CARGO SERVICES
(U.K.) LIMITED

Site Condition Report

Cargo Services (UK) Limited, Bird Port, Corporation Road, Newport, NP19 4RE Wales

REPORT REFERENCE NUMBER:

2016-BP001

DATE:

APRIL 2016

Contents

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Abbreviations

BAT	Best Available Technique
BGS	British Geological Survey
COMAH	Control of Major Accident Hazards
DEFRA	Department for Environment Food and Rural Affairs
EA	Environment Agency
EAF	Electric Arc Furnace
EPR	Environmental Permit
EU	European Union
EWC	European Waste Catalogue
FRA	Flood Risk Assessment
HGV	Heavy Goods Vehicle
HSE	Health and Safety Executive
IED	Industrial Emissions Directive
IMO	International Maritime Organisation
IPPC	Integrated Pollution Prevention and Control
ISPS	International Ship and Port Security
IWS	International Waste Shipment
MAGIC	Multi-Agency Geographic Information for the Countryside
NGR	National Grid Reference
NRW	Natural Resources Wales
SAC	Special Areas of Conservation
SCR	Site Condition Report
SOP	Standard Operating Procedure
SPA	Special Protection Area
SPZ	Source Protection Zone
SSSI	Site of Special Scientific Interest
UN	United Nations
VOC	Volatile Organic Compounds

1 Introduction

1.1 Background

This document has been prepared by Cargo Services (UK) Limited (Cargo Services) in support of a Part A1 Environmental Permit application as required under Regulation 20 of the *Environmental Permitting (England and Wales) Regulations 2010* (as amended).

This application is to apply for a bespoke environmental permit in relation to activities undertaken at Bird Port, Corporation Road, Newport, Gwent, Wales, NP19 4RE. The Authorised company contact is Mr. Lloyd Davey (Cargo Services).

An Environmental Permit (EPR) is required where an operator carries out certain prescribed activities, namely installations that undertake Schedule 1 activities, a waste operation or a mobile plant (carrying out either one of the Schedule 1 activity or a waste operation). Cargo Services undertakes Schedule 1, Section 5.6, Part A(1)(a) permitted activity (i.e. 'temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in Sections 5.1, 5.2, 5.3 and paragraph (b) of this Section, except— (i) temporary storage, pending collection, on the site where the waste is generated, or (ii) activities falling within Section 5.2.').

The operator proposes to store up to 3,500 tonnes of Electric Arc Furnace (EAF) waste (EWC Ref. 100207*) within a dock side warehouse at Bird Port prior to loading and transportation to Italy for recovery.

Cargo Services have produced this Site Condition Report (SCR) in accordance with the EA's Guidance Document H5 Site Condition Reports Guidance and Templates (Version 3.0, May 2013) i.e. provision of Sections 1 to 3 as outlined in the SCR Template.

The remainder of this document outlines the requirements requested by the NRW in order to progress the permit application.

2 Site Details

The site details are outlined below.

Name of Applicant	Cargo Services (UK) Limited
Activity Address	Bird Port, Corporation Road, Bird Port, Newport, Wales, NP19 4RE
National Grid Reference	ST 33147 85304
Document reference and dates for Site Condition Report at permit application and surrender	Main Application Report 2016-BP001: Bird Port, Corporation Road, Bird Port, Newport, Wales, NP19 4RE Site Condition Report 2016-BP001
Document references for site plans (including location and boundaries)	Annex A – Site Plans Figure A1: Site Location (Ordnance Survey 1:25,000) Figure A2: Bird Port boundary Figure A3: Installation Boundary

3 Condition of Land at Permit Issue

3.1 Environmental Setting

Desk-based research of the local geology, hydrogeology, hydrology and ecology was carried out in order to establish the potential for migration of contamination onto or away from the site, and to assess the surface water and groundwater sensitivity of the surrounding area. Information was obtained from a number of sources, namely:

- Inspection of the British Geological Survey (BGS) Geology of Britain Viewer;
- The BGS Lexicon of Named Rock Units;
- Review of BGS held investigation borehole logs for the area;
- Examination of the EA/NRW's on-line aquifer classification;
- A review of online web-based information searches (magic.gov.uk); and
- A review of publicly available information.

3.1.1 Geology

According to the BGS Geology of Britain Viewer and Sheet 249 (Newport), the site is underlain by the following:

- Superficial deposits (Tidal Flat Deposits - Clay and Silt): Superficial deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 2.6 million years from the present. They rest on older deposits or rocks referred to as bedrock. The BGS lexicon of named rock units describes the lithology as "*Normally a consolidated soft silty clay, with layers of sand, gravel and peat. Characteristically low relief; from the tidal zone.*" (Figure 3.1).
- Bedrock geology (Mercia Mudstone Group - Mudstone): Sedimentary bedrock formed approximately 200 to 251 million years ago in the Triassic Period. The BGS lexicon of named rock units describes the lithology as "*Dominantly red, less commonly green-grey, mudstones and subordinate siltstones with thick halite-bearing units in some basinal areas. Thin beds of gypsum/anhydrite widespread; sandstones are also present.*" (Figure 3.2).

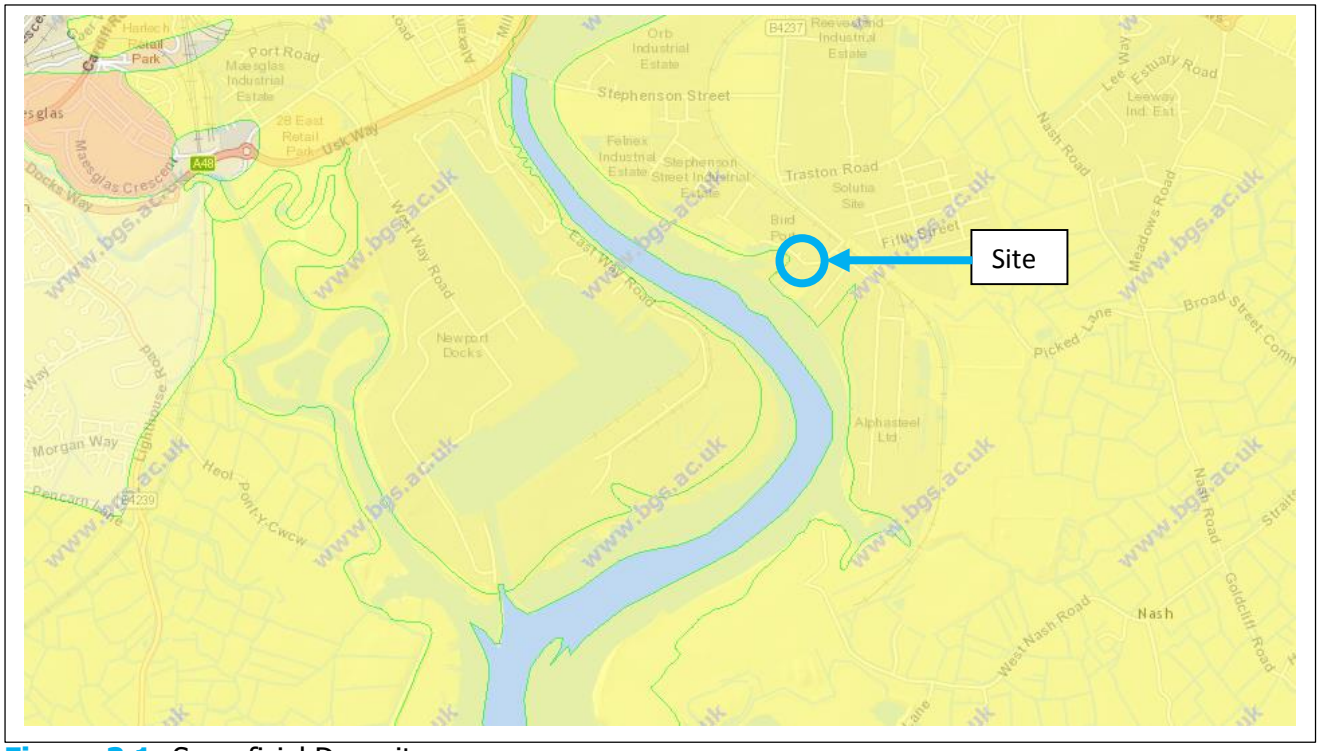

Figure 3.1: Superficial Deposits

Figure 3.2: Bedrock Deposits

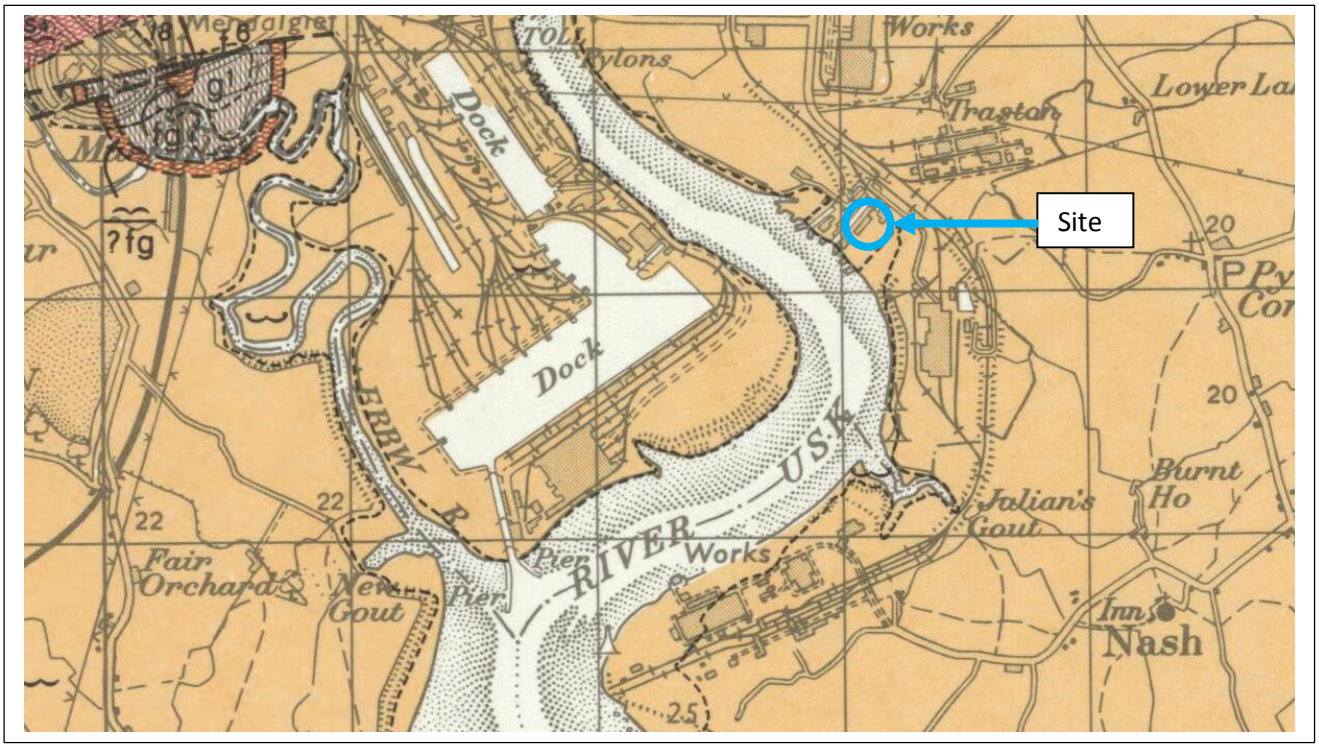

Figure 3.3: BGS Map Sheet 249 (1:50,000)

Figure 3.4: BGS Boreholes

3.1.2Hydrogeology

The aquifer classification system was updated on 1st April 2010 which provided new aquifer designations to replace the old system of aquifer classifications, such as Major, Minor and Non-Aquifer. This new system is in line with the EA's Groundwater Protection Policy (GP3) and the Water Framework Directive (WFD) and is based on BGS mapping. From a review of the EA/NRW on-line maps, the underlying deposits are classified as:

- Superficial deposits (Secondary – Undifferentiated Aquifer) i.e. it has not been possible to attribute either Secondary A or Secondary B to this rock type. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.

- Bedrock deposits (Secondary B Aquifer) i.e. predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.

The site is located in a Minor Aquifer Low groundwater vulnerability zone (Figure 3.5).

The EA/NRW have defined Groundwater Source Protection Zones (SPZs) for 2,000 groundwater sources such as wells, boreholes and springs used for public drinking water supply. These zones are designated to protect the location from the risk of contamination from any activities that might cause pollution in the area, i.e. the closer the activity, the greater the risk.
Unfortunately at the time that this report was being produced the relevant Aquifer maps were not available so the proximity to any Groundwater Source Protection Zone could not be determined.

The European WFD came into force in December 2000 and became UK law in December 2003. The EA/NRW has a duty to analyse the characteristics of the 11 River Basin Districts in England and Wales and assess the impact of human activity on the water bodies (including groundwater) within these districts. In addition the EA/NRW are required to monitor the status of water bodies against the objectives set for them and prepare, review and keep an up to date a register of protected areas for each River Basin District whilst preparing and consulting on River Basin Management Plans.

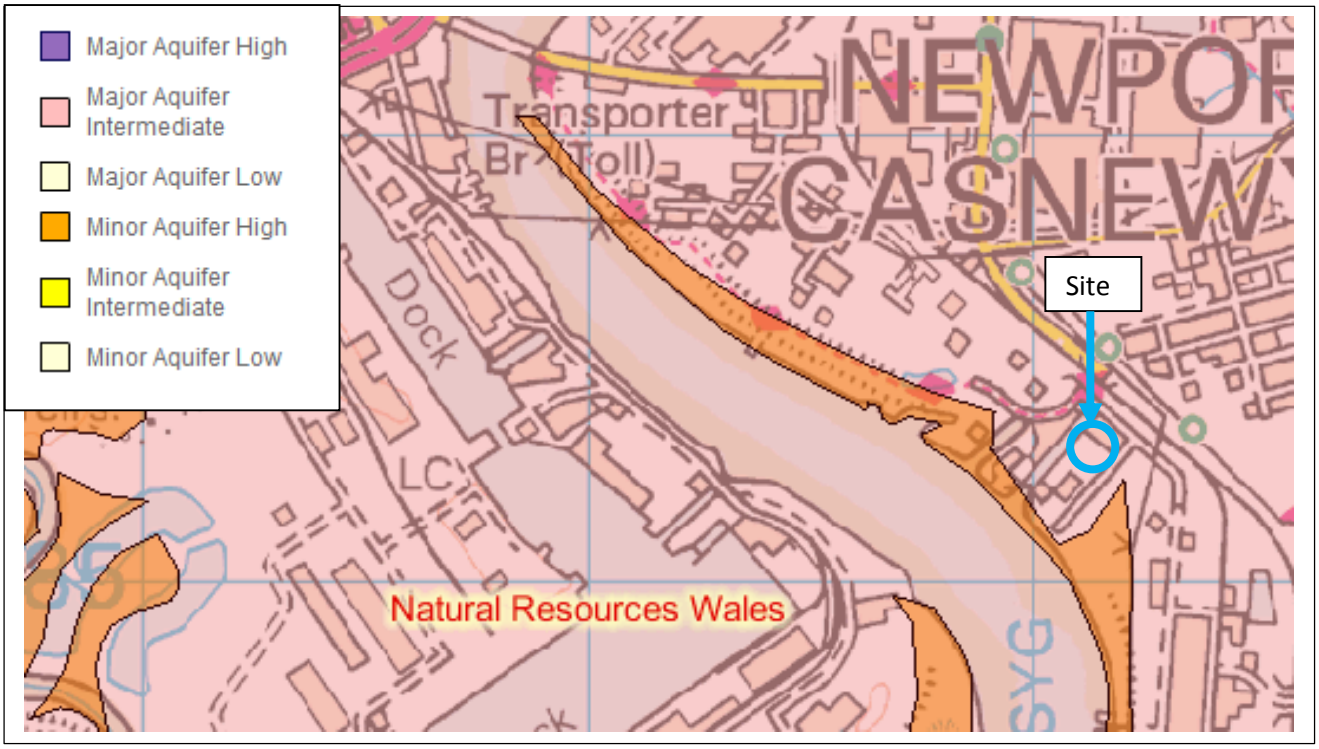

Figure 3.5: *Groundwater Vulnerability Zones*

3.1.3 Surface Waters

Bird Port is located on the Eastern bank of the River Usk, which is considered the nearest surface water feature to the installation. From a recent site condition report undertaken at Bird Port & in consultation with the Environment Agency's "What's in your backyard?" database the following was determined: The water body is considered as having moderate ecological quality & its Chemical quality is considered Good. The site is 110m from the Severn Estuary (estuarine environment). The water body is classified as having moderate ecological quality and good chemical quality.

3.1.4 Risk of Flooding

According to the Natural Resources Wales Flood Risk Map, the proposed installation is not at risk of flooding from Surface Water (*Figure 3.6*)

Figure 3.6: *Bird Port – risk of flooding from Surface Water*

According to the EA/NRW the installation itself is at very low to medium risk of flooding from Rivers or the Sea, although the site boundary is deemed high risk. (*Figure 3.7*).

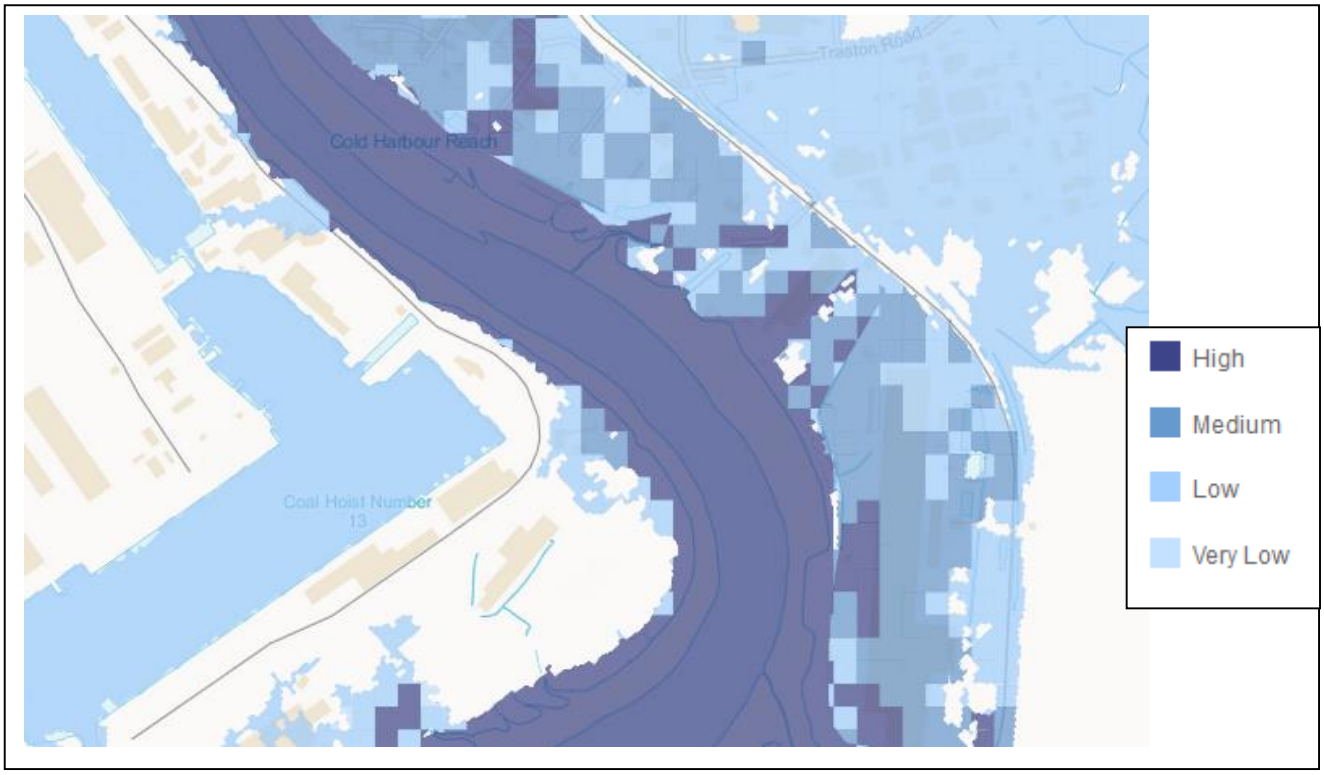

Figure 3.7: *Risk of flooding due to Rivers and Sea*

3.1.5 Ecology

According to the Magic database the Severn estuary is classified as a:

- Special Areas of Conservation (Wales) – Ref. UK0013030
- Special Protection Areas (Wales) – Ref. UK9015022
- Ramsar Sites (Wales) – Ref. UK11081
- Sites of Special Scientific Interest (Wales) – SSSI Code: 33WGX

The installation is also within 2 miles of the Newport Wetlands which is classified as a:

- National Nature Reserves (Wales) – NNR Code 00049
- Site of Special Scientific Interest (Wales) – SSSI Code: 33WUH

The features are outlined in *Figure 3.8*.

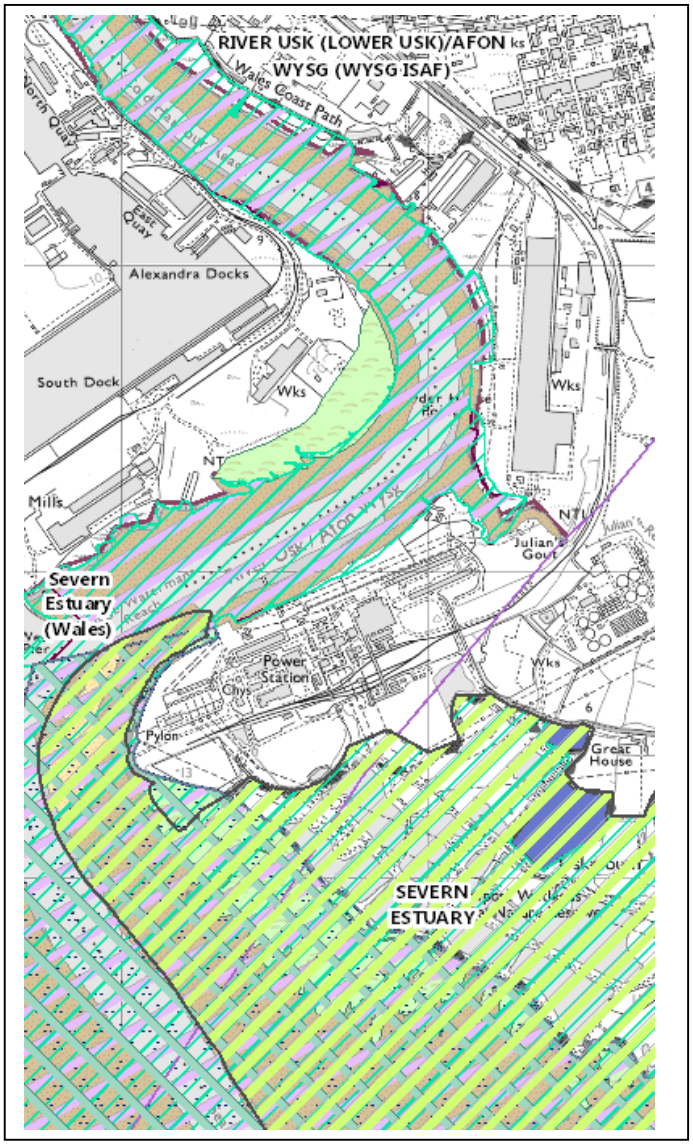

Figure 3.8: Statutory ecological and habitat classifications

According to the Joint Nature Conservation Committee (JNCC) the Severn Estuary is a large estuary with extensive intertidal mud-flats and sand-flats, rocky platforms and islands. Saltmarsh fringes the coast backed by grazing marsh with freshwater ditches and occasional brackish ditches. The seabed is rock and gravel with sub-tidal sandbanks. The tidal regime results in plant and animal communities typical of the extreme physical conditions of liquid mud and tide- swept sand and rock. The species-poor invertebrate community includes high densities of ragworms, lugworms and other invertebrates forming an important food source for passage and wintering waders. A further consequence of the large tidal range is an extensive intertidal zone, one of the largest in the UK. The site is of importance during the spring and autumn migration periods for waders moving up the west coast of Britain, as well as in winter for large numbers of waterbirds, especially swans, ducks and waders.
The proposed activity is undertaken 110m from the edge of the statutory defined area.

3.1.6 Human Receptors

There are 3 Industrial facilities within 400m from the installation at Bird Port.

1 – Marshalls PLC within 250m

2 – Solutia UK Ltd within 300m

3 – Liberty Steel Newport within 250m

Figure 3.9: *Surrounding activities (50 metre rings)*

3.2 Pollution History

3.2.1 Pollution incidents that may have affected land

There have been no reported pollution incidents (that Cargo Services is aware of) that may have affected the land.

3.2.2 Historical land-uses and associated contaminants

According to a newspaper article (http://newspapers.library.wales/view/3272151/3272154/46), Bird Port – originally named the Union Dry Dock was opened in December 1897. Its original purpose of the dock was for ship repair.

EVENING EXPRESS TUESDAY, DECEMBER. 7 1897.

NEW DRY DOCK AT NEWPORT

The new graving dock which Messrs. Geen and Linton, contractors, have constructed for the Union Dry Dock Company on the eastern side of the River Usk, is now completed after nineteen months' work, and will be opened on Thursday next by the entrance of the Denton Grange, one of the large new boats belonging to Messrs. Houlder Brothers' line.

The dock has changed name several times over the last century "Channel Dry Dock" and "Bell Port" to name a few. The dock became a container handling port in 1964 when Bell Lines took over & the range of products handled at the port varied. Following the demise of Bell Lines, the Bird Group reopened the dock facility in 1994 and has since primarily handled Steel for local steelworks now known as Tata Steel (Llanwern & Port Talbot), as well as Celsa Manufacturing (Cardiff). Timber & Coal have also been handled at the facility.

Figure 3.10: *View of Bird Port, oblique aerial view (1931)*

The storage and use of historic materials within the warehouses at Bird Port has not been confirmed. But as the EAF is solid material, will be located in well-sealed bags and located on good quality impermeable concrete hardstanding with sealed drainage, the potential to impact the ground is deemed a very low risk.

3.2.3 Any visual/olfactory evidence of existing contamination

No visual and/or olfactory evidence of contamination was noted in the area during the site inspection conducted on April 04th 2016.

3.2.4 Evidence of damage to pollution prevention measures

All pollution prevention measures (*i.e.* tertiary containment surfaces) meet current BAT standards as defined within the EA Technical Guidance Note for the Recovery and Disposal of Hazardous and Non Hazardous Waste (EPR 5.06).

3.2.5 Evidence of historic contamination, for example historical site investigation, assessment, remediation and verification reports (where available)

No ground condition information has been previously collected.

3.2.6 Baseline soil and groundwater reference data

No ground condition information and/or monitoring has been undertaken. Given the very low likelihood that the stored EAF materials could impact the ground, baseline soil and groundwater samples will not be collected.

4 Permitted Activities

The permitted activities are outlined below.

4.1 Schedule 1 activities

The stationary technical unit is:

- Schedule 1, Section 5.6, Part A(1)(a) permitted activity *i.e.* 'temporary storage of hazardous waste **(EAF WASTE)** with a total capacity exceeding 50 tonnes pending any of the activities listed in Sections 5.1, 5.2, 5.3 and paragraph (b) of this Section, except— (i) temporary storage, pending collection, on the site where the waste is generated, or (ii) activities falling within Section 5.2.'

The directly associated activities, as listed in the environmental permit, are:

- the unloading of road vehicles within the warehouse at Bird Port; and
- the movement of sealed big bags to the dockside.

4.2 Non-permitted activities undertaken

There are no non-permitted activities undertaken at the site.

4.3 Other requirements

Plans showing activity location and layout are provided in *Annex A*.

An environmental risk assessment (ERA) is provided within the main application document.

Appendix A – Figures

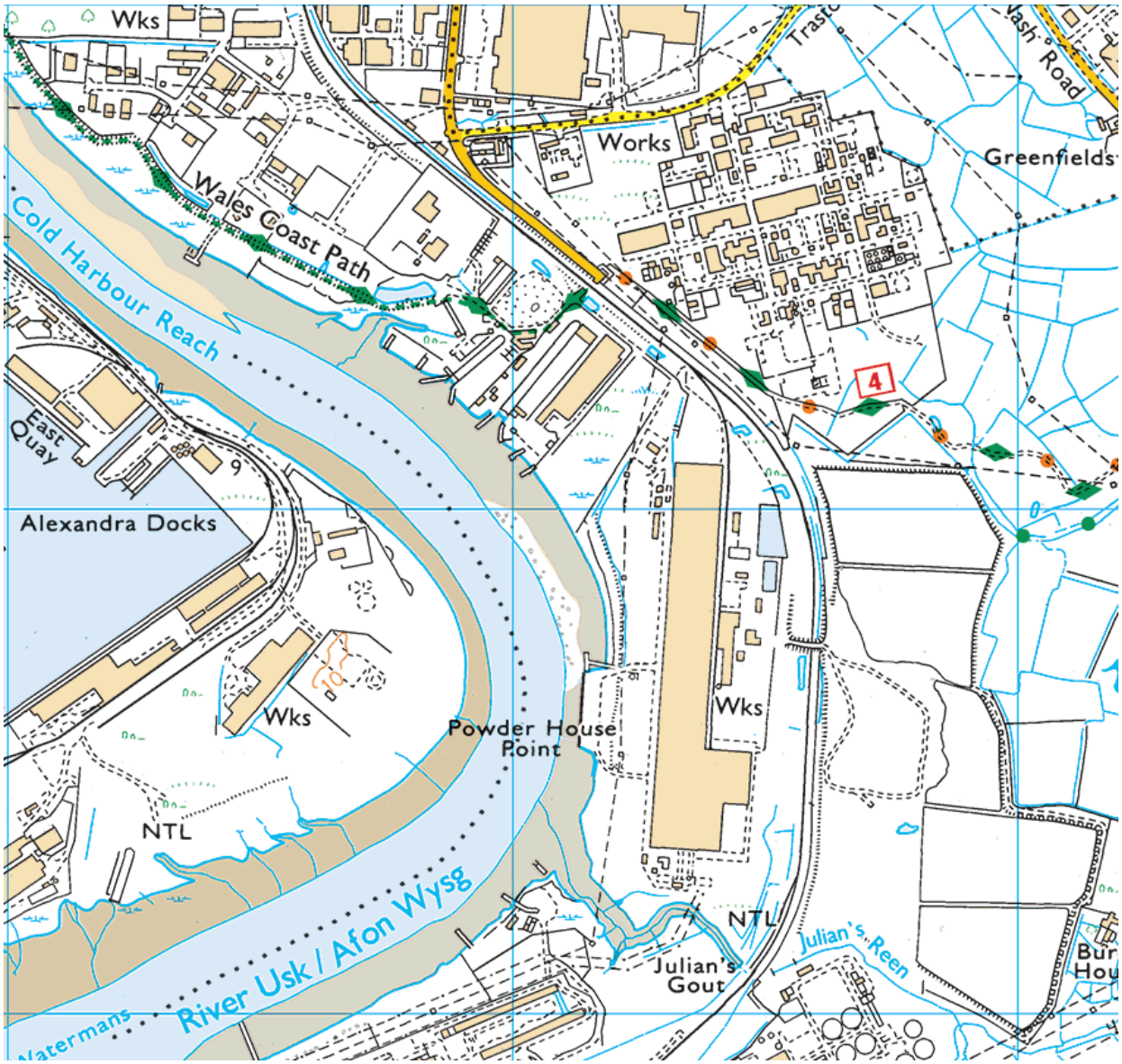

Figure A1: *Site location (Ordnance Survey 1:25,000)*

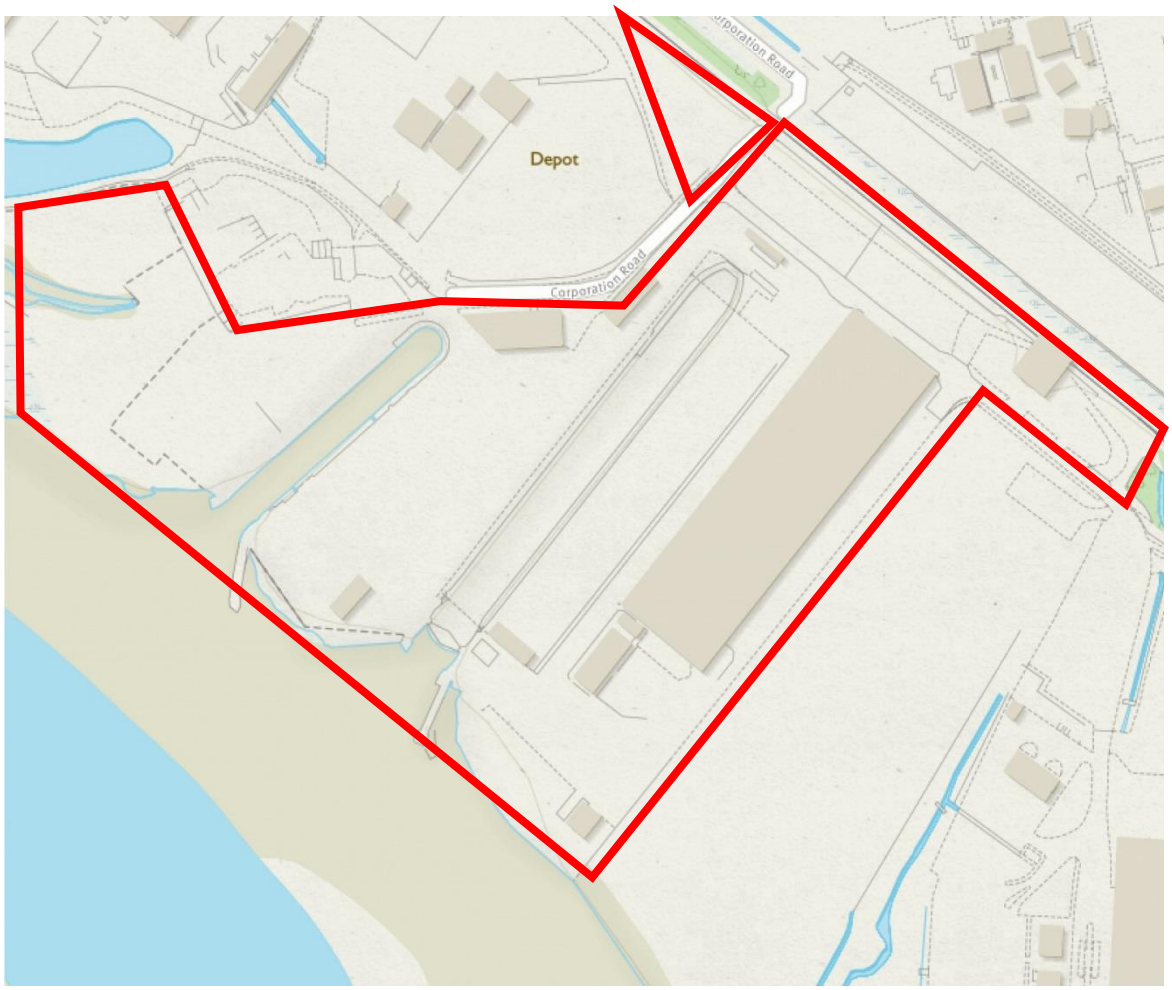

Figure A2: *Bird Port boundary*

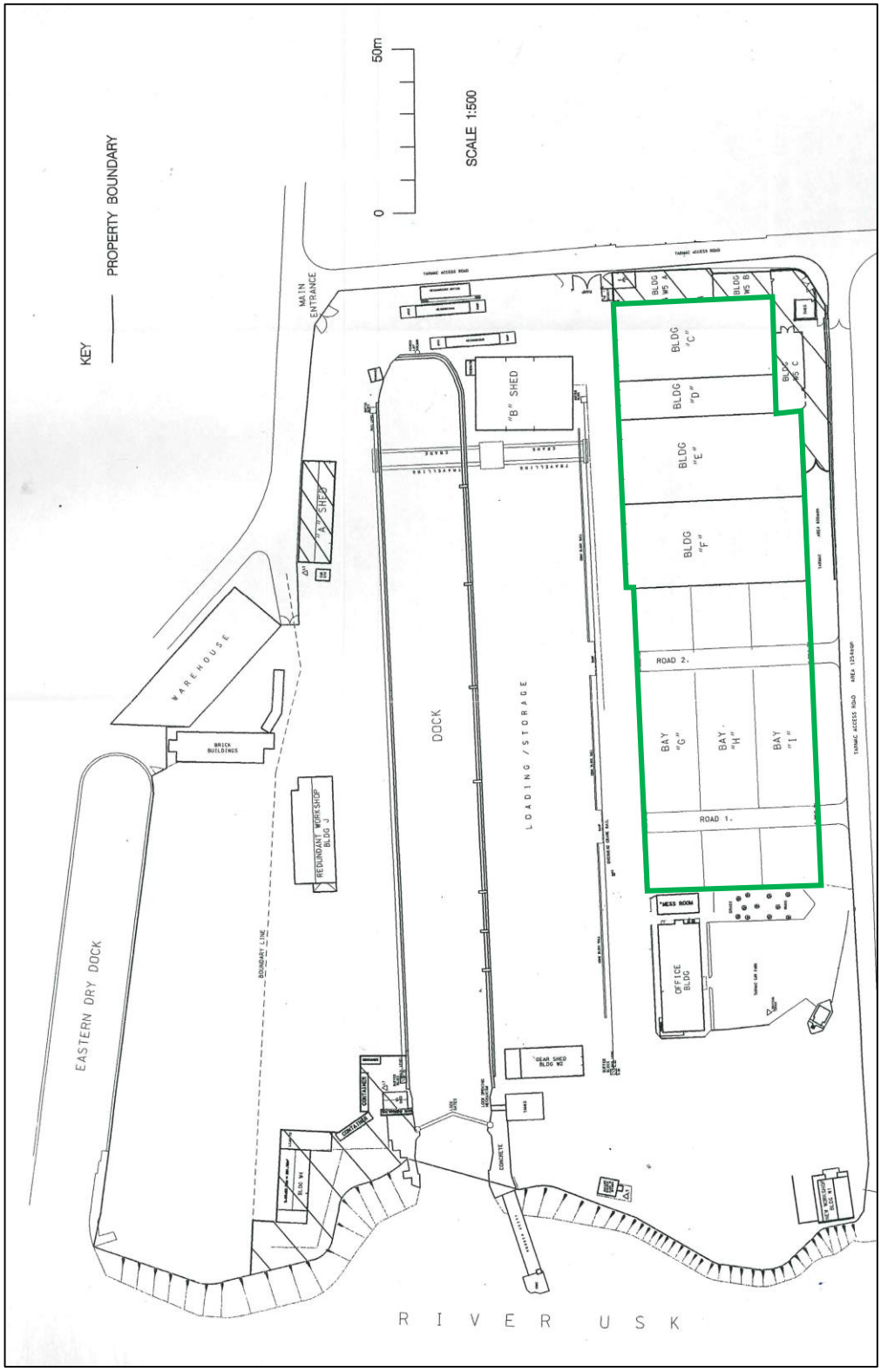

Figure A3: *Installation boundary, outline in green*