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EUROPEAN METAL RECYCLING

SMETHWICK BALER YARD CONSOLIDATION OF PERMIT

SITE CONDITION REPORT

DECEMBER 2024

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DATE ISSUED:	**December 2024**
JOB NUMBER:	**ST21386**
REPORT NUMBER:	**RPT 02**
VERSION:	**V0.1**
STATUS:	**Final**

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SMETHWICK BALER YARD CONSOLIDATION OF PERMITS

SITE CONDITION REPORT

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DRAWINGS	**TITLE**
SDSFPP121124	Downing Street Smethwick Fire Prevention Plan
SFFP12112024	Charles St Smethwick Fire Prevention Plan

1 INTRODUCTION

1.1 European Metals Recycling Ltd (EMR) are applying to consolidate their permits for Smethwick Baler Yard.

1.2 Currently their site at Downing Street, Smethwick operates under three different authorisations, a standard rules permit for the area to the south of Downing Street, a bespoke environmental permit, which was formerly a waste management licence, for an area to the north of Downing Street (Alfred Street site) and a T9 Exemption.

1.3 The aim of this variation application is to amalgamate these three authorisations into one bespoke permit ahead of changes to the exemptions that are due next year. The site also accepts non WEEE cable, as it has done for many years. However, the recent research showing that much of this waste is hazardous has also prompted EMR to include an additional waste code for hazardous cable, so that they can continue to accept this waste.

1.4 An area of land that was previously covered by the exemption will now become part of the permitted area. The site condition report therefore covers this area, which will now be permitted for the first time.

2 SITE DETAILS

2.1 The applicant is European Metal Recycling Ltd (EMR) and the site is Smethwick baler yard and shearer yard.

2.2 The address for the site is Downing Street, Smethwick, B66 2PG.

2.3 The grid reference for the site is SP 03161 89320.

2.4 This document provides the Site Condition Report at Permit Issue for a new area of land to be included in the permit. The reference is ST21386 RPT 02.

2.5 The site is within an industrial estate with a railway to the north. The nearest houses lie to the north of the site, approximately 75m away.

3 GEOLOGY, HYDROGEOLOGY AND SURFACE WATER

3.1 The site lies on a principal aquifer with the bedrock comprising the Chester Formation comprising sandstone with conglomerate and mudstone beds.

3.2 The bedrock is overlain by glaciofluvial deposits of Devensian age in the north part of the site and mid Pleistocene diamicton/till under the new area of land and the south of the site. the superficial geology is classed as a secondary A aquifer.[1] Secondary A aquifers comprise permeable layers that can support local water supplies, and may form an important source of base flow to rivers.

3.3 An Envirocheck purchased in November 2024 confirms this aquifer designation and also shows that the site is within a zone 3 source protection zone (total catchment), relating to a groundwater abstraction almost 2km to the east. See Appendix 1.

3.4 The Birmingham Canal lies approximately 270m to the south of the site as a whole (400m south of the new area). Severn Trent's nearest permitted discharge to the Hockley Brook is only about 50m from the site, according to the Envirocheck. However, this is not visible on the available mapping and the closest exposed part of the brook appears to lie approximately 350m to the southeast of the site (450m from the new area).[2] It is concluded that the brook must be culverted through much of the industrial estate, giving it a degree of protection from leaks and spillages. It is unlikely that there would be any direct run-off from EMR's site into a water course, indeed the site drainage is designed to direct all site drainage to foul sewer.

3.5 There are a large number of groundwater abstractions within 2km of the site. The most sensitive of these will be abstraction of potable water by Severn Trent approximately 1,637m east of the site and several abstractions for process water by the Coors and Bass Breweries 1,525m to the south. There are also a number of other abstractions for process water, 15 abstractions for cooling water and 2 abstractions for irrigation of grass at sports facilities within the 2km radius from the site.

3.6 In view of the above, the groundwater beneath the site would be considered the most vulnerable receptor in terms of emissions to water. This risk is mitigated by the impermeable surfacing and sealed drainage system on site.

[1] BGS Geology Viewer (BETA) and Magic Map Application accessed 20th November 2024.
[2] Magic Map Application accessed 20th November 2024

4 POLLUTION HISTORY

4.1 Historic maps provided with the Envirocheck report provides the following site history.

Table 4.1 Site History

Date	On Site	Landuse nearby
1889	The northern part of the site (including the new area of land) is shown as a goods yard with railway sidings and was probably used for loading and unloading goods from trains. The southern area of the site is occupied by a nut and bolt works.	The railway to the north is already established. Beyond the railway is an area of open space with housing to the northeast and northwest. To the south of Downing Street is an industrial area including a gas works, plate glass works and gas fittings works and foundry. There is an engineering works to the east of the site.
1904-1905	The area to the north of Downing Street continues to be railway sidings and goods yard. There continues to be a factory on the area to the south of Downing Street.	The area of open space to the north of the site is smaller with more housing developed. There continues to be housing to the west and industrial buildings to the east and south, with the Crown Machine Works and Cornwall Engineering Works the closest neighbours and the gas works to the southeast. The glass works has become a metal works.
1921	No real change	No real change
1938	No real change	No real change.
1945	No real change	The housing to the north has spread closer to the railway line. The site continues to sit in an industrial estate with a small number of houses to the west of the northern area.
1955	The building on the north of the site part of the site appears to have been demolished but there are still extensive sidings. The south area is still a factory.	No real change with housing north of the railway and a small area to the west. The area is largely industrial with the gas works still nearby and engineering works and a foundry shown.

Table 4.1 Site History		
Date	**On Site**	**Landuse nearby**
1966-1967	No real change though some new buildings have appeared on the northern part of the site.	No real change
1980	A factory still occupies the southern area. The railway sidings appear slightly less extensive. Some small buildings have appeared on site.	Houses to the west of the site have been cleared and a school has been built to the north of the site. Otherwise there is little change.
1989	The sidings are still shown but are less extensive. The small buildings have gone but there is a new building in the western part of the north area. South area still shown as a factory.	Commercial or industrial building have started to replace the houses to the west of the site. The gasworks appears to have been demolished though one of the two gas holders remains.
1999	A new building has appeared in the northern area. The large factory in the southern area has gone and been replaced by smaller buildings or structures. Much as it looks today.	No real change. The foundry and various works are still shown. Some of the buildings on the industrial estate are now labelled as warehouses.
2006	No real change	The second gas holder has been demolished. The site continues to have housing and a school to the north and is surrounded by works or warehouses to the east, south and west.
2024	Both areas of the site are labelled recycling site	The school has been demolished leaving an area of open land to the north of the site, beyond the railway. The foundry has also gone. Otherwise there is little change.

4.2 As might be expected in this part of the West Midlands the surrounding area has been an industrial estate for over one hundred years. For much of that time there was a gas works to the southeast of the site, approximately 100m away and a foundry

approximately 200m away. It appears that many of the nearby buildings were used for metal working, often labelled as engineering works.

4.3 The site itself had railway sidings across its northern extent, probably allowing loading of goods from the nearby works, so that they could be distributed. Remnants of the sidings remain in some parts of the site. The southern part of the site was a factory from the 1800s until the 1990s, originally labelled as a nut and bolt works.

4.4 The Envirocheck lists a number of pollution incidents to water within 550m of the site. These include 7 incidents relating to firewater, a diesel spill, a hydrochloric acid spill, discharge of crude sewage due to a blocked sewer. The vast majority are described as minor incidents with the sewage spill and acid spill being classed as category 2, significant.

4.5 Other pollution incidents that may have impacted the land included one relating the deposit of inert waste and several relating to emissions of dust,

4.6 The site is clearly in a busy area which has been associated with Birmingham's longstanding history of metal moulding, shaping, plating, surface treatment and recycling since the 19th Century. Given the industrial nature of the site and the surrounding area it is likely that there is some contamination on site. This is likely to include petroleum hydrocarbons and other organic species from the oil and grease used to lubricate the trains that used the sidings and in the shaping and manufacture of metal goods. It is likely that elevated metals are also present from the former engineering works.

5 POTENTIAL SOURCES OF POLLUTION NEARBY

5.1 There are no known pollution incidents that have taken place on the site during the operation of the permitted activities and exempt activities.

5.2 The Envirocheck shows that there are a number of potentially polluting activities in the area. These include industrial activities and discharges to water.

5.3 Severn Trent has a storm overflow into the Hockley Brook approximately 43m from the site and potentially another, 69m from the site. They also have consented storm overflows to the Hockley Brook approximately 145m from the site and 196m from the site, as well as a number of others further away. Severn Trent also hold consents to make permitted discharges to the Mornington Brook, Thimble Mill Brook and Birmingham/ Wolverhampton Canal. These consents have been varied on a number of occasions.

5.4 Sims Group Ltd have a permit to discharge trade effluent to the Hockley Brook approximately 177m from the site. Greaves Organisation Ltd have a permit to discharge treated sewage effluent to the Worcester/Birmingham Canal approximately 470m from the site. Henley Foundries Ltd has a permit to discharge cooling water to the Birmingham/Wolverhampton Canal 768 m from the site. District Iron and Steel has a permit to discharge trade effluent (process water) to the same canal some 952m from the site. Two other metal works in the vicinity also had consents to discharge to the canal in the past but one consent has been surrendered and the other revoked.

5.5 Sims Group hold two installations permits for a site on Rabone Lane, approximately 272m away, allowing the large scale shredding of metal, treatment of WEEE and storage of hazardous waste.

5.6 It appears that there was a permitted chemical works close to the site at Crown Works, approximately 350m. The site operated during the 1990s and the permit was revoked in 2001.

5.7 Approximately 280m away, Reeves Metal Finishing Company hold a permit for the surface treatment of metals. They have another similar permit for a site approximately 424m away. Three other metal finishing companies also hold permits for surface treatment of metal between 400m and 1,000m from the site.

5.8 There are 14 local authority permitted sites within 1km of the site and a large number of others that have been surrendered or revoked. These processes include a number

of metal foundries, surface treatment of metal, decontamination of metal, petrol filling stations, dry cleaners, blending of cement and rushing and screening of mineral.

5.9 The Envirocheck suggests that there may be ten extant permitted waste operations within 500m of the site boundary. These include a number of metal recycling sites, vehicle dismantlers, waste transfer stations and a site for the production of soil from waste. A further seven waste operation permits are recorded as being present previously but now revoked or expired. These included four metal recyclers, two general waste transfer and treatment sites and one site for the transfer and treatment of inert excavation waste.

5.10 The nearest known landfill is 456m to the east of the site and comprises a pit or quarry which was historically filled with unknown waste.

5.11 Within the area, two companies have been prosecuted for deposit and handling or treatment of waste other than in accordance with a permit. These incidents took place 494m and 432m from the site in 2006 and 2008 respectively.

5.12 It is clear that Smethwick continues to be an important area for the production of new metal goods and the recycling of metal and there are a number of businesses with the potential to generate similar contaminants to those produced by EMR close to their site. Permitted discharges to the Hockley Brook and the Birmingham/Wolverhampton Canal include those from metal processing sites as well as a large number of storm overflows associated with Severn Trent's sewerage network.

5.13 Baseline data has not been collected as the site is currently operational and has been operational for some time. The Envirocheck provides estimated soil chemistry from the British Geological Society (BGS). These levels are spatially interpolated based on point source data collected across urban areas in the UK.

5.14 The BGS estimated chemical data for the site are as follows:

Table 5.1 BGS Estimated Soil Chemistry	
Chemical Species	**Estimated Concentration**
Arsenic	<15mg/Kg
Cadmium	<1.8mg/Kg
Chromium	20-40mg/Kg
Lead	100-200mg/Kg
Nickel	<15mg/Kg

5.15 It is noted that these figures are only estimates and the long industrial use of the site and the surrounding area may mean that levels of contamination vary considerably.

6 PERMITTED ACTIVITIES

6.1 The permitted activities to take place on site are a continuation of the currently permitted activities. The site has previously operated under a standard rules permit, an old style bespoke permit and a T9 exemption. The aim of the application is to bring these three authorisations together in one permit with modern style conditions.

6.2 The activities will include storage, shearing and baling of metal, depollution of end of life vehicles and storage of WEEE. A small quantity of hazardous waste will be held on site but this will be less than 50 tonnes at any one time. Hazardous wastes might include batteries, antifreeze, catalytic convertors, fuel and components containing explosives, mercury or PCBs, removed from cars dismantled on site. These wastes will be stored in appropriate leak proof containers. Fluids removed from vehicles will be stored in drums of IBCs within local bunds.

6.3 Hazardous cable and wastes that may give rise to dust will be stored in containers which are lidded or stored under cover.

6.4 Fuel for site plant is stored in a bunded tank with the bund able to contain 110% of the maximum capacity of the tank.

6.5 The entire site is provided with impermeable concrete surfacing which falls towards a sealed drainage system. The drainage system flows via an oil interceptor into the foul sewer under a trade effluent consent issued by Severn Trent Water.

6.6 Where necessary a penstock valve can be closed to hold the water on site. This might happen in the event of a fire or major spill and the water would then be tested before release to sewer or removal by tanker to a permitted waste treatment site.

6.7 The site is operated using an Environmental Management System which is accredited to ISO14001. A preventative maintenance programme is in place and all surfacing, drains and the interceptors will be checked on a regular basis to ensure they are working correctly and any necessary maintenance or repairs will be carried out without delay.

6.8 It is considered that appropriate measures are in place to prevent pollution of soils, groundwater or surface water.

6.9 The site layout is shown in drawings SDSFPP121124 and SFFP12112024.

7 CONDITION OF LAND AT PERMIT ISSUE

7.1 At the time of issue of the consolidated permit the site has operated as a scrap yard since 1996. Prior to its use as a scrap yard the site had been used as railway sidings and a goods yard dating back to the mid-19th century.

7.2 The surrounding area has supported a range of industries but in particular moulding, shaping and surface treatment of metal products for well over one hundred years. It continues to support these industries as well as a large number of vehicle dismantlers and metal recycling sites.

7.3 The BGS estimate that some lead and chromium may be present on site. Given the site history it is expected that contamination by metals and by breakdown products from oil and grease used by the adjacent railway, former railway sidings and the engineering works are likely to be present.

7.4 Given that the site is currently operational and is provided with concrete impermeable surfacing and sealed drainage, no samples have been collected to confirm exact levels. This would be disruptive to the business and could potentially open pathways for contamination due to damage to the surfacing .

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