leakage	2	5 – 10%	4	€10,000 – €100,000	7.5%	€55,000	€4,125
Waste Lorries / Plant	2	5 – 10%	3	€5,000 – €10,000	7.5%	€7,500	€563
Fugitive Emissions	3	10 – 20%	3	€5,000 – €10,000	15%	€7,500	€1,125
<b>TOTAL Estimated Costs</b>							<b>€9,938</b>

The above Table 9 depicts a financial model for a most likely scenario. The estimated costs for environmental liabilities associated with unknown risks have been estimated at €9,938. A model assuming a worst case scenario would use the higher end of each range used in the calculations as depicted in Table 7 above. The costs for a worst case scenario are estimated at €23,000.

In summary Environmental Pollution Liabilities could include:

- Leachate formation and migration causing pollution of groundwater and/or surface water and/or water main;
- Fuel spill causing pollution of groundwater and/or surface water;
- Fuel spill causing soil pollution;
- Litter from overturned lorries; and
- Fugitive dust emissions causing excessive soiling of adjoining properties.

The cost of such liabilities will depend on the origin, nature and extent of the incident/environmental pollution. The Applicant proposes to obtain environmental pollution liability insurance with indemnity over 1 million euro to cover the costs of unexpected pollution. Operating revenues will be used to cover the premium for the insurance policy and addressing minor spills and nuisances.

According to the EPA Guidance a review of the ELRA should be undertaken on annual basis to reflect changes in the environmental risks.

The following Section of this report will discuss the financial instruments (Financial Provision) for unknown liabilities associated with Cemex Walshestown facility.



### 4.0 IDENTIFICATION OF FINANCIAL PROVISION (FP)

The main objective of Financial Provision (FP) is to ensure that sufficient financial resources are available to cover:

- Known environmental liabilities that will arise at the time of facility closure;
- Known environmental liabilities that are associated with the aftercare and maintenance of the facility until such time as the facility is considered to no longer pose a risk to the environment; and
- Unknown environmental liabilities that may occur during the operating life of the facility.

Financial Provision encompasses two aspects:

- Quantifying the financial amount of the environmental liabilities (known and unknown); and
- Selecting appropriate financial instrument(s) to underwrite the liabilities.

Cemex (ROI) Ltd is a member of the ICF (Irish Concrete Federation) and operates within the parameters of their Environmental Code of practise. The objectives of the Code include that Cemex (ROI) Ltd will make available the required financial resources to operate the policy in accordance with Best Available Techniques (BAT) principles.

### 4.1 Calculation of Financial Provision

The amount of Financial Provision required for the Cemex Walshestown facility is determined using the CRAMP (Section 2.0) and ELRA (Section 3.0) of this report.

The following Table 10 outlines the Financial Provision required for the Cemex (ROI) Ltd Walshestown facility.

Table 10: Outline Financial Provision.

Liability Type	Description	Method of Quantification	Amount of Provision	Financial Instrument
Known Liability – Closure	Planned liabilities that will arise upon closure of the facility.	CRAMP (Section 2.0)	€212,500	Financial indemnity to be agreed
Known Liability – Restoration and Aftercare Management	Planned liabilities that will arise upon restoration and aftercare management of the facility – Environmental Monitoring for a period of 5 years.	CRAMP (Section 2.0)	€60,000	Financial indemnity to be agreed
Unknown Liability	Unplanned liabilities that have the potential to arise during the operational life of the facility.	ELRA (Section 3.0)	€23,000	Environmental Liability Insurance Policy

The Applicant invites the following condition or similar, to cover the above identified financial liabilities (taken from the most recent waste licence grant W0270-01):

*Within 6 months of the date of grant of this licence, the licensee shall, to the satisfaction of the Agency, make financial provision to cover any liabilities identified in Condition XXX (ELRA condition). The amount of indemnity held shall be reviewed and revised as necessary, but at least annually. Proof of renewal or revision of such financial indemnity shall be included in the annual ‘Statement of Measures’ report identified in Condition XXX (AER condition).*





## **5.0 CLOSURE**

The CRAMP, ELRA and Financial Provision will be reviewed annually after the waste activities have commenced at the Site. Any changes in these reports will be reported to the Agency in the Annual Environmental Report.



## Report Signature Page

### GOLDER ASSOCIATES IRELAND LIMITED

Thomas Vainio-Mattila  
Senior Consultant

Conor Wall  
Principal

TVM/CW/aw

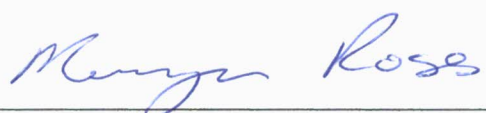
Registered in Ireland Registration No. 297875  
Town Centre House, Dublin Road, Naas, Co. Kildare, Ireland  
Directors: M. Gilligan, A. Harris (British)  
VAT No.: 8297875W

## Proposed Transferee Statement

**Reference:** Transfer of Licence Register Number W0254-01, as may have been amended.

*The Proposed Transferee, Walshestown Restoration Limited, Company Number 564315, of Block A, Cashel Business Centre, Cashel Road, Dublin 12 has assumed and accepted all liabilities, requirements and obligations provided for in or arising under the above referenced licence, or revised licence, regardless of how and in respect of what period, including a period prior to the transfer of the licence or revised licence they may arise.*

### Proposed new Licence Holder(s)

Signed:	
Proposed Transferee Name:	Mervyn Ross
Position:	Director/Facility Manager
Date:	23 <sup>rd</sup> July 2015.

Appendix 10 - 2017-2018 Financial Statements

Financial Statements for the year ended 31/12/2018

Income Statement for the year ended 31/12/2018

Balance Sheet as at 31/12/2018

Number 564315

# Certificate of Incorporation

I hereby certify that

**WALSHESTOWN RESTORATION LIMITED**

is this day incorporated under  
the Companies Act 2014,  
and that the company is  
a Private Company Limited by Shares.

*Certified as a  
true copy of  
the original.  
Manus Brady*

*Dated this 30.07.2015*

Given under my hand at Dublin, this  
Friday, the 3rd day of July, 2015

*Mark Donoghue*

for Registrar of Companies

**MANUS BRADY & CO.,  
Chartered Accountants  
& Registered Auditors,  
Cashel Business Centre,  
Dublin 12 01 - 4924777**

## TO WHOM IT MAY CONCERN

We wish to confirm we have been appointed as accountants and company secretary administrators to Walshestown Restoration Limited and we can confirm that the registered office address of Walshestown Restoration Limited is Block A, Cashel Business Centre, Cashel Road, Dublin 12.

We trust the above is in order.

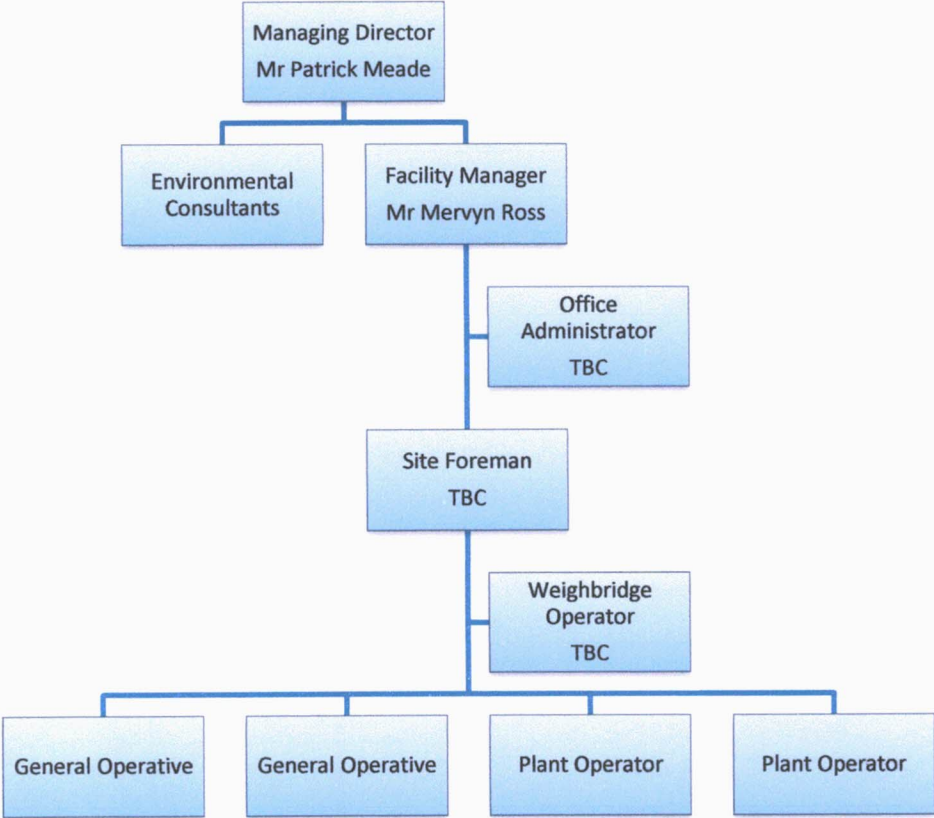


**MANUS BRADY & CO**  
Chartered Accountants

Dated 30th July 2015




Proposed Organisation Chart




## Licence Transfer Declaration

I/We, the undersigned, hereby apply to the Environmental Protection Agency, as per Section 47 of the Waste Management Act 1996 as amended for the transfer of licence Register Number W0254-01 from Cemex (ROI) Limited, Company Number 79451, of Killeen Road, Dublin 12 to Walshestown Restoration Limited, Company Number 564315, of Block A, Cashel Business Centre, Cashel Road, Dublin 12.

### Current Licence Holder (Licensee)

Signed:	
Licensee Name:	CLARE EGAN ON BEHALF OF CEMEX (ROI) LTD
Position:	DIRECTOR
Date:	28.7.15
Company Seal: (where available)	

### Proposed new Licence Holder(s)

Signed:	
Proposed Transferee Name:	Mervyn Ross
Position:	Director/Facility Manager
Date:	23 <sup>rd</sup> July 2015
Company Seal: (where available)	