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O'REILLY GROUP

BARRY DOCKS

PART B PERMIT APPLICATION

JULY 2019

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Wardell Armstrong
Sir Henry Doulton House, Forge Lane, Etruria, Stoke-on-Trent, ST1 5BD, United Kingdom
Telephone: +44 (0)1782 276 700 www.wardell-armstrong.com

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O'REILLY GROUP

BARRY DOCKS

PART B PERMIT APPLICATION

JULY 2019

PREPARED BY:

Matt Barnett Environmental Scientist

APPROVED BY:

Alison Cook Associate Director

Application Form Part B

Part B Application form

Application for a permit

Local Authority Pollution Prevention and Control
Pollution Prevention and Control Act, 1999
Environmental Permitting (England and Wales) Regulations 2007

Introduction

When to use this form
This environmental permitting regime is known as and referred to as Local Authority Pollution Prevention and Control ('LAPPC'). Installations permitted under this regime are known as Part 'B' installations. Use this form if you are sending an application for a 'Part B' permit to a Local Authority under the Environmental Permitting (England and Wales) Regulations 2007 ("the EP Regulations").

Before you start to fill in this form
You are strongly advised to read relevant parts of the Defra general guidance manual issued for LA-IPPC and LAPPC, republished in 2008 and available at http://www.defra.gov.uk/environment/ppc/localauth/pubs/guidance/manuals.htm. This contains a list of other documents you may need to refer to when you are preparing your application, and explains some of the technical terms used. You will also need to read the relevant Process Guidance note as relevant The EP Regulations can be obtained from The Office of Public Sector Information, or viewed on their website at: http://www.opsi.gov.uk/stat.htm.

Which parts of the form to fill in
You should fill in as much of this form as possible. The appropriate fee must be enclosed with the application to enable it to be processed further. When complete return to:

Pollution Team
Environmental Health
Civic Offices
Holton Road
Barry
CF63 4RU

Email: RegServ@valeofglamorgan.gov.uk
Telephone:01446 709105

Other documents you may need to submit
There are number of other documents you will need to send us with your application. Each time a request for a document is made in the application form you will need to record a document reference number for the document or documents that you are submitting in the space provided on the form for this purpose. Please also mark the document(s) clearly with this reference number and the application reference number, if you have been given one, which will be at the top of the form overleaf. If you do not have either of these, please use the name of the installation.

Using continuation sheets
In the case of the questions on the application form itself, please use a continuation sheet if you need extra space; but please indicate clearly on the form that you have done so by stating a document reference number for that continuation sheet. Please also mark the continuation sheet itself clearly with the information referred to above.

Copies
Please send the original and 3 copies of the form and all other supporting material, to assist the Authority in conducting any necessary consultation process.

If you need help and advice
We have made the application form as straightforward as possible, but please get in touch with us at the local authority address given above if you need any advice on how to set out the information we need.

LAPPC application form: to be completed by the operator		
For Local Authority use		
Application reference	**Officer reference**	**Date received**

A1 Applicant details

A1.1 Name of the installation

O Reilly Precast, Barry Docks

A1.2 Please give the address of the site of the installation

Former Lafarge Redland Ltd Factory, Atlantic Way, Barry Docks, Barry

Postcode CF63 3RA Telephone

The Ordnance Survey national grid reference *8 characters,*
for example, SJ 123 456 (can be obtained from typing postcode into one of the on-line mapping sites).

S	T	1	2	8	6	7	4

A1.3 Existing permits:

Please give details of any existing LAPPC or LA-IPPC authorisation for the installation, or any waste management licences or water discharge consents, including reference number(s) and type(s):

None

Please provide the information requested below about the "Operator", which means the person who it is proposed will have control over the installation in accordance with the permit (if granted)

A2.1 The Operator – Please provide the full name of company, partnership or corporate body

O'Reilly Precast Limited

Trading/business name (if different)

Registered Office address

Dept 849, 43 Owston Road, Carcroft, Doncaster, United Kingdom,

Postcode: DN6 8DA

Principal Office address (if different)

Postcode:

Company registration number

10549915

A2.2 Holding Companies

Is the operator a subsidiary of a holding company within the meaning of section 1159 of the Companies Act 2006?

No ☑

Yes ☐ *name of ultimate holding company*

Registered office address

Postcode

Principal Office address (if different)

Postcode

Company registration number: _____

A3.1 Who can we contact about your application?

It will help to have someone who we can contact directly with any questions about your application. The person you name should have the authority to act on behalf of the operator - This can be an agent or consultant.

Name Mrs Alison Cook

Position Associate Director

Address Sir Henry Doulton House, Forge Lane, Etruria, Stoke on Trent

Postcode ST1 5BD

Telephone number 01782 276700

Fax number _____

email address acook@wardell-armstrong.com

B1 About the installation

Please fill in the table below with details of all the current activities in operation at the whole installation.

In **Column 1, Box A**, please identify all activities listed in Schedule 1 to the EP Regulations that are, or are proposed, to be carried out in the stationary technical unit of the installation.

In **Column 1, Box B** please identify any directly associated activities that are, or are proposed, to be carried out on the same site which:

* have a technical connection with the activities in the stationary technical unit
* could have an effect on pollution

In **Column 2, for Boxes A and B** please quote the Chapter number, Section number, then paragraph and sub-paragraph number as shown in Part 2 of Schedule 1 to the EP Regulations [For example, *Manufacturing glass and glass fibre where the use of lead or any lead compound is involved*, would be listed as Chapter 3, Section 3.3, Part B(b)].

B1.1 Installation table for new permit application

COLUMN 1	COLUMN 2
Box A Activities in the stationary technical unit	Section in Schedule 1 to the

	EP Regulations
Blending cement in bulk or using cement in bulk, other than at a construction site, including the bagging of cement and cement mixtures, the batching of ready-mixed concrete and the manufacture of concrete blocks and other cement products	Section 3.1 (B) (b)
Box B Directly-associated activities	Schedule 1 references (if any)
Storage of raw materials	

B1.2 Why is the application being made?

☑ The installation is new

☐ The installation is existing, but changes to the installation or to the EP Regulations means that an LAPPC Part B permit is now required.

B.1.3 Site Maps

Please provide:-

* A suitable map showing the location of the installation clearly defining extent of the installations in red

Doc Reference CA11413-104

* A suitable plan showing the layout of activities on the site, including bulk storage of materials, waste storage areas and any external emission points to atmosphere

Doc Reference CA11413-105 and 1720297_00_r8

B2 The Installation

Please provide written information about the aspects of your installation listed below. We need this information to determine whether you will operate the installation in a way in which all the environmental requirements of the EP Regulations are met.

B2.1 Describe the proposed installation and activities and identify the foreseeable emissions to air from each stage of the process (this will include any foreseeable emissions during start up, shut down and any breakdown/abnormal operation)

The use of process flow diagrams may aid to simplify the operations

Doc Reference: Process Flow Diagram and Operating Techniques

B2.2 Once all foreseeable emissions have been identified in the proposed installation activities, each emission should be characterised (including odour) and quantified.

Atmospheric emissions should be categorised under the following

i. point source, (e.g. chimney / vent, identified by a number and detailed on a plan)
ii. fugitive source (e.g. from stockpiles / storage areas).

If any monitoring has been undertaken please provide the details of emission concentrations and quantify in terms of mass emissions. If no monitoring has been undertaken please state this.

(Emission concentration = e.g. milligrams per cubic metre of air; mass emission = e.g. grams per hour, tonnes per year)

B2.3 For each emission identified from the installations' activities describe the current and proposed technology and other techniques for preventing or, where that is not practicable, reducing the emissions into the air. If no techniques are currently used and the emission goes directly to the environment, without abatement or treatment then this should be stated

Doc Reference: Operating Techniques

B2.4 Describe the proposed systems to be used in the event of unintentional releases and their consequences. This must identify, assess and minimise the environmental risks and hazards, provide a risk based assessment of any likely unintentional releases, including the use of historical evidence. If no assessments have been carried out please state.

Doc Reference: Environmental Risk Assessment and Operating Techniques

B2.5 Describe the proposed measures for monitoring all identified emissions including any environmental monitoring, and the frequency, measurement methodology and evaluation procedure proposed (e.g. particulate matter emissions, odour etc). Include the details of any monitoring which has been carried out which has not been requested in any other part of this application. If no monitoring is proposed for an emission please state the reason.

Doc Reference: Operating Techniques

B2.6 Provide detailed procedures and policies of your proposed environmental management techniques, in relation to the installation activities described.

Doc Reference: Operating Techniques

B3 Impact on the Environment

B3.1 Provide an assessment of the potential significant local environmental effects of the foreseeable emissions (e.g. is there a history of complaints and/or is the installation in an air quality management area ?)

Doc Reference: Environmental Risk Assessment

B3.2 Are there any sites of special scientific interest (SSSIs) or European protected sites which are within either

- 2 kilometres for an installation which includes Part B combustion, incineration (but not crematoria), iron and steel, and non-ferrous metal activities, or
- 1 kilometre for Part B mineral activities and cement and lime activities, or
- ½ a kilometre for all other Part B activities 2 kilometres of the installation?

No ☐
Yes ☑ *please give names of the sites*

Hayes Point to Bendrick Rock

B3.3 Provide an assessment of whether the installation is likely to have a significant effect on such sites and, if it is, provide an assessment of the implications of the installation for that site, for the purposes of the Conservation (Natural Habitats etc) Regulations 1994 (see appendix 2 of Annex XVIII of the General Guidance Manual).

Doc Reference: Environmental Risk Assessment

B4 Environmental Statements

B4.1 Has an environmental impact assessment been carried out under The Town and Country Planning (Environmental Impact Assessment)(England & Wales) Regulations 1999/293, or for any other reason with respect to the installation?

No ☑
Yes ☐ *Please supply a copy of the environmental impact assessment and details of any decision made*

Doc Reference:

B5 Additional information

Please supply any additional information which you would like us to take account of in considering this application.

Doc Reference -

C1 Fees and Charges

The enclosed charging scheme leaflet gives details of how to calculate the application fee. Your application cannot be processed unless the application fee is correct and enclosed.

C1.1 Please state the amount enclosed as an application fee for this installation.

£ 355 (cheques should be made payable to Vale of Glamorgan Council]

We will confirm receipt of this fee when we write to you acknowledging your application.

C1.2 Please give any company purchase order number or other reference you wish to be used in relation to this fee.

C2 Annual subsistence charges

If we grant you a permit, you will be required to pay an annual subsistence charge, failure to do so will result in revocation of your permit and you will not be able to operate your installation.

C2.1 Please provide details of the address you wish invoices to be sent to and details of someone we may contact about fees and charges within your finance section.

Emmet Cosgrove, Dept 849, 43 Owston Road, Carcroft, Doncaster, United Kingdom,

Postcode: DN6 8DA Telephone: +353 (0) 42 9663500

C3 Commercial confidentiality

C3.1 Is there any information in the application that you wish to justify being kept from the public register on the grounds of commercial or industrial confidentiality ?

No ☑

Yes ☐

Please provide full justification, considering the definition of commercial confidentiality within the EP regulations.

Doc Reference _____

C3.2 Is there any information in the application that you believe should be kept from the public register on the grounds of national security ?

No ☑

Yes ☐

Do not write anything about this information on the form. Please provide full details on separate sheets, plus provide a copy of the application form to the Secretary of State/Welsh Ministers for a Direction on the issue of National Security.

C4 Data Protection

The information you give will be used by the Local Authority to process your application. It will be placed on the relevant public register and used to monitor compliance with the permit conditions. We may also use and or disclose any of the information you give us in order to:

- consult with the public, public bodies and other organisations,
- carry out statistical analysis, research and development on environmental issues,
- provide public register information to enquirers,
- make sure you keep to the conditions of your permit and deal with any matters relating to your permit
- investigate possible breaches of environmental law and take any resulting action,
- prevent breaches of environmental law,
- offer you documents or services relating to environmental matters,
- respond to requests for information under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (if the Data Protection Act allows)
- assess customer service satisfaction and improve our service.

We may pass on the information to agents/ representatives who we ask to do any of these things on our behalf.

It is an offence under Regulation 38 of the EP Regulations, for the purpose of obtaining a permit (for yourself or anyone else) to:

- make a false statement which you know to be false or misleading in a material particular,
- recklessly make a statement which is false or misleading in a material particular.

If you make a false statement

- we may prosecute you, and
- if you are convicted, you are liable to a fine or imprisonment (or both).

C5 Declaration: previous offences (delete whichever is inapplicable)

I certify

No offences have been committed in the previous five years which are relevant to my/our competence to operate this installation in accordance with the EP Regulations.

C6 Declaration

C6.1 Signature of current operator(s)*

I certify that the information in this application is correct. I apply for a permit in respect of the particulars described in this application (including supporting documentation) I have supplied.

Please note that each individual operator must sign the declaration themselves, even if an agent is acting on their behalf.

For the application from:

Installation name: O'Reilly Precast, Barry Docks

Signature _____

Name Barry O'Reilly

Position Managing Director

Date 09/07/2019

* Signature Barry o Reilly

Name BARRY O' REILLY

Position M. D.

Date 11-7-19

** Where more than one person is defined as the operator, all should sign. Where a company or other body corporate – an authorised person should sign and provide evidence of authority from the board of the company or body corporate.*

Non Technical Summary

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O'REILLY PRECAST LTD

BARRY DOCKS

NON-TECHNICAL SUMMARY

JULY 2019

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APPENDICES

DRAWINGS

1 INTRODUCTION

1.1.1 O'Reilly Group plan to operate a concrete products facility at Barry Docks, Vale of Glamorgan. The facility will comprise:

- Raw material storage– including cement, sand, gravel and concrete additives;
- Concrete production and mixing; and
- Forming high quality concrete products for the construction industry.

1.1.2 Activities undertaken at the facility will comprise a part B listed activity under Section 3.1 (B) (b) of Schedule 1 of the Environmental Permitting Regulations 2016. That is, "blending cement in bulk or using cement in bulk, other than at a construction site, including the bagging of cement and cement mixtures, the batching of ready-mixed concrete and the manufacture of concrete blocks and other cement products".

1.1.3 The activity will include 3 silos with a capacity of 60 tonnes each. This gives a total storage capacity for cement of 180 tonnes, well within the 500tonne limit set out in "The Local Authority Permits for Part B Installations and Mobile Plant and Solvent Emission Activities (Fees and Charges) (Wales) Scheme 2016". As such the installation is a part 3 reduced charge activity.

1.1.4 The site location and boundary of the permitted area are shown on drawings and CA11413-100 and CA11413-104.

1.1.5 The site is located within an industrial setting. The site is bounded by the dock to the north west, Atlantic Way to the east (which acts as the main route connecting the site to the wider highway network), and industrial units to the south and north.

1.1.6 The design and operation of the facility accords with all regulatory requirements of Process Guidance Note 3/01(12), Statutory guidance for blending, packing, loading, unloading and use of cement (September 2012).

1.1.7 Comprehensive pollution control measures are in place to protect the environment and the application is accompanied by an Environmental Risk Assessment, demonstrating that the potential impacts from the plant have been identified and properly managed.

1.1.8 The overall application comprises:

- Part B Application Form;
- Non-Technical Summary;
- Operating Techniques;
- Process Flow Diagrams;
- Qualitative Environmental Risk Assessment; and
- Permit boundary drawing.

2 THE SITE

2.1.1 The site is located at Barry Docks, approximately 1.5 kilometres south east of Barry town centre, and 8 kilometres to the south west of Cardiff. The site is bounded to the east by Atlantic Way, and to the west by the Entrance Channel to the wider dock area. An industrial unit (Scott Pallets) borders the site to the south, with an area of vacant hardstanding located to the north.

2.1.2 Bendrick Road, a residential area, lies approximately 500m to the east of the site. To the south of the site lie further industrial premises and a solar farm, beyond which lies the sea. Barry Docks train station is located approximately 550 metres to the north west of the site. Further residential areas are located approximately 640m to the west and 900m to the south west of the site. To the west of the site lies Barry docks and an area of open land.

2.1.3 The site covers an area of approximately 0.95ha (2.35 acres) in area and includes the majority of the site that was formerly occupied by Lafarge Redland Ltd for concrete manufacturing purposes. Access to the site is gained by "Atlantic Way" to the east.

2.1.4 Currently the site is mainly empty and comprises areas of hardstand, a building located centrally to the application site area, and areas of rough vegetation. The location and layout of the site are shown on drawings CA11413-100.

3 SITE OPERATIONS

3.1.1 The client intends to use the building and hardstanding for the manufacture of pre-cast concrete products falling under Use Class B2, specifically concrete wall panels of varying shapes and sizes.

3.1.2 A mould of the wall will be formed using a steel metal cage, and combination of timber / metal shutters to form the desired shape. Concrete that is batched onsite will be poured into the mould and left to be cured in a curing chamber within the main shed. A concrete finishing machine will be used to obtain the required surface texture.

3.1.3 Sand, stone (10-14mm chip) and cement will be used to make the concrete. Cement will be delivered via articulated lorry and stored within an enclosed silos. Sand and stone will be stored in open bays.

3.1.4 It is expected that within the first 12 months about 30m^3 of concrete will be mixed per day, potentially raising to approximately 100m^3 per day once the site is at full capacity.

3.1.5 The manufacturing process will take place within the building. All plant to be used at the site will be new and suitable for purpose. Further details are provided in the Operating Techniques document included with this application.

3.1.6 As part of the development, it is proposed that the existing building will be refurbished and extended, plant and machinery installed both within the building and external to the building, and other ancillary development including the use of existing hardstanding for parking and storage provision.

3.1.7 Further information is provided in the Operating Techniques document.

4 ENVIRONMENTAL RISK AND MITIGATION

4.1.1 All potentially sensitive receptors have been identified and the proposed site operations have been subject to scrutiny to ensure that all risks have been understood. Further information is provided within the Environmental Risk Assessment.

4.1.2 The MAGIC website (http://www.natureonthemap.naturalengland.org.uk) confirms that there are a two SSSIs within 2km of the site.

4.1.3 The Hayes Point to Bendrick Rock Site of Special Scientific Interest (SSSI) is located 341m southeast of the site boundary. The Barry Island SSSI is located approximately 1.1km to the south west of the site.

4.1.4 Potentially sensitive receptors may be impacted by the following:

- Particulate matter and dust;
- Plant and equipment failure; and
- Noise and vibration.

4.1.5 Receipt and handling of raw materials, and concrete production and mixing will take place on impermeable pavement.

4.1.6 The main risk from the site is that cement will be present as a fine powder and may cause dust. To prevent this from happening procedures are in place to ensure correct connection to delivery tankers. Filters are provided at the silo vents to capture dust displaced during deliveries. Cement will be transferred from the silo into the process via a fully enclosed auger so that there are no emissions of dust during this operation.

4.1.7 Good housekeeping procedures will be employed on site to prevent odours, litter, and dust. These measures are described in the Operating Techniques document that accompanies this application.

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STOKE-ON-TRENT
Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)178 227 6700

BIRMINGHAM
Two Devon Way
Longbridge Technology Park
Longbridge
Birmingham
B31 2TS
Tel: +44 (0)121 580 0909

CARDIFF
22 Windsor Place
Cardiff
CF10 3BY
Tel: +44 (0)292 072 9191

CARLISLE
Marconi Road
Burgh Road Industrial Estate
Carlisle
Cumbria
CA2 7NA
Tel: +44 (0)122 855 0575

EDINBURGH
Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GLASGOW
2 West Regent Street
Glasgow
G2 1RW
Tel: +44 (0)141 433 7210

LONDON
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)207 242 3243

MANCHESTER (City Centre)
76 King Street
Manchester
M2 4NH
Tel: +44 (0)161 817 5038

MANCHESTER (Greater)
41-50 Futura Park
Aspinall Way
Middlebrook
Bolton
BL6 6SU
Tel: +44 (0)194 226 0101

NEWCASTLE UPON TYNE
City Quadrant
11 Waterloo Square
Newcastle Upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

SHEFFIELD
Unit 5
Newton Business Centre
Newton Chambers Road
Thorncliffe Park
Chapeltown
Sheffield
S35 2PH
Tel: +44 (0)114 245 6244

TRURO
Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

International offices:
ALMATY
29/6 Satpaev Avenue
Regency Hotel Office Tower
Almaty Kazakhstan
050040
Tel: +7(727) 334 1310

MOSCOW
21/5 Kuznetskiy Most St.
Moscow
Russia
Tel: +7(495) 626 07 67

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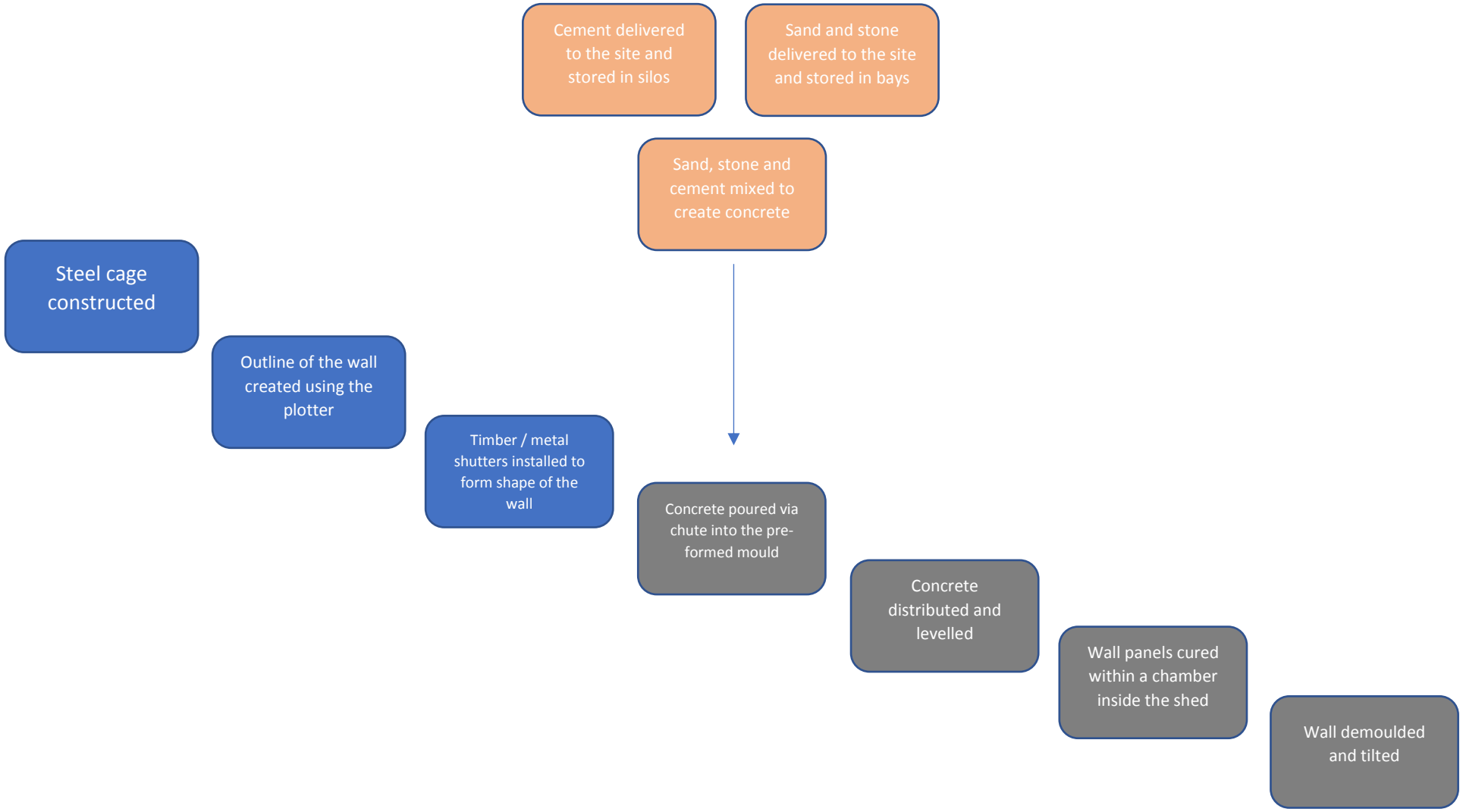
Appendix 1 Process Flow

APPENDIX 1 PROCESS FLOW DIAGRAM



Operating Techniques

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O'REILLY GROUP

BARRY DOCKS

OPERATING TECHNIQUES

JULY 2019

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DRAWINGS

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1 INTRODUCTION

1.1 O'Reilly Group plan to build and operate a concrete products facility at Barry Docks, Vale of Glamorgan. The facility will comprise:

- Raw material storage– including cement, sand, gravel and concrete additives;
- Concrete production and mixing; and
- Forming high quality concrete products for the construction industry.

1.2 Activities undertaken at the facility will comprise a part B listed activity under Section 3.1 (B) (b) of Schedule 1 of the Environmental Permitting Regulations 2016. That is, "blending cement in bulk or using cement in bulk, other than at a construction site, including the bagging of cement and cement mixtures, the batching of ready-mixed concrete and the manufacture of concrete blocks and other cement products".

1.3 The site location and boundary of the permitted area are shown on drawing CA11413-104.

1.4 The site is located within an industrial setting, bounded by the Barry Dock to the north west, Atlantic Way to the east (which acts as the main route connecting the site to the wider highway network), and industrial units to the south and north.

1.5 The design and operation of the facility will accord with all regulatory requirements of Process Guidance Note 3/01(12) Statutory guidance for blending, packing, loading, unloading and use of cement (September 2012).

1.6 Comprehensive pollution control measures are in place to protect the environment. Further details are provided in Section 7.

2 SITE MANAGEMENT

2.1 The site will be operated in compliance with relevant legislation and the conditions of the Environmental Permit.

2.2 Written procedures will be in place to ensure compliance with this Operating Techniques document and relevant legislation.

2.3 Site operations will be audited on an annual basis to confirm compliance with the written procedures, review progress and set targets for continuing improvement over the coming year.

2.3.1 Full training will be provided to site staff ensuring that they are familiar with the requirements of the environmental permit and any written procedures relevant to their role.

2.4 An induction will be provided for contractors on site, ensuring that they are aware of any site specific issues and are able to carry out their duties without harm to the environment.

3 SITE OPERATIONS

3.1 The client intends to use the building and hardstanding for the manufacture of pre-cast concrete products falling under Use Class B2. The following activities are to be undertaken at the site:

- Raw material storage– including cement, sand, gravel and concrete additives;
- Concrete production and mixing; and
- Forming high quality concrete products for the construction industry.

3.2 The facility will manufacture reinforced concrete wall panels of various shapes and sizes for commercial projects in the UK, namely schools, hotels, Residential & Commercial projects.

3.3 As part of the development, it is proposed that the existing building will be refurbished and extended, plant and machinery installed both within the building and external to the building, and ancillary development provided including the use of existing hardstanding for parking and storage provision.

4 PRODUCT MANUFACTURING

4.1 Drawing 1720297_00_r8 shows the layout of the site building, which contains all process infrastructure and machinery. Initially, the steel cages that will form each wall on site will be tied and lifted onto the production table/bed.

4.2 A plotter is used to mark the outline of the walls that are to be made. The plotter is connected to a computer, which removes human error in setting out the walls manually.

4.3 A combination of timber/metal shutters will be installed to form the shape of the wall on each bed, in addition to the steel cage.

4.4 Concrete will be batched (in small quantities) on site (inside the shed) and poured via a chute into the preformed moulds/shape of the wall. The wall will be compacted via a concrete compaction system and levelled with a levelling bar.

4.5 The wall will then be cured overnight in a chamber (the container can hold 21 beds at any one time) within the shed and finished (using a surface finishing system) to the required surface texture using a concrete finishing machine (pan).

4.6 Following curing and finishing, the wall will be demoulded and tilted to a 0-80˚ angle. Once the process is completed, the walls will be lifted out of the shed to the storage area outside, ready for transportation off site.

4.7 Sand, stone (10-14mm chip) and cement will be used to make the concrete for the walls. For the first 12 months it is expected that around 30m^3 of concrete will be mixed per day. This will increase as the work load of the facility increases (potentially up to maximum of 100m^3/day).

5 SITE INFRASTRUCTURE

5.1 The machinery to be installed on site will be brand new. The machinery will be sourced from companies who are specialists in the field.

5.2 Carousel plant will be installed on site, allowing for the automated production of pre-cast concrete walls. The plant will ensure that concrete is distributed and levelled in a precise manner, and ultimately cured, cleaned, smoothed and demoulded. The plant is manufactured, installed and commissioned by Olmet Italy.

5.3 The Concrete mixing plant is manufactured, installed and commissioned by AIMIX Group. The mixing plant will ensure that the concrete is mixed to an optimal time, with a good mixing quality.

5.4 Cement will be stored in enclosed silos on site. Three augers will be provided to allow for discharge of cement from the silos. Cement will be delivered via articulated lorry. Sand & Stone will be transported to site and stored in open concrete bays.

6 MATERIAL STORAGE

6.1 Cement is stored within three enclosed silos, with a capacity of 60 tonnes. The silos are located at the eastern side of the building, neighbouring the stone and sand storage bays. Cement will be transferred directly into the silos, ensuring that there is no risk of emissions of dust.

6.1 Sand and stone that is delivered to the site will be stored in three open concrete bays. Each bay has a capacity of 40 tonnes. The location of bays is shown on CA11413-105.

6.2 A water storage tank will be located onsite within the building.

7 EMISSIONS

7.1 Concrete products are to be produced inside the building. Emissions to atmosphere will therefore be from the external storage of raw materials. These include 3 point-source emissions, i.e. a breathing vent on the top of each silo. These will be fitted with filters to limit emissions to <10mg/m^3. No monitoring has been undertaken to date as the site is under construction.

7.2 There may also be fugitive emissions from stock piles, although the sand and aggregate has a relatively large particle size and is not expected to be overly dusty.

7.3 Emissions will be managed as described in section 8, below.

8 OPERATIONAL CONTROL OF ENVIRONMENTAL RISKS

8.1 A number of issues may affect the amenity of the surrounding locality as a result of the storage and treatment of inert wastes on site. Operations will be undertaken in a manner compliant with relevant guidance and this document, ensuring good housekeeping so that the potential for any impacts is minimised.

Odour

8.2 The materials that will be accepted at the site are not inherently odorous.

8.3 If an odour problem is identified or a complaint received, the Site Manager shall be informed, and investigations will be undertaken in order to identify the source of the odour and provide any necessary mitigation.

8.4 The production of concrete wall panels will be undertaken within the building onsite. The building will provide sound reduction, lessening any impacts upon surrounding receptors. In order to minimise noise all plant will be maintained in accordance with the manufacturer's recommendations. Vehicle manoeuvring and reversing will be minimised where possible, and care will be taken during any unloading to minimise drop heights.

8.5 An assessment of noise was undertaken by Wardell Armstrong in June 2018. It was found that the noise generated by proposed development will have a low impact at existing sensitive receptors during the daytime and night-time. No mitigation is therefore required.

Litter

8.6 Litter is not expected due to the nature of the materials to be used within the manufacturing process. Routine daily inspections will identify any litter that is present, and the resulting litter will be collected and disposed of appropriately if required.

Dust

8.7 The main potential for emissions to the environment are emissions of dust. In particular any emissions during filling of the cement silos or transfer of cement to the process. To ensure that such emissions are controlled the following measures will be in place.

8.8 When a tanker arrives on site the delivery line will be securely connected to the silo and then to the tanker. Both connections will be checked before the delivery begins. A record will be made of the start and finish time of the delivery which will allow for checks against site operations at the time in the unlikely event of a complaint.

8.9 During the delivery air will be vented via a cartridge filter on top of the silo. The filter will be sized to manage the maximum possible airflow during delivery. Air flow during delivery will be controlled by the tanker driver to ensure it is compatible with the silo and filter on site.

8.10 All cartridge filters will be specified to achieve emissions of less than 10mg/m^3 total dust.

8.11 A monitoring device will be fitted in each silo to monitor the level of cement. In the event of overfilling this will trigger an alarm and filling will automatically cease, preventing over filling or over pressure.

8.12 The cartridge filters will include a system for regular cleaning to preventing blinding. Filters will be regularly inspected and maintained to ensure that they continue to be effective.

8.13 A pressure relief valve (PRV) will also be installed on each silo. Maintenance of the filters and careful control of the delivery process will mean that operation of the prvs is rare. Nevertheless, they will be subject to weekly inspection to ensure they remain effective.

8.14 In the case of over pressure the valve will open for a short period of time and will return to its seating when the pressure drops. This will prevent any major failure of the silo or filter. Should the PRV lift from its seating during a delivery the delivery will immediately be stopped until the cause has been investigated and the issue has been resolved.

8.15 Transport of cement from the silo to the mixing process will be via an auger. This screw conveyor will be fully enclosed ensuring that there are no emissions to air whilst cement is conveyed into the process.

8.16 Care will be taken to minimise the drop height of aggregates and sand to prevent dust formation. Aggregates and sand will be stored in bays adjacent to the building, providing shelter from the wind. Water is available on site and stock piles can be damped down if needed.

8.17 The site is provided with concrete surfacing, which will be inspected and maintained to minimise dust from yard surfaces. The yard will be swept as necessary to avoid any build up of dust that may be disturbed by vehicle movements.

8.18 Concrete mixing and casting will take place inside the building.

8.19 At least once a day and during deliveries a member of staff will make a visual inspection around the site boundary to ensure that there are no visible emissions of dust beyond the site boundary.

Leaks and Spillages

8.20 Fuel is stored within a bunded tank, minimising the risk of any leaks or spillages. All plant and equipment will be serviced and maintained in accordance with the manufacturer's recommendations, minimising the risk of spills from site plant.

9 MONITORING AND RECORD KEEPING

9.1 The site will be inspected on a daily basis and observations will be recorded, including a note of the weather and wind direction. Should any issues be noted these will be raised with site management and appropriate remedial action will be agreed. Details of any remedial action will be recorded.

9.2 A record will be made of any complaints received and all complaints will be investigated, with appropriate remedial action being put in place where required. Should abnormal emissions occur that part of the operation will cease whilst the cause is investigated and resolved, again records of the incident and the action taken will be kept.

9.3 Site records will be made available to warranted officers of Vale of Glamorgan Council on request. Should any incident have the potential to cause significant emissions the Council will be informed by telephone and remedial action will be agreed.

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STOKE-ON-TRENT
Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)1782 276 700

BIRMINGHAM
Two Devon Way
Longbridge Technology Park
Longbridge
Birmingham
B31 2TS
Tel: +44 (0)121 580 0909

BOLTON
41-50 Futura Park
Aspinall Way
Middlebrook
Bolton
BL6 6SU
Tel: +44 (0)1204 227 227

CARDIFF
Tudor House
16 Cathedral Road
Cardiff
CF11 9LJ
Tel: +44 (0)292 072 9191

CARLISLE
Marconi Road
Burgh Road Industrial Estate
Carlisle
Cumbria
CA2 7NA
Tel: +44 (0)1228 550 575

EDINBURGH
Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GLASGOW
2 West Regent Street
Glasgow
G2 1RW
Tel: +44 (0)141 433 7210

LEEDS
36 Park Row
Leeds
LS1 5JL
Tel: +44 (0)113 831 5533

LONDON
Third Floor
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)207 242 3243

MANCHESTER
76 King Street
Manchester
M2 4NH
Tel: +44 (0)161 817 5038

NEWCASTLE UPON TYNE
City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

TRURO
Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

International offices:

ALMATY
29/6 Satpaev Avenue
Regency Hotel
Office Tower
Almaty
Kazakhstan
050040
Tel: +7(727) 334 1310

MOSCOW
21/5 Kuznetskiy Most St.
Moscow
Russia
Tel: +7(495) 626 07 67

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Environmental Risk Assessment

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O'REILLY PRECAST LTD

BARRY DOCKS

ENVIRONMENTAL RISK ASSESSMENT

JULY 2019

wardell armstrong

CONTENTS

TABLES

1 INTRODUCTION

1.1 O'Reilly Group plan to build and operate a concrete products facility at Barry Docks, Vale of Glamorgan. The facility will comprise:

- Raw material storage – including cement, sand, gravel and concrete additives;
- Concrete production and mixing; and
- Forming high quality concrete products for the construction industry.

1.2 The site location and boundary of the permitted area are shown on drawing CA11413-104.

1.3 The design and operation of the facility accords with all regulatory requirements of Process Guidance Note 3/01(12) Statutory guidance for blending, packing, loading, unloading and use of cement (September 2012).

2 SENSITIVE RECEPTORS

2.1 The Barry Docks site is located at NGR (National Grid Reference) ST 12840 67490, approximately 1.5 kilometres south east of Barry town centre, and 8 kilometres to the south west of Cardiff.

2.2 The site is located within an industrial setting. The site is bounded by the dock entrance channel to the north west, Atlantic Way to the east (which acts as the main route connecting the site to the wider highway network), and industrial units to the south and north.

2.3 The closest residential receptors are located at Bendrick Road, over 500m from the site. The impacts of dust and noise will therefore be lessened by the distance of the receptors from the activities. Nonetheless strict control measures will be in place to prevent emissions.

2.4 The nearest major water body is the Barry Docks Entrance Channel, located adjacent to the site. The Cadoxton River is located approximately 340m to the east of the site. The Bristol Channel is located approximately 410m to the south east.

2.5 The nearest SSSI is located approximately 340m from the site. The Hayes Point to Bendrick Rock SSSI is geological in nature, meaning that it will not be affected by emissions such as dust and noise. Strict control measures will be in place to ensure that any emissions are prevented.

3 RISK ASSESSMENT

3.1 Table 3.1 below identifies the potential environmental risks that may arise from operations at the site and considers the possible pathways and receptors that may be impacted. The risk assessment shows how these risks are minimised; by preventing the hazard at source or by providing measures to break the pathway and prevent pollution migrating towards receptors.

3.2 All identified hazards that could cause harm will be subject to strict preventative or control measures.

3.3 Staff will be trained to understand the potential environmental risks associated with the site and their role in managing those risks. An induction will also be provided for contractors, so that they are aware of any environmental requirements.

Table 3-1: Risk Assessment							
Hazard	**Receptor**	**Pathway**	**Consequence**	**Probability of exposure**	**What is the overall risk**	**Mitigation Measures**	**Residual Risk**
Dust							
Dusty materials or dust around site	Local residents, local businesses and site operatives	Airborne	Annoyance for local residents and site workers. Impacts upon human health as a result of dust inhalation	Low	Low	Vehicles carrying potentially dusty material will been enclosed, covered or sheeted. To prevent the dispersal of any dust that is created at the site, water from a bowser may be applied to roads or surfaces to limit dust in dry weather or during dusty operations. The site entrance and yard areas will be swept as necessary to minimise dust and mud around the site. Cement will be stored within an enclosed silo, delivered by articulated lorry. Written procedures will be followed for unloading and the silo will vent via a filter. All filters will be properly maintained and will be capable of achieving emissions of dust <10mg/m^3. Transfer of cement to the concrete mixer will be via a fully enclosed auger. The manufacturing of concrete wall panels will be undertaken within the building onsite. This will minimise the potential for fugitive emissions of dust.	Very Low
Noise							
Noise from plant or machinery	Local residents and local businesses	Airborne	Disturbance for local residents. Potential impacts upon the psychological health of those nearby	Low	Low	All plant and equipment will be maintained in accordance with the manufacturer's recommendations. Any drop heights will be minimised.	Very Low

Table 3-1: Risk Assessment							
Hazard	**Receptor**	**Pathway**	**Consequence**	**Probability of exposure**	**What is the overall risk**	**Mitigation Measures**	**Residual Risk**
						Engines of delivery vehicles will be switched off where possible to prevent excessive noise. Plant may be fitted with engine silencers and smart reversing alarms. The site will comply with planning conditions relating to noise levels. Operations will be undertaken within the building onsite. The building will provide sound reduction.	
Mud							
Mud on local roads	Road users	Ground	Road traffic accidents	Medium	Medium	Vehicles will be inspected before leaving the site and will be cleaned if necessary to prevent mud or dust being tracked onto the adjacent highway.	Low
Odour							
Fugitive emissions from materials that are accepted	Local residents and local businesses	Airborne	Annoyance, potential health hazards	Very Low	Very Low	No malodorous materials will be accepted at the site. Any noticeable odour will be investigated and where appropriate remedial action will be undertaken.	Very Low
Litter							
Fugitive emissions from materials or other areas on site	Local residents, local businesses and site operatives	Airborne	Disturbance for local residents	Very Low	Very Low	The site will be inspected daily, and any loose material noted will be collected and placed in bins provided on site for the storage of litter.	Very Low
Abnormal Operating Scenarios							
Fluid Leak or spillage	Nearby Surface water bodies, Groundwater	Via drains, infiltration through soils	Pollution of surface water and impact on aquatic	Low	Low	Plant will be inspected daily and serviced in accordance with the manufacturer's recommendations.	Very Low

Table 3-1: Risk Assessment							
Hazard	**Receptor**	**Pathway**	**Consequence**	**Probability of exposure**	**What is the overall risk**	**Mitigation Measures**	**Residual Risk**
		or direct contact	ecosystem; pollution of groundwater			Fuel will be stored within a bunded tank.	
Plant or Equipment Failure	Local residents and local businesses and/or nearby surface water bodies and groundwater	Airborne, direct contact or via infiltration through soils	Disruption of site activities. In the event of damage to plant or machinery, fires or spillages may occur. Damaged equipment may pose a health risk.	Low	Low	Plant and equipment will be inspected and maintained in accordance with legal requirements and the manufacturer's recommendations. In the event of damage to plant or equipment, or loss of function, suitably qualified engineers will repair the equipment as soon as possible. Damaged or faulty plant will be taken out of use until repairs have been completed. Where necessary additional plant will be hired so that the site can be managed effectively. Site operations may be suspended temporarily where this is necessary to prevent pollution. Only suitably qualified staff will operate machinery. .	Very Low

4 CONCLUSION

4.1 The design and operational measures will ensure that activities do not present an unacceptable risk to the environment.

4.2 In practice, all identified hazards that could cause harm, are subject to strict preventative measures or control at the site to ensure that risks are minimised.

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STOKE-ON-TRENT
Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)845 111 7777

CARDIFF
22 Windsor Place
Cardiff
CF10 3BY
Tel: +44 (0)29 2072 9191

EDINBURGH
Suite 2/3, Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GREATER MANCHESTER
2 The Avenue
Leigh
Greater Manchester
WN7 1ES
Tel: +44 (0)1942 260101

LONDON
Third Floor
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)20 7242 3243

NEWCASTLE UPON TYNE
City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

PENRYN
Tremough Innovation Centre
Tremough Campus
Penryn
Cornwall
TR10 9TA
Tel: +44 (0)1872 560738

SHEFFIELD
Unit 5
Newton Business Centre
Newton Chambers Road
Thorncliffe Park
Chapeltown
Sheffield
S35 2PH
Tel: +44 (0)114 245 6244

TRURO
Wheal Jane
Baldhu
Truro
Cornwall
TR3 6EH
Tel: +44 (0)1872 560738

WEST BROMWICH
Thynne Court
Thynne Street
West Bromwich
West Midlands
B70 6PH
Tel: +44 (0)121 580 0909

International offices:

ALMATY
29/6 Satpaev Avenue
Rakhat Palace Hotel
Office Tower, 7th Floor
Almaty
050040
Kazakhstan
Tel : +7-727-3341310

MOSCOW
Suite 2, Block 10,
Letnikovskaya St.
Moscow, Russia
115114
Tel: +7(495) 980 07 67

Wardell Armstrong Archaeology:

CUMBRIA
Cocklakes Yard
Carlisle
Cumbria
CA4 0BQ
Tel: +44 (0)1228 564820

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Drawings

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REFERENCE

Site boundary_ _ _ _ _ _ _ _ _ _ _

CLIENT: O'REILLY CONCRETE	DRG No.: CA11413-100		REV:
	SIZE: A4	SCALE: 25,000	DATE: 29/05/18
PROJECT: THE FORMER LAFARGE REDLAND Ltd. SITE, ATLANTIC WAY, BARRY DOCKS	DRAWN BY: RJH	CHECKED BY: DJ	APPROVED BY: SF
DRAWING TITLE: SITE LOCATION PLAN	wardell armstrong your earth our world		

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PERMIT BOUNDARY

REVISION	DETAILS	DATE	DR'I	CHK'D	APP'D
P0	Preliminary Issue	08-07-19	DR		

CLIENT

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PROJECT

THE FORMER LAFARGE REDLAND Ltd. SITE, ATLANTIC WAY, BARRY DOCKS

DRAWING TITLE

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CA11413-104	P0

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A3	1:500	08-07-19

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Circulation System for Floor Slabs and Walls

DESCRIPTION: Circulation system for floor slabs and walls	
CUSTOMER: O'REILLY IRL	
File: 1720297_00_r8	Category: general drawing
Scale: 1:100	Date: 03.05.2018
Check.:	Rev. N°.: 8_10.07.2018
Sign.: M.K.	Code: 1720297_00_r8

OLMET Srl CONCRETE MACHINERY

Olmet Italy Srl 31040 Trevignano-Treviso-Italy ss.Feltrina-vicolo Treviso 1, tel. +39/0423/670225

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STOKE-ON-TRENT
Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)1782 276 700

BIRMINGHAM
Two Devon Way
Longbridge Technology Park
Longbridge
Birmingham
B31 2TS
Tel: +44 (0)121 580 0909

BOLTON
41-50 Futura Park
Aspinall Way
Middlebrook
Bolton
BL6 6SU
Tel: +44 (0)1204 227 227

CARDIFF
Tudor House
16 Cathedral Road
Cardiff
CF11 9LJ
Tel: +44 (0)292 072 9191

CARLISLE
Marconi Road
Burgh Road Industrial Estate
Carlisle
Cumbria
CA2 7NA
Tel: +44 (0)1228 550 575

EDINBURGH
Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GLASGOW
2 West Regent Street
Glasgow
G2 1RW
Tel: +44 (0)141 433 7210

LEEDS
36 Park Row
Leeds
LS1 5JL
Tel: +44 (0)113 831 5533

LONDON
Third Floor
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)207 242 3243

MANCHESTER
76 King Street
Manchester
M2 4NH
Tel: +44 (0)161 817 5038

NEWCASTLE UPON TYNE
City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

TRURO
Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

International offices:

ALMATY
29/6 Satpaev Avenue
Regency Hotel
Office Tower
Almaty
Kazakhstan
050040
Tel: +7(727) 334 1310

MOSCOW
21/5 Kuznetskiy Most St.
Moscow
Russia
Tel: +7(495) 626 07 67

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