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Consulting Engineers Limited

Avonmouth High Temperature Incinerator

Grundon Waste Management Ltd

Fire Prevention Plan

ENGINEERING CONSULTING

Document approval

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Contents

1 Introduction

Grundon Waste Management Ltd (the Applicant) is applying to the Environment Agency (EA) under the Environmental Permitting Regulations (EPR's) for an Environmental Permit (EP) to operate a High Temperature Incinerator, to be known as Avonmouth High Temperature Incinerator (the Facility). The Facility will comprise a high-temperature hazardous and non-hazardous waste incineration plant together with a steam turbine producing electricity, driven by steam generated in a water tube boiler, using heat from the hot flue gases.

As the Facility will accept and store potentially combustible wastes, a Fire Prevention Plan (FPP) must be developed for its operation.

The objective of this report is to provide a preliminary Fire Prevention Plan (FPP) for the Facility and identify the provisions considered during the development phase of the Facility to prevent, detect, and mitigate against fire. In addition, provisional operational measures in relation to fire have been identified where these are available. It must be made clear that this FPP will be subject to review and update following completion of detailed design of the Facility.

This FPP has been developed in accordance with Environment Agency guidance note: *Fire Prevention Plans: Environmental Permits* and the associated report template, as published on the UK government website. The requirements of the FPP will be integrated within the emergency plans and procedures for the Facility, to ensure that they are consistent and compatible with other management systems associated with the operation of the Facility.

This document and the measures to mitigate the risk and impact of fires within the Facility have been (and will continue to be) developed in accordance with the requirements of the following. It is also intended to share the FPP with the local fire and rescue service.

- Environment Agency guidance – '*Fire Prevention Plans: Environmental Permits*' (updated 11 January 2021);
- Building Regulations – '*Approved Document B (Fire Safety)*';
- National Fire Protection Association *'NFPA 850: Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations'*; and
- The insurer's requirements where structures or equipment fall outside published guidance or recommended practice.

The EA's Fire Prevention Plan guidance has been designed with 3 objectives in mind:

1. minimise the likelihood of a fire happening;
2. aim for a fire to be extinguished within 4 hours; and
3. minimise the spread of fire within the site and to neighbouring sites.

The Facility will meet these objectives as follows:

1. The use of suitable management procedures and fire detection systems will minimise the likelihood of a fire happening – refer to sections 5, 6, and 7.
2. Active firefighting measures will be implemented should a fire break out – refer to section 11, 13 and 14. Utilising these measures, the Facility aims to extinguish a fire within 4 hours.
3. Fire walls and other prevention methods will minimise the spread of fire within the site and to neighbouring sites – refer to section 8 and 9.

Utilising these measures, the Facility has been designed with the aim of extinguishing a fire within 4 hours.

1.1 Site location and description

The Facility is located on Zinc Road, Avonmouth, BS11 8AZ. The site is within the industrial area of Avonmouth, behind the ASDA Retail Distribution Centre, accessed off Kings Weston Lane in Avonmouth. Junction 18/18A of the M5 motorway is approx. 1 mile to the South. The M4/M5 interchange is approx. 7 miles to the North. Avonmouth Docks are within 1 mile of the site and Bristol City Centre is 10 miles to the East via the A4 Portway.

The closest fire station to the site is Avonmouth Fire Station, situated approximately 950m southwest of the Facility. In addition, Pill Fire Station is situated approximately 3.7km south/southeast of the Facility.

1.2 Who this plan is for

The Fire Prevention Plan will be easily accessible for all staff and will form part of the documented management systems for the site. People who will have access to the plan will include, but not be limited, to the following:

- site staff;
- fire officers; and
- contractors.

2 Types of combustible materials

2.1 Combustible waste

The primary purpose of the facility is to treat hazardous and non-hazardous waste, a proportion of which is combustible. Therefore, Grundon understands that a fire prevention plan is required to set out the measures which have been implemented at the Facility to minimise the impacts of fire.

The hazardous and clinical waste types to be treated at the Facility are listed in Appendix A. For consistency with the EP application, the full list of EWC codes has been presented, although it is acknowledged that some of the waste types include metals, glass and minerals (for example sand, stones) which are not combustible wastes.

2.2 Other combustible materials

A diesel-fuelled forklift truck will be used to transfer/move wastes around the site. The diesel will be stored and refuelling will occur at adjacent Waste Transfer Station which is operated by Grundon. Therefore, there will be no diesel storage or refuelling facilities at the Facility.

A number of other raw materials are stored on site as follows:

- Greases and oils used for plant and equipment maintenance. These are stored in proprietary 25 litre containers in a bunded area;
- Aerosol greases, line markers and cleaning agents are stored in small quantities (in proprietary containers) in a COSHH cabinet; and
- CEMs gas mixture (FID gas 40% H_2 in He mixture) stored in 2 x 50 litres cylinders connected to the manifold system. Spares and empties are stored outside the building.

3 Using this Fire Prevention Plan

3.1 Where the plan is kept and how staff know how to use it

All staff and contractors working on-site will be made aware of, and understand the relevant contents of, this FPP.

The FPP will be available in both electronic and hard copies at easily accessible locations. Staff induction programmes will be location and job role specific; however, they will include awareness training on the documented management systems at the site as a minimum. All staff will be able to easily access the documented management systems, including this FPP.

Visitors and contractors will be informed about fire prevention measures adopted at the Facility as part of site induction procedures and will be able to access the FPP if required. The FPP will also be made available to local Fire Officers. A Premises Information Box or similar at the entrance of the Facility will be made available to the fire and rescue service which will contain a copy of the FPP, contact numbers and also information on control features such as shut-off valves, hydrant controls etc.

3.2 Testing the plan and staff training

All site staff (and contractors) will be trained in emergency response procedures. Operational staff will be trained in a range of firefighting equipment. Training records will be maintained in accordance with the documented management systems for the Facility, with fire response procedures incorporated within the site's management systems. It is expected that fire drills (including procedures for emergency evacuation of the site) will be exercised at least twice per year.

Site Operatives are responsible for:

- Following operating instructions and reporting discrepancies between these instructions and the work;
- Maintaining the fire prevention controls implemented by Grundon Waste Management (as detailed in this fire prevention plan); and
- Reporting any activity or events which could jeopardise the site Fire Safety Strategy.

Through site inductions and on-going staff awareness and training, the company will ensure that all relevant staff and contractors will:

- Understand what they must do during a fire;
- Know where the fire prevention plan is kept; and
- Participate in regular exercises to test how well this FPP plan works and to confirm staff understand what to do.

Training for all staff is reviewed by management on an annual basis, using the training matrix. Records of exercises/drills are held on file and contain, as a minimum, the date and time of testing/evacuation, the scenario, and any findings or actions resulting from the exercise.
For visitors to the site:

- They will always be escorted and signed in;
- They will be notified of the no smoking policy for the site; and
- When signing in, information on the fire exits and muster point will be provided.

This FPP, once approved, forms part of the EP for the. facility. It is a live document that is made available to all employees and to other relevant third parties for example contractors. A copy of the site plan is located in the building by the access doors and by the main access gates with instructions for the emergency services to locate key information in the event of an incident on site.

3.3 Roles and responsibilities

The Site Manager will be responsible for:

- Ensuring the effective implementation of the Fire Prevention Plan;
- Allocation of sufficient resources to ensure the Fire Prevention Plan can be implemented;
- Regularly updating the Fire Prevention Plan as required;
- Ensuring site staff are trained and competent to manage fire prevention and fire protection;
- Monitoring the overall effectiveness of the Fire Prevention Plan through weekly & monthly site inspection and record findings;
- Managing emergency situations and initiating the emergency plan – including the management of fire water, including the organisation of tankers to remove excess water from site;
- Roll calls at the assembly point after a site evacuation;
- Site traffic control in an emergency situation;
- Meeting with the Emergency Services on site, if they are required; and
- Decide on and coordinate communication with Sensitive Receptors and adjacent buildings.

Fire Wardens will be responsible for:

- The safe evacuation of the site; and
- Deciding if a fire can be tackled locally with extinguishers or whether the Fire Brigade needs to be called.

All employees (and contractors) will be responsible for:

- never leave obstructions in corridors, stairways, stair landings or other escape routes;
- never block fire exits or place objects in front of fire doors;
- never leave open fire doors which are required to be kept shut to prevent fire spreading, and ensure these doors are closed behind them;
- never interfere with fire detection or suppression equipment unless authorised to do so;
- report any damages identified to fire detection or suppression equipment;
- maintain safe working practices with electrical equipment;
- do not smoke on site unless in an approved area;
- familiarise themselves with fire emergency procedures; and
- book in and out of the site using the correct systems in place.

4 Fire Prevention Plan contents

4.1 Activities at the site

The Facility will consist of two Schedule 1 installation activity (as defined in the Environmental Permitting Regulations) and directly associated activities. These include:

- waste incineration plant, including the processing of incoming clinical, hazardous and non-hazardous waste which is delivered to the Facility via road;
- treatment of flue gases generated from the combustion of the waste fuels;
- production of bottom ash material that will be transferred off-site for disposal in landfill;
- generation of an air pollution control residue (APCr) that will be transferred off-site to a suitably licensed hazardous waste facility for disposal; and
- the repackaging of hazardous wastes for transfer off-site to a suitably licenced waste disposal/recovery facility.

The following table lists the Scheduled activities from the Environmental Permitting Regulations, and directly associated activities.

Table 1: Scheduled and directly associated activities

Type of Activity	Schedule 1 Activity	Description of Activity
Installation	Section 5.1, Part A(1) (a)	The incineration of hazardous waste and non-hazardous in a waste incineration plant with a capacity of 2.5 tonnes/hour.
Installation	S5.3 Part A(1) (a) (iv) Repackaging of hazardous waste: **R12** Exchange of waste for submission to any of the operations numbered R1 to R11 (repackaging) **D14** Repackaging prior to submission to any of the operations numbered D1 to D13	Repackaging is limited to: • taking a waste package (for example a bag, jar, drum or box) out of one cart or bulk container (for example a skip) and placing it into another cart or bulk container (for example, a skip) • taking a waste package from a cart or bulk container (for example, skip) and placing it onto a pallet or vehicle • taking a waste package from a pallet and placing it into a cart or bulk container (for example, skip) • transferring, removing or separating waste from its primary packaging (for example container, bags, bins, boxes). Healthcare waste shall not be transferred, removed or separated from its original packaging. Wastes that are combined together during repackaging activities shall have the same EWC code and similar chemical composition. The repackaging of wastes shall not result in:

Type of Activity	Schedule 1 Activity	Description of Activity
		• any incompatible wastes being repackaged together in the same container • a reaction of repackaged wastes with each other • a reaction with the container in which the wastes are being placed. Repackaging shall take place within a building on an impermeable surface with sealed drainage. Fugitive emissions shall be minimised during repackaging. Repackaging of waste shall not change either the maximum storage times for waste on site or the amount that can be stored at any one time.
Directly associated activities		
Directly Associated Activities		The receipt, storage and handling of non-hazardous, hazardous and clinical waste prior to incineration.
Directly Associated Activities		The handling, storage and transfer of residues for transfer off-site.
Directly Associated Activities		Energy recovery via a steam boiler, steam turbine and generator producing electricity.
Directly Associated Activities		Bin washer
Directly Associated Activities		Standby electrical generation to provide electrical power to the plant in the event of an interruption in the supply.

The Stationary Technical Unit (the Facility) includes waste reception and preparation; waste storage; water, fuel oil and air supply systems; a rotary kiln combustion system including steam boiler; facilities for the treatment of exhaust gases; on-site facilities for treatment or storage of residues and wastewater; stack; and devices and systems for controlling the combustion process and monitoring emissions.

The capacity of the Facility will be approximately 60 tonnes per day (2.5 tonnes per hour) of non-hazardous and hazardous wastes, with a net calorific value (NCV) of 26MJ/kg.

The Facility will have an availability of approximately 8,000 hours per annum. Therefore, the Facility will have a nominal design capacity of approximately 20,000 tonnes per annum (tpa). However, allowing for the Facility operating on a low range NCV the Facility could process up to 28,500 tpa. Therefore, the maximum capacity of the Facility is 28,500 tpa.

4.2 Site plans and drawings

The following plans and drawings are included within Appendix A of this report:

- site location plan (Appendix B.1);
- site layout plan (Appendix B.2);
- waste and materials storage areas plan (Appendix B.3);
- access points (Appendix B.4);
- indicative locations of fire hydrants (Appendix B.5);
- indicative locations of fire walls (Appendix B.6);
- indicative location of quarantine area (Appendix B.7);
- fire receptor plan (Appendix B.8); and
- areas of natural and unmade ground (Appendix B.9).

Detailed design of the fire protection and mitigation measures are currently ongoing. Therefore, some of the information in relation to some of the drawings identified above must be considered to be indicative until detailed design of the Facility has been completed. Following completion of detailed design, the following drawings will also be included within the updated FPP, in accordance with the EA's FPP guidance:

- the location of drain covers, and any pollution control features such as drain closure values and firewater containment systems;
- a detailed site drainage plan;
- the location of the unacceptable waste quarantine area;
- the location of gas cylinders and mobile plant;
- a plan showing permanent ignition sources at the site; and
- the location of plant (including mobile plant), protective clothing and pollution control equipment and materials (such as spill kits).

Wind roses indicating the direction of prevailing winds taken from Bristol Airport covering the period 2018 to 2022, are presented in Appendix C.

4.3 Plan of sensitive receptors near the site

The following section details the local sensitive receptors which are considered to be sensitive to the effects of a fire event at the Facility. In the unlikely event of a fire, the site personnel, and the infrastructure and equipment at the Facility itself, will be most at risk. A fire at the Facility will potentially have a temporary localised impact on the operation of the Facility, or a wider impact on surrounding receptors, depending on meteorological conditions at the time of any incident. Meteorological conditions are discussed further in section 4.4.

According to the EA's FPP guidance, examples of sensitive receptors include:

- schools, hospitals, nursing and care homes, residential areas, workplaces;
- protected habitats, watercourses, groundwater, boreholes, wells and springs supplying water for human consumption; and
- roads, railways, bus stations, pylons (on or immediately adjacent to the site only), utilities, airports.

According to the guidance, receptors up to 1km from the site should be included, as these are considered to be most at risk of impacts from a fire.

The key receptors, located within 1 km of the site, which could be impacted by a fire at the Facility are presented in Table 2.

Table 2: Sensitive Receptors

Local Receptor Type and Distance	Receptor Name
Residential properties - none within 1 km (closest is 1.8 km to the south)	N/A
School – none within 1 km	N/A
Public highways: - Adjacent to the north - 100 m to the west - 1 km to the south - 800 m to the east	 - Zinc Road - A403 Saint Andrews Road - Third Way - Boundary Road
Statutory Habitat site – Local Wildlife Site 500 m to the west of the Facility	St Andrews Road Rhine

Receptors within 1km of the Installation which could potentially be impacted by a fire at the Facility (e.g. from smoke or particulate emissions) are presented in the plan shown in Appendix B.8.

4.4 Meteorological conditions

As can be seen from the wind roses from Bristol Airport presented in Appendix C, the prevailing wind direction for the site is from the east, with a typical wind speed between 3 – 8 m/s. Therefore, receptors to the east of the site are most likely to be affected by the effects of a fire event at Facility.

The wind rose has been obtained from Bristol Airport, which is located approximately 15 km to the south of the Facility. The topography at the airport is relatively flat, which is similar to the location of the Facility. Therefore, this data is considered to be representative of the meteorological conditions at the Facility.

Any likely impact to the identified sensitive receptors in the event of a fire would be dependent on the weather conditions and size of the fire. A decision will be made at the time and on the advice of the Fire Brigade and Environment Agency whether warnings to local residents are necessary. This warning will be given via the internet, local radio and, depending on the severity of the incident and the advice given, local television.

5 Managing common causes of fire

5.1 Arson or Vandalism

Security measures will prevent unauthorised access by members of the public and thereby prevent the risk of arson attacks or vandalism. The Facility is enclosed with security fencing. Security gates will be present at the entrance of the site to control vehicular access. The gates will be closed outside of working hours.

Grundon applies the following visitor policy at all of its facilities:

- All visitors must have an appointment, sign in, and identify any accompanying vehicles; and
- All visitors will be accompanied at all times and must sign out upon leaving the site.

In addition, Grundon applies the following employee policy at all of its facilities:

- New employees are to provide references for checking;
- Employees are to be informed of all security procedures and will be disciplined in the event of a deliberate breach of company security procedures; and
- Employees leaving the company will be required to return any keys, codes, or data prior to departure.

Grundon will engage with the police and other regulatory authorities where there is a breach of security that poses a threat to environmental protection.

The Facility will be operational and manned 24 hours a day, 7 days a week. The site security will be responsible for security on the site, including delivery vehicles as they travel around the site. The shift team leaders will be responsible for operations at the Facility.

Emergency response procedures will be developed for the Facility, prior to the commencement of operations, as part of the implementation of Grundon's Environmental Management System (EMS). The emergency response procedures will detail the response to a number of different emergency situations on site, including unauthorised personnel accessing the Facility.

5.2 Plant and equipment

An operating and maintenance manual (O&M manual) will be developed and completed through the commissioning phase of the installation. The O&M Manual will set out detailed operating and maintenance instructions for all the plant and equipment which requires maintenance.

Maintenance procedures and work instructions will be developed to cover all plant and equipment within the Facility. As part of such work instruction development, the risk of fire will be considered, and appropriate activities included within the work instruction to reduce the risk of fire in all plant and equipment.

Vehicles will be fitted with fire extinguishers on-board. As stated previously, mobile plant will be stored off-site, and away from any waste or combustible materials.

As part of the maintenance system, responsibilities for retaining records of all maintenance undertaken and any actions taken following a problem will be defined.

The auxiliary burners will be equipped with safety controls to automatically shut off the fuel supply in the event of the burner failing to ignite, the flame extinguishing or in the event of insufficient draft.

5.3 Electrical faults including damaged or exposed electrical cables

The risk of electrical faults at Facility will be minimised by the use of qualified electricians and will comply with the relevant British Standards for the design and installation of electrical equipment and supplementary bonding/earthing. The site will be constructed and operated in accordance with recognised standards for fire prevention, detection and control within electrical control systems.

Testing will be carried out on electrical equipment by fully and appropriately qualified electricians, when required. The inspection of electrical cabling at the Facility will be included in the documented maintenance programmes. Electrical circuits on both mobile plant and static equipment will be checked in accordance with the manufacturer's recommendations.

All portable electrical appliances will be PAT tested annually, with a label attached to the plug (or the cable) to confirm the item has been tested.

5.4 Discarded smoking materials

A no smoking policy will be implemented at the Facility. Smoking will be prohibited in operational areas.

External areas will be designated for smoking will be identified, with suitable facilities provided for staff. The external smoking areas will be located at safe distances from storage areas of any combustible materials, to prevent accidental ignition.

5.5 Hot works safe working practices

Operational staff will be briefed on the need for monitoring for the early signs of fires. The waste reception area and all main process areas will have CCTV to allow remote monitoring from the control room on a continuous basis.

All waste delivered to the Facility will be supervised by operational staff, who will be responsible for the inspection and monitoring of waste deliveries.

Naked sources of ignition will be controlled through a hot work management system. This system will cover both staff and contractors working at the Facility. The hot work management system will also include requirements to train and authorise 'hot work risk assessors' for the purposes of eliminating, reducing and managing the risks associated with hot work. The hot work system will include for a period of fire watch following the hot works being undertaken.

As part of the hot work management system, the potential for sources of ignition to cause fires will be managed on a case-by-case basis. Where feasible, the guidance of keeping all sources of ignition at least 6 metres away from any combustible or flammable items would be followed as part of this management system. This will include ensuring that mobile plant storage locations will be stored at least 6 metres away from any combustible items. It should be noted that the location of mobile plant storage locations is subject to detailed design of the Facility.

5.6 Industrial heaters

It is currently not expected that industrial heaters will be installed at the Facility, however, this will be confirmed during detailed design. If applicable, the hot work management system would be extended to include the use of industrial heaters and the necessary safeguards required in each instance would be assessed and implemented to ensure their use is safe.

5.7 Hot exhausts and engine parts

A fire watch system will be implemented to detect signs of fires from dusts settling on hot exhausts. This will be developed as part of the operating procedures. This will include regular visual checks of dusts settling on hot exhausts as part of the operational checks by operational staff.

Any hot work permit will include a fire watch. In addition, a fire watch will monitor the site during the working day.

It is noted that the Facility will be fully manned during operating hours. Therefore, regular visual inspection will occur more frequently than is formalised in the management system.

5.8 Ignition sources

A review under the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR) will be completed during the detailed design of the Facility, with any risk areas identified on DSEAR zonal drawings.

Vehicles and electrical items necessary for the operation of the Facility will be regularly inspected for electrical faults. All mobile plants serving the Facility will be fitted with fire extinguishers and dust filters.

In accordance with EPR 5.01, during the combustion process the isolation doors that prevent fire burning back up the chute/waste feed hopper will be double doors and/or have a cooling system (subject to detailed design), to prevent ignition of waste in contact with the outside of the door.

Naked sources of ignition will be controlled through a hot work management system. This system will cover both staff and contractors working at the Facility. The hot work management system will also include requirements to train and authorise 'hot work risk assessors' for the purposes of eliminating, reducing and managing the risks associated with hot work. The hot work system will include for a period of fire watch following the hot works being undertaken.

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5.9 Batteries

Batteries will be stored in suitable containment facilities, and will be segregated from other incoming waste types. Lithium and Li-ion batteries will be stored separately from other batteries to prevent them from coming into contact with liquids and/or from being damaged.

Batteries which are identified as being damaged will be prioritised for processing to ensure that they are stored on-site for minimal periods.

5.10 Leaks and spillages of oils and fuels

Emergency response procedures will be developed as part of the emergency procedures for the Facility. The procedures will include actions to be undertaken to respond to spills and leaks of chemicals. Spill kits will be made easily accessible on-site. Actions will be undertaken to prevent liquids leaking or trailing from site vehicles.

Daily checks will be undertaken at the Facility, and should a leak be identified, the equipment will be put out of service until it is fully repaired.

All mobile plant will be checked prior to use, including looking at the engine bay and checking around the vehicle for any evidence of any leaks. They will be regularly serviced every 500 hours by an approved contractor. There will be spill kits in designated locations across the site and forklift drivers will be trained in the use of these kits.

5.11 Build-up of loose combustible waste, dust and fluff

The Facility is designed to prevent the accumulation of dusts by designing structural members such that their shape or method of installation minimizes the surface area where dust can settle.

As part of the detailed design of the Facility, the control of dust and fluff has been considered. This includes:

- the use of a covered waste reception/unloading building; and
- mechanical ventilation of the main building to prevent fugitive emissions from the building façade.

These systems will be checked as part of the planned maintenance regime as required in the detailed operating manuals for each piece of equipment.

On a regular basis, inspections will be undertaken to identify the build-up of loose combustibles, dust and fluff. Where inspections identify that there has been a build-up of loose combustibles, dust and fluff, appropriate cleaning will be undertaken to clean this material from the surfaces. Good housekeeping practices will be employed at Facility to ensure that dusts and litter do not build up and pose a fire risk.

Due to both the nature of the waste to be received on site (contained in airtight, enclosed bins), and the design parameters and management systems identified, dusty wastes are not anticipated to be processed at the Facility.

5.12 Reactions between wastes

The majority of waste received at the Facility will be packaged within UN approved containers ranging from 5 litres containers to 1000 litres.

All wastes to be accepted will be assessed in accordance with the site pre-acceptance procedure prior to booking. When the waste arrives at site it will be unloaded and identified in accordance with site specific documented procedures for the following:

- Waste Acceptance;
- Waste Handling;
- Receiving Waste;
- Unloading Consignments of Waste;
- Storage of Incompatible Materials; and
- Sampling & Testing Procedures.

Following sampling and testing of the waste it will be safely stored in the waste reception area which is equipped with fire walls and segregation distances.

Under normal operations, receipt of non-conforming waste or that which would require quarantining is expected to be rare; however, should any material be discovered that is likely to

cause a reaction with other wastes it would be isolated from any potential combustible materials and immediately removed. As part of their induction, all operational staff will be trained to understand and recognise the wastes that can and cannot be accepted at the Facility.

5.13 Deposited hot loads

Due to the nature of the waste being incinerated, it will not be possible to inspect the waste prior to incineration. However, should inappropriate waste be identified from paperwork checks (i.e. waste not falling into the EWC categories for which the Facility is licensed to receive), the waste bins would be stored in a designated quarantine area prior to transfer off-site (refer to section 9). Due to the waste being contained in enclosed and airtight containers there is negligible risk of contamination. The quarantine area would be located away from all other incoming waste, to prevent the inappropriate waste from being accidentally incinerated.

Due to the waste being stored in airtight enclosed bins, self-heating or ignition is considered highly unlikely. Therefore, there is little risk of hot loads being delivered to the Facility.

There is no reason to expect any waste delivery to contain hot materials and waste acceptance procedures will include the relevant checks for this, including looking for:

- Signs of heating (e.g., steam or smoke);
- Bulging of containers;
- Batteries, in particular lithium-ion batteries;
- Oils or other contaminants; or
- Rags soaked in oils or chemicals.

Any loads that are identified as being potentially hot will be immediately quarantined or rejected.

5.14 Hot and dry weather

During periods of hot and dry weather, there will be potential for external heating of waste which increases the risk of fire. All waste will be contained within the building which will provide protection from hot weather and supports a continuous flow of air to keep the area ventilated.

General measures in place to reduce the risk of this include minimising storage times and increasing the fire watches where waste is stored.

6 Preventing self-combustion

6.1 General self-combustion measures

Good housekeeping is recognised as being key to managing waste appropriately. Measures to be implemented at the facility will include:

- All locations for waste storage will be easily accessible, with main access gates to the building storage. Waste materials will be easily accessed and moved using pallet trucks and mobile plant;
- Site cleanliness and dust build up will be monitored daily, together with the cleaning rota; each area will be cleaned weekly and recorded;
- Monitoring of the site and wastes storage will be carried out continuously, by site staff or by the facilities CCTV systems.

All waste that is accepted on site will undergo pre-acceptance checks and any temperature sensitive chemicals, or explosive chemicals, will be processed on arrival and not put into storage.

All waste to be accepted on site will undergo pre-acceptance checks and any temperature sensitive chemicals will be placed into controlled storage within two hours of receipt. Within sensitive storage areas there will be thermal imaging cameras that continuously monitor and alarm at critical temperatures and time periods.

Weekly site management inspections will be completed that address the availability of fire-fighting equipment, the storage of chemical, the availability of evacuation routes and access routes for emergency services to ensure good housekeeping standards are maintained (weekly walk round).

In addition to the above checks, due to the nature of the business, operational staff will be present within all areas of the site for the majority of their day; they continually and vigilantly monitor the condition of all processes for potential fire risk situations.

6.2 Managing storage time

6.2.1 Methods used to record and manage the storage of all waste on site

In accordance with EPR guidance note 5.07, storage times of clinical waste processed at the Facility are not required to be stipulated. However, in accordance with good practice to be employed at the Facility, incoming waste will be processed promptly.

The period of time that waste is stored at the Facility will extend should a shut-down of the Facility occur, however the quantity of waste received by the Facility would be reduced prior to a planned shutdown.

Following the recommencement of waste deliveries after a period of shutdown, the ‘older’ waste that had been stored at the Facility would be incinerated first.

The Facility will process waste on a 24-hour basis; however, the majority of deliveries and collections will occur between 05:00 and 22:00 Monday to Friday, and 06:00 and 14:00 hours on Saturdays. However, some deliveries/collections may take place outside these hours if necessary.

In accordance with EPR 5.07, storage times of clinical waste processed at the Facility are not required to be stipulated. However, in accordance with good practice to be employed at the Facility, incoming waste will be processed promptly and, following a shutdown, waste would continue to be processed promptly.

6.2.2 Stock rotation policy

Waste will be processed using the 'first in, first out' principle. This will be achieved through waste tracking procedures and will ensure that at the point of any interruption of operation, no waste will exceed the storage duration limit.

The storage time of the waste will be managed on site by the daily environmental log, every week a bay will be checked to ensure any waste on site is stored for a period of less than 6 months. Any unpackaged waste will be cleared out daily.

6.3 Monitoring and control temperature

6.3.1 Monitoring and controlling temperature

All materials entering the site will be received and visually inspected in accordance with waste acceptance procedures. If the incoming material is in question or if it shows signs of being hot, it will be quarantined accordingly to ensure safe storage or onward processing or it will be immediately rejected.

The outer packaging of wastes and containers will be monitored daily by site operatives, supervisors, and management.

Spontaneous combustion occurs when a combustible material is heated to its ignition temperature normally by a chemical reaction involving the oxygen in the air around the material. This heating process is known as self-heating. Generally, this can happen when the materials are left in piles, which provide a source of insulation, trapping the heat that is generated. The possibility of spontaneous combustion increases when the surrounding air is also warm and dry. Heat radiating from nearby sources, such as machinery, can also serve to accelerate the self-heating process by heating the combustible materials and the surrounding air.

All waste that will be accepted on site will undergo pre-acceptance checks and any temperature sensitive chemicals will be placed into controlled storage within two hours of receipt. Within sensitive storage areas there will be thermal imaging cameras that continuously monitor and alarm at critical temperatures and time periods.

Non-hazardous materials not requiring UN packaging will be stored in appropriate containers to ensure the waste is securely contained to provide protection during transport to the extent that no material will leak or spill out and secured on pallets. Palletised waste will be stored in easily accessible lines and can be moved within the building by pallet trucks.

Throughout the day, each storage area will be visually inspected by staff for any anomalies, such as visual signs of damaged containers, incorrect stacking of containers, leaks. At this point quantities in storage will also be checked and records updated as required. Anomalies will be actioned immediately by investigation and remedial action will be taken. This, combined with temperature checks and the stock rotation policy, will ensure that the likelihood of spontaneous combustion is negligible.

6.3.2 Dealing with hot weather and heating from sunlight

All waste storage will be within the building, away from direct sunlight but well ventilated. Storage will be organised such that air is free to flow in between any two containers. The locations for waste storage will be easily accessible; there will be a separation between each line so waste can be easily moved should it be needed.

6.3.3 Waste bale storage

Incoming waste will not be stored in bales. Therefore, there will be no baled waste stored at the Facility.

7 Manage waste piles

As shown on the waste storage plan, the locations for waste storage will be easily accessible, there will be a separation between each area and there will be sufficient space for vehicle movements such that wastes can be easily moved using the available mobile plant if required.

7.1 Waste stored in piles

Where waste is stored in piles, individual pile sizes will be less than 400 tonnes. Refer to the Materials and Waste Storage Areas Plan, Appendix B.3.

As shown in the drawing, the largest waste storage bay is located within the Waste Reception Area and has a footprint of 62m^2. On the basis that the height of the waste pile is the maximum permissible by the EA's Fire Prevention Plan guidance, the maximum capacity of a waste pile is 250m^3.

7.2 Waste stored in containers

Incoming waste will be delivered to the Facility via road in a variety of packages. The majority will be UN certified 770 litre wheeled bins, used throughout the clinical waste management industry for the storage and transportation of this waste. Other sizes of wheeled bins will also be accepted, with capacities ranging from 120 litres to 1280 litres. Clinical, pharmaceutical, hazardous and other wastes will also be received and stored in airtight packages burn-bins, boxes, drums, sacks and bulk bags. It is anticipated that the store will have the ability to accommodate approximately 800 bins 770 litre wheeled bins, or equivalent volumes of other packages. This equates to approximately 616 m^3 storage capacity, sufficient for around 2 days operation at the nominal design capacity. Once delivered, the bins are stored within designated storage areas until such time as the waste can be incinerated. In accordance with EPR guidance note 5.07, storage times of clinical waste processed at the Facility are not required to be stipulated. However, in accordance with good practice to be employed at the Facility, incoming waste will be processed promptly.

7.3 Types of containers

It is anticipated that the following container types are to be received at the facility:

Table 7-1: Anticipated container types for the storage of waste

Internal Reference Code	Description
INCCAR	Cardboard boxes
INCLAB	30 litre & 60 litre burn-bins, 50 litre & 205 litre drums
INCHAZ	30 litre & 60 litre burn-bins, 50 litre & 205 litre drums
INCCON	1,100 litre wheeled bins
INCCLN	Sacks in 770 litre wheeled bins
INCPLS	30 litre & 60 litre burn-bins
INCSHP	Sharps bins in 770 litre wheeled bins
INCPHA	Cardboard boxes, 30 litre & 60 litre burn-bins, 50 litre & 205 litre drums
INCABP	360 litre wheeled bins

Internal Reference Code	Description
INCRAD	30 litre, 50 litre & 60 litre burn-bins, 50 litre & 205 litre drums, 770 litre wheeled bins

8 Prevent fire spreading

In the event of a fire or suspected risk of fire any plant operating, that could be causing or will be affected by the potential fire, will be stopped, and waste will be moved away from the potential fire source. At this facility much of the waste will be held within containers that are portable; waste can be moved away from the source without compromising the integrity of its containment. As a result, the size of a fire is likely to be small and easily contained. The facility will make use of a forklift vehicle, primarily to unload palletised wastes into the facility (where tail lifts are not available).

8.1 Separation distances

As per the guidance, where waste is in containers, each area of containers is such that it is accessible from at least one side so a fire can be extinguished.

The FPP guidance requires a separation distance of at least 6 m between waste and the site perimeter, any buildings, or other combustible or flammable materials. This can be reduced using fire walls, which has been deemed appropriate for this site, for the unloading bays which store loose waste. There is also the provision to reduce separation distances where alternative measures can still meet the objectives of the guidance. In Grundon's case, for this site, the use of fire walls to delineate the unloading bays is presented in combination with the storage of UN-contained waste in rows each only one pallet wide. Access to at least one side of each pallet is therefore allowed and being on pallets, any problematic waste can be easily moved, either itself to the quarantine area, or surrounding waste away from it. On the basis of risk management this is considered appropriate and a workable measure.

8.2 Fire walls construction standards

Suitable fire walls will be installed within the appropriate areas within the Facility. The location and specification for fire walls would be subject to detailed design of the Facility, and dependent on the layout. An indicative layout drawing showing the location of all fire walls, is provided in Appendix B.6.

It can be confirmed that waste will be segregated and stored in compliance with HSE Guidance HSG71, with fire walls being used to separate the primary chemical classes. Fire walls will also be used to sub-divide and protect the primary bin storage areas, thus minimising the potential for the spread of any fire.

As part of the detailed design process, a fire risk assessment will be undertaken for each Fire Zone to identify the appropriate fire detection and protection systems in association with appropriate civil work design principles to control:

- the risk of fire propagation;
- the spread of fumes and smoke;
- firewater flooding; and
- to maintain the integrity of dedicated fire partition walls in the event of fire.

The fire zoning will be subject to the agreement of the fire risk insurers.

In accordance with fire insurers requirements, the dividing wall between fire zones will be suitably constructed to form a continuous 2-hour fire rated barrier for the full width and height of the area. Any doors within this wall will be fire rated.

In addition, the glass partition in the control room will be 2-hour fire rated, and hence resistant to fire. Therefore, in the event of a fire, the operational staff will be able to continue operating the plant for a limited amount of time.

9 Quarantine areas

9.1 Quarantine areas – location and size

The FPP guidance states that a quarantine area must be large enough to hold at least 50% of the volume of the largest 'pile' (in this case the largest unloading bay used for loose waste). The largest storage bay is in the Waste Reception Area, and a maximum storage capacity of 250 m^3 of waste (based the maximum storage height of 4m), therefore the quarantine area must be able to store at least 125 m^3. A number of the waste storage bays within the waste reception have designated as potentially being used as a quarantine area. These bays have a storage capacity of 250 m^3; therefore, they meet the requirements of the FPP guidance. In practice, no more than 60m^3 of waste should be required to be stored within the quarantine area at anytime. The location of the quarantine area is shown in Appendix B.7.

9.2 How to use the quarantine areas if there is a fire

In the event of a fire or a load that has been identified as being 'hot' or at risk of self-combusting, the load will be moved using a forklift truck and/or pallet truck, to the quarantine area as soon as possible, but always within 1 hour of a fire starting. This is only if it is safe to move the load. If a load is deemed unsafe to move across the site, the quarantine area may be used to move adjacent/nearby waste and materials away from the source of the fire, to prevent spreading.

9.3 Removing material stored within the quarantine areas

The area will not be used other than in the event of a fire or identification of a hot load. A separate designated quarantine area is used if non-conforming waste is identified and needs to be separated pending return to the customer or transfer off site for alternative disposal.

10 Detecting fires

10.1 Detection systems in use

The choice of fire detection system (smoke, heat and flame detectors) to be installed within the Facility is subject to detailed design. This will be confirmed prior to the commencement of commissioning of the Facility.

Suitable fire detection systems will be installed in each area dependant on the fire risks associated with the area. It is anticipated that fire alarms will be installed on each floor, and will be in line with current legislation. A plan showing the location of the fire detection system in each area will be presented in Appendix A upon completion of detailed design.

There will be a fire detection and alarm system which will cover all of the waste processing areas within the Facility. Fire alarms are to be installed on each floor and in line with current legislation. The fire alarm systems will include the following:

- local detectors/transducers and call points;
- sounders/high intensity flashing beacons;
- cabling and containment systems;
- local control and indication panels; and
- remote control and indication panel (incorporating integral printers) would be in the control room.

The following fire detection systems will be incorporated into the design of the Facility:

1. Fire detection in the waste reception hall, waste storage areas and waste feed systems will be utilised, with details confirmed following detailed design of the Facility.
2. Thermal imaging, smoke monitoring and traditional IR flame detection in a live feed will be utilised. These will provide a ‘thermal map’ of the area to be scanned. Staff in the control room would be trained in the identification and implementation of corrective methods in the event of elevated temperatures being identified. The use of manual fire extinguishing methods such as foam systems will be employed if necessary.
3. Any electrical rooms with significant concentrations of electrical equipment will be fitted with suitable fire detection systems. The fire detection systems will be designed for ease of regular testing to demonstrate correct operation, and will need to be agreed with the fire insurers. Suitable fire protection systems will be located within the rooms.
4. Procedures will be developed in the operation of the fire detection systems. Training will be provided to the relevant staff in the different fire detection systems. Training records in the operation of the fire detection systems would be retained on-site.
5. All fire detection and alarm systems will be designed and maintained by a suitably qualified, experienced and registered fire protection engineer.
6. Detailed design calculations, risk assessments and system drawings to demonstrate compliance with the requirements of the building control officer, fire officer and the insurer’s requirements will be produced during detailed design.
7. It would be the responsibility of the shift managers to monitor fire alarms.

11 Suppressing fires

11.1 Suppression systems in use

There will be a fire suppression system installed in the locations considered by the fire strategy to be at risk of fire. The fire suppression systems that will be considered in the final design may include the following:

- sprinkler/water deluge or foam systems for the waste reception areas, waste feed belt, waste feed hopper, fire pump container and the emergency diesel generator;
- foam systems for the lube oil systems and auxiliary burners;
- inert gas suppression for the electrical rooms and CEMS container; and
- carbon dioxide gas suppression system for the bag filters in the flue gas treatment system.

Detailed design calculations, risk assessments and system drawings to demonstrate compliance with the requirements of the building control officer, fire officer and the insurer's requirements will be produced following detailed design.

11.1.1 Fire Hose Reel System and Wet Riser System

Hose stations will be designed in accordance with NFPA 14, Standard for the Installation of Standpipe, Private Hydrants and Hose Systems, or BS equivalent. Fire hydrant systems equipment will be provided at strategic positions within the Facility for firefighting in fire risk areas.

For firefighting purposes, hose reels and extinguishers where appropriate will be provided within the buildings. Upstream connection of fire hose reels shall be as a minimum with 80 mm diameter pipe. A minimum 2.5 bar g pressure will be maintained at all times in the fire hose piping system with 4 fire hose reels in simultaneous operation.

The positioning of hose points will take into account the following:

- location and physical protection as to avoid potential damage by vehicles;
- ease of use, maintenance, and storage, such as through the use of continuous-flow, non-collapsible hose reels; and
- protection from freezing in unheated areas.

Following detailed design of the Facility, a plan identifying the location of the fire hose reels will be developed.

11.1.2 Fire Hydrants and Mains

Existing fire hydrants have been designed in accordance with NFPA 14, Standard for the Installation of Standpipe, Private Hydrants, and Hose Systems, or BS equivalent, and are connected to an underground fire main at strategic positions around the installation to provide firewater supplies to external fire risk areas. The fire hydrants are designed in accordance with the requirements of the Building Regulations and the fire service.

The location of hose reels and hydrants will be subject to detailed design and will be agreed with the fire insurers and the fire officer. The positioning of fire hydrants would take into account:

- location and physical protection as to avoid potential damage by vehicles;
- size and number to be determined for the specific layout; and

- protection from freezing.

The fire hydrants will be fed from the fire water storage tank and maintain the required pressure in accordance with the requirements of the fire service.

Following completion of detailed design, a plan identifying the location of the fire hose reels and hydrants will be developed. An indicative drawing showing the location of the fire hydrants is presented in Appendix B.5.

11.1.3 Fire Extinguishers

Fire extinguishers will be strategically located throughout the operational areas in accordance with the requirements of BS 5306: Part 3.

The location of the fire extinguishers will be subject to implementation of the recommendations of the fire officer for the Facility. Following completion of detailed design, a plan identifying the location of the fire extinguishers will be developed and presented in Appendix A.

12 Certification for the systems

All fire detection systems will be installed in accordance with BS 5839, Part 1 2002.

In areas which are identified as having a low fire risk, proposed detection method(s) would be agreed with the requirements of the fire service and fire risk insurer. The fire detection, protection and alarm systems will comply with the requirements of the fire service and fire risk insurer.

All fire detection systems will be design, installed and maintained in accordance with an appropriate UKAS-accredited third-party certification scheme (or similar standard).

The fire suppression systems will be designed and maintained by a suitably qualified, experienced and registered fire protection engineer. The fire suppression systems will be covered by a recognised (typically UKAS) third party certification scheme.

13 Firefighting techniques

13.1 Active firefighting

Where appropriate, the fire fighting measures are designed and operated in accordance with the following fire prevention and detection standards, or alternative recognised international standards where they are available:

- BS EN 671: Fixed fire-fighting systems;
- BS 5266: Emergency Lighting;
- BS 5446: Automatic Fire Alarm Systems;
- BS 5839: Fire Detection and Alarm systems for buildings;
- ISO 6183: Fire Protection Equipment – Carbon Dioxide Systems;
- CIBSE Guide Volume E, Fire Engineering, 2003;
- BS EN 15004: Fixed Firefighting systems – Gas extinguishing systems;
- BS 5306: Fire extinguishing installations and equipment on premises;
- BS 5588: Fire Precautions in the design, construction and use of buildings (only in as much as referred to in the Building Regulations);
- BS 9990: Non-automatic fire-fighting systems in buildings – Code of practice;
- BS 9999 - Code of Practice for Fire Safety in the design, management and use of Buildings; and
- Building Regulations, in particular Approved Document B, Volume 2 – Buildings other than dwelling houses, Section B5, Access and facilities for the fire service.

All staff, visitors and contractors will be informed about the fire safety precautions as part of the induction procedures.

All staff will be trained in the use of the fire-fighting equipment and against the emergency action plan with refresher training and updates given to all staff as required. The effectiveness of training will be tested through regular fire drills. Records will be retained for all training completed and for all fire drills performed. There will be numerous per year, and at least one of these will include a scenario from the site's emergency plan. The fixed hose reels will be tested weekly.

In the event of a fire, the Fire Wardens will be responsible for the safe evacuation of the site and for deciding if the fire can be tackled locally with extinguishers or whether the Fire Brigade needs to be called.

In the event of a fire only the Fire Wardens will oversee the evacuation of site and decide whether the fire is a minor one (i.e., can be tackled locally) or is a major one (cannot be tackled with fire extinguishers).

In the event of a minor fire being upgraded to a major fire, the following procedures will be undertaken:

- Contact the Emergency Services immediately and provide all information required for the Fire and Rescue services to understand the circumstances of the fire and exact location on site (prior to arriving);
- All staff and site visitors to meet at the assembly point and be briefed of the current situation. The site manager will undertake a roll call of all those currently on site that day;
- The site manager will arrange traffic control and when appropriate meet with the Emergency Services on site;

- The site manager will decide on and coordinate communication with the Sensitive Receptors and adjacent buildings;
- All water used to control the fire will be contained within the site by the bunds and effluent/drainage system;
- The Environment Agency will be informed of the incident; and
- Following the fire incident, a full review of all risk assessments, this FPP and procedures will be undertaken.

14 Water supplies

14.1 Available water supply

Firewater for the Facility will be provided by both mains water and a firewater storage tank shared with the adjacent waste transfer facility. The shared firewater storage tank would be connected to the local water supply and would be installed with a suitable system to prevent freezing. The tank would be fitted with a local external water level indicator.

Fixed fire suppression systems for the Facility will be designed in accordance with the requirements of the appropriate fire prevention standards listed in section 13. The site is equipped with a 200 cubic metre water storage tank that will provide a 2-hour supply based on the flow rate requirements for the sum of items (a) and (b) as:

a. the greater of items (i) or (ii) below:
    i. the largest fixed fire suppression system demand; or
    ii. any fixed fire suppression system demands that could reasonably be expected to operate simultaneously during a single event; and
b. a reasonable assessment of anticipated hose stream demand at not less than 1,890 l/min for 10 minutes.

The storage capacity of the firewater tank is 200 m^3, and is of a sufficient capacity to ensure that adequate firewater capacity is available for fire protection at all times.

The proposed management systems; the design considerations of the Facility; and the provision of the fire prevention and fire-fighting measures detailed within this FPP are considered to be suitable for the prevention and mitigation of fire should one occur.

The specification (the design flow rate) of the fire hydrant connection is not known. In the absence of this, it is assumed that the hydrant was installed in accordance with the applicable regulations (the Fire Hydrant Requirements and Dry Riser Regulations in the United Kingdom (amended 2018)). According to the Regulations, even the smallest fire hydrant (designed for an industrial estate up to 1 hectare in size) must supply water at a rate of at least 1,200 litres per minute. As such the existing fire hydrant is deemed more than adequate.

15 Managing fire water

The containment systems for firewater will be subject to the appointment of an EPC contractor who will be responsible for the design and construction of the Facility. However, it can be confirmed that drainage and prevention of flooding of equipment and the fire retention would be accomplished by installation of one or a combination of:

- Impermeable surfacing;
- Sealed drainage;
- floor drains;
- floor trenches;
- open doorways or other wall openings;
- kerbs for containing or directing drainage;
- equipment pedestals; and
- pits, sumps, and sump pumps.

The provisions for drainage and any associated drainage facilities would be sized to accommodate the concurrent flow due to operation of the following components:

- the spill of the largest single container of any flammable or combustible liquids in the area, where the bund around oil tanks should be large enough to contain the oil and the water from suppression systems;
- the maximum expected number of fire hose lines operating for a minimum of 10 minutes; and
- the maximum design discharge of fixed fire suppression systems operating for a minimum of 10 minutes.

There are four levels of containment firewater which would be required to be contained if there was a fire at the Facility:

The primary form of containment will be within the waste storage bays. The suppression of any fire will be very targeted, focussing on the waste storage bay in which the incident is occurring. This will be undertaken with either or both the on-site fire hoses and the automatic fire detection and suppression system.

The complexity and sensitivity of the detection system will enable any fire incident to be identified rapidly, providing the opportunity to engage it quickly, reducing the potential for it to affect adjacent packaging within the same bay.

The amount of firewater will be minimised by the ability to detect and extinguish the fire without delay and the likelihood that the extinguishing media will be foam based.

It's therefore anticipated that the waste firewater will be contained within one or a small number of bays. The bays will be sealed at the base, contoured to ensure that liquids flow to the rear and designed with a collection sump at the rear.

The secondary form of containment will be by the use of portable polyurethane liquid containment berms, that can be used to direct firewater into storage bays.

If a fire was to escalate further, the third level of containment will be provided by the fact that the building is bunded, with exterior walls being sealed. In the event of a fire, any open doorways will be protected using polyurethane liquid containment berms.

However, if any firewater was to escape from the building, this would be captured by the site drainage and surface water attenuation system, the forth level of containment. This will be installed with a penstock valve which will prohibit the discharge of potentially contaminated surface water off-site.

The combined containment capacity of all of the above is well in excess of the 200 cubic metre capacity of the on-site fire water tank.

The most likely choice of automatic fire suppression system will be directional foam cannons. These have flow rates up to 1400 litres per minute, which equates to approximately 84 cubic metres per hour. The total quantity of firewater that would be produced in 2 hours, using the fixed system for the entire period and the fire hoses for 10 minutes would be 186.9 cubic metres; well within the containment capacity for the building and within the storage capacity of the fire water storage tank

The water used for fire-fighting would be sampled and analysed to identify whether it is suitable to be used as process water, or if treatment/disposal is required. If the firewater is considered to be contaminated, it will be discharged to sewer if the composition is in accordance with the constraints of a Trade Effluent Consent or in agreement with the Sewerage Undertaker if a Trade Effluent Consent is not in place. If the effluent is unsuitable for discharge to sewer, it will be pumped out and transferred off-site, via tanker, to a suitably licensed waste management facility.

16 During and after an incident

16.1 Dealing with issues during a fire

Emergency procedures would be developed during the construction and commissioning phase. The emergency procedures will include, but not be limited to:

- fire identification and reporting procedures;
- an evacuation plan;
- emergency communication procedures;
- responding to chemical spillages;
- containment of firewater;
- requirements for diverting incoming waste; and
- Notification of any adjacent residential properties and businesses which may be impacted by the incident.

All staff and contractors would be trained in the emergency response procedures for the waste combustion process as well as the site-wide emergency procedures. Where specific responsibilities are given to specific staff, training would be provided to those employees. Training records in the emergency response procedures for all staff and contractors would be retained on-site.

The effectiveness of the emergency response procedures would be reviewed following any emergency incidents on-site. Where appropriate the procedures would be updated, and staff trained in the updated procedures.

A copy of the emergency procedures would be maintained at the gate house, or other suitable location, and will include the fire system mimic panel to allow co-ordination of the emergency response to a fire in the event that the main offices are unavailable.

On a periodic basis, assumed to be twice a year, tests of the emergency procedures would be undertaken. The intention of the tests is to verify that all staff and contractors are aware of the emergency procedures. Following all tests, the implementation of the procedures would be reviewed. If appropriate, the procedures would be amended, or additional training provided to all staff and contractors.

In the event of an incident resulting in the Facility not being capable to receive waste, waste deliveries to the Facility would be diverted to a suitably licensed waste management facility.

Deliveries of waste to the Facility will not be recommenced until it has been deemed safe for the Facility to be restarted following the incident.

16.2 Notifying residents and businesses

To manage the impacts of smoke released from a fire, this FPP details the combustible materials potentially involved, and identifies the sensitive receptors in the area.

Site staff will work with the emergency services to assist in the rapid notification of sensitive receptors including in person, by telephone call, and by local news media and will assist emergency services in the dissemination of advice on recommended actions (e.g., evacuation, closure of windows, etc.).

16.3 Clearing and decontamination after a fire

Building structures that are deemed safe would be cleaned, as necessary.

Clearing of the site is likely to comprise the removal of fire water and any impacted solid waste. Fire water will be collected via vacuum tanker and sampled prior to transfer off site for appropriate disposal or recovery.

Solid residues (the burnt combustible material) will also be tested and transferred off site for appropriate disposal if required or processed in house.

Waste identified as unsuitable to be incinerated would be loaded into HGVs and transferred off-site by licenced waste carriers to a suitably licensed waste management facility. Affected areas would be cleaned and washed before equipment and structural repairs would take place.

16.4 Making the site operational after a fire

Following a fire which requires the presence of the emergency services; materials, building structures, furnishings, vehicles, equipment and raw materials could be damaged. Once the fire had been fully extinguished and the emergency services given approval to enter the Facility, an assessment will be undertaken by the management team for the Facility, insurance assessors, structural engineers and fire damage/salvage specialists to assess the extent of the damage.

Once a full inventory of the damage and equipment has been completed under the strict supervision of specialist structural engineers, any building or structure will be made safe. Severely damaged equipment or building materials would be removed from site by a licenced waste/scrap company.

Incoming waste deliveries would be prevented, with incoming wastes diverted to alternative waste management facilities, until it can be concluded that it is safe to start-up the Facility.

Appendices

A EWC Codes

Code	Description of waste
1	**WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS**
01 01	*wastes from mineral metalliferous excavation*
01 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 05*	other tailings containing dangerous substances
01 03 07*	other wastes containing dangerous substances from physical and chemical processing of metalliferous minerals
01 03 08	dusty and powdery wastes other than those mentioned in 01 03 07 which require thermal treatment (e.g., due to contaminants being present or that are not suitable for disposal in a landfill)
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 07*	wastes containing dangerous substances 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 10	dusty and powdery wastes other than those mentioned in 01 04 07 which require thermal treatment (e.g., due to contaminants being present or that are not suitable for disposal in a landfill)
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07 which require thermal treatment (e.g., due to contaminants being present or that are not suitable for disposal in a landfill)
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
01 05	*drilling muds and other drilling wastes*
01 05 04	Freshwater drilling muds and wastes
01 05 05*	Oil-containing drilling muds and wastes
01 05 06*	drilling muds and other drilling wastes containing dangerous substances
01 05 07	barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06
01 05 08	chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06
2	**WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING**
02 01	*wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing*

Code	Description of waste
02 01 01	sludges from washing and cleaning that are not suitable for processing in an alternative waste management facility due to contamination
02 01 02	animal-tissue waste which requires high temperature incineration
02 01 03	plant-tissue waste which requires high temperature incineration
02 01 04	waste plastics (except packaging) that are not suitable for processing in an alternative waste management facility due to contamination
02 01 06	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site which requires high temperature incineration
02 01 07	wastes from forestry which requires high temperature incineration
02 01 08*	agrochemical waste containing dangerous substances
02 01 09	agrochemical waste other than those mentioned in 02 01 08 which requires high temperature incineration
02 01 10	waste metal that is not suitable for processing in an alternative waste management facility due to contamination
02 02	*wastes from the preparation and processing of meat, fish and other foods of animal origin*
02 02 01	sludges from washing and cleaning that are not suitable for processing in an alternative waste management facility due to contamination
02 02 02	animal-tissue waste which requires high temperature incineration
02 02 03	materials unsuitable for consumption or processing that are not suitable for processing in an alternative waste management facility due to contamination
02 02 04	sludges from on-site effluent treatment that are not suitable for processing in an alternative waste management facility due to contamination
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 01	sludges from washing, cleaning, peeling, centrifuging and separation that are not suitable for processing in an alternative waste management facility due to contamination
02 03 02	wastes from preserving agents that are not suitable for processing in an alternative waste management facility due to contamination
02 03 03	wastes from solvent extraction that are not suitable for processing in an alternative waste management facility due to contamination
02 03 04	materials unsuitable for consumption or processing that are not suitable for processing in an alternative waste management facility due to contamination
02 03 05	sludges from on-site effluent treatment that are not suitable for processing in an alternative waste management facility due to contamination
02 04	*wastes from sugar processing*
02 04 01	soil from cleaning and washing beet that are not suitable for processing in an alternative waste management facility due to contamination
02 04 02	off-specification calcium carbonate that is not suitable for processing in an alternative waste management facility due to contamination

Code	Description of waste
02 04 03	sludges from on-site effluent treatment that are not suitable for processing in an alternative waste management facility due to contamination
02 05	*wastes from the dairy products industry*
02 05 01	materials unsuitable for consumption or processing which require high temperature incineration
02 05 02	sludges from on-site effluent treatment that are not suitable for processing in an alternative waste management facility due to contamination
02 06	*wastes from the baking and confectionery industry*
02 06 01	materials unsuitable for consumption or processing which require high temperature incineration
02 06 02	wastes from preserving agents that are not suitable for processing in an alternative waste management facility due to contamination
02 06 03	sludges from on-site effluent treatment that are not suitable for processing in an alternative waste management facility due to contamination
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 that are not suitable for processing in an alternative waste management facility due to contamination
02 07 02	wastes from spirits distillation that are not suitable for processing in an alternative waste management facility due to contamination
02 07 03	wastes from chemical treatment that are not suitable for processing in an alternative waste management facility due to contamination
02 07 04	materials unsuitable for consumption or processing that are not suitable for processing in an alternative waste management facility due to contamination
02 07 05	sludges from on-site effluent treatment that are not suitable for processing in an alternative waste management facility due to contamination
3	**WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD**
03 01	*wastes from wood processing and the production of panels and furniture*
03 01 01	waste bark and cork that is not suitable for processing in an alternative waste management facility due to contamination
03 01 04*	sawdust, shavings, cuttings, wood, particle board and veneer containing dangerous substances
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04 that are not suitable for processing in an alternative waste management facility due to contamination
03 02	*wastes from wood preservation*
03 02 01*	non-halogenated organic wood preservatives
03 02 02*	organochlorinated wood preservatives
03 02 03*	organometallic wood preservatives
03 02 04*	inorganic wood preservatives

Code	Description of waste
03 02 05*	other wood preservatives containing dangerous substances
03 03	*wastes from pulp, paper and cardboard production and processing*
03 03 01	waste bark and wood that is not suitable for processing in an alternative waste management facility due to contamination
03 03 02	green liquor sludge (from recovery of cooking liquor) that is not suitable for processing in an alternative waste management facility due to contamination
03 03 05	de-inking sludges from paper recycling that are not suitable for processing in an alternative waste management facility due to contamination
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard that are not suitable for processing in an alternative waste management facility due to contamination
03 03 08	wastes from sorting of paper and cardboard destined for recycling that are not suitable for processing in an alternative waste management facility due to contamination
03 03 09	lime mud waste that is not suitable for processing in an alternative waste management facility due to contamination
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation that is not suitable for processing in an alternative waste management facility due to contamination
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10 that are not suitable for processing in an alternative waste management facility due to contamination
4	**WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES**
04 01	*wastes from the leather and fur industry*
04 01 01	fleshings and lime split wastes that are not suitable for processing in an alternative waste management facility due to contamination
04 01 02	liming waste that is not suitable for processing in an alternative waste management facility due to contamination
04 01 03*	degreasing wastes containing solvents without a liquid phase
04 01 04	tanning liquor containing chromium that is not suitable for processing in an alternative waste management facility due to contamination
04 01 05	tanning liquor free of chromium that is not suitable for processing in an alternative waste management facility due to contamination
04 01 06	sludges, in particular from on-site effluent treatment containing chromium that are not suitable for processing in an alternative waste management facility due to contamination
04 01 07	sludges, in particular from on-site effluent treatment free of chromium that are not suitable for processing in an alternative waste management facility due to contamination
04 01 08	waste tanned leather (blue sheeting's, shavings, cuttings, buffing dust) containing chromium that is not suitable for processing in an alternative waste management facility due to contamination

Code	Description of waste
04 01 09	wastes from dressing and finishing that is not suitable for processing in an alternative waste management facility due to contamination
04 02	*wastes from the textile industry*
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer) that are not suitable for processing in an alternative waste management facility due to contamination
04 02 10	organic matter from natural products (for example grease, wax) that is not suitable for processing in an alternative waste management facility due to contamination
04 02 14*	wastes from finishing containing organic solvents
04 02 15	wastes from finishing other than those mentioned in 04 02 14 that are not suitable for processing in an alternative waste management facility due to contamination
04 02 16*	dyestuffs and pigments containing dangerous substances
04 02 17	dyestuffs and pigments other than those mentioned in 04 02 16 that are not suitable for processing in an alternative waste management facility due to contamination
04 02 19*	sludges from on-site effluent treatment containing dangerous substances
04 02 20	Sludges from on-site effluent treatment other than those mentioned in 04 02 19 that are not suitable for processing in an alternative waste management facility due to contamination
04 02 21	wastes from unprocessed textile fibres that are not suitable for processing in an alternative waste management facility due to contamination
04 02 22	wastes from processed textile fibres that are not suitable for processing in an alternative waste management facility due to contamination
5	**WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL**
05 01	*wastes from petroleum refining*
05 01 02*	desalter sludges
05 01 03*	tank bottom sludges
05 01 04*	acid alkyl sludges
05 01 05*	oil spills
05 01 06*	oily sludges from maintenance operations of the plant or equipment
05 01 07*	acid tars
05 01 08*	other tars
05 01 09*	sludges from on-site effluent treatment containing dangerous substances
05 01 10	Sludges from on-site effluent treatment other than those mentioned in 05 01 09 that are not suitable for processing in an alternative waste management facility due to contamination
05 01 11*	wastes from cleaning of wastes with bases
05 01 12*	oil containing acids

Code	Description of waste
05 01 13	boiler feedwater sludges that are not suitable for processing in an alternative waste management facility due to contamination
05 01 14	wastes from cooling columns that are not suitable for processing in an alternative waste management facility due to contamination
05 01 15*	spent filter clays
05 01 17	bitumen that requires high temperature incineration
05 06	*wastes from the pyrolytic treatment of coal*
05 06 01*	acid tars
05 06 03*	other tars
05 06 04	waste from cooling columns that are not suitable for processing in an alternative waste management facility due to contamination
6	**WASTES FROM INORGANIC CHEMICAL PROCESSES**
06 01	*wastes from the manufacture, formulation, supply and use (MFSU) of acids*
06 01 01*	sulphuric acid and sulphurous acid
06 01 02*	hydrochloric acid
06 01 03*	hydrofluoric acid
06 01 04*	phosphoric and phosphorous acid
06 01 05*	nitric acid and nitrous acid
06 01 06*	other acids
06 02	*wastes from the MFSU of bases*
06 02 01*	calcium hydroxide
06 02 03*	ammonium hydroxide
06 02 04*	sodium and potassium hydroxide
06 02 05*	other bases
06 03	*wastes from the MFSU of salts and their solutions and metallic oxides*
06 03 11*	solid salts and solutions containing cyanides
06 03 13*	solid salts and solutions containing heavy metals
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
06 03 15*	metallic oxides containing heavy metals
06 03 16	metallic oxides other than those mentioned in 06 03 15
06 04	*metal-containing wastes other than those mentioned in 06 03*
06 04 03*	wastes containing arsenic
06 04 05*	wastes containing other heavy metals
06 05	*Sludges from on-site effluent treatment*
06 05 02*	sludges from on-site effluent treatment containing dangerous substances
06 05 03	sludges from on-site effluent treatment other than those mentioned in 06 05 02 that are not suitable for processing in an alternative waste management facility due to contamination

Code	Description of waste
06 07	*wastes from the MFSU of halogens and halogen chemical processes*
06 08	*wastes from the MFSU of silicon and silicon derivatives*
06 08 02*	wastes containing chlorosilanes
06 09	*wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes*
06 09 03*	calcium-based reaction wastes containing or contaminated with dangerous substances
06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03
06 10	*wastes from the MFSU of nitrogen chemicals, nitrogen chemical processes and fertiliser manufacture*
06 10 02*	wastes containing dangerous substances
06 11	*wastes from the manufacture of inorganic pigments and opacificiers*
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.
06 13 02*	spent activated carbon (except 06 07 02)
06 13 03	carbon black
06 13 04*	wastes from asbestos processing
06 13 05*	soot
7	**WASTES FROM ORGANIC CHEMICAL PROCESSES**
07 01	*wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals*
07 01 01*	aqueous washing liquids and mother liquors
07 01 03*	organic halogenated solvents, washing liquids and mother liquors
07 01 04*	other organic solvents, washing liquids and mother liquors
07 01 07*	halogenated still bottoms and reaction residues
07 01 08*	other still bottoms and reaction residues
07 01 09*	halogenated filter cakes and spent absorbents
07 01 10*	other filter cakes and spent absorbents
07 01 11*	sludges from on-site effluent treatment containing dangerous substances
07 01 12	sludges from on-site effluent treatment other than those mentioned in 07 01 11 that are not suitable for processing in an alternative waste management facility due to contamination
07 02	*wastes from the MFSU of plastics, synthetic rubber and man-made fibres*
07 02 01*	aqueous washing liquids and mother liquors
07 02 03*	organic halogenated solvents, washing liquids and mother liquors
07 02 04*	other organic solvents, washing liquids and mother liquors
07 02 07*	halogenated still bottoms and reaction residues

Code	Description of waste
07 02 08*	other still bottoms and reaction residues
07 02 09*	halogenated filter cakes and spent absorbents
07 02 10*	other filter cakes and spent absorbents
07 02 11*	sludges from on-site effluent treatment containing dangerous substances
07 02 12	sludges from on-site effluent treatment other than those mentioned in 07 02 11 that are not suitable for processing in an alternative waste management facility due to contamination
07 02 13	waste plastic that is not suitable for processing in an alternative waste management facility due to contamination
07 02 14*	wastes from additives containing dangerous substances
07 02 15	wastes from additives other than those mentioned in 07 02 14 that are not suitable for processing in an alternative waste management facility due to contamination
07 02 16	wastes containing silicones that are not suitable for processing in an alternative waste management facility due to contamination
07 02 17	Waste containing silicones other than those mentioned in 07 02 16 that are not suitable for processing in an alternative waste management facility due to contamination
07 03	*wastes from the MFSU of organic dyes and pigments (except 06 11)*
07 03 01*	aqueous washing liquids and mother liquors
07 03 03*	organic halogenated solvents, washing liquids and mother liquors
07 03 04*	other organic solvents, washing liquids and mother liquors
07 03 07*	halogenated still bottoms and reaction residues
07 03 08*	other still bottoms and reaction residues
07 03 09*	halogenated filter cakes and spent absorbents
07 03 10*	other filter cakes and spent absorbents
07 03 11*	sludges from on-site effluent treatment containing dangerous substances
07 03 12	sludges from on-site effluent treatment other than those mentioned in 07 03 11 that are not suitable for processing in an alternative waste management facility due to contamination
07 04	*wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides*
07 04 01*	aqueous washing liquids and mother liquors
07 04 03*	organic halogenated solvents, washing liquids and mother liquors
07 04 04*	other organic solvents, washing liquids and mother liquors
07 04 07*	halogenated still bottoms and reaction residues
07 04 08*	other still bottoms and reaction residues
07 04 09*	halogenated filter cakes and spent absorbents
07 04 10*	other filter cakes and spent absorbents
07 04 11*	sludges from on-site effluent treatment containing dangerous substances

Code	Description of waste
07 04 12	sludges from on-site effluent treatment other than those mentioned in 07 04 11
07 04 13*	solid wastes containing dangerous substances
07 05	*wastes from the MFSU of pharmaceuticals*
07 05 01*	aqueous washing liquids and mother liquors
07 05 03*	organic halogenated solvents, washing liquids and mother liquors
07 05 04*	other organic solvents, washing liquids and mother liquors
07 05 07*	halogenated still bottoms and reaction residues
07 05 08*	other still bottoms and reaction residues
07 05 09*	halogenated filter cakes and spent absorbents
07 05 10*	other filter cakes and spent absorbents
07 05 11*	sludges from on-site effluent treatment containing dangerous substances
07 05 12	sludges from on-site effluent treatment other than those mentioned in 07 05 11 that are not suitable for processing in an alternative waste management facility due to contamination
07 05 13*	solid wastes containing dangerous substances
07 05 14	solid wastes other than those mentioned in 07 05 13 that are not suitable for processing in an alternative waste management facility due to contamination
07 06	*wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics*
07 06 01*	aqueous washing liquids and mother liquors
07 06 03*	organic halogenated solvents, washing liquids and mother liquors
07 06 04*	other organic solvents, washing liquids and mother liquors
07 06 07*	halogenated still bottoms and reaction residues
07 06 08*	other still bottoms and reaction residues
07 06 09*	halogenated filter cakes and spent absorbents
07 06 10*	other filter cakes and spent absorbents
07 06 11*	sludges from on-site effluent treatment containing dangerous substances
07 06 12	sludges from on-site effluent treatment other than those mentioned in 07 06 11 that are not suitable for processing in an alternative waste management facility due to contamination
07 07	*wastes from the MFSU of fine chemicals and chemical products not otherwise specified*
07 07 01*	aqueous washing liquids and mother liquors
07 07 03*	organic halogenated solvents, washing liquids and mother liquors
07 07 04*	other organic solvents, washing liquids and mother liquors
07 07 07*	halogenated still bottoms and reaction residues
07 07 08*	other still bottoms and reaction residues
07 07 09*	halogenated filter cakes and spent absorbents
07 07 10*	other filter cakes and spent absorbents

Code	Description of waste
07 07 11*	sludges from on-site effluent treatment containing dangerous substances
07 07 12	sludges from on-site effluent treatment other than those mentioned in 07 07 11 that are not suitable for processing in an alternative waste management facility due to contamination
8	**WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS**
08 01	*wastes from MFSU and removal of paint and varnish*
08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances
08 01 12	waste paint and varnish other than those mentioned in 08 01 11 that are not suitable for processing in an alternative waste management facility due to contamination
08 01 13*	sludges from paint or varnish containing organic solvents or other dangerous substances
08 01 14	sludges from paint or varnish other than those mentioned in 08 01 13 that are not suitable for processing in an alternative waste management facility due to contamination
08 01 15*	aqueous sludges containing paint or varnish containing organic solvents or other dangerous substances
08 01 16	aqueous sludges containing paint or varnish other than those mentioned in 08 01 15 that are not suitable for processing in an alternative waste management facility due to contamination
08 01 17*	wastes from paint or varnish removal containing organic solvents or other dangerous substances
08 01 18	wastes from paint or varnish removal other than those mentioned in 08 01 17 that are not suitable for processing in an alternative waste management facility due to contamination
08 01 19*	aqueous suspensions containing paint or varnish containing organic solvents or other dangerous substances
08 01 20	aqueous suspensions containing paint or varnish other than those mentioned in 08 01 19 that are not suitable for processing in an alternative waste management facility due to contamination
08 01 21*	waste paint or varnish remover
08 02	*wastes from MFSU of other coatings (including ceramic materials)*
08 02 01	waste coating powders which require thermal treatment (e.g., due to contaminants being present or that are not suitable for disposal in a landfill)
08 02 02	aqueous sludges containing ceramic materials that are not suitable for processing in an alternative waste management facility due to contamination
08 02 03	aqueous suspensions containing ceramic materials that are not suitable for processing in an alternative waste management facility due to contamination
08 03	*wastes from MFSU of printing inks*

Code	Description of waste
08 03 07	aqueous sludges containing ink that are not suitable for processing in an alternative waste management facility due to contamination
08 03 08	aqueous liquid waste containing ink that requires high temperature incineration
08 03 12*	waste ink containing dangerous substances
08 03 13	waste ink other than those mentioned in 08 03 12 that requires high temperature incineration
08 03 14*	ink sludges containing dangerous substances
08 03 15	ink sludges other than those mentioned in 08 03 14 that are not suitable for processing in an alternative waste management facility due to contamination
08 03 16*	waste etching solutions
08 03 17*	waste printing toner containing dangerous substances
08 03 18	waste printing toner other than those mentioned in 08 03 17 that requires high temperature incineration
08 03 19*	disperse oil
08 04	*wastes from MFSU of adhesives and sealants (including waterproofing products)*
08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09 that are not suitable for processing in an alternative waste management facility due to contamination
08 04 11*	adhesive and sealant sludges containing organic solvents or other dangerous substances
08 04 12	adhesive and sealant sludges other than those mentioned in 08 04 11 that are not suitable for processing in an alternative waste management facility due to contamination
08 04 13*	aqueous sludges containing adhesives or sealants containing organic solvents or other dangerous substances
08 04 14	aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13 that are not suitable for processing in an alternative waste management facility due to contamination
08 04 15*	aqueous liquid waste containing adhesives or sealants containing organic solvents or other dangerous substances
08 04 16	aqueous liquid waste containing adhesives or sealants other than those mentioned in 08 04 15 that are not suitable for processing in an alternative waste management facility due to contamination
08 04 17*	rosin oil
08 05	wastes not otherwise specified in 08
08 05 01*	waste isocyanates
9	**WASTES FROM THE PHOTOGRAPHIC INDUSTRY**
09 01	*wastes from the photographic industry*
09 01 01*	water-based developer and activator solutions

Code	Description of waste
09 01 02*	water-based offset plate developer solutions
09 01 03*	solvent-based developer solutions
09 01 04*	fixer solutions
09 01 05*	bleach solutions and bleach fixer solutions
09 01 06*	wastes containing silver from on-site treatment of photographic wastes
09 01 07	photographic film and paper containing silver or silver compounds that requires high temperature incineration
09 01 08	photographic film and paper free of silver or silver compounds that requires high temperature incineration
09 01 10	single-use cameras without batteries that requires high temperature incineration
09 01 11*	single-use cameras containing batteries included in 16 06 01, 16 06 02 or 16 06 03
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11 that requires high temperature incineration
09 01 13*	aqueous liquid waste from on-site reclamation of silver other than those mentioned in 09 01 06
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 boiler dust mentioned in 10 01 04)
10 01 04*	oil fly ash and boiler dust
10 01 14*	bottom ash, slag and boiler dust from co-incineration containing dangerous substances
10 01 16*	fly ash from co-incineration containing dangerous substances
10 01 18*	wastes from gas cleaning containing dangerous substances
10 01 20*	sludges from on-site effluent treatment containing dangerous substances
10 01 21	sludges from on-site effluent treatment other than those mentioned in 10 01 20 that are not suitable for processing in an alternative waste management facility due to contamination
10 01 22*	aqueous sludges from boiler cleansing containing dangerous substances
10 01 23	aqueous sludges from boiler cleansing other than those mentioned in 10 01 22 that are not suitable for processing in an alternative waste management facility due to contamination
10 02	*wastes from the iron and steel industry*
10 02 01	wastes from the processing of slag that are not suitable for processing in an alternative waste management facility due to contamination
10 02 02	unprocessed slag that is not suitable for processing in an alternative waste management facility due to contamination
10 02 07*	solid wastes from gas treatment containing dangerous substances
10 02 10	mill scales that are not suitable for processing in an alternative waste management facility due to contamination

Code	Description of waste
10 02 11*	wastes from cooling-water treatment containing oil
10 02 12	wastes from cooling-water treatment other than those mentioned in 10 02 11 that are not suitable for processing in an alternative waste management facility due to contamination
10 02 13*	sludges and filter cakes from gas treatment containing dangerous substances
10 02 14	sludges and filter cakes from gas treatment other than those mentioned in 10 02 13 that are not suitable for processing in an alternative waste management facility due to contamination
10 02 15	other sludges and filter cakes that are not suitable for processing in an alternative waste management facility due to contamination
10 03	*wastes from aluminium thermal metallurgy*
10 03 04*	primary production slags
10 03 15*	skimmings that are flammable or emit, upon contact with water, flammable gases in dangerous quantities
10 03 17*	tar-containing wastes from anode manufacture
10 03 19*	flue-gas dust containing dangerous substances
10 03 21*	other particulates and dust (including ball-mill dust) containing dangerous substances
10 03 23*	solid wastes from gas treatment containing dangerous substances
10 03 25*	sludges and filter cakes from gas treatment containing dangerous substances
10 03 27*	wastes from cooling-water treatment containing oil
10 03 29*	wastes from treatment of salt slags and black drosses containing dangerous substances
10 08	*wastes from other non-ferrous thermal metallurgy*
10 08 12*	tar-containing wastes from anode manufacture
10 08 15*	flue-gas dust containing dangerous substances
10 08 17*	sludges and filter cakes from flue-gas treatment containing dangerous substances
10 08 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17 that are not suitable for processing in an alternative waste management facility due to contamination
10 08 19*	wastes from cooling-water treatment containing oil
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19 that are not suitable for processing in an alternative waste management facility due to contamination
10 09	*wastes from casting of ferrous pieces*
10 09 05*	casting cores and moulds which have not undergone pouring containing dangerous substances
10 09 07*	casting cores and moulds which have undergone pouring containing dangerous substances
10 09 11*	other particulates containing dangerous substances

Code	Description of waste
10 09 13*	waste binders containing dangerous substances
10 09 14	waste binders other than those mentioned in 10 09 13
10 09 15*	waste crack-indicating agent containing dangerous substances
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15 that are not suitable for processing in an alternative waste management facility due to contamination
10 10	*wastes from casting of non-ferrous pieces*
10 10 05*	casting cores and moulds which have not undergone pouring, containing dangerous substances
10 10 07*	casting cores and moulds which have undergone pouring, containing dangerous substances
10 10 09*	flue-gas dust containing dangerous substances
10 10 11*	other particulates containing dangerous substances
10 10 13*	waste binders containing dangerous substances
10 10 14	waste binders other than those mentioned in 10 10 13
10 10 15*	waste crack-indicating agent containing dangerous substances
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15 that are not suitable for processing in an alternative waste management facility due to contamination
10 11	*wastes from manufacture of glass and glass products*
10 11 09*	waste preparation mixture before thermal processing, containing dangerous substances
10 11 13*	glass-polishing and -grinding sludge containing dangerous substances
10 11 15*	solid wastes from flue-gas treatment containing dangerous substances
10 11 17*	sludges and filter cakes from flue-gas treatment containing dangerous substances
10 11 19*	solid wastes from on-site effluent treatment containing dangerous substances
11	**WASTES 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 05*	pickling acids
11 01 06*	acids not otherwise specified
11 01 07*	pickling bases
11 01 08*	phosphatising sludges
11 01 09*	sludges and filter cakes containing dangerous substances
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09 that are not suitable for processing in an alternative waste management facility due to contamination

Code	Description of waste
11 01 11*	aqueous rinsing liquids containing dangerous substances
11 01 12	aqueous rinsing liquids other than those mentioned in 11 01 11 that are not suitable for processing in an alternative waste management facility due to contamination
11 01 13*	degreasing wastes containing dangerous substances
11 01 14	degreasing wastes other than those mentioned in 11 01 13 that requires high temperature incineration
11 01 15*	eluate and sludges from membrane systems or ion exchange systems containing dangerous substances
11 01 16*	saturated or spent ion exchange resins
11 01 98*	other wastes containing dangerous substances
11 02	*wastes from non-ferrous hydrometallurgical processes*
11 02 02*	sludges from zinc hydrometallurgy (including jarosite, goethite)
11 02 03	wastes from the production of anodes for aqueous electrolytical processes that are not suitable for processing in an alternative waste management facility due to contamination
11 02 05*	wastes from copper hydrometallurgical processes containing dangerous substances
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05 that are not suitable for processing in an alternative waste management facility due to contamination
11 02 07*	other wastes containing dangerous substances
11 03	*sludges and solids from tempering processes*
11 03 01*	wastes containing cyanide
11 03 02*	other wastes
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 that are not suitable for processing in an alternative waste management facility due to contamination
12 01 02	ferrous metal dust and particles that are not suitable for processing in an alternative waste management facility due to contamination
12 01 03	non-ferrous metal filings and turnings that are not suitable for processing in an alternative waste management facility due to contamination
12 01 04	non-ferrous metal dust and particles that are not suitable for processing in an alternative waste management facility due to contamination
12 01 05	plastics shavings and turnings that are not suitable for processing in an alternative waste management facility due to contamination
12 01 06*	mineral-based machining oils containing halogens (except emulsions and solutions)

Code	Description of waste
12 01 07*	mineral-based machining oils free of halogens (except emulsions and solutions)
12 01 08*	machining emulsions and solutions containing halogens
12 01 09*	machining emulsions and solutions free of halogens
12 01 10*	synthetic machining oils
12 01 12*	spent waxes and fats
12 01 13	welding wastes that are not suitable for processing in an alternative waste management facility due to contamination
12 01 14*	machining sludges containing dangerous substances
12 01 15	machining sludges other than those mentioned in 12 01 14 that are not suitable for processing in an alternative waste management facility due to contamination
12 01 16*	waste blasting material containing dangerous substances
12 01 17	waste blasting material other than those mentioned in 12 01 16 that is not suitable for processing in an alternative waste management facility due to contamination
12 01 18*	metal sludge (grinding, honing and lapping sludge) containing oil
12 01 19*	readily biodegradable machining oil
12 01 20*	spent grinding bodies and grinding materials containing dangerous substances
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20 that are not suitable for processing in an alternative waste management facility due to contamination
12 03	*wastes from water and steam degreasing processes (except 11)*
12 03 01*	aqueous washing liquids
12 03 02*	steam degreasing wastes
13	**OIL WASTES AND WASTES OF LIQUID WASTES (except edible oils, and those in chapters 05, 12 and 19)**
13 01	*waste hydraulic oils*
13 01 01*	hydraulic oils, containing PCBs (1)
13 01 04*	chlorinated emulsions
13 01 05*	non-chlorinated emulsions
13 01 09*	mineral-based chlorinated hydraulic oils
13 01 10*	mineral based non-chlorinated hydraulic oils
13 01 11*	synthetic hydraulic oils
13 01 12*	readily biodegradable hydraulic oils
13 01 13*	other hydraulic oils
13 02	*waste engine, gear and lubricating oils*
13 02 04*	mineral-based chlorinated engine, gear and lubricating oils
13 02 05*	mineral-based non-chlorinated engine, gear and lubricating oils
13 02 06*	synthetic engine, gear and lubricating oils
13 02 07*	readily biodegradable engine, gear and lubricating oils

Code	Description of waste
13 02 08*	other engine, gear and lubricating oils
13 03	*waste insulating and heat transmission oils*
13 03 01*	insulating or heat transmission oils containing PCBs
13 03 06*	mineral-based chlorinated insulating and heat transmission oils other than those mentioned in 13 03 01
13 03 07*	mineral-based non-chlorinated insulating and heat transmission oils
13 03 08*	synthetic insulating and heat transmission oils
13 03 09*	readily biodegradable insulating and heat transmission oils
13 03 10*	other insulating and heat transmission oils
13 04	*bilge oils*
13 04 01*	bilge oils from inland navigation
13 04 02*	bilge oils from jetty sewers
13 04 03*	bilge oils from other navigation
13 05	*oil/water separator contents*
13 05 01*	solids from grit chambers and oil/water separators
13 05 02*	sludges from oil/water separators
13 05 03*	interceptor sludges
13 05 06*	oil from oil/water separators
13 05 07*	oily water from oil/water separators
13 05 08*	mixtures of wastes from grit chambers and oil/water separators
13 07	*wastes of liquid wastes*
13 07 01*	waste oil and diesel
13 07 02*	petrol
13 07 03*	other wastes (including mixtures)
13 08	*oil wastes not otherwise specified*
13 08 01*	desalter sludges or emulsions
13 08 02*	other emulsions
14	**WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (except 07 and 08)**
14 06	*waste organic solvents, refrigerants and foam/aerosol propellants*
14 06 01*	chlorofluorocarbons, HCFC, HFC
14 06 02*	other halogenated solvents and solvent mixtures
14 06 03*	other solvents and solvent mixtures
14 06 04*	sludges or solid wastes containing halogenated solvents
14 06 05*	sludges or solid wastes containing other solvents
15	**WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED**
15 01	*packaging (including separately collected municipal packaging waste)*

Code	Description of 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 containing residues of or contaminated by dangerous substances
15 01 11*	metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers
15 02	*absorbents, filter materials, wiping cloths and protective clothing*
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02 that are not suitable for processing in an alternative waste management facility due to contamination
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 that are not suitable for processing in an alternative waste management facility due to contamination
16 01 07*	oil filters
16 01 09*	components containing PCBs
16 01 10*	explosive components (for example air bags)
16 01 11*	brake pads containing asbestos
16 01 12	brake pads other than those mentioned in 16 01 11 that are not suitable for processing in an alternative waste management facility due to contamination
16 01 13*	brake fluids
16 01 14*	antifreeze fluids containing dangerous substances
16 01 15	antifreeze fluids other than those mentioned in 16 01 14 that are not suitable for processing in an alternative waste management facility due to contamination
16 01 17	ferrous metal that is not suitable for processing in an alternative waste management facility due to contamination
16 01 18	non-ferrous metal that is not suitable for processing in an alternative waste management facility due to contamination
16 01 19	plastic that is not suitable for processing in an alternative waste management facility due to contamination

Code	Description of waste
16 01 20	glass that is not suitable for processing in an alternative waste management facility due to contamination
16 01 21*	hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14
16 01 22	components not otherwise specified that is not suitable for processing in an alternative waste management facility due to contamination
16 02	*wastes from electrical and electronic equipment*
16 02 09*	transformers and capacitors containing PCBs
16 02 10*	discarded equipment containing or contaminated by PCBs other than those mentioned in 16 02 09
16 02 11*	discarded equipment containing chlorofluorocarbons, HCFC, HFC
16 02 12*	discarded equipment containing free asbestos
16 02 13*	discarded equipment containing hazardous components (2) other than those mentioned in 16 02 09 to 16 02 12
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13 that is not suitable for processing in an alternative waste management facility due to contamination
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 that are not suitable for processing in an alternative waste management facility due to contamination
16 03	*off-specification batches and unused products*
16 03 03*	inorganic wastes containing dangerous substances
16 03 04	inorganic wastes other than those mentioned in 16 03 03 that are not suitable for processing in an alternative waste management facility due to contamination
16 03 05*	organic wastes containing dangerous substances
16 03 06	organic wastes other than those mentioned in 16 03 05 that are not suitable for processing in an alternative waste management facility due to contamination
16 04	*waste explosives*
16 04 01*	waste ammunition
16 04 02*	fireworks wastes
16 04 03*	other waste explosives
16 05	*gases in pressure containers and discarded chemicals*
16 05 04*	gases in pressure containers (including halons) containing dangerous substances
16 05 05	gases in pressure containers other than those mentioned in 16 05 04 that require high temperature incineration
16 05 06*	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
16 05 07*	discarded inorganic chemicals consisting of or containing dangerous substances
16 05 08*	discarded organic chemicals consisting of or containing dangerous substances

Code	Description of waste
16 05 09	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08 that are not suitable for processing in an alternative waste management facility due to contamination
16 06	*batteries and accumulators*
16 06 01*	lead batteries
16 06 02*	Ni-Cd batteries
16 06 04	alkaline batteries (except 16 06 03) which require high temperature incineration
16 06 05	other batteries and accumulators which require high temperature incineration
16 06 06*	separately collected electrolyte from batteries and accumulators
16 07	*wastes from transport tank, storage tank and barrel cleaning (except 05 and 13)*
16 07 08*	wastes containing oil
16 07 09*	wastes containing other dangerous substances
16 08	*spent catalysts*
16 08 01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07) that are not suitable for processing in an alternative waste management facility due to contamination
16 08 02*	spent catalysts containing dangerous transition metals (3) or dangerous transition metal compounds
16 08 03	spent catalysts containing transition metals or transition metal compounds not otherwise specified that are not suitable for processing in an alternative waste management facility due to contamination
16 08 04	spent fluid catalytic cracking catalysts (except 16 08 07) that are not suitable for processing in an alternative waste management facility due to contamination
16 08 05*	spent catalysts containing phosphoric acid
16 08 06*	spent liquids used as catalysts
16 08 07*	spent catalysts contaminated with dangerous substances
16 09	*oxidising substances*
16 09 01*	permanganates, for example potassium permanganate
16 09 02*	chromates, for example potassium chromate, potassium or sodium dichromate
16 09 03*	peroxides, for example hydrogen peroxide
16 09 04*	oxidising substances, not otherwise specified
16 10	*aqueous liquid wastes destined for off-site treatment*
16 10 01*	aqueous liquid wastes containing dangerous substances
16 10 02	aqueous liquid wastes other than those mentioned in 16 10 01 that are not suitable for processing in an alternative waste management facility due to contamination
16 10 03*	aqueous concentrates containing dangerous substances
16 10 04	aqueous concentrates other than those mentioned in 16 10 03 that are not suitable for processing in an alternative waste management facility due to contamination

Code	Description of waste
16 11	*waste linings and refractories*
16 11 01*	carbon-based linings and refractories from metallurgical processes containing dangerous substances
16 11 02	carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01, that are not suitable for processing in an alternative waste management facility due to contamination
16 11 03*	other linings and refractories from metallurgical processes containing dangerous substances
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03 that are not suitable for processing in an alternative waste management facility due to contamination
16 11 05*	linings and refractories from non-metallurgical processes containing dangerous substances
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 that are not suitable for processing in an alternative waste management facility due to contamination
17 01 02	bricks that are not suitable for processing in an alternative waste management facility due to contamination
17 01 03	tiles and ceramics that are not suitable for processing in an alternative waste management facility due to contamination
17 01 06*	mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing dangerous substances
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06 that are not suitable for processing in an alternative waste management facility due to contamination
17 02	*wood, glass and plastic*
17 02 01	wood that is not suitable for processing in an alternative waste management facility due to contamination
17 02 02	glass that is not suitable for processing in an alternative waste management facility due to contamination
17 02 03	plastic that is not suitable for processing in an alternative waste management facility due to contamination
17 02 04*	glass, plastic and wood containing or contaminated with dangerous substances
17 03	*bituminous mixtures, coal tar and tarred products*
17 03 01*	bituminous mixtures containing coal tar
17 03 02	bituminous mixtures other than those mentioned in 17 03 01 which require high temperature incineration
17 03 03*	coal tar and tarred products

Code	Description of waste
17 04	*metals (including their alloys)*
17 04 01	copper, bronze, brass that is not suitable for processing in an alternative waste management facility due to contamination
17 04 02	aluminium that is not suitable for processing in an alternative waste management facility due to contamination
17 04 03	lead that is not suitable for processing in an alternative waste management facility due to contamination
17 04 04	zinc that is not suitable for processing in an alternative waste management facility due to contamination
17 04 05	iron and steel that are not suitable for processing in an alternative waste management facility due to contamination
17 04 06	tin that is not suitable for processing in an alternative waste management facility due to contamination
17 04 07	mixed metals that are not suitable for processing in an alternative waste management facility due to contamination
17 04 09*	metal waste contaminated with dangerous substances
17 04 10*	cables containing oil, coal tar and other dangerous substances which require high temperature incineration
17 04 11	cables other than those mentioned in 17 04 10 that are not suitable for processing in an alternative waste management facility due to contamination
17 05	*soil (including excavated soil from contaminated sites), stones and dredging spoil*
17 05 03*	soil and stones containing dangerous substances
17 05 04	soil and stones other than those mentioned in 17 05 03 that are not suitable for processing in an alternative waste management facility due to contamination
17 05 05*	dredging spoil containing dangerous substances
17 05 06	dredging spoil other than those mentioned in 17 05 05 that is not suitable for processing in an alternative waste management facility due to contamination
17 05 07*	track ballast containing dangerous substances
17 05 08	track ballast other than those mentioned in 17 05 07 that is not suitable for processing in an alternative waste management facility due to contamination
17 06	*insulation materials and asbestos-containing construction materials*
17 06 01*	insulation materials containing asbestos
17 06 03*	other insulation materials consisting of or containing dangerous substances
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03 that are not suitable for processing in an alternative waste management facility due to contamination
17 06 05*	construction materials containing asbestos
17 08	*gypsum-based construction material*
17 08 01*	gypsum-based construction materials contaminated with dangerous substances

Code	Description of waste
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01 that are not suitable for processing in an alternative waste management facility due to contamination
17 09	*other construction and demolition wastes*
17 09 02*	construction and demolition wastes containing PCB (for example PCB-containing sealants, PCB-containing resin-based floorings, PCB-containing sealed glazing units, PCB-containing capacitors)
17 09 03*	other construction and demolition wastes (including mixed wastes) 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 that are not suitable for processing in an alternative waste management facility due to contamination
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 (except 18 01 03)
18 01 02	body parts and organs including blood bags and blood preserves (except 18 01 03)
18 01 03*	wastes whose collection and disposal is subject to special requirements in order to prevent infection
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
18 01 06*	chemicals consisting of or containing dangerous substances
18 01 07	chemicals other than those mentioned in 18 01 06
18 01 08*	cytotoxic and cytostatic medicines
18 01 09	medicines other than those mentioned in 18 01 08
18 01 10*	amalgam waste from dental care
18 02	*wastes from research, diagnosis, treatment or prevention of disease involving animals*
18 02 01	sharps (except 18 02 02)
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
18 02 05*	chemicals consisting of or containing dangerous substances
18 02 06	chemicals other than those mentioned in 18 02 05
18 02 07*	cytotoxic and cytostatic medicines
18 02 08	medicines other than those mentioned in 18 02 07

Code	Description of waste
19	**WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE**
19 01	*wastes from incineration or pyrolysis of waste*
19 01 05*	filter cake from gas treatment
19 01 06*	aqueous liquid wastes from gas treatment and other aqueous liquid wastes
19 01 07*	solid wastes from gas treatment
19 01 10*	spent activated carbon from flue-gas treatment
19 01 11*	bottom ash and slag containing dangerous substances
19 01 12	bottom ash and slag other than those mentioned in 19 01 11 which require thermal treatment (e.g. due to contaminants being present or that are not suitable for disposal in a landfill)
19 01 13*	fly ash containing dangerous substances
19 01 14	fly ash other than those mentioned in 19 01 13 which require thermal treatment (e.g. due to contaminants being present or that are not suitable for disposal in a landfill)
19 01 15*	boiler dust containing dangerous substances
19 01 16	boiler dust other than those mentioned in 19 01 15 which require thermal treatment (e.g. due to contaminants being present or that are not suitable for disposal in a landfill)
19 01 17*	pyrolysis wastes containing dangerous substances
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17 which require thermal treatment (e.g. due to contaminants being present or that are not suitable for disposal in a landfill)l
19 01 19	sands from fluidised beds which require thermal treatment (e.g. due to contaminants being present or that are not suitable for disposal in a landfill)
19 02	*wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)*
19 02 03	premixed wastes composed only of non-hazardous wastes that are not suitable for processing in an alternative waste management facility due to contamination
19 02 04*	premixed wastes composed of at least one hazardous waste
19 02 05*	sludges from physico/chemical treatment containing dangerous substances
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05 that are not suitable for processing in an alternative waste management facility due to contamination
19 02 07*	oil and concentrates from separation
19 02 08*	liquid combustible wastes containing dangerous substances
19 02 09*	solid combustible wastes containing dangerous substances
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09 that are not suitable for processing in an alternative waste management facility due to contamination

Code	Description of waste
19 02 11*	other wastes containing dangerous substances
19 03	*stabilised/solidified wastes (4)*
19 03 04*	wastes marked as hazardous, partly (5) stabilised
19 03 05	stabilised wastes other than those mentioned in 19 03 04 that are not suitable for processing in an alternative waste management facility due to contamination
19 03 06*	wastes marked as hazardous, solidified
19 03 07	solidified wastes other than those mentioned in 19 03 06 that are not suitable for processing in an alternative waste management facility due to contamination
19 04	*vitrified waste and wastes from vitrification*
19 04 02*	fly ash and other flue-gas treatment wastes
19 04 03*	non-vitrified solid phase
19 04 04	aqueous liquid wastes from vitrified waste tempering that are not suitable for processing in an alternative waste management facility due to contamination
19 05	*wastes from aerobic treatment of solid wastes*
19 05 01	non-composted fraction of municipal and similar wastes that is not suitable for processing in an alternative waste management facility due to contamination
19 05 02	non-composted fraction of animal and vegetable waste that is not suitable for processing in an alternative waste management facility due to contamination
19 05 03	off-specification compost that is not suitable for processing in an alternative waste management facility due to contamination
19 06	*wastes from anaerobic treatment of waste*
19 06 03	liquor from anaerobic treatment of municipal waste that is not suitable for processing in an alternative waste management facility due to contamination
19 06 04	digestate from anaerobic treatment of municipal waste that is not suitable for processing in an alternative waste management facility due to contamination
19 06 05	liquor from anaerobic treatment of animal and vegetable waste that is not suitable for processing in an alternative waste management facility due to contamination
19 06 06	digestate from anaerobic treatment of animal and vegetable waste that is not suitable for processing in an alternative waste management facility due to contamination
19 07	*landfill leachate*
19 07 02*	landfill leachate containing dangerous substances
19 07 03	landfill leachate other than those mentioned in 19 07 02 that is not suitable for processing in an alternative waste management facility due to contamination
19 08	*wastes from waste water treatment plants not otherwise specified*
19 08 01	screenings that are not suitable for processing in an alternative waste management facility due to contamination
19 08 02	waste from desanding that is not suitable for processing in an alternative waste management facility due to contamination

Code	Description of waste
19 08 05	sludges from treatment of urban waste water that are not suitable for processing in an alternative waste management facility due to contamination
19 08 06*	saturated or spent ion exchange resins
19 08 07*	solutions and sludges from regeneration of ion exchangers
19 08 08*	membrane system waste containing heavy metals
19 08 09*	grease and oil mixture from oil/water separation containing edible oil and fats
19 08 10*	grease and oil mixture from oil/water separation other than those mentioned in 19 08 09
19 08 11*	sludges containing dangerous substances from biological treatment of industrial wastewater
19 08 12	sludges from biological treatment of industrial wastewater other than those mentioned in 19 08 11 that are not suitable for processing in an alternative waste management facility due to contamination
19 08 13*	sludges containing dangerous substances from other treatment of industrial wastewater
19 08 14	sludges from other treatment of industrial wastewater other than those mentioned in 19 08 13 that are not suitable for processing in an alternative waste management facility due to contamination
19 09	*wastes from the preparation of water intended for human consumption or water for industrial use*
19 09 01	solid waste from primary filtration and screenings that is not suitable for processing in an alternative waste management facility due to contamination
19 09 02	sludges from water clarification that are not suitable for processing in an alternative waste management facility due to contamination
19 09 03	sludges from decarbonation that are not suitable for processing in an alternative waste management facility due to contamination
19 09 04	spent activated carbon that is not suitable for processing in an alternative waste management facility due to contamination
19 09 05	saturated or spent ion exchange resins that are not suitable for processing in an alternative waste management facility due to contamination
19 09 06	solutions and sludges from regeneration of ion exchangers that are not suitable for processing in an alternative waste management facility due to contamination
19 10	*wastes from shredding of metal-containing wastes*
19 10 01	iron and steel waste that is not suitable for processing in an alternative waste management facility due to contamination
19 10 02	non-ferrous waste that is not suitable for processing in an alternative waste management facility due to contamination
19 10 03*	fluff-light fraction and dust containing dangerous substances
19 10 04	fluff-light fraction and dust other than those mentioned in 19 10 03 which require thermal treatment (e.g. due to contaminants being present or that are not suitable for disposal in a landfill)
19 10 05*	other fractions containing dangerous substances

Code	Description of waste
19 10 06	other fractions other than those mentioned in 19 10 05
19 11	*wastes from oil regeneration*
19 11 01*	spent filter clays
19 11 02*	acid tars
19 11 03*	aqueous liquid wastes
19 11 04*	wastes from cleaning of waste with bases
19 11 05*	sludges from on-site effluent treatment containing dangerous substances
19 11 06	sludges from on-site effluent treatment other than those mentioned in 19 11 05 that are not suitable for processing in an alternative waste management facility due to contamination
19 11 07*	wastes from flue-gas cleaning
19 12	*wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified*
19 12 01	paper and cardboard that is not suitable for processing in an alternative waste management facility due to contamination
19 12 02	ferrous metal that is not suitable for processing in an alternative waste management facility due to contamination
19 12 03	non-ferrous metal that is not suitable for processing in an alternative waste management facility due to contamination
19 12 04	plastic and rubber that is not suitable for processing in an alternative waste management facility due to contamination
19 12 05	glass that is not suitable for processing in an alternative waste management facility due to contamination
19 12 06*	wood containing dangerous substances
19 12 07	wood other than that mentioned in 19 12 06 that is not suitable for processing in an alternative waste management facility due to contamination
19 12 08	textiles that are not suitable for processing in an alternative waste management facility due to contamination
19 12 09	minerals (for example sand, stones) that are not suitable for processing in an alternative waste management facility due to contamination
19 12 10	combustible waste (refuse derived waste) that is not suitable for processing in an alternative waste management facility due to contamination
19 12 11*	other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11 that are not suitable for processing in an alternative waste management facility due to contamination
19 13	*wastes from soil and groundwater remediation*
19 13 01*	solid wastes from soil remediation containing dangerous substances

Code	Description of waste
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01 that are not suitable for processing in an alternative waste management facility due to contamination
19 13 03*	sludges from soil remediation containing dangerous substances
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03 that are not suitable for processing in an alternative waste management facility due to contamination
19 13 05*	sludges from groundwater remediation containing dangerous substances
19 13 06	sludges from groundwater remediation other than those mentioned in 19 13 05 that are not suitable for processing in an alternative waste management facility due to contamination
19 13 07*	aqueous liquid wastes and aqueous concentrates from groundwater remediation containing dangerous substances
19 13 08	aqueous liquid wastes and aqueous concentrates from groundwater remediation other than those mentioned in 19 13 07 that are not suitable for processing in an alternative waste management facility due to contamination
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 that is not suitable for processing in an alternative waste management facility due to contamination
20 01 02	glass that is not suitable for processing in an alternative waste management facility due to contamination
20 01 08	biodegradable kitchen and canteen waste that is not suitable for processing in an alternative waste management facility due to contamination
20 01 10	clothes that are not suitable for processing in an alternative waste management facility due to contamination
20 01 11	textiles that are not suitable for processing in an alternative waste management facility due to contamination
20 01 13*	solvents
20 01 14*	acids
20 01 15*	alkalines
20 01 17*	photochemicals
20 01 19*	pesticides
20 01 23*	discarded equipment containing chlorofluorocarbons
20 01 25	edible oil and fat that is not suitable for processing in an alternative waste management facility due to contamination
20 01 26*	oil and fat other than those mentioned in 20 01 25
20 01 27*	paint, inks, adhesives and resins containing dangerous substances

Code	Description of waste
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27 that are not suitable for processing in an alternative waste management facility due to contamination
20 01 29*	detergents containing dangerous substances
20 01 30	detergents other than those mentioned in 20 01 29 that are not suitable for processing in an alternative waste management facility due to contamination
20 01 31*	cytotoxic and cytostatic medicines
20 01 32	medicines other than those mentioned in 20 01 31
20 01 33*	batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
20 01 34	batteries and accumulators other than those mentioned in 20 01 33 that are not suitable for processing in an alternative waste management facility due to contamination
20 01 35*	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components (6)
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35 that are not suitable for processing in an alternative waste management facility due to contamination
20 01 37*	wood containing dangerous substances
20 01 38	wood other than that mentioned in 20 01 37 that is not suitable for processing in an alternative waste management facility due to contamination
20 01 39	plastics that are not suitable for processing in an alternative waste management facility due to contamination
20 01 40	metals that are not suitable for processing in an alternative waste management facility due to contamination
20 01 41	wastes from chimney sweeping that are not suitable for processing in an alternative waste management facility due to contamination
20 01 99	other fractions not otherwise specified that are not suitable for processing in an alternative waste management facility due to contamination
20 02	*garden and park waste (including cemetery waste)*
20 02 01	biodegradable waste that are not suitable for processing in an alternative waste management facility due to contamination
20 02 02	soil and stones that are not suitable for processing in an alternative waste management facility due to contamination
20 02 03	other non-biodegradable wastes that are not suitable for processing in an alternative waste management facility due to contamination
20 03	*other municipal wastes*
20 03 01	mixed municipal waste that is not suitable for processing in an alternative waste management facility due to contamination
20 03 02	waste from markets that is not suitable for processing in an alternative waste management facility due to contamination

Code	Description of waste
20 03 03	street-cleaning residues that are not suitable for processing in an alternative waste management facility due to contamination
20 03 04	septic tank sludge that is not suitable for processing in an alternative waste management facility due to contamination
20 03 06	waste from sewage cleaning that is not suitable for processing in an alternative waste management facility due to contamination
20 03 07	bulky waste that is not suitable for processing in an alternative waste management facility due to contamination

B Plans and Drawings

B.1 Site Location Plan

B.2 Site Layout Plan

B.3 Materials and Waste Storage Areas Plan

B.4 Access Points Around the Perimeter to Assist Fire-Fighting

B.5 Indicative Locations of Fire Hydrants

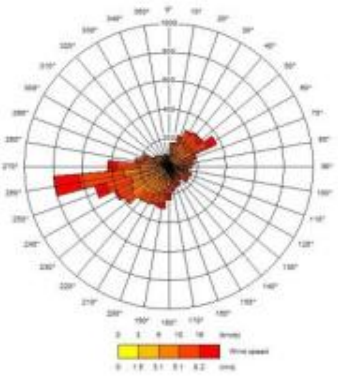
B.6 Indicative Locations of Fire Walls

B.7 Indicative location of quarantine area

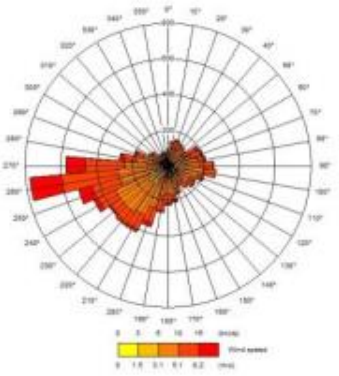
B.8 Fire Receptor Plan

B.9 Areas of natural or unmade ground

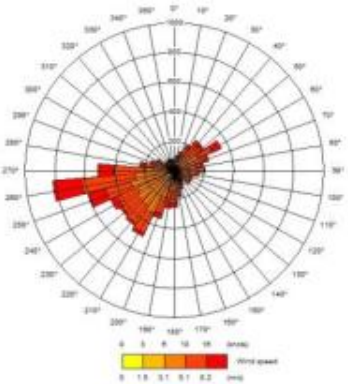
C Wind roses from Bristol Airport



2018 Wind Rose



2019 Wind Rose



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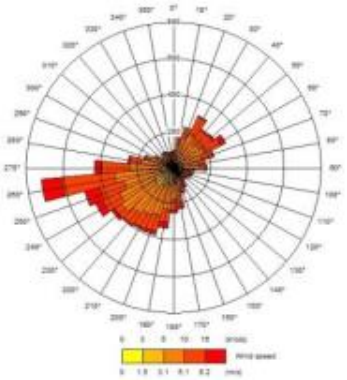

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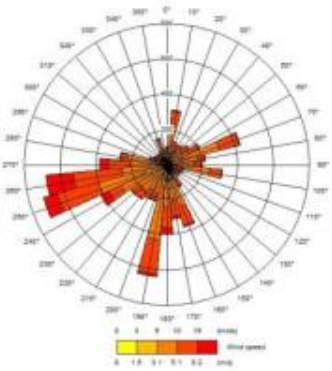

2022 Wind Rose

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