TOROS MERAM RENEWABLE ENERGY PRODUCTION INC.

MERAM BIOGAS POWER AND ORGANOMINERAL FERTILIZER PRODUCTION PLANT

Waste Management Plan (WMP)

(Plan No: MRM-PLN-ENV-001)

MGS PROJECT CONSULTANCY
ENGINEERING TRADE LIMITED CO.

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Abbreviations

AIIB	Asian Infrastructure and Investment Bank
DCC	Document Control Center
EHS	Environmental, Health and Safety
EIA	Environmental Impact Assessment
ESMS	Environmental and Social Management System
ESS	Environmental and Social Standard
HS	Health and Safety
HSE	Health, Safety, and Environmental
IFC	International Finance Corporation
KPI	Key Performance Indicator
MWe	Megawatt Electrical
OHS	Occupational Health and Safety
PS	Performance Standards
SRS	Social Responsibility Staff
The Project	Meram Biogas Power and Organomineral Fertilizer Production Plant Project
Toros Energy	Toros Meram Yenilenebilir Enerji Üretim A.Ş.
WMP	Waste Management Plan

1 INTRODUCTION

This Waste Management Plan ("WMP") is prepared for Meram Biogas Power and Organomineral Fertilizer Production Plant Project to complete the studies conducted for assessment of the Environmental and Social Impacts of the Project as per the IFC Performance Standards ("PSs") and Asian Infrastructure and Investment Bank (AIIB) Environmental and Social Standards (ESSs). The reference number of this Management Plan is MRM-PLN-ENV-001.

1.1 Background

Meram Biogas Power and Organomineral Fertilizer Production Plant Project with an installed capacity of 6.17 MWe, hereinafter referred as "the Project", is planned to be established and operated within borders of Çomaklı Neighborhood, Meram District of Konya Province. Toros Meram Yenilenebilir Enerji Üretim A.Ş. ("Toros Energy") is the Project Company. The Project consists of Waste Acceptance and Raw Material Preparation System, Anaerobic Digestion System and Heat Center, Gas Cleaning, Gas Conditioning and Storage System, Energy Generation System (Cogeneration), Solid Fertilizer Composting and Drying System, Liquid Fertilizer Production System, and a Wastewater Treatment Plan.

1.2 Scope

This Waste Management Plan covers all Project activities during the construction and operational phases. The implementation of this Plan by contractors is addresses in the Environmental and Social Management and Monitoring Plan (MRM-PLN-HSSE-001). This Waste Management Plan is part of the overall suite of Management Plans developed for the Project and cross-linkages to number of the other Management Plans as Environmental and Social Management and Monitoring Plan.

This Plan provides necessary means and measures to prevent, minimize and recycle the wastes generated within the scope of the Project. These assessments/measures are applicable to all Project personnel, contractors, subcontractors, visitors and the general public (including any government authority or similar site visitors). This Plan will be updated, if required. The scope of the Plan includes following aspects:

- Project standards and requirements,
- Roles and responsibilities,
- Measures to be taken regarding waste management,
- Monitoring and reporting,

- Training of personnel regarding waste management,

1.3 Purpose

The purpose of this Waste Management Plan is to:

- Minimize the potential to cause harm to human health and the environment regarding to waste management during the construction and operation of the Project,
- Define the roles and responsibilities,
- Define Project commitments, operational procedures and guidance relevant to this Waste Management Plan,
- Achieve and maintain compliance with the relevant project regulations and objectives,
- Define Key Performance Indicators (KPIs) for monitoring processes,
- Define training requirements for waste management.

1.4 Definitions

Waste: Any substance or object lost their primary usage purpose, damaged, defective, or superfluous material as defined in Turkish legislation and in international standards/guidelines. It can be hazardous or non-hazardous and should be properly handled.

Waste Management: The procedures of separation (segregation), collection, temporary storage, recovery, handling, elimination and post eliminative process control of the waste at source based on the respective characteristics, and similar activities.

Hazardous Waste: Any substance or object as defined in national legislation and international standards. The Environmental Protection Agency has identified four characteristics of material that is deemed hazardous:

- Ignitability
- Corrosivity
- Reactivity
- Toxicity

Different type of hazardous wastes, that may potentially be generated as a result of the project activities are waste batteries and accumulators, waste vegetable oil, medical waste, waste oil (from maintenance of equipment and vehicles) and waste paint.

Medical Waste: Any wastes defined in the Turkish Control of Medical Wastes Regulation are medical waste such as dressings, swabs, needles, office waste, packaging waste etc. from first aid rooms & clinics.

Non-Hazardous Waste: Non-hazardous wastes are the waste which are not defined and classified as hazardous waste. Typical non-hazardous wastes are domestic wastes, excavation waste, packaging waste, waste tires, and recyclable wastes such as paper, glass, metals, wooden waste, trees, tin cans, textile.

2 ROLES AND RESPONSIBILITIES

Table 1. Key Roles and Responsibilities

Roles	Responsibilities
General Manager/ Board of Manager	• Ensuring this management plan will be implemented during the lifetime of the Project.
Operational Manager	• Approval of this Plan and resources required for implementation, • Has overall responsibility for the implementation of Waste Management Plan by fulfilling project requirements.
Health, Safety and Environment (HSE) Manager	• Ensuring Project compliance with the Project Standards and other requirements set out in this Plan, • Having the responsibility for scope and implementation of this Plan, • Training of site personnel about waste management and requirements of this Plan, • Reporting all hazards, non-conformances and incidents, • Ensuring all personnel including management level be aware of waste management and its requirements, • Having the responsibility for supervising waste issues onsite, • Ensuring all the disposal facilities are licensed in line with project requirements, • Working with Social Responsibility Staff to address any off-site pollution/waste issues and/or grievance procedure, • Undertaking periodic audits and inspections of the site during the construction and operational phases. • Training (e.g. toolbox talks) of site personnel about waste issues regarding to importance of health, safety and environment.

Roles	Responsibilities
Social Responsibility Staff (SRS)	• Maintaining engagement and liaison with the local communities during construction and operation phases, • Recording and reporting all grievances raised by stakeholders regarding to waste/ pollution issues.
Site Engineers	• Providing oversight and conduct routine works to ensure relevant activities are in accordance with Waste Management Plan.
Contractors / Subcontractors	• Ensuring that relevant activities are undertaken in accordance with this Management Plan and related procedures, • Ensuring that all personnel are fully trained in waste management, • Reporting any incident to HSE Manager.

3 PROJECT STANDARDS

During the construction and operational phases of the Project, the applicable national and international standards must be compiled for all the Project activities. The applicable Turkish standards and EIA requirements, applicable international standards, IFC Performance Standards and guidance notes are the base of the Project Standards.

3.1 Turkish Standards and Requirements

The Environmental Law (No. 2872), Official Gazette No. 18132, dated 11.08.1983) provides the legislative framework for the regulation of industries and their potential impact on the environment. Industrial projects are subject to a number of regulations which are as follows:

- Waste Management Regulation,
- Packaging Waste Control Regulation,
- Solid Waste Control Regulation
- Waste Electric and Electronic Equipment Regulation,
- Waste Batteries and Accumulators Control Regulation,
- Waste Tires Control Regulation,
- Waste Oils Control Regulation,
- Waste Vegetable Oils Control Regulation,
- Control of Medical Waste Regulation,
- Control of Hazardous Wastes Regulation,
- Landfill of Wastes Regulation,

- Control of Excavation, Construction and Demolition Wastes Regulation,
- Road Transport of Waste Communique,
- Control of Soil Contamination and Contaminated Lands by Point Sources Regulation,
- Recovery of Certain Non-Hazardous Wastes Communiqué.

3.2 Applicable International Standards

The Project will comply with the requirements of the IFC Guidelines and AIIB ESS 1: Environmental and Social Assessment and Management in addition to the Turkish Environmental Legislation. The more stringent of national standards and applicable international standards will be followed. Applicable International Standards are as follows:

- IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts;
- IFC Performance Standard 3: Resource Efficiency and Pollution Prevention;
- IFC Performance Standard 4: Community Health, Safety, and Security;
- IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;
- IFC General Environmental, Health and Safety Guidelines,
- IFC Environmental, Health and Safety Guidelines for Waste Management Facilities
- AIIB ESS 1: Environmental and Social Assessment and Management.

3.3 General Standard Requirements

General requirements of waste management standards are:

- Establishing waste management priorities at the outset of activities based on an understanding of potential Environmental, Health, and Safety (EHS) risks and impacts and considering waste generation and its consequences,
- Establishing Zero Waste Hierarchy that considers refuse/rethink/redesign, reduce and reuse, preparation for reuse, recycling/composting/anaerobic digestion, recovery and finally management of residuals, Treating, destroying and disposing of waste in an environmentally sound manner where waste cannot be recovered or reused,
- Avoiding or minimizing generation of waste materials, as far as practicable,
- Recovering and reusing waste where waste generation cannot be avoided,
- Facilities are always required to segregate hazardous and non-hazardous wastes,
- If generation of hazardous waste cannot be prevented, its management should focus on the prevention of harm to health, safety, and the environment.

3.4 General Approach to Waste Management

The intent of this Management Plan is to ensure the effective management of wastes of the Project by minimization of waste generation and ensuring the safe handling, treatment and disposal of generated wastes. This is achieved through the implementation of the Zero Waste hierarchy which involves basic steps of:

1. Refusing what is not required and change the way of production and consumption by redesigning business models, goods and packaging in order to reduce resource-use and waste,
2. Waste reduction and avoidance at source,
3. Waste segregation at point of generation,
4. Waste recycling,
5. Waste storage, treatment and disposal in compliance with the international standards.

Waste reduction and avoidance is primarily achieved through selection of suppliers that provide operational consumables and materials with minimal packaging needs and careful stock management to ensure goods are utilized before their expiry date. Waste recycling is realised through engagement with the local community and the use of assessed and appropriately licenced recycling Contractors. Waste treatment and disposal occurs at licensed off-site waste management facilities not under the control of the Project.

3.5 Summary of Applicable Project Standards

The Project will comply with the stringent of national standards and international standards defined above.

4 MANAGEMENT CONTROLS AND MITIGATION MEASURES

This Waste Management Plan involves waste management controls and mitigation measures to establish an understanding of how to reduce potential Environmental, Health, and Safety (EHS) risks and impacts due to waste generation, its consequences and to reduce and reuse, preparation for recovery and finally management of residuals. Facilities are always required to segregate hazardous and non-hazardous wastes and if generation of hazardous waste cannot be prevented, then it should be focused on the prevention of its harm to health, safety, and the environment. General waste management procedure regarding the activities of collection, transportation and disposal management practices are as follows:

- Eliminate waste generation as possible,
- Reduce waste generation at the source,

- Re-use waste/excess materials where feasible,
- Recover/recycle waste materials where feasible,
- Disposal of waste off-site by a licensed waste company/municipality

4.1 Management Controls

In the scope of the Project activities, non-hazardous/hazardous wastes will be generated. In order to manage these wastes to be produced on the site, the following good management practices will be used:

- Reduction of waste generation (through management practices, avoiding or decreasing materials use, etc.),
- Separation of non-hazardous wastes from hazardous wastes,
- Recycling of wastes throughout all Project activities and providing the related trainings,
- Separation of wastes to be sent to licensed recycling/recovery firms by considering their types,
- Minimizing the quantity of hazardous materials used,
- Providing proper handling and management training to personnel that handles hazardous materials and wastes,
- Prevention of hazardous materials spills through careful and sensible management of the materials,
- Preferring non-hazardous alternatives instead of hazardous materials as possible,
- Inspections of storage areas properly to detect damaged or leaking containers, if there any,
- Prevention of potential spills during the maintenance of equipment,
- Avoiding from disposal of wastes on-site under no circumstances.

A proposal for Zero waste management is given below Figure 1 to minimize waste generation and increasing the recovery and reuse.

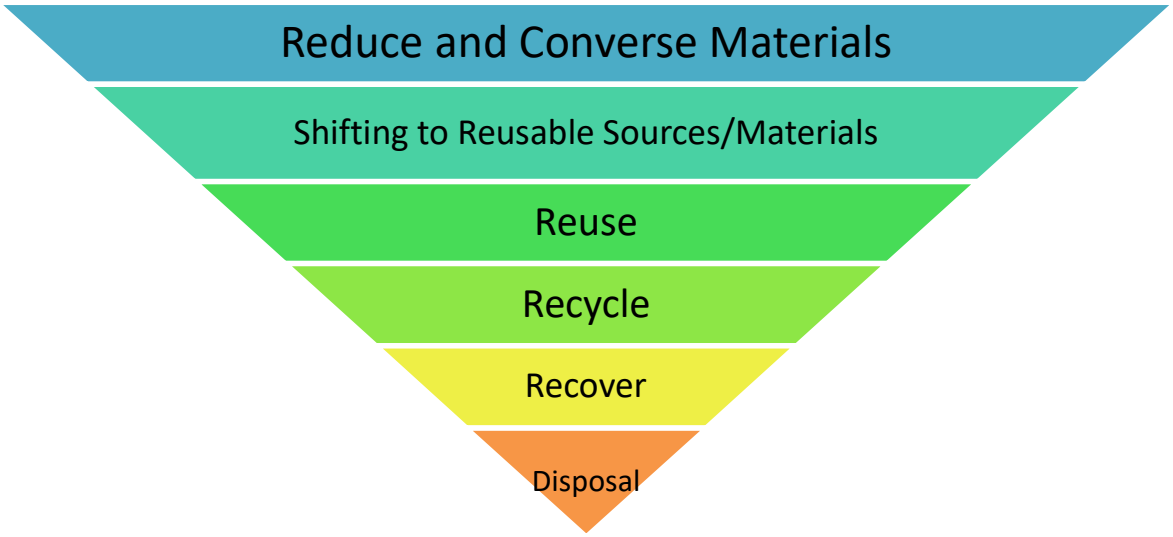

Figure 1. Zero Waste Management

In line with the legal requirements, an industrial (hazardous and non-hazardous) waste management plan for 3 years will be prepared and submitted to Konya Provincial Directorate of Environment and Urbanization. It is obligatory to fill and approve the Waste Declaration Form every year including the information of previous year by using the online applications prepared by Ministry of Environment and Urbanization until the end of March at the latest starting from January. Moreover, it is imperative to print it out and keep a copy for five years.

Domestic wastes will be collected in special trash bins and temporarily stored onsite in compliance with Waste Management Regulation. Recyclable wastes will be separated and stored temporarily onsite in reserved areas. Packaging wastes will be collected separately and temporarily stored onsite in reserved areas in compliance with Packaging Waste Control Regulation. Proper waste containers will be provided at the places of waste generation to facilitate safe and environmentally sound temporary storage. All containers will be clearly marked according to contents. For the collection, and disposal of wastes, related agreements with these companies will be signed. A waste register will be established during the construction and operation phases and relevant registers will be kept in Document Control Center (DCC) of the Project.

Excavation and construction wastes will be reused on-site as possible. Only small plants, leaves, etc. will be left on site, since this material will contribute to enhancement of local flora growth through fertilization of the soil. Domestic wastes disposed at the site will be disposed to Meram Municipality domestic waste bins and will be collected to the landfill area operated by Meram Municipality since the municipalities are responsible for providing waste collection and disposal services as per national legislation.

Hazardous wastes will be securely packed and labelled prior to removal from site to ensure the wastes can be transported safely to the approved disposal site without risk to those handling the waste or to the environment. Hazardous wastes and end of life tires will be delivered to the nearest licensed hazardous waste disposal facility by licensed waste transportation companies. All the agreements of the Project will be signed and kept in DCC of the Project. Medical wastes will be sent to a nearby health center/ hospital under the supervision of the workplace doctor or a licensed company for medical waste collection will be contracted. During the construction phase, a temporary waste storage area is needed on the site since hazardous waste generation is occurred. During the operational phase, hazardous wastes will be stored in the temporary waste storage area safely for 6 months at maximum; then, will be sent to a licensed disposal facility by licensed transportation vehicles as per national legislations as in the construction phase.

4.2 Mitigation Measures

Both hazardous and non-hazardous wastes will be generated on the site during the construction and operational phases. The mitigation measures to be taken for minimizing and controlling these wastes are defined below Table 2.

Table 2. Mitigation Measures

Activity	Description	Responsible Parties	Means of Verification
Waste Hierarchy	• Avoidance and reduction of waste at source, • Sifting material sources to recoverable materials, • Reusing and recycling the wastes produced, • Proper storage, treatment and/or disposal of hazardous and non-hazardous wastes.	HSE Manager Contractors/ Subcontractors	General Waste Management Procedures Workplace inspections/ monitoring
Waste Classification	For waste classification, following criteria and international regulations, guidelines, definitions and methodologies will be followed; • Non-hazardous wastes (including domestic waste and inert waste) • Hazardous wastes • Recyclable wastes	HSE Manager Contractors/ Subcontractors	General Waste Management Procedures Workplace inspections/ monitoring
Waste Segregation and Storage	At the sources of waste generation; • Wastes will be separated and stored at isolated areas, • Areas will be safe and secured, on concrete paved grounds with spill control measures depending on the type of the wastes (hazardous/ non-hazardous). All hazardous wastes will be stored safely for a maximum of 6 months and will be sent to a licensed disposal facility by licensed transportation vehicles as per national and international requirements.	HSE Manager Contractors/ Subcontractors	General Waste Management Procedures Workplace inspections/ monitoring Contract agreements with licensed companies

Activity	Description	Responsible Parties	Means of Verification
Waste Recycling	All recyclable wastes will be sorted in the labelled bins. All personnel will be trained how to classify wastes and informed about the locations of these bins. Sorted recyclable wastes will be transferred to the facilities operated by licensed recycling contractors.	HSE Manager Contractors/ Subcontractors	General Waste Management Procedures Records of waste transfer and transport, signed agreements Recycling facility conditions to comply with the EHS legislation
Waste Disposal	All wastes will be sent for disposal or treatment for recycling and disposal by licensed waste management contractors. Domestic wastes will be collected by project employees on the site and transferred to the Municipality landfill area by Meram Municipality. No burning or no alternative disposal methods for wastes will be used.	HSE Manager Contractors/ Subcontractors	General Waste Management Procedures Records of waste transfer and transport, signed agreements Workplace inspections / monitoring
Waste Inventory	Waste register will be kept for the generated wastes: amount of the wastes generated for different types of wastes, final destinations and types of hazardous wastes and amounts stored temporarily on the site.	HSE Manager	Monthly EHS Reports
Spill Management	Spill management materials and contaminated soils will be classified and managed according to their hazardous material contents. Soils and spill kits contaminated by hazardous wastes and hazardous materials will be treated as hazardous wastes and will be managed accordingly.	HSE Manager Contractors/ Subcontractors	General Waste Management Procedures Emergency Response Plan

5 IMPLEMENTATION SCHEDULE

5.1 Review and Revision of this Plan

Evaluation of the performance this Management Plan will be conducted as the result of periodic inspections. It will be reviewed on a three-monthly basis at a minimum during the construction and operation phases. During the steady state operations, this Management Plan will be reviewed on an annual basis. HSE Manager of the Project is the responsible person for the revision of this Management Plan. If there any update or revision on this Management Plan, it will be posted and uploaded to the Project DCC to inform all Project personnel, contractors, subcontractors, visitors. All employee will have the access of the latest version of this Management Plan.

6 MONITORING

6.1 Overview of Monitoring Requirements

This Waste Management Plan will be supported and increased its implementation by monitoring activities. In order to increase efficiency of this plan, key performance indicators for controlling will be used during the construction and operational phases. Daily inspections regarding on-site management of wastes will be conducted during the construction and operation phase. Based on the monitoring results, necessary corrective and preventive actions will be identified and required changes will be reflected to the Plan. Training program will also be updated, if required.

6.2 Key Monitoring Activities

The key monitoring activities are given in Table 3. This table will be used for assessment of compliance with the Project Standards defined and the performance of this management plan.

Table 3. Key Monitoring Activities

Topic/Aspects	Parameters	Methods	Periodicity	Location
Waste Register	Quantity and type of waste per year	Review of inventory (waste types, amounts, contract agreements with service providers)	Monthly	Project Site
Management Practices	Waste observed at project site	Visual observations of general housekeeping by Environmental Manager or HS Manager	Daily	Project Site

6.3 Key Performance Indicators (KPIs)

In order to evaluate and assess the performance of the Project and this Waste Management Plan, key performance indicators are defined in this section. Below table summarizes relevant key monitoring activities, targets and monitoring measures.

Table 4. Key Performance Indicators and Monitoring Measures

KPI	Target	Monitoring Measure
Number of reported waste incidents and non-compliances	• Minimize and achieve continuous improvement in reducing the number of the reported non-compliances with this Plan	Number of the reported waste-related incidents per year
Volume of waste generated and sent to off-site landfill	• Minimize and achieve continuous improvement in reducing the total volume of the waste generated	Monthly volume of the non-hazardous waste per person
Percentage of waste materials recycled	• Minimize and achieve continuous improvement in reducing disposal to landfill	Annual percentage of the recovered recyclable materials (e.g. plastic)
Number of community complaints	• Minimize and achieve continuous improvement in reducing the number of the waste-related community complaints. • Target = zero	Number of the reported waste-related community complaints per year (as recorded in the grievance management system)

7 TRAINING

All necessary training will be provided as part of induction training including health and safety issues and job-specific training, as necessary. All employee should be aware of waste identification and separation. The important aspects of waste management such as waste minimization, waste identification and waste segregation will be provided all personnel of the Project.

7.1 Induction Training

All personnel of the Project and contractors working at the Project site will be provided with general induction, site specific induction and a broad range of health, safety and environmental awareness training. At a minimum, employees must know the general safety and health rules and waste management requirements on-site, specific site hazards and safe work practices.

7.2 Job Specific and Other Training Requirements

In the scope of the Project, specialist training shall be provided to plant operators and key personnel involved in activities which involved land clearance, construction, or materials handling activities. Training program will focus on waste management concerns that determine the best way to deal with a particular hazard. When a hazard is identified, it shall be removed entirely. If that is not feasible, workers shall be trained to protect themselves, if necessary, against the remaining hazard.

Additional, specialist training shall be provided to the key personnel involved in activities which involve the segregation, storage, haulage or treatment of waste.

8 AUDIT AND REPORTING

8.1 Auditing

Routine inspections will be carried out by HSE Manager during the construction and operational phases. Any incidents identified during these inspections will be reported to the incident management system as part of the Environmental and Social Management System of the Project. The conformance will be monitored in accordance with the Environment and Social Management System.

All incidents and non-conformances will be reported as per the requirements of the Environment and Social Management System. The aspects of this management plan are subject to regulatory audits.

8.2 External Auditing

The conformance with this Waste Management Plan will be subject to periodic assessment as part of the Project audit program and separately by Project Lenders.

8.3 Record Keeping and Reporting

Records of audits, inspections and incidents will be managed in accordance with the Project procedures. Meram Biogas Power and Organomineral Fertilizer Production Plant Project will comply with reporting requirements of Turkish legislations relevant to this Management Plan. All incidents and non-conformances will be reported and recorded. All the grievances, concerns and suggestion related to the waste management raised internally or externally will be recorded in compliance with Grievance Mechanism Procedure.

APPENDICES

Appendix A: Waste Register Form

WASTE REGISTER FORM											
REPORTING PERIOD											
HAZADOUS WASTE DISPOSAL (kg)		Waste Recycled at licensed facility			Waste Disposed of at Licenced Landfill			Waste Temporarily stored		Total Waste Generated (kg)	
Type of Waste	Code of Waste	Name of the Licensed Facility	Current Month	Total to Date	Name of the Licensed Facility	Current Month	Total to Date	Current Month	Total to Date	Current Month	Total to Date
Aerosol Cans											
Air Filters											
Batteries (Dry)											
Batteries (Wet)											
Chemical Waste											
Coating Waste											
Contaminated Soil											
Fluorescent tubes											
Fuel Filters											
Glue Cans											
Glycols											
Grease (tubes/cans)											
Medical waste											
Oil contaminated waste											
Oil filters											
Paint wastes											
Pesticides											
Solvents											
Used catridges & toners											
X-ray papers											
Other:											
Total (kg)											

NON-HAZADOUS WASTE DISPOSAL (kg)		Waste Reused by Contractor		Waste Recycled at licensed facility		Waste Disposed of at Licenced Landfill		Waste Temporarily stored in Camp		Total Waste Generated (kg)	
Type of Waste:	**Code of Waste**	**Current Month**	**Total to Date**	**Current Month**	**Total to Date**	**Current Month**	**Total to Date**	**Current Month**	**Total to Date**	**Current Month**	**Total to Date**
Aluminium cans											
Bricks and building material											
Cardboard and paper											
Cement bags											
Cement dust/waste											
Cooking oil											
Electrical cables											
End caps											
Foam											
Food waste											
Glass											
Grinding disks											
Grit from blasting											
Lifting straps/belts											
Metal shavings											
Domestic waste											
Plastic bottles											
Plastic packaging											
Styrofoam											
PPE & clothing											
PVC											
Rubber waste											
Scrap metal											
Tyres											
Used geotextile											
Water filters											
Wood											
Other											
Total (kg):											

Appendix B: Categories of Wastes

CATEGORIES OF WASTE	
(Annex I of Regulation on Waste Management)	
Q1	Production or consumption residues not otherwise specified below
Q2	Off-specification products
Q3	Products whose date for appropriate use has expired
Q4	Materials spilled, lost or having undergone other mishap, including any materials, equipment, etc., contaminated as a result of the mishap
Q5	Materials contaminated or soiled as a result of planned actions (e.g. residues from cleaning operations, packing materials, containers, etc.)
Q6	Unusable parts (e.g. reject batteries, exhausted catalysts, etc.)
Q7	Substances which no longer perform satisfactorily (e.g. contaminated acids, contaminated solvents, exhausted tempering salts, etc.)
Q8	Residues of industrial processes (e.g. slags, still bottoms, etc.)
Q9	Residues from pollution abatement processes (e.g. scrubber sludge, bag house dusts, spent filters, etc.)
Q10	Machining / finishing residues (e.g. lathe turnings, mill scales, etc.)
Q11	Residues from raw materials extraction and processing (e.g. mining residues, oilfield slops, etc.)
Q12	Adulterated materials (e.g. oils contaminated with PCBs, etc.)
Q13	Any materials, substances or products the use of which has been banned by law
Q14	Products for which the holder has no further use (e.g. agricultural, household, office, commercial and shop discards, etc.)
Q15	Contaminated materials, substances or products resulting from remedial action with respect to land
Q16	Any materials, substances or products which are not contained in the above-mentioned categories

Appendix C: Disposal Operations

DISPOSAL OPERATIONS	
(Annex II of Regulation on Waste Management)	
D1	Deposit into or onto land, e.g. landfill
D2	Land treatment, e.g. biodegradation of liquid or sludgy discards in soils
D3	Deep injection, e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories
D4	Surface impoundment, e.g. placement of liquid or sludgy discards into pits, ponds or lagoons
D5	Specially engineered landfill, e.g. placement into lined discrete cells which are capped and isolated from one another and the environment
D6	Release into a water body, except seas/oceans
D7	Release into seas/oceans, including sea-bed insertion
D8	Biological treatment resulting in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12
D9	Physico-chemical treatment resulting in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12, e.g. evaporation, drying, calcination
D10	Incineration on land
D11	Incineration at sea
D12	Permanent storage, e.g. emplacement of containers in a mine
D13	Blending or mixing prior to submission to any of the operations numbered D1 to D12
D14	Repackaging prior to submission to any of the operations numbered D1 to D13
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)

Appendix D: Recovery Options

RECOVERY OPERATIONS	
(Annex II.B of Regulation on Waste Management)	
R1	Use principally as a fuel or other means to generate energy
R2	Solvent reclamation/regeneration
R3	Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)
R4	Recycling/reclamation of metals and metal compounds
R5	Recycling/reclamation of other inorganic materials
R6	Regeneration of acids or bases
R7	Recovery of components used for pollution abatement
R8	Recovery of components from catalysts
R9	Oil re-refining or other reuses of oil
R10	Land treatment resulting in benefit to agriculture or ecological improvement
R11	Use of wastes obtained from any of the operations numbered R1 to R10
R12	Exchange of wastes for submission to any of the operations numbered R1 to R11
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)

Appendix E: Properties of Hazardous Wastes

PROPERTIES OF WASTES WHICH RENDER THEM HAZARDOUS	
(Annex III. A of Regulation on Waste Management)	
H1	**'Explosive'** substances and preparations which may explode under the effect of flame or which are more sensitive to shocks or friction than dinitrobenzene.
H2	**'Oxidizing`** substances and preparations which exhibit highly exothermic reactions when in contact with other substances, particularly flammable substances.
H3	**'Highly flammable`** • liquid substances and preparations having a flash point below 21 °C (including extremely flammable liquids), or • substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or • solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or • gaseous substances and preparations which are flammable in air at normal pressure, or • substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities.
H3-B	**'Flammable`** liquid substances and preparations having a flash point equal to or greater than 21 °C and less than or equal to 55 °C.
H4	**'Irritant`** non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation.
H5	**'Harmful`** substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.
H6	**'Toxic`** substances and preparations (including very toxic substances and preparations) which, if they are inhaled or ingested or if they penetrate the skin, may involve serious, acute or chronic health risks and even death.
H7	**'Carcinogenic`** substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence.
H8	**'Corrosive`** substances and preparations which may destroy living tissue on contacts.
H9	**'Infectious`** substances containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms.
H10	**'Teratogenic`** substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce non-hereditary congenital malformations or increase their incidence.
H11	**'Mutagenic`** substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce hereditary genetic defects or increase their incidence.
H12	Substances and preparations which release toxic or very toxic gases in contact with water, air or an acid.
H13	Substances and preparations capable by any means, after disposal, of yielding another substance, e.g. a leachate, which possesses any of the characteristics listed above.
H14	**'Ecotoxic`** substances and preparations which present or may present immediate or delayed risks for one or more sectors of the environment.

Appendix F: Hazardous Waste Threshold Concentrations

HAZARDOUS WASTE THRESHOLD CONCENTRATIONS	
(Annex III.B of Regulation on Waste Management)	
a)	flash point ≤ 55 ºC,
b)	one or more substances classified as very toxic at a total concentration ≥ 0,1 %,
c)	one or more substances classified as toxic at a total concentration ≥ 3 %,
d)	one or more substances classified as harmful at a total concentration ≥ 25 %,
e)	one or more corrosive substances classified as R35 at a total concentration ≥ 1 %,
f)	one or more corrosive substances classified as R34 at a total concentration ≥ 5 %,
g)	one or more irritant substances classified as R41 at a total concentration ≥ 10 %,
h)	one or more irritant substances classified as R36, R37, R38 at a total concentration ≥ 20 %, i) one substance known to be carcinogenic of category 1 or 2 at a concentration ≥ 0,1 %,
j)	one substance known to be carcinogenic of category 3 at a concentration ≥ 1 %
k)	one substance toxic for reproduction of category 1 or 2 classified as R60, R61 at a concentration ≥ 0,5 %,
l)	one substance toxic for reproduction of category 3 classified as R62, R63 at a concentration ≥ 5%,
m)	one mutagenic substance of category 1 or 2 classified as R46 at a concentration ≥ 0,1 %,
n)	one mutagenic substance of category 3 classified as R40 at a concentration ≥ 1 %