



European Metal Recycling Ltd

Environmental Risk Assessment and Surrender Completion Report

Environmental Permits EPR/ZP3795FD & EPR/FP3094VP
Roath Dock,
Dowlais Wharf,
Cardiff,
Glamorgan CF10 5ED

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Project Reference : 72798	Dated : April 2015
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1 EXECUTIVE SUMMARY

European Metal Recycling Ltd (EMR) has applied to Natural Resources Wales to surrender a narrow strip of land covered by Environmental Permits EPR/ZP3795FD and EPR/FP3094VP (consisting of 2 sets of standard rules), at Roath Dock, Dowlais Wharf, Cardiff.

The purpose of this report is to provide information which demonstrates that this portion of land is in a condition suitable to be surrendered from Environmental Permits EPR/ZP3795FD and EPR/FP3094VP. The partial surrender is required to cease the legal obligations of the permit conditions prior to the land's re-development.

Environmental Permit EPR/ZP3795FD authorises an End-of-life Vehicle Authorised Treatment Facility (ATF), and Environmental Permit EPR/FP3094VP authorises the storage of furnace ready scrap and a metal recycling site, under two separate sets of standard rules.

As the two Environmental Permits occupy the same area of land, the portion to be surrendered in relation to each permit/standard rule set is identical. The partial surrender relates to a strip of land along the Northern boundary of the EMR site, which is to be developed as a new road, under a compulsory purchase order by the Welsh Government.

Although the proposed use of the site has been defined, the purpose of this report is not to consider the end use of the site post-surrender, but to confirm that the site does not pose a significant risk to the environment, ground waters or human health.

The portion of the EMR site to be surrendered has historically been used as a roadway, empty skip storage, offices and lorry parking. With the exception of the area used for lorry parking which is provided with hard standing, impermeable concrete surface and sealed drainage system has been in place throughout the life of the permits. The sealed drainage system includes an oil/water interceptor which discharges to foul sewer under consent with Welsh Water.

Schedule 5, Paragraph 14, of the Environmental Permitting Regulations 2010 requires that for an Environmental Permit to be surrendered, the necessary measures have been taken to:

-  avoid a pollution risk resulting from the operation of the regulated facility; and to
-  return the site of the regulated facility to a satisfactory state, having regard to the state of the site before the facility was put into operation.

Desk study information was gathered by commissioning an information search by the Landmark Group and by referral to the relevant geological, hydrogeological, and ground water vulnerability maps. The interpretation of this information and the preparation of a risk assessment have been carried out in a manner relevant to the permit surrender process.

Based on the environmental risk assessment, the provision of impermeable concrete paving and sealed drainage system throughout the life of the permits, and the known degree of compliance with the Environment Permits, the risk posed by the permitted activities is considered to be low.

The strip of land defined within the surrender application is therefore considered to be in a condition suitable to be surrendered from Environmental Permits EPR/ZP3795FD and EPR/FP3094VP.

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2 INTRODUCTION

European Metal Recycling Ltd (EMR) has applied to Natural Resources Wales to surrender a narrow strip of land covered by Environmental Permits EPR/ZP3795FD and EPR/FP3094VP (consisting of 2 sets of standard rules), at Roath Dock, Dowlais Wharf, Cardiff.

The partial surrender is required to cease the legal obligations of the permit conditions prior to the land's re-development.

Mayer Environmental Ltd. (MEL) was commissioned by EMR to coordinate an environmental desk study and interpret the resulting data in a manner suitable for supporting the permit surrender applications. This report highlights any potential pollution linkages in relation to the site's permitted activities (Authorised Treatment Facility (ATF), storage of furnace ready scrap and metal recycling site), under EPR/ZP3795FD and EPR/FP3094VP.

Schedule 5, Paragraph 14, of the Environmental Permitting Regulations 2010 requires that for an Environmental Permit to be surrendered, the necessary measures have been taken to:

-  avoid a pollution risk resulting from the operation of the regulated facility; and to
-  return the site of the regulated facility to a 'satisfactory state', having regard to the state of the site before the facility was put into operation.

Authorisation to undertake the works was provided by EMR.

3 PURPOSE

The purpose of this report is to support the permit surrender process by considering the following in relation to the strip of land to be surrendered:

-  Reviewing its past uses to assess potential historical contamination.
-  Reviewing the waste operations carried out whilst the permits were in force.
-  Assessing the level of compliance with the permits.
-  Identifying the pollution linkages (based on the above) relating to the activities carried out under the permits.
-  Identifying steps that have since been taken to break the pollutant linkages and return the land to a 'satisfactory state' where required.

4 SCOPE

This report presents desk study information and our interpretation of the findings and their significance. On any site, and in particular on sites of potentially contaminative previous uses,

ground conditions can change rapidly over short distances. No responsibility can therefore be accepted for ground conditions that have not been revealed by the desk study information.

Site assessments can range from limited observations to extensive investigations and testing. The degree of uncertainty in interpreting a site's environmental condition will depend upon the budget and scope of work authorised by the client. Some degree of uncertainty will always exist.

This report has been prepared solely for the benefit of our client, European Metal Recycling Ltd, for the purpose of initially characterising the site's environmental condition.

No warranty is offered to any third party and no responsibility or liability will be accepted for any loss or damage in the event that this report is relied upon, either in its entirety or in part, by a third party or used in circumstances for which it was not originally intended. This report shall not be transferred to or relied upon by any other party without express written permission of Mayer Environmental Ltd.

5 THE SITE

5.1 Site Location and Setting

The EMR site is a roughly rectangular shaped area of land, approximately 4.2 hectares in area, located off Roath Dock Road, Dowlais Wharf, Cardiff. The Ordnance Survey National Grid Reference of the site entrance is ST20281 75105.

The site is located in a predominantly industrial area. A park and ride is located to the West, a conference centre to the North West, Trident Trade Park to the North and a timber yard to the East. To the South of the site, lies Roath Dock, beyond which is an Oil Storage Terminal. Access and egress to the site is via Roath Dock Road.

The portion of land to which the partial surrender relates is a narrow strip (approximately 0.33 hectares) extending along almost the entire length of the EMR site, adjacent to Roath Dock Road.

5.2 Site Description

The strip of land consists almost entirely of roadway, but also houses the main site entrance, office building and weighbridges.

Apart from a small area which is used for lorry parking, impermeable concrete paving and a sealed drainage system is provided. The drainage system discharges to foul sewer under consent from Welsh Water. The lorry park is provided with hard standing.

5.3 Proposed Use of the Site

The strip of land to which the surrender application relates was subject to a compulsory purchase order by the Welsh Government, and marks the proposed route of the relocated Roath Dock Road, once a new bypass has been built.

6 ENVIRONMENTAL PERMIT

6.1 Issue and Transfer

Environmental Permit EPR/ZP3795FD was issued as a Waste Management Licence (WML), reference EAWML30322, on 14th November 2005 and authorises an End-of-life Vehicle Authorised Treatment Facility (ATF). The WML automatically became an Environmental Permit in April 2008.

Environmental Permit EPR/FP3094VP was issued on 26th February 2010 and authorises the same area for the storage of furnace ready scrap under a set of standard rules. This permit was varied on 1st December 2011 to add a further set of standard rules for metal recycling.

6.2 Conditions

Since their issue, the permits/standard rules have required the following:

-  Provision of, and adherence to, a written management system.
-  Operation in accordance with an approved competence scheme [WAMITAB].
-  Restriction to metal or ELV-related wastes and prohibition of dusty, powdery or fibrous wastes and waste sludges and liquids.
-  All treatment, and storage of potentially contaminative wastes, to be undertaken on impermeable concrete paving with sealed drainage.
-  Provision of secondary containment for batteries and all potentially polluting liquids.

The currently permitted area, and the portion to be surrendered from each of the two Environmental Permits, is shown on a site plan included with the application.

7 DESK STUDY REPORT

The desk study information was gathered by commissioning an information search by the Landmark Group, referral to the relevant geological, hydrogeological, and ground water vulnerability maps, and from discussions with EMR.

The information below provides a summary of the desk study report and its general conclusions.

Environmental summary maps are provided in Appendix 1.

7.1 Historical Information

A series of historic maps are reproduced in Appendix 2 and an historical data report is included in Appendix 3. It should be noted that due to the gaps between publication dates, potentially contaminative/significant developments may have appeared and disappeared without appearing on any map edition. The following is a summary of the 1:1250 scale map editions.

1880

The earliest Ordnance Survey map available, which indicates that the site was part of open land.

1901

The site appears to form part of a timber yard, and railway sidings cross the site approximately midway along its length. A gasometer is located to the SE, a sulphur and copper works to the NE and a forge to the NW. The dock road (now Roath Dock Road) has also been developed.

1919-1920

The site remains part of a timber yard, and railway sidings now extend along approximately half the site's length. Warehouses are located to the SW, but the gasometer and sulphur and copper works are no longer marked.

1942

No significant change on site. The forge to the NW is now marked as 'Castle Works and Rolling Mill' and engineering works are marked to the NE.

1953-1954

The engineering works located to the NE of the site are now marked as 'Roath Engineering Works', tanks and a laboratory are also marked to the NW, an overhead pipeline is located to the North, and travelling cranes appear along the edge of Roath Dock, to the South of the site.

1954-1955

No significant change to the previous map edition.

1961-1969

The railway sidings appear to have been removed from the site, but are still present within the present day EMR site. The warehouses to the SW of the site are now marked as 'general cargo warehouses'.

1970-1989

The dock road is now marked as 'Roath Dock Road'. The railway sidings have now been removed from the present day EMR site, which is now marked as part coal yard and part scrap yard. Railway sidings remain to the North of the site. The 1961-1984 map edition shows an electrical sub station, tanks and pipeline to the SW.

1992-1993

The site is still marked as part coal yard and part scrap yard. Unspecified works remain to the NW. A pipeline (no longer marked as overhead) is located to the North.

2015 (10:000 scale)

The area of land to be surrendered forms part of the present day EMR metal recycling site and ATF, which is now all marked as a scrap yard. A park and ride is located to the West, a conference centre to the NW, Trident Trade Park to the North and a timber yard to the East. To the south of the site, lies Roath Dock, beyond which is an Oil Storage Terminal.

Summary

The Ordnance Survey map editions suggest the site's development as part of a timber yard from 1901 at the latest. This included the development of railway sidings across at least half of the site, present until the start of the 1960s. During the 1970s and 1980s, the site appears to have changed use to part coal yard and scrap yard, becoming just a scrap yard up to the present day. The map editions identify several additional potentially contaminative uses of the surrounding area, including works (sulphur and copper works, engineering works, rolling mill, and a forge), a gasometer, electrical sub station, tanks, laboratory, pipelines and warehouses.

8 ENVIRONMENTAL SETTING

8.1 Geology

Geological records indicate that the site is underlain by artificial ground, common in built up industrial and dockside areas. This is underlain by superficial tidal flat deposits (clay, silt and sand), underlain by the Mercia Mudstone Group (mudstone). The relevant geological maps are provided within Appendix 4.

8.2 Hydrogeology

According to the Environment Agency aquifer maps, the superficial deposits are classified as a Secondary Aquifer (undifferentiated). This classification has been assigned in cases where it has not been possible to attribute either category A or B to a 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. This classification is confirmed by the desk study search.

The underlying bedrock is classified as a secondary aquifer B. These are 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. This classification is confirmed by the desk study search.

8.3 Groundwater Vulnerability

In the assessment of groundwater vulnerability, a number of factors need to be taken into account. These include geology, hydrogeology and soil type.

By way of illustration, groundwater vulnerability (to pollution from point or diffuse sources) would be high where a major aquifer lies below permeable soils with a high leaching potential and geology with little ability to restrict or attenuate contaminant migration. Conversely, groundwater vulnerability would be low in regions where no aquifer exists or where an aquifer is protected by overlying impermeable geological strata or soils of low leaching potential.

According to the Environment Agency Groundwater Vulnerability Map 1:100,000 sheet 36 Mid Glamorgan, the soil classification is unclassified. Because soil information for urban areas is less reliable and based on fewer observations than in rural areas, the worst case is assumed and such land is classified as high leaching potential (HU) until proven otherwise. These are soils with little ability to attenuate diffuse source pollutants and in which non-adsorbed diffuse source pollutants and liquid discharges have the potential to move rapidly to underlying strata or to shallow groundwater. This classification is confirmed by the desk study search.

There are no records of any groundwater abstraction licences within 500m of the site.

RISK RATING	
<i>Hydrogeological</i>	<i>Low Risk</i>

8.4 Surface Water

The nearest surface water is Roath Dock, located approximately 64m South East of the site. The site drainage, however, drains to foul sewer under consent by Welsh Water.

8.5 On-Site Operations

In relation to the strip of land to be surrendered, compliance with the permit was understood to have been good, with no known significant non-compliances of permit conditions. This can be

confirmed by site inspection reports held by the Natural Resources Wales. In addition, the desk study search has returned no pollution incidents or prosecutions relating to the site.

EMR have operated the site in accordance with a written management system and relevant approved competence scheme (WAMITAB). Throughout the life of the permits, EMR have ensured compliance with the permit conditions through regular internal audits.

Only a small part of the strip has been used for waste activities, namely a small area around the location of the interceptor used for the storing of shearing grade materials. The remainder of the strip has been used as a roadway, site entrance, offices and for empty skip storage.

9 PRELIMINARY CONCEPTUAL SITE MODEL

9.1 Introduction

The risk assessment process is one that develops as more information becomes available to the risk assessor. At this stage the preliminary risk assessment draws together information gathered during the phase 1 desk study. Potential sources of contamination, exposure pathways and sensitive receptors are identified and placed in to the context of a conceptual site model.

At this stage of the risk assessment the aim is to:

-  Determine the sources of contamination and to identify specific contaminants of concern;
-  Identify where these contaminants may reside – soils, ground or surface waters, ground gases etc;
-  Identify possible target receptors and their relative sensitivity to these contaminants if exposed;
-  Identify and characterise contaminant migration pathways to determine whether a linkage exists;
-  and; create a conceptual model for the site displaying the sources – pathways – targets identified placing them in to context to demonstrate how the site may present a risk.

The conceptual site model is a dynamic representation of the site, to be refined and developed at each stage of the site investigation process. It is also to be used to direct and inform future investigation by highlighting areas requiring further investigation or eliminating those considered to be of insignificance or acceptable risk.

The conceptual site model contains the three elements:

-  the **source** - probable or actual contaminants, their nature and location;

 the **receptor**– existing and, within reason, foreseeable targets upon which the source may impact. These may be either on or off site; and,

 the **pathway** – means by which the source and the receptor may come in to contact.

Where a **source – pathway – receptor** pollutant linkage is envisaged, an estimation of the risk posed by this linkage can be made. Should any one of the three elements be absent, then there is no risk.

9.2 Potential Sources of Contamination

Contamination sources are based upon the previous uses of the site, and land within a 500m radius of the site, outlined within the phase 1 Desk Study and summarised within this report:

Source	Contaminant	Location
Railway sidings – on site and immediately North	Petroleum hydrocarbons, PAHs and metals	Soils, groundwater
Timber yard – on site	PCBs, asbestos, solvents, phenols	Soils, groundwater
Metals Recycling - on site	Petroleum hydrocarbons, PAHs, metals, PCBs, VOCs and SVOCs, sharps and asbestos	Soils, groundwater
Engineering works, rolling mill & forge – off site	Metals, asbestos, PCBs, PAHs, solvents, petroleum hydrocarbons	Soils, groundwater
Oil storage and pipelines – off site	Hydrocarbons	Soils, groundwater
Sulphur and copper works – off site	Metals, solvents	Soils, groundwater
Gasometer – off site	Phenol and PAHs	Soils, groundwater
Electrical Sub Station – off site	PCBs, petroleum hydrocarbons	Soils, groundwater

9.3 Potential Receptors

Receptor	Qualifying Comments
Site users/residents	Users of future development.
Ground workers/maintenance staff/construction workers	Construction Workers
Site Neighbours	Industrial commercial properties bordering the site.
Buried Services	Water mains, power or other below ground services
Local Ecological Systems	Local environment

9.4 Potential Exposure Pathways

Exposure Pathway	Qualifying Comments
Direct contact	Contact with exposed skin or eyes with soil, dusts (in or outdoors) or water (in or out doors).
Ingestion	Consumption of soils, dust (in or outdoors) water (in or outdoors).
Inhalation	Inhalation of soil dust, fibres or vapours, gases (in and outdoors)
Soil Leaching	Water soluble contaminants leaching through soil to impact on ground and surface waters, contacting human receptors.
Plant Uptake	Bioaccumulation from soils and waters, phytotoxicity.
Under ground services	Degradation caused by aggressive soil or water based contaminants, migration of ground gases.
On or below ground structures	Degradation caused by aggressive soil or water based contaminants, migration and accumulation of ground gases

9.5 Preliminary Pollutant Linkages

Source	Contaminant	Pathway	Receptor	Probability
Railway sidings	Petroleum hydrocarbons, PAHs and metals	• Direct Contact • Ingestion • Inhalation (dusts and vapour) • Soil leaching • Underground services/structures	• Future site users • Ground workers • Site neighbours • Groundwater • Surface Water • Buildings & services • Local Ecology	Possible
Timber yard	PCBs, asbestos, solvents, phenols	• Direct Contact • Ingestion • Inhalation (dusts and vapour) • Soil leaching • Underground services/structures	• Future site users • Ground workers • Site neighbours • Groundwater • Surface Water • Buildings & services • Local Ecology	Possible

Metals recycling	Petroleum hydrocarbons, PAHs, metals, PCBs, VOCs and SVOCs, sharps and asbestos	• Direct Contact • Ingestion • Inhalation (dusts and vapour) • Soil leaching • Underground services/structures	• Future site users • Ground workers • Site neighbours • Groundwater • Surface Water • Buildings & services • Local Ecology	Possible
Engineering works, rolling mill and forge	Metals, asbestos, PCBs, PAHs, solvents, petroleum hydrocarbons	• Direct Contact • Ingestion • Inhalation (dusts and vapour) • Soil leaching • Underground services/structures	• Future site users • Ground workers • Site neighbours • Groundwater • Surface Water • Buildings & services • Local Ecology	Possible
Oil storage and pipelines	Hydrocarbons	• Direct Contact • Ingestion • Inhalation (dusts and vapour) • Soil leaching • Underground services/structures	• Future site users • Ground workers • Site neighbours • Groundwater • Surface Water • Buildings & services • Local Ecology	Possible
Copper and Sulphur Works	Metals, solvents	• Direct Contact • Ingestion • Inhalation (dusts and vapour) • Soil leaching • Underground services/structures	• Future site users • Ground workers • Site neighbours • Groundwater • Surface Water • Buildings & services • Local Ecology	Possible
Gasometer	Phenol and PAHs	• Direct Contact • Ingestion • Inhalation (dusts and vapour) • Soil leaching • Underground services/structures	• Future site users • Ground workers • Site neighbours • Groundwater • Surface Water • Buildings & services • Local Ecology	Possible
Electrical Substation	PCBs, petroleum hydrocarbons	• Direct Contact • Ingestion • Inhalation (dusts and vapour) • Soil leaching • Underground services/structures	• Future site users • Ground workers • Site neighbours • Groundwater • Surface Water • Buildings & services • Local Ecology	Possible

9.6 Summary

Potential pollution linkages were identified on the site.

10 RISK ASSESSMENT

Completing the risk assessment process requires that the potential for pollution linkages be assessed against the proposed conceptual model included within section 9.

As stated previously, the conceptual site model contains three elements:

-  the **source** - probable or actual contaminants their nature and location;
-  the **receptor**– existing and, within reason, foreseeable targets upon which the source may impact these may be either on or off site; and,
-  the **pathway** – means by which the source and the receptor may come in to contact.

Where a **source – pathway – receptor** pollutant linkage is envisaged, an estimation of the risk posed by this linkage can be made.

A pollution linkage is created when there is a linkage between a contaminant source and receptor or target by means of a pathway. Should any one of the three elements be absent, then there is no risk. Where such a linkage is present is must be deemed as being significant for there to be a significant pollution linkage and for it to result in significant harm. Under these circumstances a site would fall under the definition of contaminated land as required within Part IIa of the of the Environmental Protection Act 1990.

Harm is defined as ... 'Harm to the health of living organisms or other interference with the ecological systems of which they form part and in the case of man includes harm to his property.'

Under the risk assessment procedure identifying sources, pathways and receptors or targets and pollution linkages is recognised as an appropriate approach to determining the extent and significance of contamination under the context of Part IIa. The same principles have been applied here when risk assessing the site for the purposes of permit surrender.

10.1 Pollutant Linkages

Source	Contaminant	Pathway	Receptor	Pollution Linkage	Comments	Additional information /mitigation
Potentially contaminated ground	Petroleum hydrocarbons, PAHs, metals, PCBs, VOCs and SVOCs, sharps, phenols and asbestos	Direct Contact Ingestion Inhalation	Future site users Construction workers Site Neighbours	Possible/ Low Risk	With the exception of a small area used for lorry parking and provided with hard standing, the 'surrender strip' was provided with impermeable concrete paving and sealed drainage system (oil/water interceptor discharging to foul sewer under consent with Welsh Water) throughout the life of the permits. The strip of land was used predominantly as a roadway and housed the site entrance, offices and a skip storage area. The only wastes stored on the strip of land was shearing grade which can be considered low risk. The permits restrict wastes types to those associate with metal recycling and an ELV ATF and required operations to comply with a written management system and approved competence scheme [WAMITAB]. There are no known significant contraventions of the permit in relation to the area to be surrendered and no pollution incidents or prosecutions relating to the EMR site as a whole.	Removal of operational plant, wastes and products, site's concrete surface swept to be swept on cessation of metal recycling/ELV activities, and interceptor emptied. Responsibility for interceptor to remain EMR's post-surrender

Potentially contaminated ground	Petroleum hydrocarbons, PAHs, metals, PCBs, VOCs and SVOCs	Vertical and lateral migration through natural ground and ground waters, surface run off	Groundwater	Possible/ Low Risk	As above. Site drainage discharged to foul sewer via sealed drainage system under consent with Welsh Water	As above.
Potentially contaminated ground	Petroleum hydrocarbons, PAHs, metals, PCBs, VOCs and SVOCs	Lateral migration through the natural ground and ground waters, surface run off	Off site receptors, surface water – Roath Dock to South	Possible/Low Risk	As above.	There are no recorded abstraction licences within 500m of the site.

11 SURRENDER REQUIREMENTS

The procedure for surrendering an Environmental Permit is documented in several guidance documents shared by the Environment Agency and Natural Resources Wales, and in primary legislation. The requirements of the following documents are discussed with respect to the EMR Roath Dock site in section 12.

11.1 Environmental Permitting Regulations 2010

Schedule 5, Paragraph 14, of the Environmental Permitting Regulations 2010 requires that for an Environmental Permit to be surrendered, the necessary measures have been taken to:

-  avoid a pollution risk resulting from the operation of the regulated facility; and
-  return the site of the regulated facility to a satisfactory state, having regard to the state of the site before the facility was put into operation.

11.2 DEFRA EP Core Guidance

The key permit surrender requirements are stated in the DEFRA EP Core Guidance (March 2013) as:

- 7.27 The Regulator should not hold the operator responsible under the Regulations for contamination on the site that the Regulator is convinced was caused...before the environmental permit was issued under the Regulations for a new facility
- 7.30 While 'suitable for use' is appropriate for pre-existing contamination, it is not the right test for the preventative environmental permitting regime. When applying to surrender a permit, applicants are advised to consider whether they might be required to carry out remediation under Part 2a [EPA1990].
- 7.32 The return of the site of the regulated facility to a satisfactory state should include:
 - i) the removal of any residual waste deposits
 - ii) removing as far as is practical any contamination to return the site to the original condition
 - iii) where removal is not practical, treating or immobilising contamination remedying any harm the contamination may have caused and mitigating the effects of any harm.

11.3 Environment Agency, Regulatory Guidance Note RGN 9

The requirements detailed in Regulatory Guidance Note RGN 9 (Surrender), version 3.0, May 2013, are designed to ensure that land and groundwater are protected at permitted sites, including waste facilities.

RGN9 details four tiers of surrender, according to risk; notification, basic surrender, low risk surrender and full surrender. The Environment Agency has developed low risk surrender arrangements, shared by Natural Resources Wales, where the evidence burden is small or non-existent. This includes waste facilities, where the risk to the environment is sufficiently low that an intrusive site survey or monitoring data in the surrender site condition report is not required.

The Environment Agency's 'H5 site condition reports – guidance and templates' (version 3, April 2013) expands on the criteria for low risk surrender; namely that an intrusive investigation is only required at surrender when the risk assessment identifies:

- i) The records of pollution prevention measures employed and their effectiveness are incomplete, for example, if it is feasible that an undetected failure of the pollution prevention measures could have taken place (e.g. low level leakages over a substantial period of time) leading to land or groundwater pollution.
- ii) The records of the occurrence and remediation of pollution incidents are incomplete
- iii) The records show compliance issues with respect to matters that may affect the condition of the land such as spills and leaks of polluting substances.

12 DISCUSSION OF SURRENDER EVIDENCE

12.1 Site Preparation

In order to prepare the site for surrender, the strip of land to be surrendered is to be cleared of operational plant, and all waste and product materials. In addition, the concrete surface will be swept and the interceptor emptied (as per DEFRA Core Guidance, 7.33 (i)).

12.2 Compliance with Environmental Permits

With the exception of a small area used for lorry parking and provided with hard standing, the 'surrender strip' site has been provided with an impermeable concrete surface and sealed drainage system throughout the life of the permit, with the site drainage discharging to foul sewer under consent with Welsh Water.

The strip of land has only been used for very low risk activities relating to the ELV and metal recycling operations carried out by EMR, namely roadways, the site entrance and weighbridge

offices, lorry parking, empty skip storage. The only waste stored on the strip at any time was shearing grade scrap metal, which has a very associated level of contamination.

Throughout the life of Environmental Permits EPR/ZP3795FD and EPR/FP3094VP, the interceptor has been inspected and serviced on a regular basis.

Under an agreement with the purchasers of the land, EMR will retain the responsibility to inspect, maintain, service and clean the oil/water interceptor, following the re-development of the strip of land and partial surrender of the Environmental Permits.

In relation to the strip of land to be surrendered, compliance with the Environmental Permits was understood to have been good, with no known significant non-compliances of permit conditions. This can be confirmed by site inspection reports held by Natural Resources Wales. In addition, the desk study search has returned no pollution incidents or prosecutions relating to the EMR site as a whole.

Throughout the life of the Environmental Permits, the EMR Roath Dock site has been operated in accordance with a written management system and approved competence scheme (WAMITAB) and has been subjected to regular internal environmental audits. Records of all incoming and outgoing wastes, internal audits and interceptor servicing are complete and have been retained by EMR.

12.3 Historical Contamination

There are a number of potentially contaminative uses on site and within a 500m radius, which could potentially have affected the site.

In line with DEFRA's core guidance (section 7.27), the operator should not be held responsible for contamination caused before the issue of the permit/licence, when considering the surrender application.

12.4 Risk Assessment

DEFRA's core guidance (section 7.30) makes the distinction between the 'suitable for use' risk assessment approach and the risk assessment process required for environmental permitting. That is to say that the issue of a completion certificate by Natural Resources Wales does not verify the site's environmental condition is fit for anything else other than the Environmental Permit surrender and that the site does not need to be in an environmental condition that is suitable for a defined end use.

The surrender process does not require the site to be free from contamination, just that the pollution linkages can be demonstrated to be insignificant and that any contamination that is present will not move from the site and impact upon the environment, local amenity, or human health.

The risk assessment provided in section 10, based on the same principles as Part 2a EPA90, categorises the risk posed by the metal recycling operations as low. The factors contributing to the low risk categorisation have been discussed throughout this report and are summarised in section 12.2.

In accordance with the Environment Agency's Regulatory Guidance Note, RGN 9 and H5 guidance on Site Condition Records, an intrusive site investigation is therefore not required.

13 CONCLUSIONS

The information provided by a desk study has been interpreted in line with the requirements for permit surrender. The desktop study provides information on the site's previous uses and highlights any potential pollution linkages in relation to the site.

The risk assessment based on the resulting desk study information and knowledge of the metal recycling and ATF operations and the Environmental Permits, suggests that the risk posed by the permitted operations can be considered low.

In accordance with the relevant legislation and guidance, the strip of land defined by the surrender application can therefore be considered to be in a condition suitable to be surrendered from Environmental Permits EPR/ZP3795FD and EPR/FP3094VP.

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We would like to thank European Metal Recycling Ltd for entrusting Mayer Environmental Ltd with this commission. If there are matters arising from our report which merit further attention, we would be pleased to offer any assistance.

David Pocklington
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