

| Project Name, Location | Thermal Oxidiser Project, Takeda, Grange Castle, Co. Dublin (Ireland) |
|-----------------------------|---|
| Client | Takeda |
| Document Number | A21DB035-CMPL-3801 |
| Current Revision | 0 |
| Issue Date | 11 Jan 2023 |
| Revision Description | Issued for Construction |
| Originator | Caithriona Duggan |
| Technical Approval | Electronically Approved |
| PM Approval | Electronically Approved |
| DPS Project Number | A21DB035 |
| Client Project Number | N/A |

| Previous Revisions | | | | | | | |
|--------------------|------------|----|-------------------------|-----------|-----------------------|--------|-------------|
| Revision | Date | Ву | Check | Approvals | | | Revision |
| | | | Tech | QA | РМ | Client | Description |
| A | 21/12/2022 | CD | Electronically Approved | | Issue for information | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |



Revision Changes

The following is a summary of the main changes that have occurred in this document from the last revision and should be used as a guide only.

(Use this section to highlight main changes from previous revision)

| REVISION CHANGES | | | |
|------------------|--------|--|--|
| Section | Remark | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |



| DOCUMENT NO.: | A21DB035-CMPL-3801 | REVISION: 0 DATE: | 11 Jan 2023 |
|---------------|--------------------|---------------------------------|-------------|
|---------------|--------------------|---------------------------------|-------------|

Contents

| 1. | BACKGROUND | 4 |
|--------|--|----|
| 2. | PROJECT DESCRIPTION | 4 |
| 3. | RESPONSIBILITIES | 7 |
| 4. | WASTE MANAGEMENT CONTRACTOR RESPONSIBILITIES | 9 |
| 5. | ENVIRONMENTAL MANAGEMENT | 9 |
| 6. | PROJECT WASTE MANAGEMENT PLAN | 11 |
| APPEND | DIX 1 - GLOSSARY | 19 |
| APPEND | DIX 2 - EUROPEAN WASTE CATALOGUE, (CHAPTER 17) | 20 |
| APPEND | DIX 3 – WASTE CARRIER REGISTER CONTENT | 23 |



REVISION: 0

1. BACKGROUND

1.1 Introduction

The Project Waste Management Plan (WMP) should be considered a live document and sets out the proposed plan to address the management and classification of waste streams arising from the Construction Phase of the Thermal Oxidiser (TO) Project.

All contractor personnel engaged on the project will be required to comply fully with the requirements of this WMP to reduce the potential for environmental harm and to ensure regulatory compliance.

1.2 Purpose

The purpose of the WMP is to provide information necessary to ensure that the management of waste arisings during Construction at the site is undertaken by approved contractors in accordance with current legal and industry standards. The WMP will identify the disposal routes & appropriate facilities to ensure maximum recycling, re-use and recovery of waste. It also seeks to provide guidance on the appropriate collection and transport of waste to prevent issues associated with litter or more serious environmental pollution (e.g., contamination of soil or water resources).

All contractor personnel engaged in the TO project must comply fully with the requirements of this plan and any associated project plans/requirements e.g., Construction Environmental Management Plan CEMP, A21DB035-CMPL-3701), DPS minimum EHS requirements for Construction (A21DB035-EHSF-312), Client and regulatory compliance requirements.

The WMP is a live document and will be updated in line with the various construction phases of the project. This Revision focuses on the waste streams generated during the ground works phase.

2. **PROJECT DESCRIPTION**

The following is an outline of the proposed project to be constructed.

2.1 Description

The current carbon-based abatement system at the existing Takeda site at Grange Castle, Dublin is used to treat the waste gas stream generated by manufacturing operation buildings and tank farm vessels. The existing VOC abatement system is no longer fit for current manufacturing. A new VOC abatement system is required to treat the current waste gas stream.

Specifically, the project will comprise the following works:

- A new Thermal Oxidiser & Utilities building to the north of the existing WWTP.
- New process, utilities and process pipe work will be installed on an extended pipe rack for the operation of the Thermal Oxidiser.



| DOCUMENT NO.: | A21DB035-CMPL-3801 | REVISION: | 0 DATE: | 11 Jan 2023 |
|---------------|--------------------|-----------|----------------|-------------|
| | | | | |

- Modifications to the existing internal access road will include the addition of a new access road and footpath around the VOC abatement system compound and utilities workshop.
- A permanent pedestrian crossing including associated signage at the existing access road giving access between the contractor's compound and the VOC abatement system compound.
- Modifications to the existing site lighting, signage, surface water, foul and process wastewater drainage, hard and soft landscaping.
- New contractors compound.

The Client has appointed DPS as the Designer/Architect/Engineer/PSDP and PSCS.



Figure 1.0 - Site Plan of Construction Zone including Piperack, Thermal Oxidiser, Utility Building, project car park, temporary laydown area and contractors compound.

2.2 **Key Construction Dates**

| | Commence | Complete |
|------------------|--------------|--------------|
| Utility Building | January 2023 | July 2023 |
| Thermal Oxidiser | June 2023 | August 2023 |
| Commissioning | August 2023 | October 2023 |



REVISION: 0

2.3 Scope of Waste Management Plan

This WMP covers the entire construction phase of the TO project which includes:

- Ground works and civils
- Extension to existing pipe rack
- Contractors compound
- New pipe rack to thermal oxidizer
- New utility building.
- New thermal oxidizer compound inc slabs
- Installation of thermal oxidizer
- Testing and commissioning
- Landscaping of the site

The WMP should be considered a "live" document and will be subject to updates as the plan evolves over the course of the project as per the various project phases listed above.

2.4 Legislation and other Requirements

Disposal or recovery of waste will take place in accordance with the appropriate site, national and European legislation and protocols. Waste sent off-site for reuse, recovery or disposal will only be conveyed to a licensed waste contractor and only transported from the site of the activity to the site of reuse/recovery/disposal in a manner which is fully compliant with requirements.

In the preparation of the WMP consideration has been given to the requirements of national legislation "Waste Framework Directive (2008/98/EC) and the regional waste policy.

These documents are considered to define best practice for Construction projects and describe how projects are to be undertaken such that environmental impacts and risks are minimised and maximum levels of waste recycling are achieved.



REVISION: 0

3. **RESPONSIBILITIES**

| Title | Name & Contact | Responsibility |
|---|--------------------------------------|---|
| DPS Construction Manager | Shane Knowles | Overall responsibility for the organisation of the site and the execution of WMP on site. Work with CMT and contractors to ensure compliance. |
| DPS Project Controls | Roibeard Wilmot | Ensure waste management requirements are being passed to selected subcontractors (during Tender stage) to ensure they are aware of their waste commitments. |
| DPS Site EHS Co-ordinator | Ed Muldowney | Reports to the DPS CM Manager & responsible for implementation of the WMP. Communication of requirements to Construction Contractors and Operatives Maintain or have access to copies of all relevant licences & permits for waste contractors/hauliers |
| DPS Construction Management Team | Stephen Nealon | Read, understand and implement the WMP. Monitor compliance of assigned contractors. Work with the assigned contractors to put systems in place which promote good waste management practice. Monitor Contractor Risk assessment Method Statement (RAMS) for compliance with WMP. |
| DPS Waste Manager (EHS) | Ed Muldowney | Ensure compliance with all relevant waste management requirements & report any contractor violations to the DPS CM. Responsible for the management of the central waste storage area and the organisation of skips incoming and outgoing from site. Manage/Track/Document all construction waste arising from the project. Maintain copies of all relevant licences & permits for waste contractors and hauliers. |
| Contractors and Construction Operatives | Various companies To be appointed | Read, understand & follow the WMP as it applies to their areas of responsibility. Ensure waste is removed for disposal or for recycling from their work fronts and using the correct collection facilities at the agreed location(s) on site. Ensure wastes are correctly packaged, labelled & documented. |



REVISION: 0

| Title | Name & Contact | Responsibility |
|--------------------------------|---|---|
| Waste Management Contractor | Veolia Rachel Doyle Gabrielle Rodrigues | Ensure compliance with all relevant waste management requirements & report any contractor violations to the DPS CM. Responsible for the management of the central waste storage area and the organisation of skips incoming and outgoing from site. |
| | | Ensure waste is removed for disposal or for recycling from their work fronts and using the correct collection facilities at the agreed location(s) on site. |
| | | Manage/Track/Document all construction waste arising from the project. |
| | | Ensure wastes are correctly packaged, labelled & documented. |
| | | Ensure waste is removed for disposal or for recycling from their work fronts and using the correct collection facilities at the agreed location(s) on site. |



REVISION: 0

4. WASTE MANAGEMENT CONTRACTOR RESPONSIBILITIES

The goal for this project is to manage all waste materials (hazardous and non-hazardous) in accordance with the site's waste procedures and relevant statutory regulations and provisions.

The appointed Waste Management Contractor (WMC), Veolia are responsible for the collection and removal of hazardous waste must be a registered and certified company and provide the following services:

- Provide a single point of contact to coordinate all waste management activities with the CMT Waste Manager (EHS).
- Provide appropriate packaging and receptacles to cater for all wastes and provision of an appropriate number.
- Ensure there are suitable and approved hauliers appointed to move waste from site.
- Provide guidance on how to pack waste from site.
- Provide technical advice in relation to the movement of waste off site.
- Provide a well-defined process for the managing supply of containers and removal of same.
- Ensure that all containers are clean, fit for purpose and clearly labelled with supplier name, waste type and waste codes.
- Provide advice on signage regarding waste segregation requirements.
- Ensure strong interface with the appointed Project CMT.
- Maintain a waste logging system to ensure full traceability from cradle to grave.
- Provide a register and copies of relevant licences and recent audits for proposed hauliers and waste facilities
- Ensure all compliance requirements (under national and EU legislative requirements) for the movement of hazardous wastes from site are met.
- Ensure the provision of appropriate personal protective equipment for all employees involved in the handling of all waste materials.

5. ENVIRONMENTAL MANAGEMENT

5.1 General

The CMT, in conjunction with Takeda, is committed to eliminating or minimising the adverse impact of Construction activities on the environment. The measures which will be put in place to minimise environmental impact are summarised as follows:

- Using approved and competent waste and construction contractors and hauliers who will register and record all waste leaving the site.
- Implementing the waste hierarchy of reduce -reuse -recycle where appropriate. Where reuse/recycling is not an option waste material will be disposed of in licensed facilities using only approved and licensed waste haulage contractors.
- Conducting operations in accordance with the applicable environmental laws and regulations.



| DOCUMENT NO.: | A21DB035-CMPL-3801 | REVISION: 0 DATE: | 11 Jan 2023 |
|---------------|--------------------|---------------------------------|-------------|
| | | | |

- Preventing the release of polluting matter by the adoption of good work practices.
- Fostering continuous improvement by setting and reviewing environmental objectives
- Providing training and information to employees working on site to ensure they have the knowledge and skills necessary to implement this plan.

The intention of the WMP is to manage all waste materials (hazardous and non-hazardous) on site in accordance with the relevant statutory regulations and provisions. This shall be achieved through the implementation of the following guiding principles:

- Correct identification and segregation of all wastes (i.e., hazardous versus non-hazardous).
- Segregation of WEEE waste (waste electric or electronic equipment) All WEEE waste must be stored on a hard-paved area & is covered to protect from weathering.
- Provision of a designated and weathered storage area for construction wastes within the construction zone.
- Provision of suitable waste storage containment for the various waste categories.
- Provision of appropriate number of waste containers (skips, drums, FIBC's etc.).
- Well defined process for the managing supply of containers and removal of same.
- All containers to be clearly and correctly identified.
- Strong signage in place re: waste segregation requirements. ٠
- Strong interface between the contractors and DPS CMT at all times. •
- Traceability system in place to track waste movements from the construction zone.
- Hazardous waste to be held/quarantined on site and to be adequately protected, bunded (if necessary) and weathered in agreement with CMT.
- Supporting Risk Assessment Method Statements (RAMS) to be provided where identified.
- Ensure the provision of appropriate PPE for all employees involved in the handling of all waste materials.

5.2 **Environmental Rules**

As a minimum, the following Environmental Rules will apply for the Construction works:

- Identify and list all hazardous wastes.
- Keep a register containing, as a minimum, a list of identified hazardous wastes and their corresponding SDS (Safety Data Sheet) details.
- Provide appropriate containment and secure storage of hazardous materials e.g., asbestos.
- Mobile equipment e.g., generators, construction saws, hydraulic breakers to be placed on suitably sized drip trays.
- List chemical compounds or substances that may be present on site, identify potential hazards and record risk control measures to be implemented.



| DOCUMENT NO.: | A21DB035-CMPL-3801 | REVISION: 0 | DATE: | 11 Jan 2023 |
|---------------|--------------------|-------------|-------|-------------|
| | | | | |

- Report any signs of pollution, potential pollution, or environmental damage to the site CMT foreman/manager, no matter how small
- Report any spills or incidents that occur on site immediately to the foreman
- Do not dispose of anything into the watercourses
- Do not throw litter
- Do not drive plant/machinery outside the authorised working boundaries of the site
- Designate areas for segregated waste, appropriate to waste type
- Maintain spill kits at the site of each work activity

6. PROJECT WASTE MANAGEMENT PLAN

6.1 Waste Management Plan

The Master WMP has been developed for the project by DPS as the CMT. Initially the WMP will identify the key waste streams that will be generated during the enabling phase. This is a live document and will be revised as the project construction phases develop. Contractors will be provided with a copy of the WMP prior to the commencement of activities on site and will follow the requirements particularly around waste segregation, classification and reporting.

6.2 Waste Management Contractor

The majority of construction waste (including hazardous waste if identified) will be managed by the CMT and the on-site waste management contractor Veolia. Takeda's onsite contractor Veolia is the licensed contractor for waste management. For the ground works phase, the appointed CSA contractor will be responsible for the removal of soil. Representative samples have been taken and tested in line with Waste Acceptance Criteria and indicate that this soil is suitable for landfill. Refer to GII Reports (Ground Investigation Ireland) Ground Investigation Report and Waste Classification Report. Soil presenting with visual contamination or odour will be segregated and re-tested prior to removal from site.

6.3 Communication

The Project Contractors and designated waste management contractors (Note - Veolia is the licensed waste management contractor on site) will be expected to work on a daily basis to ensure that waste requirements are met, particularly as the waste streams change and the project progresses. Construction contractors must maintain open dialogue with the CMT to ensure the success and efficiency of the project WMP.



REVISION: 0

6.4 Classification and segregation

The Construction Contractors will be responsible for the segregation and removal of all waste materials from the workface to a designated Waste Collection Area in the contractors compound. For small items of waste then common user bins will be provided in a central location(s) as depicted in example below. Each contractor must clearly label their receptacles with their name and relevant waste streams. For larger items and volumes, the Contractor will provide dedicated receptacles and take them directly to the Central Waste Storage Area.



6.5 Waste Storage Area

A designated waste collection and storage area (located within the Contractors compound) will be provided on-site. Initially this will accommodate the segregation of general waste streams (food/paper/cardboard/plastic.) and will be developed in line with the project to cater for additional waste streams to include

- Timber.
- Mixed Metals.
- paint/chemical containers.
- Oils and greases.

The Construction Manager will ensure that this area will be supervised and suitably secured to control deposition and removal of waste. Windblown litter will be prevented by the use of suitable waste storage containers and all site personnel should ensure that there is no unauthorised mixing of wastes or overfilling of waste containers. Where waste containers are full this should be reported to the Site EHS Coordinator or Construction Manager. At all times, hazardous waste containers shall be clearly identified as to the contents and hazard type if applicable.

The CMT will ensure that the layout and signage of the waste storage area ensures:

- Safe usage by the contractors
- Clear and unambiguous identification of waste streams



| DOCUMENT NO.: | A21DB035-CMPL-3801 | REVISION: 0 DATE: | 11 Jan 2023 |
|---------------|--------------------|-------------------|-------------|
| | | | |

- Proper segregation and waste awareness
- Waste is covered to prevent water ingress to the waste stream

6.6 **Waste Streams**

The approved waste contractor Veolia will be responsible for the segregation and removal of all waste materials. The layout of the waste storage areas is essential to provide safe and identified zones to promote proper segregation and waste awareness. Allowance in the designated waste collection areas will be made for a pre-segregated area, temporary storage and quarantine area.

All waste will be segregated into the main categories as outlined below.

| Stream | Work Location | Contractors Compound | Contents |
|------------------------------|---------------|-------------------------|--|
| Demolition Waste | Yes | No | Demolition waste will be stored in the local work area and moved off site in a timely manner by licensed contractor. |
| Non-Hazardous Mixed Metal | Yes | Yes | Non-hazardous metal including support steel, pipework and cable containment. |
| Wood | Yes | Yes | Uncontaminated Wood packaging |
| Mixed Dry recyclables | Yes | Yes | Various recyclable plastics, cardboard, paper, glass |
| General Waste | Yes | Yes | General domestic waste from the Contractors welfare compound which is contaminated with food etc. |
| Hazardous Waste | No | Yes | Used containers for adhesives, Certain concrete additives, accelerators, and inhibitors. |
| | | | Pipe cleaning and water treatment chemicals |
| | | | Asphalt, tar sealants and coatings |
| | | | Concrete and Lime |
| | | | Epoxy and Polyurethane floors, paints and thinners. |

6.7 **Ground Works Phase**

For the Ground works phase, it is estimated that 7,400m3 of soils and fill material will be excavated removed/disposed of offsite by a permitted waste management company at a licensed facility.



| DOCUMENT NO.: | A21DB035-CMPL-3801 | REVISION: 0 DATE: | 11 Jan 2023 |
|---------------|--------------------|-------------------|-------------|
| | | | |

Earthworks subcontractors will be required to produce the licence of their proposed landfill and their own Waste Transport Permits prior to appointment. Disposal will be monitored for the duration of the contract. All waste will be transferred to a licensed transfer, recycling or disposal facility.

Only waste generated on-site may be stored on the site. No waste is to be imported onto the site.

6.8 **Hazardous Waste**

Hazardous waste will be stored in the bunded hazardous materials storage area adjacent to the Contractors Construction Compound. All Hazardous waste material will be collected for disposal by the approved hazardous waste contractor.

6.8.1 Fuels, Oils Hazardous materials

> Contractors are expected to store fuels, oils, hazardous materials etc. in appropriate containment. This will include the provision of secondary containment and use of storage cabinets e.g. Chemstore units,

6.8.2 Bunds containing rainwater

Where contractors are storing material on an external bund (not self-contained or located under roof) then Contractor inspections will include for the management of those bunds in the context of rainwater removal. Contractors must ensure via their own daily inspections that bunds are not allowed to overfill and that these are managed by either off-site disposal off site or through an approved RAMS allowing the water to be discharged via the Takeda storm water system.

6.8.3 Concrete

The CSA contractor sources his concrete in Ballyfermot. We have asked the CSA contractor to source concrete from his local supplies and requested that the trucks are washed out off site.

Where this can't be facilitated the CSA contractor will use a concrete washout system on site as below. RAMS and permits will be submitted prior to work commencing.



Waste Management Plan

DOCUMENT NO.: A21DB035-CMPL-3801

REVISION: 0



6.8.4 Determination of Hazards and Waste Stream Classification

A robust waste management system shall be developed, listing the waste streams and detailing both the classification and proposed disposal route.

Waste classification will be in line with the local permitting waste classification system- List of Waste (LOW) and determining if waste is hazardous or non-hazardous and when assessing waste a precautionary approach is required. Where there is insufficient evidence to the contrary that waste will be assumed to be hazardous where the possibility of contamination by hazardous components is possible.

A detailed tracking system shall be used from the point of generation to the point of final destruction.

The classification, packaging and labelling of waste should be compliant with European Regulation (EC) No. 1272/2008 that is set out to adopt the Globally Harmonised System of Classification and labelling of chemicals.



| DOCUMENT NO.: | A21DB035-CMPL-3801 | REVISION: 0 DATE: | 11 Jan 2023 |
|---------------|--------------------|-------------------|-------------|
| | | | |

Wastes defined as hazardous will require the allocation of associated hazard code(s) and Risk Phrases to determine suitable procedures for handling the waste from the location where they arise to the dedicated storage area.

It is possible that certain wastes will be required to be quarantined awaiting a decision on classification. Provision for management of these wastes should be considered and these wastes are deemed hazardous until proven otherwise.

No waste shall be diverted to any destination other than those defined with the Waste Contractor, and this shall be verified during the course of the project. Any person(s) responsible for any mis-appropriation of waste or other material off the site shall face disciplinary proceedings at a minimum.

6.9 Packaging

All waste must be packaged into the appropriate receptacles. Suitable packaging must be provided prior to transferring wastes around site in accordance with the classification and associated risks. This will be to prevent cross contamination of "uncontaminated" areas during transit that might contribute to elevated EHS risks.

6.10 Labelling

All waste streams should be classified, packaged and labelled as close as practical to where they arise.

6.11 **Waste Summary Report**

A Summary of all waste sent for reuse/disposal/recycling/Waste electronic & environmental equipment must be compiled on a weekly basis and issued to the Project CMT by each contractor on a weekly basis. The TO Project CMT will provide a waste log for each contractor to complete and return.

The following items, at a minimum, must be listed in the summary report.

- 1. Work Week
- 2. Date & Time of collection (From Site)
- 3. Transportation Company (Haulier)
- 4. Transportation companies (Haulier) Waste collection Permit (WCP) Number
- 5. Recovery/ Disposal Code
- 6. LOW code (EPA Classification system)
- 7. Waste description
- 8. Disposal Outlet / Destination



PS Waste Management Plan

DOCUMENT NO.: A21DB035-CMPL-3801

- 9. Date & Time load arrived at Disposal Outlet / Destination
- 10. Disposal Outlets Permit/ Waste Licence Number
- 11. Net Weight (T)
- 12. Certificate of disposal/recycling

6.12 Supporting Documentation

- The waste management contractor (EHS) shall provide an up-to-date environmental audit report to the DPS Waste Manager (EHS) for all waste facilities being proposed for use prior to the commencement of use.
- Copies of all Permits, Haulier's Licenses, waste licences for the final destination of site waste streams and environmental audit reports must be held on site by the contractor and available for the DPS Waste Manager to review at any time. No changes in waste locations or transport can be made unless approved in writing.
- At project completion, the waste contractor will provide a soft copy summary of all waste and submit it as part of the Closure report, refer to 6.11
- A Certificate of Destruction shall be prepared for each hazardous waste load/item to confirm the material has been disposed of as waste material.

The Certificate of Destruction should include the following data:

- 1. Date of collection from site & Work Week
- 2. Collection point at Site
- 3. Transportation Company (Haulier) & Waste collection Permit (WCP) Number
- 4. Transportation Company (Haulier) Reg. Number
- 5. Recovery/ Disposal Code
- 6. Classification code
- 7. Waste description
- 8. Disposal Outlet / Destination
- 9. Disposal Outlets Permit/ Waste Licence Number
- 10. Net Weight (T) of waste

6.13 CMT Waste Management Audits

The appointed DPS Waste Manager (EHS) will conduct waste audits during the Construction works. In addition, the process may be audited by the client or independent appropriately qualified person. Prior to commencement and throughout the project, each contractor will be audited for compliance with the WMP and legislative requirements.

The TO project waste contractors may be audited prior to commencement of the project to ensure they have the appropriate facilities to handle the waste and to ensure they have the necessary



OPS Waste Management Plan

| DOCUMENT NO.: | A21DB035-CMPL-3801 | REVISION: 0 DATE: | 11 Jan 2023 |
|---------------|--------------------|-------------------|-------------|
| | | | |

COR/Permits/Licences to allow them to carry out the collection, handling, recycling/recovery/disposal of the waste.

The non-hazardous and hazardous waste storage/staging areas will be audited regularly for the project duration to check for compliance with the waste management plan and applicable legislation.

6.14 Review of Records and Identification of Corrective Actions

A review of all the records for the waste generated and transported on- or off-site will be undertaken on a monthly basis by each contractor in conjunction with the DPS Waste Manager (EHS). If waste movements are not accounted for, the reasons for this will be established in order to see if and why the record keeping system has not been maintained and corrective action taken. The waste records will be compared with the established recovery/reuse/recycling targets for the site.

Each material type will be examined by the DPS Waste Manager (EHS), in order to see where the largest percentage waste generation is occurring. The waste management methods for each material type will be reviewed in order to highlight how the targets can be achieved.

Upon completion of the Construction works, each contractor will provide a final report, summarising the outcomes of waste management processes adopted and the total recycling/reuse/recovery figures for the project.

6.15 Site Closure Report

The contractor must provide the following input into this report from waste management activities:

- Evidence of effective waste management.
- Traceable and auditable documentation flow denoting cradle-to-grave waste management.
- Central secure onsite location of all waste documentation and certificates.
- Total Project waste volumes.
- Destination.
- Recovery versus Disposal.
- Waste Types.
- Washed Waste.
- Hazardous versus Non-Hazardous.
- Shipments register listing all movements from site.



REVISION: 0

APPENDIX 1 - GLOSSARY

Waste Classification. Determining if Waste is Hazardous or non-Hazardous using European document BWBR00113546.

Project C&D Waste Management Plan. A Plan which promotes an integrated approach, whereby the management of construction and Construction waste is given due consideration and priority throughout the duration of a project.

Contractor – The TO Project appointed contractors responsible for waste

Waste Recovery the recycling or reclamation of inorganic materials. Typical practical examples of C&D waste recovery activities are the crushing and screening of building rubble and the shredding of wood material.

Waste Disposal the various disposal activities in technical terms e.g. deposit on, in or under land (including landfill). Typical practical examples of C&D waste disposal activities are the landfilling of spoil and Construction waste and the management of soil contaminated with hazardous materials

Recycling is a process where materials are collected, processed and remanufactured into new products or use as a raw material substitute. To recycle is defined as the returning of material to a previous stage in a cyclic process or the conversion of wastes into reusable materials".

Waste Segregation is the practice whereby waste is segregated at source into different types of materials. In the case of C&D waste, source segregation takes place on the building site. The contractor should provide and clearly label skips for wood, bricks, metals, hazardous waste, etc. Where separation of mixed wastes takes place subsequently off-site, the activity is regarded as a sorting, rather than segregation, operation.



REVISION: 0

APPENDIX 2 - EUROPEAN WASTE CATALOGUE, (CHAPTER 17)

Construction and Construction Waste (including excavated soil from contaminated sites)

17 01 Concrete, bricks, tiles, ceramics

- 17 01 01 Concrete
- 17 01 02 Bricks
- 17 01 03 Tiles and ceramics

17 01 06* Mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing dangerous substances

17 01 07 Mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06

17 02 Wood, glass and plastic

- 17 02 01 Wood
- 17 02 02 Glass
- 17 02 03 Plastic
- 17 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 containing other than those mentioned in 17 03 01
- 17 03 03* Coal tar and tarred products

17 04 Metals (including their alloys)

- 17 04 01 Copper, bronze, brass
- 17 04 02 Aluminium
- 17 04 03 Lead
- 17 04 04 Zinc
- 17 04 05 Iron and Steel
- 17 04 06 Tin
- 17 04 07 Mixed metals



| DOCUMENT NO.: | A21DB035-CMPL-3801 | REVISION: 0 DATE: | 11 Jan 2023 |
|---------------|--------------------|---------------------------------|-------------|
| | | | |

- 17 04 09* Metal waste contaminated with dangerous substances
- 17 04 10* Cables containing oil, coal tar and other dangerous substances
- 17 04 11 Cables other than those mentioned in 17 04 10

17 05 Soil (including excavated soil from contaminated sites), stones and dredged spoil

- 17 05 03* Soil and stones containing dangerous substances
- 17 05 04 Soil and stones other than those mentioned in 17 05 03
- 17 05 05* Dredging spoil containing dangerous substances
- 17 05 06 Dredging spoil other than those mentioned in 17 05 05
- 17 05 07* Track ballast containing dangerous substances
- 17 05 08 Track ballast other than those mentioned in 17 05 07

17 06 Insulation materials and asbestos-containing construction materials

- 17 06 01* Insulation materials containing asbestos
- 17 06 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
- 17 06 05* Construction materials containing asbestos

17 08 Gypsum-based construction material

17 08 01* Gypsum-based construction materials contaminated with dangerous substances

17 08 02 Gypsum-based construction materials other than those mentioned in 17 08 01

17 09 Other construction and Construction waste

17 09 01* Construction and Construction waste containing mercury

17 09 02* Construction and Construction waste 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 Construction wastes (including mixed wastes) containing dangerous substances



17 09 04 Mixed construction and Construction wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03

 \ast Any waste marked with an asterik (\ast) is considered as a hazardous waste pursuant to Directive 91/689/EEC on hazardous waste (European Waste Catalogue and Hazardous Waste List)



DOCUMENT NO.: A21DB035-CMPL-3801 **REVISION:** 0 DATE: 11 Jan 2023

APPENDIX 3 – WASTE CARRIER REGISTER CONTENT

- Waste Description
- List LoW Code
- Origin of Waste
- Name of Haulier
- Waste Carrier Permit (WCP) No and Expiry date
- Date WCP checked on NWCPO
- Name and Address
- Waste Facility Permit (WFP) and License Number
- Date WFP and License numbers checked
- Conformation date of receipt of support documentation.