CRESTWOOD ENVIRONMENTAL LTD

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Non-Technical Summary

Application to Vary Bespoke Environmental Permit (ref: EPR/XP3992FV) for Unit 4a, Sprint Industrial Estate, Four Ashes, Wolverhampton

Report Reference: CE-FA-1921-RP03-NTS-Final v4

Report Date: 29 July 2024

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MINERALS / WASTE	AIR QUALITY	LAND QUALITY	VISUALISATION

Crestwood Report Reference: CE-FA-1921-RP03-NTS-Final v4:

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1 Introduction

1.1.1 This Non-Technical Summary supports an application to vary an Environmental Permit (ref: EPR/XP3992FV) for Aqua Force Special Waste Ltd (trading as Aquaforce Recycling) ***(the Client and the Operator)*** at Unit 4a Sprint Industrial Estate, Four Ashes, Wolverhampton ***(the Site).*** The Site location and proposed Environmental Permit boundary are shown on Drawing No CE-FA-1921-DW03 Permit Boundary Plan. The Site Layout is shown on Drawing No CE-FA-1921-DW01-Rev A Site Layout Plan. Waste storage configuration is shown on Drawing No CE-FA-1921-DW02.

1.1.2 The purpose of this application is to;

- increase the maximum waste throughput from 24,999 tonnes per annum (tpa) to 29,999 tpa
- increase the permit boundary;
- amend Activity A2 WEEE treatment to:

  add additional (WEEE) waste codes; and

  inclusion treatment of non-hazardous WEEE waste in description.
- amend Activity A12 Treatment of non-hazardous waste, to include additional non-hazardous waste codes.

1.1.3 Since submission of the application in 2023, the Operator is no longer seeking to add drum washing to the permit.

1.1.4 A fire in the aerosol and paint treatment building in 2024 meant that these treatment activities could no longer be continued in the medium term. The Operator and Environment Agency agreed to include the move of the paint treatment activity to the main building, within the ongoing permit variation application, provided that any verified polluting impact would mean cessation of the activity. This means that permitted emission point A2 (now referred to as A2a) will move to emission point A2b – see Drawing CE-FA-1921-DW01-Rev A.

1.1.5 A full list of wastes to be added to the Permit are presented in Appendix 20 of the Environmental Management System (EMS) which supports this application (report ref: CE-FA-1921-RP01-EMS).

1.1.6 All Site operations are carried out within the roofed buildings and on concreted, impermeable surfaces throughout. As such, there is no risk of surface water run-off from the on-Site waste activities.

2 Waste Operations

2.1.1 The Site currently operates a WEEE waste treatment and recovery facility and a hazardous waste recovery, transfer and treatment centre and has done so since July 2002. The Site accepts no more than 24,999 tonnes of waste per annum.

2.1.2 Activities presently carried out on-Site and those that are proposed are defined under the recovery and disposal codes of R3, R4, R5, R13, D14 and D15.

2.1.3 Waste activities undertaken on Site are grouped into two main categories, these being WEEE waste treatment and recovery, and non-hazardous and hazardous waste recovery, transfer and treatment.

2.1.4 The WEEE activities undertaken at the Site consists of commercial and domestic fridge treatment, the transfer of hazardous and non-hazardous WEEE wastes such as CRT/TV`s and, the transfer of commercial and domestic source batteries. The hazardous waste activities comprise asbestos waste transfer, the recovery of paint waste and the transfer of oily wastes such as oily rags and protective clothing, and aerosol and other packaging treatment.

2.2 Drummed and Containerised Hazardous Waste

2.2.1 Hazardous wastes will be strictly segregated from each other to avoid the mixing of the two. Additionally, hazardous wastes will be stored and treated separately from all other waste streams accepted at the Site

and any other substances or materials.

2.2.2 Bespoke engineered bays are designed for the storage of hazardous, flammable and non-hazardous substances which will be stored in accordance with the Health and Safety Executive (HSE) Guidance HSG 51 and HSG 71 in drums and containers, predominantly IBC's. Note that spontaneously combustible materials are not accommodated on site and therefore will not be accepted.

2.2.3 The bays are segregated by 180mm thick preformed concrete walls sealed with intumescent sealant which are fire resistant for 1.5 hours and impervious to liquids. The base of the bays comprises concreted flooring which extends across the entire surface of the facility.

2.2.4 The entrance and exit points to the internal area comprise of a 40cm bund to enable the safe containment of any leaks or spillages. The walls of the buildings also serve as a containment measure as do the 10cm bunds across the entrance to each individual storage bay.

2.2.5 There are additional free-standing bunds to prevent the mixing of chemically incompatible wastes. Some wastes do not contain any free liquid and are not readily chemically reactive and therefore when containerised will not require additional drainage or bunding.

2.2.6 Changes to this activity relate to additional waste codes see List of Waste Codes in Appendix 20 of EMS.

2.3 Waste Paint Recovery and/or Treatment

2.3.1 Mixed hazardous and non-hazardous paint wastes are accepted at the Site with hazardous and non-hazardous paints stored and treated in separate areas (refer to Drawing No. CE-FA-1921-DW01 and CE-FA-1921-DW02) to ensure there is no mixing of the two.

2.3.2 All paints will be de-packaged and shredded by either the attritor plant for non-hazardous waste or by shredding and crushing of the paint containers in the paint or aerosol/waste plant. Solvent-based paints are bulked for recovery of the solvents for secondary fuels for use in the kilns for the cement industry whilst water-based paints are bulked for treatment off-Site at an authorised facility.

2.3.3 All waste paints are stored within the building in the designated area. Water based paints are stored in a bunded storage tank prior to removal from the Site for treatment. Whilst solvent based paints are transferred to a suitably authorised facility via a bulk tanker.

2.3.4 Changes to this activity relate to additional waste codes see List of Waste Codes in Appendix 20 of EMS.

2.4 Waste Aerosol and Waste Processing and Treatment

2.4.1 The Site operates an aerosol shredding plant, with a linked extraction system to the paint processing plant. This comprises of an online filtration for particulates with emission to air of propellants. This relatively small-scale operation was conducted in the same location as the paint waste activity until the 2024 fire. It is the intention to re-instate these activities within this building, but this may take a number of months.

2.4.2 While the aerosol and paint treatment building is repaired, the paint treatment plant will be moved to the main treatment building, see Site Layout Plan CE-FA-1921-DW01 Rev A. This re-located activity will involve the treatment of packaged wastes such as paint, which may have volatile emissions but will not include the treatment of aerosols.

2.4.3 As part of the permit variation, the Operator still seeks to amend the aerosol treatment activity to enable the treatment of other hazardous containerised wastes via the aerosol shredding plant. This will offer greater flexibility in terms of recycling improvements and capabilities in the future, without increasing the risk profile of the plant and the Site itself.

2.4.4 All wastes for the aerosol/waste processing/treatment plant received at Site may be incorporated with other wastes including paints, WEEE or fridge collections. Aerosols and waste streams suitable for processing are separated (if required), prior to the transfer to the designated storage area where they are stored in specifically designed aerosol drum containers, storage bay or container as appropriate according to waste type.

2.4.5 Treatment comprises solely of separating, sorting and storage prior to dispatch for recovery to an authorised

facility. Empty aerosol canisters, which may contain hydrocarbon propellants, are delivered to site in 205 litre clip-top drums.

2.4.6 The aerosol waste shredder is equipped with air-extraction equipment, which vents any residual propellant gases to air outside the building, and a drip tray which collects any residual contents of the canisters. The drip tray is periodically emptied, as necessary, into 205 litre drums for disposal off-Site. The shredded metal from the canisters is recycled to metal-recovery contractors.

2.4.7 Changes to this activity relate to additional waste codes see List of Waste Codes in Appendix 20 of EMS.

2.5 Non Hazardous and Hazardous WEEE wastes

2.5.1 The Site benefits from a licence to operate as an Approved Authorised Treatment Facility (AATF) and, as such, is permitted to accept WEEE waste streams for transfer, treatment and recovery. Currently, these wastes include computer recycling technology (CRT), televisions and monitors, which are classified as hazardous wastes. These are not treated at the Site but are transferred to another licensed facility for treatment.

2.5.2 Under the application to vary the permit, the Operator seeks to authorise the inclusion of additional EWC codes associated with WEEE wastes to enable a wider range of scope in the recycling service the Site offers.

2.5.3 Fluorescent tubes and other lamps are accepted at the Site, stored in a designated area and transferred off-Site for recovery.

2.6 Transfer of Oily Contaminated Wastes

2.6.1 Drummed and containerised oily contaminated wastes, typically consisting of oily contaminated rags, wipes, protective clothing, spill granules and absorbent materials are accepted at the Site. Much of these waste types are received in bulk from skip or 'RO-RO' containers and are tipped directly into a specific tipping bay.

2.6.2 Oily contaminated material is manually sorted and separated within the confines of the designated bay, for onward treatment / disposal at an authorised site. The separation process allows identification of any non-conforming items which cannot be accepted/ sent for energy recovery. Such items include large bulky items, metal wastes, aerosols or gas cylinders potentially containing explosive gases. The sorted waste is repackaged into 1000 litre IBC containers and stored in the waste despatch area awaiting transport off Site.

2.6.3 Changes to this activity relate to additional waste codes see List of Waste Codes in Appendix 20 of EMS.

2.7 Attritor Plant

2.7.1 An attritor plant will be installed in the newly acquired building to facilitate in the treatment of non-hazardous waste containers, such as plastics and cans. The attritor has a capacity of 10 m^3 and comprises of a metal drum in which materials are fed into via two screw conveyors. A schematic diagram and specifications of the attritor plant are provided in Diagram 1 and Appendix 18, respectively, of the Environmental Management System (EMS).

2.7.2 The attritor will mechanically separate and shred non-hazardous waste, typically packaging, via a dedicated plant. This will be in addition to the separation and shredding activities already carried out under Activity A12 of the Permit.

2.7.3 The plant is designed to remove any residual liquids from the containers which are released into a container beneath the drum. Liquids are stored in IBC's or drums as appropriate in designated bays according to the substance type pending removal from Site for disposal or recovery at an authorised facility.

2.7.4 Dry packaging is conveyed out of the drum which is bulked up and also transferred for recovery or disposal at a suitably permitted facility.

2.7.5 Bunding of the attritor will comprise of a 22 cm sleeping policeman capable of containing 110% of the maximum capacity of the attritor contents i.e. 10 m^3. The building itself will serve as secondary containment for any spillages from the plant.

2.8 Container Washing Plant

2.8.1 The previously proposed container washing plant is no longer required by the permit variation.

3 Waste Types and Quantities

3.1.1 Waste types currently accepted are highlighted in green in Appendix 20 of the Environmental Management System (EMS) that accompanies this application and are defined by two distinct activities, these being WEEE waste treatment and recovery and hazardous waste recovery, transfer and treatment.

3.1.2 The permit variation is to authorise receipt of additional waste codes which are congruent with those currently permitted and are also listed in Appendix 20 of the EMS (left unhighlighted).

3.1.3 Waste quantities accepted are currently 24,999 tonnes per annum. The Operator proposes to increase this by 5,000 tonnes to 29,999 tonnes per annum. There is no proposed increase to the volume of waste stored on Site.

4 Waste Acceptance

4.1.1 All waste received at the Site are subjected to documented and recorded acceptance procedures in line with current legislation. To ensure due diligence, compliance and tracking and control of stock, all waste received at the Site must adhere to pre-acceptance procedures. The procedure is summarised here in Section 4 and the procedures are provided as Appendices 12 and 13 of the EMS.

4.1.2 All vehicles delivering wastes to the Site stop at the weighbridge to be weighed. Paperwork accompanying the load is checked to make sure that only authorised wastes are accepted. Any unsuitable or non-conforming wastes are rejected from the Site or, if inadvertently deposited, either reloaded onto the delivery vehicle for off-site removal to the waste producer or suitably authorised facility or else placed in a secure quarantine area, prior to off-site removal.

4.1.3 All wastes are visually inspected upon deposit as a further measure to ensure that only authorised wastes are accepted at the Site.

4.1.4 The Site records are kept of each waste load received and dispatched from the Site. Records are available for inspection by the Environment Agency.

4.1.5 A copy of the Environmental Permit and the Fire Prevention and Mitigation Plan are easily accessible by staff members or contractors. Contractors are briefed on the sensitivity of the Site and require a Site induction to maintain the high standards of operation required.

4.1.6 Only wastes which have been subject to the above checks will be accepted at the Site.

4.1.7 Any discrepancies found, i.e. suspect, non-conforming and/or random loads, as a result of the checks detailed above will result in the vehicle being detained whilst some, or all, of the following supplementary management decisions are taken:

- Referral to the Site Manager;
- Referral to the waste producer to confirm the nature of the waste load;
- Referral to the Environment Agency;
- Redirection of delivery vehicle off site, to a suitably authorised facility; and
- If the waste has been discharged, removal of the waste to a secure quarantine area, prior to off-site removal either to the waste producer or suitably authorised facility.

4.1.8 Any waste materials dispatched off site to an authorised facility in accordance with the Duty of Care.

5 Emissions and Monitoring

5.1.1 The Permit currently lists three air emission points, A1, A2 and A3. These emission points are shown on Drawing No. CE-FA-1921-DW01.

5.1.2 Emission point A1 comprises an exhaust stack emission to atmosphere from the WEEE plant. Emission point A2 is from a combined single stack from the aerosol and paint plant and paint processing plant and emission

point A3 from the steam raising boiler.

5.1.3 Emission point A2 will be referred to as

- A2a - original emission point for combined paint and aerosol treatment
- A2b – associated with the re-located paint treatment plant

5.1.4 Emission point A2a will no longer be monitored until further notice as these activities are paused until they can be re-instated. Emission point A2b will be monitored in accordance with the existing A2 requirements. Emission point A2b will have all of the same abatement installed.

5.1.5 Emission points A1 and A2 are monitored quarterly for total particulate matter, particulate matter fraction PM10 & PM2.5, CFCs, and volatile organic compounds. There are no set parameters or limits for the monitoring of A3.

6 Site Management

6.1.1 Aquaforce Recycling recognises its need to operate the business in a manner which reflects good environmental management and is aware of the need to protect the local and global environment. The Site is operated in accordance with an EMS. The EMS sets out how the operations at the Site will be undertaken in accordance with all relevant environmental legislation and best environmental practice.

6.1.2 The Site will be managed by WAMITAB (Waste Management Industry Training and Advisory Board) accredited staff to ensure compliance with all regulatory requirements and the conditions of the Environmental Permit.

6.1.3 The Site will be subject to independent inspections by the Environment Agency as part of the Environmental Permitting process.

Drawings

Drawing No CE-CE-FA-1921-DW01 Rev A	Site Layout Plan	1:900
Drawing No CE-CE-FA-1921-DW02	Configuration of Bays in Chemical Storage and Storage Areas	NTS
Drawing No CE-CE-FA-1921-DW03	Permit Boundary Plan	1:1,500

391800

308600

Paint & aerosol plant
A2a

Waste for dispatch - empty ROROs

Waste Reception

Paint processing plant

Boiler & substation

Airbag, WEEE

A2b

A1

Waste chemical storage

Fridge storage

Skip tipping bay

Fridge Plant

Dirty lab & sample store

Maintenance room

Rugby-Birmingham-Stafford Line

Waste bulk, sort, segregate

Attrittor

Filter cake (x2)
Skip tipping bays

Waste Storage Skips

Contam. packaging & absorbs (x1)

Vehicle access ramp

Roller shutter doors

Service road

Weighbridge

Office & lab

Station Road

0 10 20 m

308400

391800

OpenStreetMap contributors (2024)

IBC containers in the chemical storage bays**
IBC's in storage bays are at maximum 20 deep, 2 across with a 70cm gap in between stacked 2 high concrete fire walls on two sides with 10mm bund across either end.

Legend

- Permit boundary
- Emission points (A1-A3)
- Storage
- Plant
- Skip tipping bays
- Waste reception
- Airbag deployment and WEEE
- Fire hydrant
- Fire extinguishers
- Waste processing areas
- Bays
- Concrete wall
- One way internal routing
- 40mm bund
- 10mm bund per bay

Consultant:

Crestwood Environmental Ltd. Science, Technology And Prototyping Centre
University Of Wolverhampton Science Park Glaisher Drive Wolverhampton
WV10 9RU

Client:

Aquaforce Special Waste Ltd

Site: Unit 4a Sprint Industrial Estate, Four Ashes, Wolverhampton

Drawing title: Site Layout Plan

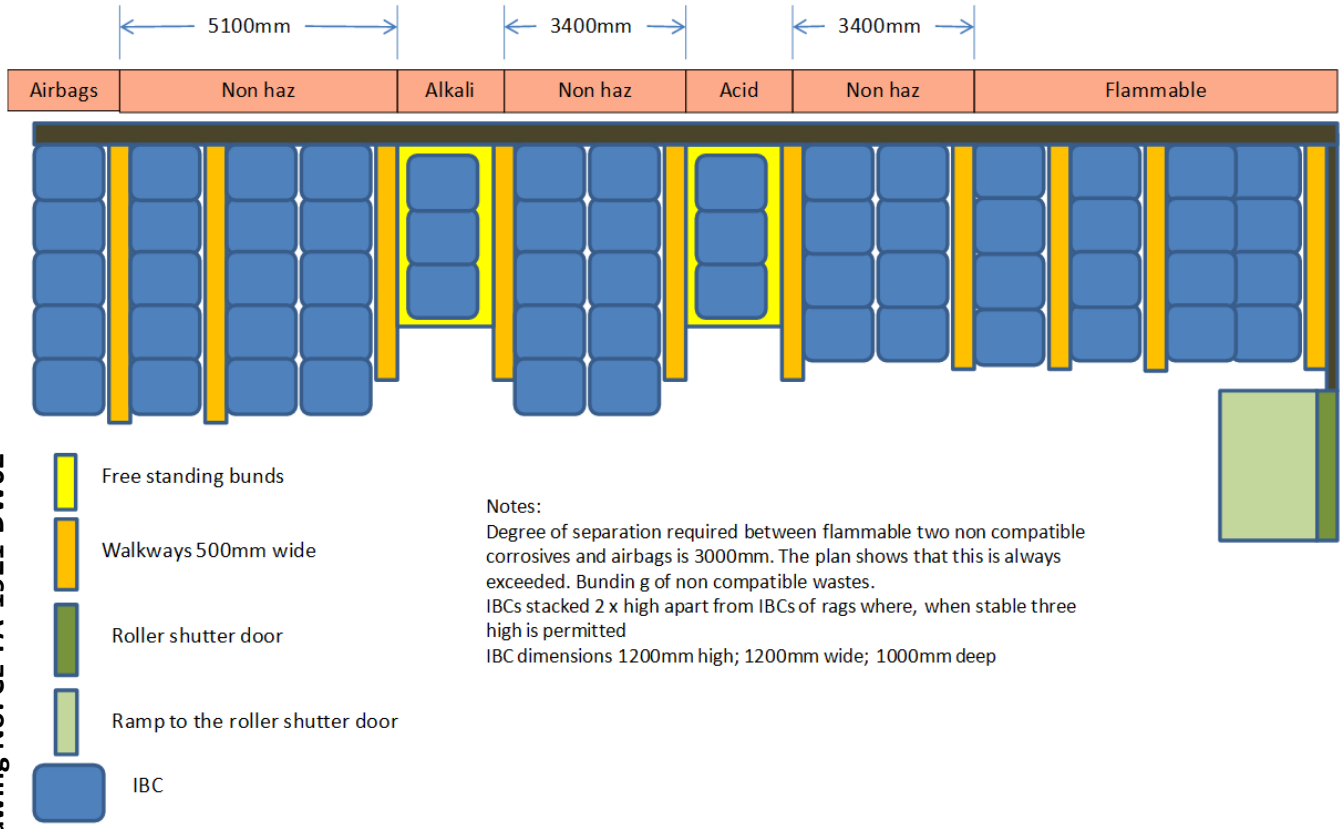
Date:	Scale:	Paper size:
26/07/2024	1:900	A3 (420×297mm)

Drawn by:	Checked by:	Status:	FInal revision
DJ	KB	Final	A -

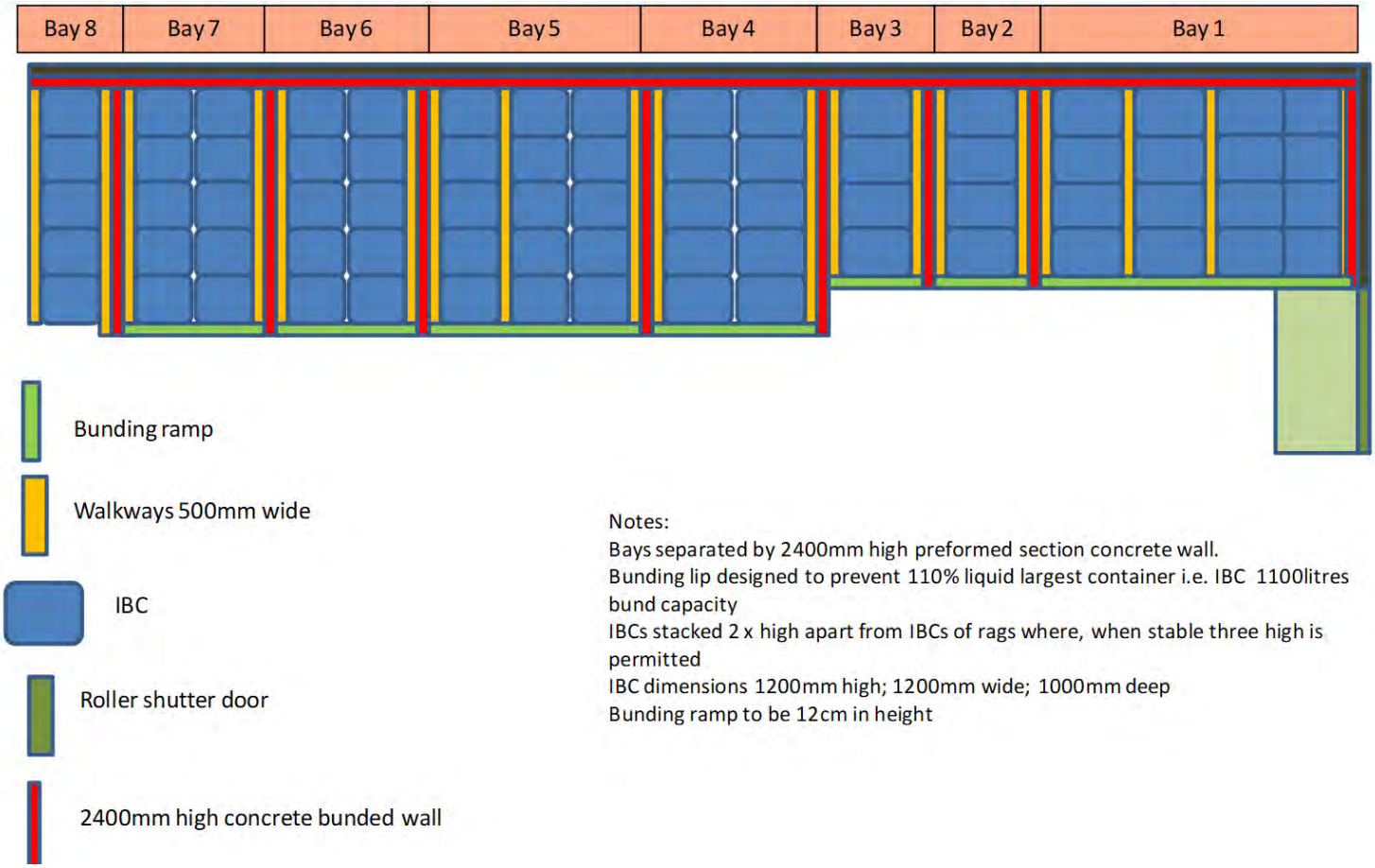
Drawing Ref:	Drawing No:
CE-FA-1921-DW01-Final	DW01

Configuration of Bays in Chemical Storage and Storage Areas

Drawing No. CE-FA-1921-DW02



Notes:
Degree of separation required between flammable two non compatible corrosives and airbags is 3000mm. The plan shows that this is always exceeded. Bundin g of non compatible wastes.
IBCs stacked 2 x high apart from IBCs of rags where, when stable three high is permitted
IBC dimensions 1200mm high; 1200mm wide; 1000mm deep



Notes:
Bays separated by 2400mm high preformed section concrete wall.
Bunding lip designed to prevent 110% liquid largest container i.e. IBC 1100litres bund capacity
IBCs stacked 2 x high apart from IBCs of rags where, when stable three high is permitted
IBC dimensions 1200mm high; 1200mm wide; 1000mm deep
Bunding ramp to be 12cm in height

391600

391800

308600

308400

Legend:

Permit boundary

Station Road

Station Drive

Enterprise Drive

Pegsmire Close

Rugby Birmingham Oxford Line

P

0 50 100 m

Consultant:

Crestwood Environmental Ltd.
Science, Technology And Prototyping Centre University Of Wolverhampton Science Park
Glaisher Drive Wolverhampton
WV10 9RU

Client:

Aquaforce Special Waste Ltd

Site: Unit 4a Sprint Industrial Estate, Four Ashes, Wolverhampton WV10 7ED

Drawing title: Permit Boundary Plan

Date:	Scale:	Paper size:
03/07/2023	1:1500	A3 (420x297mm)

Drawn by:	Checked by:	Status:	Final revision
DJ	KB	Final	-

Drawing Ref:	Drawing No:
CE-FA-1921-DW03-Final	DW03

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