# HARTCLIFFE HOUSEHOLD REUSE AND RECYCLING CENTRE

# **Environmental Permit Application**

**Working Plan** 

Prepared for: Bristol Waste Company Limited

Ref: EPR/JB3706HR/A001



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# 1.0 Introduction

SLR Consulting Limited (SLR) has been instructed by Bristol Waste Company Limited (Bristol Waste) to prepare an Environmental Permit (EP) application for the proposed Hartcliffe Household Reuse and Recycling Centre (HRRC) at 83 Hartcliffe Way, Bristol, BS3 5RN, under the Environmental Permitting (England and Wales) Regulations 2016 (as amended). Herein the facility will be referred to as 'the site'.

This Working Plan document sets out best practice for operating the site, based on legislation and best available techniques in the industry.

This Working Plan has been drafted to ensure compliance with the Environment Agency's (EA) guidance Develop and Management System: Environmental Permits, last update 30 November 2020.

The Working Plan will be reviewed and updated on an annual basis or because of any of the following activities (list not exhaustive):

- The issue of an EP variation by the Environment Agency (EA);
- A material change to the operational process;
- A substantiated complaint; or
- Any changes in legislation or guidance documents applicable to the HRRC.

This Working Plan document is supported by the following documents submitted in the 2021 EP application:

- Application Forms (Parts A, B2, B4 and F1) and associated appendices, including a summary of the Environmental Management System (EMS), List of Directors and WAMITAB/Certificates of Continuing Competence;
- An Environmental Risk Assessment;
- A Site Condition Report;
- A Fire Prevention Plan; and
- Associated Drawings.

Bristol Waste is fully conversant with its environmental responsibilities in relation to the above activities and is committed to ensuring that its relevant facilities are designed, constructed and operated to the highest possible standards. It is intended that this will be clear from the detail contained within this Working Plan.

The site location and environmental permit boundary are detailed in Drawing 001. Drawing 002 illustrates the site layout. The site's environmental context is illustrated on Drawing 003.

# 1.1 Report Structure

The report describes the operating techniques that will be implemented at the facility to ensure compliance with the conditions of the EP. The report is divided into the following sections.

Section 1 Introduction

Section 2 Management

Section 3 Accident Management

Section 4 Operations

Section 5 Pollution Control, Monitoring and Reporting



- **Section 6** Amenity Management and Monitoring Systems
- Section 7 Security and Availability of Records

# 1.2 Site Setting

The site is situated in Bedminster Down approximately 3km south of Bristol City Centre. The National Grid Reference (NGR) for the site is ST 58141 69727.

The area to the north of the site is predominantly commercial/industrial premises with open ground immediately to the east. The closest residential area of Headley Park is located approximately 70m to the west. Hartcliffe Way (A4174) runs in a north-south direction parallel to the western site boundary. The Site location and permit boundary are illustrated on Drawing 001.

The surrounding land uses, local receptors within 500m and cultural and natural heritage receptors within 1km are identified on Drawing 003.

# 1.3 Document Revision History

Any changes to the Working Plan will be labelled in chronological order and the date of the change recorded. All records of the changes will be listed in the revision history in Table 1 below.

**Table 1 Revision History** 

Version	Reason for Revision	Date of Revision	Signature of Site Manager
1.0	First version of the Working Plan in support of the Environmental Permit Application for the HRRC		



# 2.0 MANAGEMENT

# 2.1 Management System

The site will be operated in line with Bristol Waste's ISO14001 management system and this site specific Working Plan which will ensure that:

- The risks that the activities pose to the environment are identified;
- The measures that are required to minimise the risks are identified;
- The activities are managed in accordance with the ISO14001 EMS and the Working Plan;
- Performance against the management system is audited at regular intervals; and
- The Environmental Permit is complied with.

The management system will be supplemented by this document which outlines the proposed Working Plan at the Site and demonstrates conformance with the requirements of relevant published EA Guidance.

# 2.1.1 Management Structure and Responsibilities

Site management will be responsible for day to day operations and compliance with the Environmental Permit.

Whenever the site is open to receive waste, or carry out any waste management operations, it will be supervised by at least one member of staff who is suitably trained and fully conversant with the requirements of the permit relating to:

- Waste acceptance and control procedures;
- Operational controls;
- Maintenance;
- Record-keeping;
- Emergency action plans; and
- Notifications to the EA.

# 2.2 Technical Competence and Training

The site will be managed by sufficient staff, competent to operate the site. According to their individual duties, all operatives will receive operational training, on the current best practice for safely dealing with wastes at the site. This includes receipt, storage, recovery, reloading and dispatch of wastes. Where appropriate, employees are also required to attend relevant formal training to improve their understanding of current statutory waste controls, health and safety issues and operational techniques. All training will be monitored and refreshed where appropriate.

Operatives will also be required to follow approved procedures in relation to the handling of wastes at the site and in the operation of relevant plant and machinery, as appropriate. Such procedures are subject to periodic review and include:

- Receiving and inspecting wastes;
- Record keeping;
- Dealing with any unauthorised wastes;
- Tipping loads;



- Sorting and Segregating mixed wastes;
- Operation of the mechanical shovel;
- Safe storage of wastes and recyclables;
- Dispatch of bulked wastes, recyclables and `rogue' wastes;
- General housekeeping, including cleanliness of the site and its environs;
- Equipment maintenance; and
- Inspection and maintenance of the infrastructure and of the drainage systems etc.

A copy of this Working Plan and the Environmental Permit will be made available at the facility for the attention of all staff. They will be informed of the importance of these documents and of the key areas of concern, and fully briefed on the role of the EA in enforcing compliance.

# 2.3 Site Security

#### 2.3.1 Fencing, Gates and Lighting

The site will be surrounded by a 1.8m minimum height palisade or chain-link fence topped with three strands of barbed wire.

Lockable gates of a similar standard will be provided at the site entrances.

A comprehensive lighting system will be in place to illuminate all operational areas and internal access routes.

Security cameras will be located strategically around the site to capture all areas.

## 2.3.2 Inspection and Maintenance of Security Systems:

Gates will be locked at all times when the site is unattended.

All fencing, gates, lighting and the CCTV system will be inspected daily by the site management to assess their continuing integrity. If necessary, and as a minimum, temporary repairs before the end of the working day will be carried out to fences and gates to ensure that the Site remains secure. Full repair or replacement as necessary will be affected within 14 working days of the damage being detected.

The findings of the security inspections, the details of any works necessary to remedy failings and the date of their completion will be recorded in the Site Diary,

#### 2.3.3 Visitors & Intruders:

All visitors to the site (other than those delivering waste to the reception areas) will be required to report to the office on arrival and to sign the visitors' book. No one will be allowed to attend the operational areas of the site (where heavy lorries manoeuvre) unless on official business or accompanied by the site management.

In the event of unauthorised intrusion, the circumstances would be entered in the Site Diary.

# 2.4 Display of Environmental Permit

A copy of the Environmental Permit will be kept available for reference by all staff and contractors whose work may have an impact on the environment.

# 2.5 Managing Documentation and Records

Controls will be in place to ensure that all documents are issued, revised and maintained in a consistent fashion.



The documents that will be included within the scope of the controls are as follows:

- Policies;
- · Responsibilities;
- Targets;
- Maintenance records;
- Procedures;
- Monitoring records;
- Results of audits;
- Results of reviews;
- Complaints and incident records; and
- Training records.

The Site Diary and all records referred to in this Working Plan will be maintained securely within the site office and will be made available for inspection by the EA at all reasonable times.

In particular the Site Diary will contain details of:

- Maintenance of site surfaces
- Inspections and action re: the drainage system
- Inspections and maintenance of security measures -
- Inspections and action re: mud on road
- Action re: spillages from vehicles & plant etc.
- Action re: Fire Incidents
- Details of any waste sampling
- Details of unauthorised asbestos deposits and action
- Equipment servicing
- Inspection & cleaning of interceptors
- Details of complaints & action re: dust etc.
- Inspections and action re: odours, noise, pests and litter.

# 2.6 Reporting Non-Compliance and Taking Corrective Action

Procedures will ensure appropriate corrective action is taken in response to problems identified at the site. The procedures will ensure that non-conformances are reported, investigated and rectified, and that failures and weaknesses are prevented. The following aspects will be considered:

- Actual or potential non-compliance;
- System failure discovered at internal audit;
- Suppliers or subcontractors breaking the agreed operating rules;
- Incidents, accidents, and emergencies;



- Other operational system failure; and
- Complaints.

The action taken in response to the non-conformance may include:

- Obtaining additional information on the nature and extent of the non-conformance;
- Discussing and testing alternative solutions;
- Modifying procedures and responsibilities;
- Seeking approval for additional resources and training; and
- Contacting suppliers and contractors (as applicable).

# 2.7 Monitoring, Measuring and Reviewing Environmental Performance

A formalised management structure will review environmental performance, and ensure any necessary actions are taken.

# 2.8 Operational Control, Preventative Maintenance and Calibration

The management system will complement operational procedures so as to ensure effective control of site operations, the maintenance of operational equipment and calibration of monitoring equipment.

All plant and equipment will be subject to a programme of planned preventative maintenance which will follow the inspection and maintenance schedule recommended by the manufacturer.

# 2.9 Facility Decommissioning

The facility will be constructed in a manner that enables decommissioning with minimal environmental impact. Wherever possible, tanks, bunds and pipe work will be above ground to facilitate easy access. Where this is not possible additional containment will be provided and regular monitoring and leak checks will ensure that potential environmental harm from fugitive emissions is minimised. All plant items and equipment will be subject to preventative maintenance.

Vessels and pipe work will be situated in areas that enable drain down of contents over areas of contained concrete hard standing, thereby minimising environmental impacts in the event of losses of containment.

The interceptor will be routinely checked and emptied to maintain optimal performance.

Building insulation materials will be selected that present the minimal environmental risk, both in terms of use during plant operations and decommissioning. Building construction materials will be selected to combine operational efficiency with future requirements and demands.

## 2.10 Environmental Permit Surrender

At the time that the environmental permit is surrendered the Operator will need to demonstrate that the site will be returned to a satisfactory state. During the operation of the site therefore Bristol Waste will ensure that emissions to land, air and water are carefully controlled to meet the conditions of the Environmental Permit.

Site investigation records have been included in the Site Condition Report produced for the original Environmental Permit application in July 2021 (SLR Ref: 402.08721.00003/SCR) which records the condition of the land prior to commencement of operations at the site.



# 3.0 Accident Management Plan

Bristol Waste recognises the importance of the prevention of accidents that may have environmental consequences and that it is crucial to limit those consequences.

An accident management plan will be implemented and maintained at the site to ensure that the site and staff are fully prepared for any such incidents. The accident management plan will be reviewed at least every four years or as soon as practicable after an incident, with changes made accordingly to minimise the risk of occurrence.

The following accident management plan describes the techniques that will be implemented to minimise the risks posed to the environment. Activities affecting the health and safety (H&S) of operatives, contractors and visitors will be separately managed in compliance with H&S regulation and company H&S Policy.

#### 3.1 Hazard Identification

The following potential hazards have been identified in the Environmental Risk Assessment (ERA) that was prepared using the EA's ERA methodology and has been submitted in support of this Environmental Permit application (SLR Ref: 402.08721/00003/ERA).

- Unauthorised waste;
- Fire;
- Loss of containment spillage and leakage;
- Security and vandalism; and
- Flooding.

The following sections summarise the measures necessary to minimise the potential causes and consequences of accidents.

#### 3.1.1 Unauthorised Waste

The site is provided as part of the statutory waste collection and disposal duties placed upon Bristol City Council. Wastes received are from households only and will be delivered, for the most part, in private vehicles (mainly cars). Consequently, there is no requirement for transfer notes or other Duty of Care provisions, and members of the public may deliver whatever wastes they generate at their homes.

Hence, control must fall entirely to the high standard of invigilation at the site, to its comprehensive provisions, its security and the clarity of its layout.

Site operatives will be trained to advise members of the public on the use of the various facilities and of the need to segregate certain wastes. They will also be trained to spot and deal with wastes that may require isolation from other wastes and/or transferred to the hazardous waste cage.

If the site operator is satisfied that a particular delivery is not household waste being delivered by the householder, the load will be redirected to a nearby transfer station where a charge becomes payable.

Reception containers are subject to continual inspection (during both the filling and dispatch stages) and any suspicious or potentially incompatible wastes removed to appropriate sealed containers or the hazardous waste cage. The EA may be consulted over such rogue finds and their advice sought in cases where the licence holder is uncertain of the appropriate waste management action.

Waste gas cylinders are placed in dedicated lockable cages and kept onsite pending specialist recovery.



Lead acid batteries and other electromotive cells delivered to the facility will be stored in secure leak-proof containers within the hazardous wastes cage. Hazardous waste consignment notes, as necessary, are raised to authorise their removal from the site for specialist recovery.

Fridges and freezers (WEEE wastes) received at the site will be directed to the assigned storage area on site pending specialist recovery elsewhere.

Site personnel will provide a regular update to the Site Supervisor on available capacity for storing the various wastes within the site with appropriate action taken, as necessary.

With the exception of the contents of the hazardous wastes cage (removed separately by a specialist service provider under contract) and small quantities of certain segregated materials, wastes removed from the site will be weighed, recorded and detailed in compliance with the Duty of Care (using the EWC Coding's as required). They will be transported only by authorised waste carrier and dispatched only to authorised outlets. The procedures for the removal of hazardous household wastes from the Site conform fully with the hazardous waste regulations.

All records of dispatch, including copies of the Duty of Care transfer notes and hazardous waste consignment notes will be maintained at the Site control office. These will be available for inspection by authorised officers of the EA at any reasonable time. Summaries of such records are kept as agreed with the Agency and forwarded to the EA at the required quarterly intervals.

#### 3.1.2 Waste Sampling and Testing

It is not normally necessary for the licence holder to sample and analyse waste delivered by members of the public. The composition of such wastes, whilst broad, is well documented through many years of statistical research, and contains a high proportion of wastes that present little environmental threat whilst undergoing controlled short-term storage. Nevertheless, operator diligence is required in the identification of any 'rogue' wastes that may be contained within deliveries (e.g. liquid residues in containers, gas cylinders or suspected asbestos etc.) and which may need to be isolated and possibly analysed prior to disposal. Expert advice may be sought, as necessary in the identification and disposal of such wastes, and the most appropriate route for their disposal or recovery.

The occasions when any such sampling is undertaken will be recorded in the Site Diary. Results of the related analyses will be maintained in the Site Office and made available for inspection by the Agency at all reasonable times.

#### 3.1.3 Fire

The site will be managed in accordance with the site specific and approved Fire Prevention Plan.

No deliberate burning of waste is permitted on site and all necessary steps will be taken to safeguard against accidental fires. Any fire would be treated as an emergency.

To deal with such an emergency, portable fire extinguishers will be installed at strategic locations within the site.

Appropriate employees will be trained in the procedures for dealing with fires and all firefighting equipment is checked on a monthly basis through a service contract.

All checks and the outcome will be reported in the Site Diary.

In the event of a fire emergency the Fire Rescue Service (FRS) will be notified and called to attend as necessary and the Agency notified as soon as possible (no later than the next day). Such a fire, the subsequent system checks to establish cause, the outcome and any resultant action will also be recorded in the Site Diary.

Residues from such an incident will be safely containerised and, when cold and free from the risk of further combustion, be removed from the site for authorised disposal elsewhere.



#### 3.1.4 Loss of Containment – Leaks and Spillages

For the most part, wastes delivered by the public to the site are of solid nature and are deposited directly into dedicated leak proof containers. The relatively small amounts of liquids and sludge's (e.g. discarded paints, oils etc.) received are received by a site attendant who places them within the secure hazardous wastes cage or the bunded oil container as appropriate. In the case of oils, the public themselves may drain the contents of their containers into the storage tank. All such activities occur on an impermeable base with sealed drainage and the risk of any significant environmental problems from leaks or spillages is remote. Nevertheless, to mitigate spillage the following methods are employed:

#### **Controls (vehicles and plant)**

All vehicles removing wastes from the site are monitored by the site personnel. All equipment used on the site is operated and maintained with the objective of preventing leaks and spillages of wastes or of any other materials.

Throughout the loading of loose wastes to bulk loading vehicles care will always be taken to avoid spillage and overloading of the vehicles. Prior to removing loads from the Site, drivers will be required to inspect them to ensure that both the load and the vehicle are secure and in a condition unlikely to leak or spill contents.

All loads leaving the site will be weighed on the weighbridge in the operational area and this will provide further opportunity to assess the safety of the load prior to its dispatch.

Should, despite the above precautions, any spillage occur within the confines of the licensed area, this would be removed before the end of that working day and all traces of waste swept or washed from the affected surfaces.

A supply of absorbent granules will be maintained on site, together with stiff bristle brush and shovel (spill kit) to deal with any oil or fuel spillage. A chemical spill kit is also present on site to deal with any battery acid spills. Should such spillage occur this will be contained and absorbed, and the resultant products cleaned up and containerised for authorised disposal (as hazardous waste) elsewhere.

Any significant spillage and the measures taken to deal with it would be recorded in the Site Diary.

#### **Controls (Tanks and Drums)**

The bunded/double skinned waste oil tank is filled and emptied in accordance with specified filling and emptying instructions designed to safeguard against any spillage.

Cans of waste oil delivered by the public will be drained into the bulk oil tank before the end of the day of their delivery. Empty cans may be retained by the householder or deposited securely in an appropriate container if discarded.

The level of oil within the waste oil tank will be monitored daily to ensure continuing capacity and emptied before the tank becomes full.

The oil tank and its bund will be inspected weekly to ensure continuing integrity and maintained in good condition at all times. Waters collecting within the bund in excess of 5% of the volume of the bund will be pumped to a sound impervious container and stored within a bunded area pending removal off Site.

Any drums or containers found within the deposited wastes and suspected of containing liquids will be removed to the hazardous wastes cage to await safe disposal off-site.

#### 3.1.5 Security and Vandalism

Refer to Section 2.3 of this Working Plan.

#### 3.1.6 Flooding

In extreme conditions the site supervisor will make the decision to close this site.



If safe, materials and wastes will be left in such a way as to not cause additional windblown or detritus issues.

Should flood water be an issue then waste shall where practical be cleared for the affected area. Priority shall be given to hazardous and putrescible wastes over inert wastes.

Waste may be stored in leak proof containers, until removal from the site in practical.

Bristol Waste have created an updated Business Continuity Plan covering the scenario of site closure at Hartcliffe and set about alternative arrangements in such an event.

# 3.2 Contingency Plans and Procedures

The site will implement a contingency plan to ensure that the following are achieved:

- Compliance with all permit conditions and operating procedures during maintenance or shutdown at the site, including disruption at other facilities that would affect the removal of waste from it;
- No exceedance of limits in the permit and that appropriate measures for storing and handling waste are continued to be applied; and
- Cessation of waste acceptance unless there is a clearly defined method of recovery and enough permitted capacity on site.



# 4.0 **Site Operations**

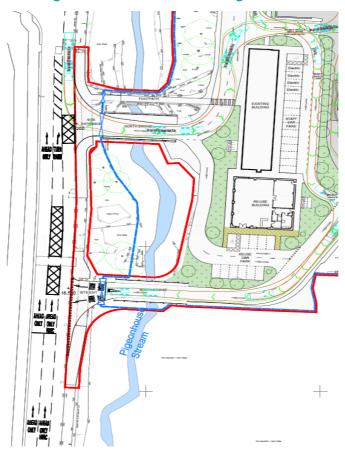
All operations will be carried out within the attendant objectives of safeguarding the Health and Safety of site personnel and all other persons, protecting the environment and minimising the effects of the operations on the local amenity. In order to achieve these objectives this Working Plan and any additional requirements of the Environmental Permit which will be strictly adhered to, as will all other relevant statutory waste management requirements such as the Duty of Care, Registration of Waste Carriers and Special Waste procedures etc., as they may apply to the site operations.

# 4.1 Site Description and Operations

The licensed facility will be located at 83 Hartcliffe Way, Bristol, BS3 5RN. It will form an integral operational component of BCC's comprehensive system of waste management arrangements to manage the municipal wastes arising within the Council's area.

The Site will provide amenities for members of the local public in Bristol to deliver wastes that have not been collected by the authority's municipal collection Service (particularly bulky wastes and garden wastes) and/or which they may wish to submit for recovery or recycling.

Users will access the facility via Hartcliffe Way, which runs parallel to the Site and runs in a north-south direction, via a new access which will be situated in the middle of the western boundary and will be for access purposes only. Hartcliffe Way will have a new right turn lane to allow traffic to turn right into the site from the south as detailed in principle on the figure below:



**Figure 1 Indicative Access Arrangements** 



On entering the site, vehicles will cross a newly constructed bridge, which will pass over Pigeon House Stream. The existing bridge is too narrow for the anticipated number of vehicles, however it will be retained and used for pedestrian/cycle access only although it will be gated for security purposes.

When fully operational the HRRC will be open seven days a week and hours of operation will be as follows;

Mondays to Sundays 8am to 7pm.

Note the above hours are subject to change pending on unprecedented seasonal variations in weather conditions.

There will be 16, 40-yard containers on site and 5 bays. These containers and bays will contain a number of mixed wastes and segregated materials. The detailed Site Layout is illustrated on Drawing 002.

A further 18 smaller containers of varying sizes will also be present on site accepting a range of wastes prior to transfer to appropriate transfer stations.

There would also be a set aside area for items such as fridges and large WEEE i.e. ovens, washing machines etc.

There will also be an area designed for accepting waste for reuse. The reuse centre will have boxes for leaving objects against, shelves for smaller items and bundles boxes for reusable paint.

#### 4.2 Available Services and Facilities

Mains water, toilets, telephone & electricity are provided on the site and there is good access to the highway with all surfaces upon which vehicles may move being laid to concrete or tarmac. The entire Site will be secured by palisade fencing and security gates.

The reuse facility will include a total of 11 spaces for visitors to the reuse building. Staff parking will be provided to the rear of the retained building with a total of 16 spaces. Parking at the recycling area will include 17 spaces along the eastern side of the area and 16 along the western side; the layout has been designed allow for through traffic to continue unblocked. Cycle parking is provided in the for a covered cycle stands with a total of 16 cycle parking spaces provided.

A salt storage enclosure with an open top is located within the northern area and an administration/office building and vehicle storage shed is located at the centre. There are a number of containers housing welfare facilities located within this area.

It is proposed that there will be a one 4 metre high metal pole for the installation of one Automatic Number Plate Recognition (APNR) camera immediately on entering the public CRC entrance, for recording number plates of vehicles entering the Site.

# 4.3 Description of Waste Management Operations

The facility will be authorised to receive arisings of household waste only. These, for the most part, will be delivered directly by members of the public but some may arrive as a consequence of a community waste collection scheme. Control over the source of the wastes will be augmented by the provision of a height barrier that limits entry to small vehicles only.

The public will enter the site and park near the receptacle(s) appropriate for the wastes they wish to deposit. All containers will be labelled clearly to show the wastes they contain, and users are encouraged to segregate their wastes accordingly. This maximises recovery potential.

Containers will be provided for the receipt and segregation of the following materials;

- General waste bulky;
- General waste black bag;



- Wood;
- Green/Garden waste;
- Cardboard & Tetra packs;
- Hard Plastic;
- Carpet;
- Plasterboard;
- Small WEEE;
- Ferrous metal;
- Non ferrous; and
- Mattresses.

Containers of mixed wastes will removed to a transfer station to be bulked prior to long distance haulage to authorised disposal facilities, whilst the segregated materials are transported by road to specialist recycling/recovery facilities (in the case of some materials such as rubble and stone, timber and green waste, only following their relocation to the transfer station for bulking up).

Further smaller, individually labelled containers and `recycling banks' will be provided for the segregation of asbestos, batteries, CRT, cans & plastic mixed, clothes/shoes/textiles, gas, glass, hazardous household waste, light bulbs & fluorescent tubes, oil, paper and magazines, spectacles and tyres.

Deliveries of intractable household hazardous waste (such as paints, oils, pharmaceuticals, medicines, solvents, batteries (vehicle and mixed type) and chemicals (pesticides, fertilisers, photographic, cleansing etc.) will be directed to be handed in separately for secure storage in the secure hazardous wastes cage (see Appendix 3).

Batteries will be containerised within the hazardous waste cage to await specialist recovery. Waste oils will be deposited by members of the public into a double skinned steel container for specialist recovery. The emptied delivery containers (commonly 5L capacity) will be either retained by the householder for future use or deposited into a suitable container at the site (scrap container if metal, or mixed wastes container if plastic). Asbestos cement wastes will be deposited into a covered lockable container for specialist landfill. This will be removed separately for authorised disposal and no more than 10tonnes of asbestos will be stored at the Site at any time.

Any spent gas bottles delivered to the facility will be relocated to a gas cage

Deliveries of scrap fridges (ELFs), tyres and gas bottles will be relocated at the end of each day to dedicated storage areas pending specialist treatment or recovery elsewhere.

Tyres and wheels (with tyres) will be separately segregated for recovery.

Within the facility is a reuse centre where public can divert items from becoming waste where it is thought to be reusable. This centre will be operated by staff and volunteers.

# 4.4 Classification of the Waste Management Operations (Directive Codes)

The activities that will be carried out at the Site as defined under Annex II of the Waste Framework Directive can be summarised as follows:



**Table 2 Specified Waste Management Operations** 

Specified Waste Management	Waste Types to be Subject to the	Limits on Specified Waste
Operations	Specified Operations	Management Operations
<b>D9:</b> Physical treatment of waste	Household wastes only	<ol> <li>Loading &amp; Unloading</li> <li>Segregation (physical sorting) of recoverable &amp; intractable wastes</li> <li>Crushing or rolling of bulky loads with a mechanical bucket or blade.</li> </ol>
<b>D14:</b> Repacking of waste	Household wastes only	Reloading of segregated materials (e.g. hardcore and green wastes) from open bunkers to bulk container vehicles for re-use or recovery elsewhere
R3: Recycling or reclamation of Household organic substances	1. Timber, paper, card, fabrics and plastics.	Segregation and storage in dedicated containers, areas and bays.
that are not used as solvents.	2. Tyres (some with wheels)	
	3. Green wastes (shrub and tree brushings) for composting and/or chipping.	
<b>R4:</b> Recycling or reclamation of other metals, metal compounds	Metal wastes (ferrous and non- ferrous scrap metal)	1. Recovery of metals, batteries, ELFs and WEEE etc. from mixed Wastes.
and similar.	2. WEEE, ELFs and batteries	2. Possibly; Separation of ferrous from non-ferrous and different forms of non-ferrous.
<b>R5:</b> Recycling or reclamation of other inorganic materials.	Inert builders waste, i.e. rubble, concrete, stone, soils and (potentially) subsoils.	Recovery of rubble, concrete, stone, soils and subsoils from mixed wastes for reuse.
R13 & D15: Storage pending recovery or disposal.	<ol> <li>Mixed household wastes.</li> <li>Waste gas bottles.</li> </ol>	1. Mixed household waste stored within containers prior to disposal.
	3. Bonded asbestos.	2. Gas bottles stored in secure area of
	4. Other hazardous household	adjacent transfer station for <i>disposal/ recovery</i> .
	5. Segregated wastes for recovery elsewhere.	3. Asbestos stored in covered, lockable container prior to <i>disposal</i> .
		4. Metals, WEEE, ELFs, batteries, hardcore stored in dedicated areas or containers as appropriate prior to recovery.



Specified Waste Management Operations	Waste Types to be Subject to the Specified Operations	Limits on Specified Waste Management Operations
		5. Others stored at designated locations, containers as relevant prior to <i>recovery</i> .

#### 4.5 Permitted Wastes

The site is designed to receive household wastes only. The waste type list is included as Appendix 01 of this Working Plan.

#### 4.5.1 Maximum Annual Throughput

The total amount of wastes to be dealt with at the facility will not exceed 35,000 tonnes per annum.

# 4.6 Waste Quantity Measurement Systems

Wastes removed from the site will be weighed on the weighbridge in the operation area. A full record of each load will be maintained within the Site Office and will be available for inspection by the EA at all reasonable times.

In the event of weighbridge failure, loads would either be weighed at a convenient public or commercial weighbridge, or weights estimated using the EA's Volume to weight conversion factors for each load.

Waste statistical returns will be made to the EA in the specified format using the above records and at the required frequency.

# 4.7 Storage of Specified Wastes

Depending upon type, hazardous household wastes may be stored in; the secure hazardous wastes cage, battery box, oil container or the proposed adjacent hazardous WEEE provisions - as described earlier.

A lockable asbestos container will be provided for household arisings of bonded-asbestos and members of the public will be directed to use it as necessary. In the event of the presence of asbestos being suspected in a mixed waste load, the load will be cordoned off and the offending wastes damped down to minimise fibre dispersal. The suspect wastes, together with any adhering or admixed wastes will be suitably wrapped or carefully removed by machine or by a suitable protected operative to a lidded container to wait specialist advice and removal.

The occasions when any such wastes are removed from the Site will be recorded in the Site Diary.

# 4.8 Waste Storage Periods

With the public's continual high demand for disposal capacity, wastes will be stored at the site for minimal periods only. In particular, wastes comprising of or containing, putrescible materials, are removed from the site within 48hrs of receipt throughout the normal working week but may need to be stored for up to 72hrs over weekend periods. Segregated innocuous wastes such as scrap metal, timber, plastics and paper etc., will be stored until sufficiently large loads for viable transportation are present.

Similarly, waste oils, batteries, asbestos and the content of the hazardous household waste cage will only be dispatched to the specialist disposal/recovery outlets once viable quantities have been assembled.

Table 2 below details the storage times for all waste types typically accepted on site;



**Table 3 Storage Volumes and Times** 

Storage Arrangement	Waste Type	Max Volume (m³)	Max Storage Time
	Green Waste	270 <sup>1</sup>	3 days
Bays (10m x 10m x 3m high)	Wood	270 <sup>Error!</sup> Bookmark not defined.	1 week
	Mixed Waste (Black Bags)	270 <sup>Error!</sup> Bookmark not defined.	3 days
Bays (5.7m x 4.1m x 2.1m	Green Waste	50	3 days
high)	Wood	50	1 week
	Cardboard x 3	30	1 week
	Bulky Waste x 3	30	1 month
	Mixed Waste (Black Bags) x 3	30	3 days
40 Vand Shin2	Carpet	30	1 month
40 Yard Skip <sup>2</sup>	Mattress x 2	30	1 month
	Tyres	30	2 months
	Metal x 2	30	1 month
	Cables	30	2 months
	Plaster and Rubble	16	1 month
20 Varied Chin	TV's	16	1 month
20 Yard Skip	Paper	16	1 month
	Cans and Plastic	16	1 month
Stockpile	White Goods, Small WEEE and Fridge Freezers	30	1 month
Container (1.5m x 1.27m x 1.85m)	Textiles	3.5	1 month

# 4.9 Quarantine

The site will have a quarantine area the location of which is illustrated on Drawing 002. It is unlikely that there will be any non-conforming waste stored within the quarantine area as the site accepts all waste types arising from households and any waste delivered to site that is suspected to not be from a household is not permitted.

The maximum storage volume of waste in the area will be 144m<sup>3</sup>.

<sup>&</sup>lt;sup>2</sup> 8 skips are grouped together as one storage area to the north with a capacity of 240m<sup>3</sup>. 9 skips are grouped together as one storage area to the south with a capacity of 270m<sup>3</sup>.



<sup>&</sup>lt;sup>1</sup> Maximum capacity accounts for slope of waste stockpile.

# 4.10 Permitted Hours of Operation

When fully operational the HRRC will be open seven days a week and hours of operation will be as follows;

Mondays to Sundays 8 am to 7pm.

Note the above hours are subject to change pending on unprecedented seasonal variations in weather conditions.

#### 4.11 Site Infrastructure

In general, the site infrastructure will comprise of:

- An engineered concrete base and surfaced access roads for all areas upon which waste management
  activities take place and which vehicles attending the waste facility may drive, turn or park;
- Bunded areas, containers and tanks for the various segregated waste streams;
- Secure hazardous waste cage;
- Weighbridge;
- An enclosed, secure building for reception of WEEE wastes from the public;
- Reuse building;
- Site office;
- Security fencing and gates;
- CCTV;
- Automatic Number Plate Recognition infrastructure;
- Site Notice Board;
- Site lighting.

#### 4.11.1 Site Identification Board

The site identification board will be kept at a prominent position close to the Site entrance. This will be constructed from durable materials and display clearly, at all times, the following information:

- Site name and address;
- Licence Holder's Name (Bristol Waste Company);
- Licence Number;
- Emergency contact name and telephone number (omitting personal names and home phone numbers for security reasons);
- A statement that the site has been licensed by the EA;
- The EA's national phone numbers: 03708 506 506 (for general enquiries) and 0800 80 70 60 (for emergencies) or as may be notified by the EA; and
- Days and hours when the site is open to receive waste.



# 5.0 **POLLUTION CONTROL, MONITORING & REPORTING SYSTEMS**

## 5.1 Relevance & Risk

The site will have an impermeable base, comprehensive drainage system and be fully secure. Wastes will be containerised or stored in steel containers and, apart from simple segregation, have no operations performed upon them. The opportunity for environmental pollution is correspondingly minimal. Drawing 017 details the drainage layout.

The interceptor is inspected, emptied and cleaned as described in Section 6.1.2 to ensure its continuing efficiency. The routine inspections and the occasions when emptying and/or cleaning take place are recorded in the Site Diarv.

## 6.0 AMENITY MANAGEMENT AND MONITORING SYSTEMS

# 6.1 Site Engineering for Pollution Prevention & Control

#### 6.1.1 Impervious Paving and Hardstanding

#### **General**

The site will comprise tiered levels of asphalt and concrete hard standing, with access via ramps to the higher levels. All operational surfaces of the site will be constructed to a high standard of durability and impermeability with concrete.

#### **Oil Storage**

Impermeable bunded provision will be provided made for the storage of waste oils.

#### **Hazardous Waste Compound**

A secure lockable cage will be present on site, with storage areas and containers to segregate the different classes of wastes to be deposited.

#### **Inspection & Maintenance of Operational Areas**

All areas of the site are inspected on a daily basis and any structural defects repaired to a standard no less than when new. Such repairs will be completed within four weeks of the reporting of the fault in order to maintain the impervious integrity of the operational surfaces. If full repair is not immediately feasible, temporary repair (e.g. grouting) will be undertaken within seven working days.

#### **Associated Record Keeping**

The dates of such findings and any associated repairs undertaken will be recorded in the Site Diary.

#### **6.1.2** Drainage System

Clean water will discharge to surface water via an attenuation tank. Runoff from waste storage areas will drain to foul sewer under a separate discharge consent.

#### **Monitoring**

The drainage system will be inspected monthly by the site management and maintained as necessary to ensure freedom from blockages and efficient operation of the relevant site interceptor. In addition, under a maintenance contract, the drainage system will be cleaned and flushed through annually and the interceptor emptied, cleaned and flushed through quarterly.



#### Reporting

A record of these inspections and of the emptying and cleaning of the interceptor will be maintained in the Site Diary.

#### 6.1.3 Construction Quality Assurance (CQA)

The site paving, access roads and drainage system are all professionally designed and will be installed by a qualified contractor. Any major repairs or modifications will be similarly constructed, with validating CQA reports as necessary, to demonstrate their `fitness for the purpose'. Copies of such reports will be made available for Agency inspection as required.

#### 6.1.4 Underground Tanks

With the exception of essential components of the drainage system there will be no underground tanks associated with this site.

#### 6.2 Point Source Emissions

There will be no point source emissions to air or land.

There will be

#### **6.2.1** Point Source Emission to Sewer

Bristol Waste is currently applying for a Discharge Consent to foul sewer from the areas of the yard where waste storage and handling is undertaken.

#### **6.2.2** Discharge to Surface Water

There will be no discharge to surface water from the site.

## 6.3 Fugitive Emissions to Air - Odour

#### 6.3.1 Risk & Scope

Potentially odorous wastes will be stored for minimal periods and long-term experience from the operator has demonstrated that the generation of off-site malodours is uncommon. Only waste delivered in private vehicles by the public will be accepted on site. Consequently, there is no requirement for transfer notes or other Duty of Care provisions, and members of the public can deliver whatever wastes they generate at their homes. Therefore, pre-acceptance and acceptance procedures are not required. To control access to the site, a height barrier will be provided at the entrance to the HRRC to limit entry to just small vehicles. The recyclables which the site will accept are generally considered to have a low odour potential (inoffensive and low intensity odour) due to the low organic content of the material. Therefore, it is considered unlikely that any material received at the site will be of sufficient magnitude to cause unacceptable odour outside of the site boundary because household waste is not generally considered to be odorous. Timeframes for storage of waste will be low, as no treatment, apart from bulking up will occur at the HRRC. Once a specific skip is filled it will be transferred to an appropriate waste transfer station (WTS) for further treatment. The skip will be replaced at the same time.

Nevertheless, the Site supervisor will remain alert to this potential nuisance and undertake simple olfactory monitoring (nasal sniffing) around the boundaries of the site daily during normal operations. The presence or otherwise of any offensive odours will be noted and recorded in the Site Diary and corrective action taken to overcome its source. In the unlikely event of such a nuisance, or complaints from neighbours or others, the site supervisor would react positively to investigate and deal with its cause and record any action taken in the Site Diary. The advice of the Agency will be sought should any such problem persist.



To minimise odour production, potentially odorous wastes will be stored for minimal periods of time. Waste comprising of or containing putrescible materials will be removed from the HRRC within 48 hours of receipt throughout the normal working week but may be stored for up to 72 hours over the weekend. The site supervisor and site operatives will monitor, via a sniff-test, to determine whether a particularly malodourous load requires removal from the site during the next available collection. Should any particularly odorous materials be received, they will be isolated and promptly removed from site. The site supervisor and site operatives are responsible for visually monitoring and noting the placement of received material to ensure that older material is processed as a priority.

Odour production will be further minimised by general good housekeeping including the regular sweeping and cleansing of all site surfaces. Operational areas, site haul roads and drainage channels will be cleaned regularly to minimise odour generation from degrading residual waste materials on these surfaces. Waste stored in bays will be periodically emptied and the bay swept down before further waste is deposited. This will avoid older material building up and degrading, potentially releasing odours. All skips/bays will be clearly labelled to ensure the segregation of waste.

To ensure a 'good neighbour' approach to local residents a telephone number will be provided and visible on the site board at the entrance to allow residents to contact Bristol waste. The public will be informed should odour problems be anticipated, and they will be informed of progress, remedial measures and timescales. Following the receipt of a complaint Bristol Waste would contact the complainant to provide feedback on actions taken to both assess the event and convey remedial actions. Following an odour complaint, a trained member of staff will undertake a sniff-test and, if an odour is encountered, the source of the odour will be investigated by site management. Investigations will include the likely source and cause of the odour and a review of the meteorological data.

The site supervisor will record daily weather conditions in the site diary. This will allow the location where boundary monitoring should be focussed to be determined and predictions to be made as to where odour impacts could occur. Extreme meteorological conditions could promote the generation of odour and inhibit its effective dispersion, specifically high temperatures and stable conditions may result in increased risk of odour. During these conditions, the site supervisor will increase olfactory monitoring (sniff-testing) around the boundary of the HRRC and diverting incoming material to an alternative permitted facility will be considered.

# 6.4 Fugitive Emissions to Air - Dust

#### 6.4.1 Relevance

The site will be situated adjacent to other to other industrial activities and close to residential properties. Care will be taken at all times to ensure minimal impact upon such neighbours.

Potential dust problems will be minimised by regular sweeping of surfaces (mechanically and by hand) and by damping down as necessary during dry, windy conditions.

#### 6.4.2 Monitoring

The site will be under the daily observation of the Site supervisor who will respond immediately in the event of any significant dust problem.

Any complaints from neighbours or other persons would be investigated and dealt with as necessary (road sweeping, water suppression and/or varied operational practice).



#### 6.4.3 Records

Records of any complaints or of abnormal conditions relating to dust will be kept in the Site Diary, as would any actions taken as a consequence of such circumstances. These will be available for inspection by the Agency at any reasonable time.

#### 6.5 Noise

#### 6.5.1 Risk

As the site is located adjacent to a busy highway network and multiple industrial premises, noise nuisance is not considered to be an issue

The Noise Impact Assessment concluded that there would likely be a negligible risk of adverse impact from noise generated by the proposed development at the nearby sensitive receptors.

Nevertheless, the Operator is anxious to ensure that operational noise is minimised, commensurate with maintaining a viable operation and hopes to achieve this by ensuring:

- Only household waste delivered in private vehicles by the general public will be accepted on site. No
  commercial or industrial waste will be accepted so there will be minimal HGV movements at the HRRC.
  It is anticipated that there would be up to two HGV movements per hour;
- The noise impact assessment determined that there would be a negligible impact on nearby potentially sensitive receptors because of changes to offsite traffic;
- Drop heights will be kept to the minimum practical (height of empty receiving container as a maximum);
- Mobile plant and vehicles are silenced and maintained in accordance with the manufacturers' current standards;
- If horns or alarms or beepers on reversing HGVs and fork-lifts are deemed to cause unacceptably high levels of noise, alternative technologies will be explored and implemented;
- Speed limits will be implemented for vehicles using the site with traffic calming measures to enforce the speed limits;
- Site access and operational areas will be maintained and repaired to minimise emissions of noise due to uneven and poor surfacing;
- General site noise reduction remains under constant review;
- Operations are conducted during reasonably sociable hours only; and
- Any complaints will be responded to immediately, and should any noise problem or complaints persist, its amelioration, will be discussed with the EA.

#### 6.5.2 Monitoring

The general operating noise levels will be kept under review by the Site Supervisor and any abnormal conditions would be noted and acted upon as soon as possible.

Should persistent complaints occur, professional noise measurements would be undertaken by a specialist service provider in consultation with the EA.

Any abnormal noise problems or related complaints, and resulting actions, will be reported in the Site Diary. As also will the results of any noise monitoring exercises.



#### 6.6 Pests

#### 6.6.1 Risk

The regular turnover of materials and the routine site floor-cleaning programme is expected to generally minimises any opportunity for the establishment of pest habitats.

A contract is in place with a pest control company to ensure full control over rodents or insects etc, and an entry is made in the Site Diary of those occasions when problems are encountered and when any treatment is carried out.

## 6.7 Litter

#### 6.7.1 Risk

All wastes will be containerised or bunded and filled containers will be covered over as necessary (by sheeting or netting) and handled with care when moved. Particular attention is paid to this potential problem during periods of high wind.

#### 6.7.2 Monitoring

The site boundaries will be walked no less frequently than daily, and any litter arising from the site operations collected and disposed of responsibly.

In the event of any complaint of litter from the site affecting neighbouring areas, this would be investigated and dealt with accordingly before the end of the day in question.

All such inspections or complaints and the action taken will be recorded in the Site Diary.

#### 6.8 Mud and Debris

#### 6.8.1 Risk

Wastes will be delivered to the site in cars, vans, trailers etc, and normally dispatched in container vehicles covered or netted, as necessary, to prevent escape of waste. All surfaces of the facility will be of impermeable structure and in continuity with the public highway. Hence the tracking of mud or debris out onto the highway will be rare.

All vehicles under the jurisdiction of the Operator will be inspected prior to leaving the site to ensure that loads are safe, and that wheels and undercarriages are free from extraneous matter. As necessary, wheels may be cleaned before dispatch.

In addition, under a cleaning contract, all areas of the site and related roads will be swept twice a week.

Notwithstanding the above provisions, the entrances to the site from the service road and the adjacent highway will be inspected daily. Should any fouling from the permitted site operations be reported, the offending material will be removed before the end of that working day with the help of a mechanical scraper, brush and/or hose as necessary.

Records of any such incidents of highway fouling and of any resulting clean-up will be maintained in the Site Diary.



# 7.0 **SECURITY AND AVAILABILITY OF RECORDS**

The Site Diary and all records referred to in this Working Plan will be maintained securely within the Site office and will be made available for inspection by the EA at all reasonable times.

In particular, the Site Diary will contain details of:

- Maintenance of site surfaces;
- Inspections and action re: the drainage system;
- Inspections and maintenance of security measures;
- Inspections and action re: mud on road;
- Action re: spillages from vehicles & plant etc.;
- Action re: Fire Incidents;
- Details of any waste sampling;
- Details of unauthorised asbestos deposits and action;
- Equipment servicing;
- Inspection & cleaning of interceptors;
- Details of complaints & action re: dust etc.; and
- Inspections and action re: odours, noise, pests and litter.



# **APPENDIX 01**

# **EWC Waste List**



EWC Code	Description
01 01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSCIAL AND CHEMICAL TREATMENT OF MINERALS
01 01	Wastes from mineral excavation
01 01	Wastes from mineral metalliferous excavation
01 01 02	Wastes from mineral non-metalliferous excavation
01 03	Wastes from physical and chemical processing of metalliferous minerals
01 03 06	Tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 09	Red mud from alumina production other than the wastes mentioned in 01 03 07
01 04	Wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	Waste sand and clays
01 04 11	Wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	Tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	Wastes from stone cutting and sawing other than those mentioned in 01 04 07
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 01	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	Plant-tissue waste
02 01 04	Waste plastics (except packaging)
02 01 07	Wastes from forestry
02 01 10	Wastes metal
02 01 99	Other wastes from agriculture
02 02	Wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 03	Materials unsuitable for consumption or processing
02 03	Wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea, and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 04	Materials unsuitable for consumption or processing
02 04	Wastes from sugar processing
02 04 01	Soil from cleaning and washing beet
02 04 02	Off-specification calcium carbonate
02 05	Wastes from the dairy products industry
02 05 01	Materials unsuitable for consumption or processing



02 06	Wastes from the baking and confectionary industry
02 06 01	Materials unsuitable for consumption or processing
02 06 02	Wastes from preserving agents
02 07	Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	Wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	Wastes from spirits distillation
02 07 04	Materials unsuitable for consumption or processing
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURTNITURE, PULP, PAPER AND CARDBOARD
03 01	Wastes from wood processing and the production of panels and furniture
03 01 01	Waste bark and cork
03 01 05	Sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 02	Wastes from wood preservation
03 02 01	Non-halogenated organic wood preserves
03 02 02	Organochlorinated wood preserves
03 02 03	Organometallic wood preservatives
03 03	Wastes from pulp, paper and cardboard production and processing
03 03 01	Waste bark and wood
03 03 07	Mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	Wastes from sorting of paper and cardboard designed for recycling
03 03 10	Fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
04	WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES
04 01	Wastes from the leather and fur industries
04 01 08	Waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	Wastes from dressing and finishing
04 02	Wastes from the textile industry
04 02 21	Wastes from unprocessed textile fibres
04 02 22	Wastes from processed textile fibres
06	WASTES FROM INORGANIC CHEMICAL PROCESSES
06 09	Wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes
06 09 02	Phosphorous slag
-	



06 09 04	Calcium-based reaction wastes other than those mentioned in 06 09 03
06 11	Wastes from the manufacture of inorganic pigments and opacifiers
06 11 01	Calcium-based reaction wastes from titanium dioxide production
06 13	Wastes from inorganic chemical processes not otherwise specified
06 13 01	Inorganic plant protection products, wood-preserving agents and other biocides
07	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 02	Wastes from the MSFU of plastics, synthetic rubber and man-man fibres.
07 02 13	Waste plastic
08	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MSFU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 03	Wastes from MFSU of printing inks
08 03 17	Printer and toner cartridges containing dangerous substances
08 03 18	Printer and toner cartridges containing no dangerous substances
09	WASTES FROM THE PHOTOGRAPHIC INDUSTRY
09 01	Wastes from the photographic industry
09 01 07	Photographic film and paper containing silver or silver compounds
09 01 08	Photographic film and paper free of silver or silver compounds
09 01 10	Single-use cameras without batteries
09 01 12	Single-use cameras containing batteries other than those mentioned in 09 01 11
10	WASTES FROM THERMAL PROCESSES
10 01	Wastes from power stations and other combustion plants (except 19)
10 01 01	Bottom ash, slag and boiler dust (excluding dust mentioned in 10 01 04)
10 01 05	Calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	Calcium-based reaction wastes from flue-gas desulphurisation in sludge form
10 01 15	Bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 19	Wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 24	Sands from fluidised beds
10 02	Wastes from the iron and steel industry
10 02 01	Wastes from the processing of slag
10 02 02	Unprocessed slag
10 02 08	Solid wastes from gas treatment other than those mentioned in 10 02 07



10 02 10

10 02 14

10 02 15

10 03 02

10 03 05

10 03 16

10 03 18

10 03 24

10 03 26

10 03 28

10 03 30

10 04 10

10 05 01

10 05 09

10 05 11

10 06 01

10 06 02

10 06 10

10 07 01

10 07 02

10 07 03

10 07 05

10 07 08

10 08 09

10 08

10 07

10 06

10 04

10 05

10 03



Dross and skimmings from primary and secondary production

Wastes from silver, gold and platinum thermal metallurgy

Dross and skimmings from primary and secondary production

Slags from primary and secondary production

Wastes from other non-ferrous thermal metallurgy

Solid wastes from gas treatment

Filter cakes from gas treatment

Other slags

Wastes from cooling-water treatment other than those mentioned in 10 06 09

Wastes from cooling-water treatment other than those mentioned in 10 07 07

10 08 11	Dross and skimmings other than those mentioned in 10 08 10
10 08 13	Carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	Anode scrap
10 08 18	Filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10 08 20	Wastes from cooling-water treatment other than those mentioned in 10 08 19
10 09	Wastes from casting of ferrous pieces
10 09 03	Furnace slag
10 09 06	Casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	Casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 09 14	Waste binders other than those mentioned in 10 09 13
10 09 16	Waste crack-indicating agent other than those mentioned in 10 09 15
10 10	Wastes from casting of non-ferrous pieces
10 10 03	Furnace slag
10 10 06	Casting cores and moulds which have not undergone pouring other than those mentioned in 10 10 05
10 10 08	Casting cores and moulds which have undergone pouring other than those mentioned in 10 10 07
10 10 14	Waste binders other than those mentioned in 10 10 13
10 10 16	Waste crack-indicating agent other than those mentioned in 10 10 15
10 11	Wastes from manufacture of glass products
10 11 03	Waste glass-based fibrous materials
10 11 10	Waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 12	Waste glass other than those mentioned in 10 11 11
10 11 16	Solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 11 18	Filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 12	Wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 01	Waste preparation mixture before thermal processing
10 12 05	Filter cakes from gas treatment
10 12 06	Discarded moulds
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 10	Solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	Wastes from glazing other than those mentioned in 10 12 11
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10 13	Wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 01	Waste preparation mixture before thermal processing
10 13 04	Wastes from calcination and hydration of lime
10 13 07	Filter cakes from gas treatment
10 13 10	Wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	Wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	Solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14	Waste concrete
11	WASTE FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO METALLURGY
11 01	Wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)
11 01 10	Filter cakes other than those mentioned in 11 01 09
11 01 14	Degreasing wastes other than those mentioned in 11 01 13
11 02	Wastes from non-ferrous hydrometallurgical processes
11 02 03	Wastes from the production of anodes for aqueous electrolytical processes
11 03 06	Wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 05	Wastes from hot galvanising processes
11 05 01	Hard zinc
11 05 02	Zinc ash
12	WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS
12 01	Wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 01	Ferrous metal filings and turnings
12 01 03	Non-ferrous metal filings and turnings
12 01 05	Plastics shavings and turnings
12 01 07	Forestry waste
12 01 13	Welding wastes
12 01 17	Waste blasting material other than those mentioned in 12 01 16
12 01 21	Spent grinding bodies and grinding materials other than those mentioned in 12 01 20
13	OIL WASTES AND WASTES OF LIQUID FUELS (EXCEPT EDIBLE OILS, AND THOSE IN CHAPTERS 05, 12 AND 19)
13 02	Waste engine, gear and lubricating oils



13 02 04	Engine oils
13 02 05	Engine oils
13 02 06	Engine oils
13 02 07	Engine oils
13 02 08*	Engine oils
13 07	Wastes of liquid fuels
13 07 01	Fuel, oil and diesel
13 07 02	Petrol
13 07 03	Diesel and petrol (mixed)
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	Packaging (including separately collected municipal packaging waste)
15 01 01	Paper and cardboard packaging
15 01 02	Plastic packaging
15 01 03	Wooden packaging
15 01 04	Metallic packaging
15 01 05	Composite packaging
15 01 06	Mixed packaging
15 01 07	Glass packaging
15 01 09	Textile packaging
15 01 10	Packaging contaminated with dangerous substances
15 02	Absorbents, filter materials, wiping cloths and protective clothing
15 02 02	Oily rags containing dangerous substances
15 02 03	Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 01	End-of-life vehicles from different means of transport [including off-road machinery] and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16, 06 and 16 08)
16 01 03	End-of-life-tyres
16 01 06	Bicycles and other non-hazardous waste vehicles
16 01 07*	Oil Filters
16 01 11	Brake pads containing asbestos



16 01 12	Car brake pads containing no dangerous substances
16 01 13	Brake fluids
16 01 14	Antifreeze containing dangerous substances
16 01 15	Antifreeze containing no dangerous substances
16 02	Wastes from electrical and electronic equipment
16 02 11	Discarded equipment containing chlorofluorocarbons
16 02 12	Discarded equipment containing asbestos
16 02 13	Discarded equipment containing other dangerous substances
16 02 14	Discarded equipment other than those mentioned in 16 02 09 to 16 02 13
16 02 15	Hazardous components removed from discarded equipment
16 02 16	Components removed from discarded equipment other than those mentioned in 16 02 15
16 03	Off-specification batches and unused products
16 03 04	Inorganic wastes other than those mentioned in 16 03 03
16 03 06	Organic wastes other than those mentioned in 16 03 05
16 05	Gases in pressure containers and discarded chemicals
16 05 04	Gas cylinders containing dangerous substances
16 05 05	Gas cylinders containing no dangerous substances
16 05 06	Home laboratory chemicals containing dangerous substances
16 06	Batteries and accumulators
16 06 01*	Lead batteries
16 06 02*	Ni-Cd Batteries
16 06 03*	Mercury containing batteries
16 06 04	Alkaline batteries (except 16 06 03)
16 06 05	Other batteries and accumulators
16 11	Waste linings and refractories
16 11 02	Carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01
16 11 04	Other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
16 11 06	Linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 01	Concrete, bricks, tiles and ceramics



17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles and ceramics
17 01 06	Concrete, bricks, tiles and ceramics containing hazardous materials
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	Wood, glass and plastic
17 02 01	Wood
17 02 02	Glass
17 02 03	Plastic
17 03	Bituminous mixtures, coal tar and tarred products
17 03 02	Non-hazardous bituminous mixtures other than those mentioned in 17 03 01
17 04	Metals (including their alloys)
17 04 01	Copper, bronze, brass
17 04 02	Aluminium
17 04 03	Lead
17 04 04	Zinc
17 04 05	Iron and steel
17 04 06	Tin
17 04 07	Mixed metals
17 04 11	Electrical cables other than those mentioned in 17 04 10
17 05	Soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	Soil and stones other than those mentioned in 17 05 03
17 05 08	Track ballast other than those mentioned in 17 05 07
17 06	Insulation materials and asbestos-containing construction materials
17 06 01*	Insulation materials containing asbestos
17 06 04	Insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 06 05*	Construction materials containing asbestos
17 08	Gypsum-based construction material
17 08 01	Contaminated gypsum based construction materials
17 08 02	Gypsum-based construction materials other than those mentioned in 17 08 01
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17 09	Other construction and demolition wastes
17 09 03	Construction and demolition waste (inc mixed waste) containing dangerous substances
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
18	WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (EXCEPT KITCHEN AND RESTAURANT WASTES NOT ARISING FROM IMMEDIATE HEALTH CARE)
18 01	Wastes from natal care, diagnosis, treatment or prevention of disease in humans
18 01 01	Sharps from healthcare
18 01 03 & 18 02 02	Health care wastes that may risk infection
18 01 04	Healthcare wastes not subject to special requirements (e.g. dressings, clothing, nappies, animal excreta etc)
18 01 06	Health care chemical containing dangerous substances
18 01 07	Non-difficult health care chemicals
18 01 09	Non-difficult medicines
18 02	Wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 01	Sharps from healthcare
18 02 02*	Wastes whose collection and disposal is subject to special requirements in order to prevent infection
18 02 03	Wastes whose collection and disposal is not subject to special requirements in order to prevent infection
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION/INDUSTRIAL USE
19 01	Wastes from incineration or pyrolysis of waste
19 01 02	Ferrous materials removed from bottom ash
19 01 12	Bottom ash and slag other than those mentioned in 19 01 11
19 01 18	Pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	Sands from fluidised beds
19 02	Wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 03	Premixed wastes composed only of non-hazardous wastes
19 02 10	Combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 04	Vitrified waste and wates from vitrification
19 04 01	Vitrified waste
19 05	Wastes from aerobic treatment of solid wastes
19 05 01	Non-composted fraction of municipal and similar wastes



19 05 02	Non-composed fraction of animal and vegetable waste
19 05 03	Off-specification compost
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	Paper and cardboard
19 12 02	Ferrous metal
19 12 03	Non-ferrous metal
19 12 04	Plastic and rubber
19 12 05	Glass
19 12 07	Wood other than that mentioned in 19 12 06
19 12 08	Textiles from external mechanical treatment of waste
19 12 09	Minerals (for example sand, stones)
19 12 10	Combustible waste (refuse derived fuel)
19 13	Wastes from solid and groundwater remediation
19 13 02	Solid wastes from soil remediation other than those mentioned in 19 13 01
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01	Separately collected fractions (except 15 01)
20 01 01	Paper and cardboard
20 01 02	Glass
20 01 08	Biodegradable kitchen and canteen waste
20 01 10	Clothes
20 01 11	Other textiles
20 01 13*	Solvents
20 01 14	Acids
20 01 15*	Alkaline
20 01 17	Photochemical
20 01 19	Pesticides
20 01 21*	Fluorescent Tubes
20 01 23*	Fridges and freezers containing hazardous substances
20 01 25	Edible oil and fat



20 01 26*	Oils and fats other than 20 01 25
20 01 27*	Paints, inks, adhesives and resins containing hazardous substances
20 01 28	Non-hazardous paints, inks, adhesives and resins
20 01 29*	Detergents containing dangerous substances
20 01 30	Detergents containing no dangerous substances
20 01 31	Cytotoxic and cytostatic medicines
20 01 32	Non-difficult medicines
20 01 33*	Automotive batteries & other hazardous batteries
20 01 34	Batteries and accumulators other than those mentioned in 20 01 33
20 01 35*	WEEE containing hazardous components
20 01 36	Discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 37*	Wood containing dangerous substances
20 01 38	Wood other than that mentioned in 20 01 37
20 01 39	Plastics
20 01 40	Metals
20 01 41	Wastes from chimney sweeping
20 02	Garden and park wastes (including cemetery waste)
20 02 01	Biodegradable waste
20 02 02	Soil and stones
20 02 03	Mixtures of rubble, concrete, bricks, tiles and ceramics
20 03	Other municipal wastes
20 03 01	Mixed municipal waste
20 03 02	Waste from markets
20 03 03	Street-cleaning residues
20 03 07	Bulky waste
20 03 99	Municipal wastes not otherwise specified
20 04 01	Chimney sweep waste



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