

## **WORK PLAN**

# **Waste Management facility**

**(Including transport, storage, packaging, processing and export  
of hazardous and non hazardous waste and related activities.  
Sale of environmental products)**

**Ref. No. WM 00004/07**

**CONFIDENTIAL INFORMATION – NOT FOR PUBLIC DISSEMINATION**

**Work Plan**  
**Waste Management Facility**  
**April 2008**



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**ais** environmental ltd.

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## CONTENTS LIST

<b>1. INTRODUCTION</b>	<b>6</b>
<b>2. RELEVANT LEGISLATION</b>	<b>7</b>
<b>3. SITE DETAILS AND INFORMATION</b>	<b>10</b>
3.1. Applicant Details	10
3.2 General Background	10
3.3 Site Location Plans	11
3.4 Facility - General	11
3.5 Description of process	12
3.6 Hours of Operation	13
3.7 Quality Control and Assurance	13
<b>4. FACILITY OPERATIONS</b>	<b>14</b>
4.1 Waste Collection Services	14
4.2 Waste separation and processing of waste	15
4.3 Processing of Hazardous Materials	15
4.4 Import and Exports	19
4.5 Destruction Services	19
4.6 Other Activities	19
4.7 Emergency Action Plans	20
4.8 Operational Action Plans	20
4.9 Type of waste categories handled at the facility	21
4.10 Projected quantities of waste handled at the facility	21
4.11 Transport of waste to the site	22
4.12 Storage and reception facilities on site	22
4.13 Bulk storage of waste prior to its handling	23
4.14 Projected date of commencement for the activity	23
4.15 Type of emissions (if any) from the process and related activities	23
4.16 Control of emissions (if any) and technical measures involved during abatement	24
4.17 Anticipated standards for the emissions (if any) and comparison with legal requirements	24
4.18 Information On Staffing And Management Of The Scheme	24

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<b>5. AMENITY MANAGEMENT AND MONITORING</b>	<b>25</b>
<b>5.1 Amenity Management</b>	<b>25</b>
<b>5.2 Nature and quantities of emissions from the site into the air, water and onto land</b>	<b>25</b>
<b>5.3 Significant effects of such emissions on the environment</b>	<b>26</b>
<b>5.4 Mitigation measures to minimize hazards and nuisance arising within the facility.</b>	<b>26</b>
<b>5.5 Monitoring procedures</b>	<b>26</b>
<b>5.6 Control measures</b>	<b>27</b>
<b>6. RECORD KEEPING AND REPORTING</b>	<b>31</b>

## **LIST OF APPENDICES**

<b>Appendix A</b>	<b>Site Plan</b>
<b>Appendix B</b>	<b>Sample Logging Reports</b>
<b>Appendix C</b>	<b>Comtec Ltd. Service Agreement</b>
<b>Appendix D</b>	<b>Health and Safety Manual</b>
<b>Appendix E</b>	<b>Staff Qualifications</b>
<b>Appendix F</b>	<b>MEPA'S Terms of Reference</b>
<b>Appendix G</b>	<b>EWC Codes</b>
<b>Appendix H</b>	<b>Site Layout</b>
<b>Appendix I</b>	<b>Elevations and Sections</b>

## **1. INTRODUCTION**

- 1.1 Green Skip Services Ltd. has submitted an application for a Waste Management Permit for the Repackaging and Storage (pending treatment) of Hazardous waste as made necessary by regulation (9) of the Waste Management (Permit and Control) Regulations (LN 227 of 2001). The application reference is WM 00004/07. The title shall however be for a Waste Management Permit including transport, storage, packaging, processing and export of hazardous and non hazardous waste and related activities, sale of environmental products.
- 1.2 This Work Plan is being submitted to MEPA as an essential part of and to provide support to the abovementioned application, and in response to terms of reference (ToR) outlined by MEPA in correspondence of the 28<sup>th</sup> August 2007. The ToR can be found in Appendix F.
- 1.3 The structure of this document follows the Work Plan Content outlined in the ToR.

## **2. RELEVANT LEGISLATION**

### **2.1 EC Directive on Waste Electrical and Electronic Equipment (WEEE)**

The Waste Electrical and Electronic Equipment Directive (WEEE Directive) aims to minimize the impact of electrical and electronic goods on the environment, by increasing re-use and recycling and reducing the amount of WEEE going to landfill. It seeks to achieve this by making producers responsible for financing the collection, treatment, and recovery of waste electrical equipment, and by obliging distributors to allow consumers to return their waste equipment free of charge.

### **2.2 LN 63 of 2007: Waste Management (Electrical and Electronic Equipment Regulations)**

These regulations transpose the provisions of Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE) as amended by Directive 2003/108/EC of the European Parliament and of the Council of 8 December 2003.

The purpose of the legislation is, as a first priority, the prevention of waste electrical and electronic equipment (WEEE), and in addition, the reuse, recycling and other forms of recovery of such wastes so as to reduce the disposal of waste. It also seeks to improve the environmental performance of all operators involved in the life cycle of electrical and electronic equipment, such as producers, distributors and consumers, and in particular those operators directly involved in the treatment of waste electrical and electronic equipment.

These regulations provide additional measures, procedures and guidance to those in the Waste Management (Permit and Control) Regulations, 2001.

### **2.3 LN 337 of 2001: Waste Management (Permit and Control Regulations, 2001)**

These regulations control all operations relating to the production and management of waste and promote sound waste management practices so as to safeguard human health and the environment. They transpose Council Directive 91/689 on Hazardous waste and Council Directive 75/442 on waste.

This legislation relates to permits needed for any person proposing to:

1) set up and operate an undertaking included in Schedule 7. Schedule 7 include the following undertakings that need a waste production permit:

- Energy Industries

- Production and processing of metals
- Mineral Industry
- Chemical Industry
- Other activities including industrial plants, pre-treatment plants, slaughterhouses ship repairs etc.

2) undertake a waste management activity

The Competent Authority shall seek to ensure that waste is produced and managed without endangering human health or harming the environment

- without risk to water, air soil, plants and animals,
- without causing a nuisance through noise and odours
- without adversely affecting the countryside or places of special interest or value.

Any holder of waste who is in charge of any of the above undertakings shall be responsible for managing the waste and for ensuring that it is managed in accordance with these regulations. Any holder of waste shall:

- 1) ensure that waste is safely stored and presented for collection,
- 2) ensure that waste is produced and managed by a person who has a permit
- 3) Deposit any waste in an authorized waste management site

All persons undertaking waste disposal and waste recovery operations, including holders of hazardous waste shall keep a record of:

- 1) quantity and nature of wastes disposed or recovered
- 2) the origin and frequency of collection, the destination, mode of transport and treatment of such wastes

The Competent Authority may order waste producers listed in Schedule 7 to submit a waste management plan on a periodic basis.

No person may mix the different categories of hazardous waste or mix hazardous waste with non-hazardous waste unless:

- 1) Such mixing would not increase the potential harm to the environment or human health.
- 2) Such mixing would improve safety during disposal or recovery
- 3) Prior approval has been obtained.

Holder of Hazardous waste shall ensure that whilst managing hazardous waste such waste is securely packaged and labeled according to national and international standards.

Hazardous waste that is transferred within the Maltese territory or waters shall be accompanied by a coded hazardous waste consignment note.



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## **2.4 The Structure Plan (1990 – 2010) for the Maltese**

The two main concerns of the plan include:

1. Resource creation and
2. Resource Management and Protection

The project therefore falls under the latter section and is in keeping with the policies laid out in the Structure Plan.

## **2.5 Space for Waste: The Waste Management Subject Plan**

The purpose of the Waste Management Subject Plan (this 'Plan') is to provide strategic direction and context to guide both Government and the private sector in waste management issues over the period to 2010.

Article 6.10 states that 'Permission will normally only be granted for permanent waste recycling, processing, storage and transfer facilities at locations which are appropriate for the siting of industrial development of this nature, and which meet and maintain the environmental standards set out in specific plan policies.'

## **2.6 The Solid Waste Management Strategy for the Maltese Islands**

In conformity with Government's underlying commitment to have this Strategy serve as an effective means towards the protection of human health and the environment, it is important that we understand the concepts and vision behind it, namely those concerned with the requirements for :

- an integrated approach to waste management;
- a reduction in the quantity and hazard of waste arisings;
- higher levels of re-use;
- increased recycling and composting;
- the possible further development in energy recovery technologies (e.g. anaerobic digestion);
- safe disposal of residues which cannot be otherwise managed;
- greater public participation in the decision making process.

## **2.7 Other International Obligations**

The relevant EU directives have been discussed above, as transposed into local law by legal notices. Malta is a signatory to a number of international conventions and agreements which seek to protect the environment. Of particular importance are those which relate to waste handling and disposal.

- The London Convention on the Prevention of Marine Pollution from Wastes and other matter

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### 3. SITE DETAILS AND INFORMATION

#### 3.1. Applicant Details

Name: Mary Gaerty, for and on behalf of Green Skip Services Ltd. in her capacity as Joint Managing Director and as duly authorised, as the person responsible for the site.

Address: Green Skip Services Ltd.,  
Unit 1, Ta' L-Imriekeb  
Ramla Road,  
Maghtab,  
Naxxar,  
NXR 6540  
MALTA

Telephone: 21422010

Fax: 21422029

Email: mgaerty@kemmynet.net.mt

#### 3.2 General Background

3.2.1 Green Skip Services Ltd. is a private liability company. It was established in May 1992 (Registration No C13893, Vat No. 1021 8116) and has succeeded in giving the industrial and trade waste producers alternative and more modern, cost effective services for the management of wastes.

3.2.2 The directors of the company are regular participants and contributors at seminars and conferences held both locally and overseas. The company directors keep abreast with developments in Waste Management through activities of the Chartered Institute of Wastes Management of UK amongst others, of whom Green Skip Services Ltd. is an affiliate member, and the directors are also individual members.

3.2.3 Today the company owns a 7,800m<sup>2</sup> complex incorporating the administration building, workshop, stores, garages and yard. Its activities (described in more detail further in this document) include waste collection service; the collection and management of clinical

wastes; the collection, repackaging and export of hazardous waste; product /document destruction services and selling of environmental and related products.

- 3.2.4 The site being proposed for this waste management activity is already active as a materials reclamation facility. (PA 4322/94 – Development of site into a service yard for the recycling, reclamation of waste and related facilities of offices, maintenance workshops etc.). An EPS was requested and submitted by Rust Environmental, as part of the planning permit

### **3.3 Site Location Plans**

- 3.3.1 The Green Skip Services Ltd site covers an area of 7,800m<sup>2</sup>. The site is located in close proximity to the Maghtab Waste Management Complex entrance, close to the Maghtab Civic Amenity site operated by Wasteserv and is over 500 metres away from any habitable buildings. A pig farm lies approximately 150 metres to the North West. There are no adjoining buildings belonging to third parties except for undeveloped land on all four sides of the site. A short private road leads from the public road to the site (see site plan attached as Appendix A).
- 3.3.2 The facility has administration offices, warehouse for the storage of new products, a generator room, garage, sorting area, washing area, parking, treatment of waste area, repackaging and storage of hazardous materials area and storage of recuperated materials which will later be exported for recycling, parking and meter room.
- 3.3.3 The facility is covered by a full development permit for a Materials Reclamation Facility and related services which was granted in 1996, PA 4322/94/DC01.

### **3.4 Facility - General**

#### **3.4.1 Facility Description**

The following buildings and facilities are located within the site boundary:

- Skip washing area
- Parking sheds for refuse vehicles
- Parking spaces for employees and visitors
- Garage

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- Underground reservoir
  - Office accommodation, incorporating a waiting area, kitchen, restroom and shower
  - Warehouse for the storage of waste bins and similar products
  - Generator room
  - Sorting area
  - Area for the storage of hazardous waste
  - Shed for waste sorting

Appendix H shows a detailed plan of the site layout and organization.

### ***3.5 Description of process***

- 3.5.1 The process begins with collection of waste. Waste is brought to the facility either by means of the collection transport services provided by Green Skip Services Ltd. or by third parties.
- 3.5.2 Waste arrives at the facility in both separated and unseparated form. Clients are advised about at source waste separation. Each of the following waste streams are handled according to the different operational procedures identified in following sections:
- Organic/Household material
  - Mixed Waste
  - Hazardous Waste
  - Clinical Waste
  - Inert waste
  - Packaging Waste
- 3.5.3 Once the waste is brought on site, additional waste sorting, segregation and temporary storage takes place. Waste suitable for recycling is passed on to third parties (exported from the facility) for it to be treated accordingly.
- 3.5.4 The site for sorting and segregation of waste as well as the site for temporary storage of waste is outlined in Appendix H.
- 3.5.5 Site for treatment of waste  
Waste is not treated on site as part of the waste separation and storage process. The only treatment of waste that takes place on site involves the separate service of destruction of confidential documents or defective products. In this case, materials are passed on to a separate company to be shredded.

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### **3.6 *Hours of Operation***

3.6.1 The facility operates on:

- Weekdays (Monday to Friday) from 7.00 to 17.00 (Work shop at 7.00 and offices at 7.30)
- Saturdays from 7.00 to 14.00
- Vehicles start their schedules at 2.00am everyday and also enter and leave the facility on Sundays and public holidays (although the facility itself does not operate on these days, except under exceptional circumstances).

### **3.7 *Quality Control and Assurance***

3.7.1 A QA/QC system will be implemented, following international standards for facilities of this nature.

3.7.2 Routine technical activities, to measure and control the quality of the operations and to ensure integrity of all equipment and procedures will be employed. Relevant checklists will be complied along with the process so there will be documented records of all procedures.

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## **4. FACILITY OPERATIONS**

### **4.1 Waste Collection Services**

#### **4.1.1 Waste Collection**

The process of waste handling begins with waste collection following contacts and resulting contracts with different companies and entities. Waste is collected by specially trained staff of Green Skip Services Ltd. Waste collection takes place by means of skip loaders and various (6-16 cu yd) sized skips, wheeled bins of different capacities (60 to 1100 ltr capacity), compaction vehicles and other specialized equipment and containers, for the safe containment and transportation of:

- a. mixed waste
- b. segregated waste
- c. clinical waste
- d. hazardous waste
- e. inert waste
- f. Organic/household waste
- g. other wastes that require transportation and disposal

4.1.2 Compactor skips are also available for high volume waste sites. Wheeled bins may be standard, or colour coded for at source separation of wastes.

4.1.3 Wherever possible the type of waste is identified as belonging to one of the above sections (prior to delivering a container or effecting service), by means of consultation with the administration staff and the client. The administration provides guidance to the client as to the best available waste management option (disposal of waste). Depending on the type of waste, the containment and type of transport is selected.

4.1.4 Frequency of collection depends on whether an existing contract agreement with the client is in place or whether the collection is a one off. The former involves an agreed schedule, the latter depends on the requirements of the client. Waste is collected from clients based at various locations all over the Island, for this reason no specific transportation routes could be identified or included. Waste of an organic nature is dealt with in the shortest period possible (normally 24hours maximum) due to possible odours and insects. Other materials can remain in storage for longer periods without causing any nuisance or environmental hazard

4.1.5 Waste delivered by third parties is accepted at the facility for pretreatment, segregation and/or processing, disposal, export and any other remedy.

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## **4.2 Waste separation and processing of waste**

### **4.2.1 Bulk Storage**

If the collected waste cannot be handled immediately upon entering the site, it may be stored as bulk waste prior to its separation. Waste is stored in skips in the bulk storage area as marked in Appendix H.

### **4.2.2 Waste Separation**

As described above, wherever possible, waste is separated at source. Where this is not possible however or where further separation is required, waste which has been collected and/or brought to the site is separated and processed. The procedure involves the following:

1. Specially trained staff of Green Skip Services Ltd. identify materials which could possibly be reused, recovered or recycled. This is done by means of manual and visual inspections. These materials are exported from site. Materials suitable for this include glass, paper, cardboard, wood, plastic, metals and textiles. These are separated and stored accordingly.
2. Once any reusable/recyclable material has been removed from the waste stream, it is sorted and placed in respective dedicated storage areas. The residual non recyclable waste, including inert waste, is then placed in the same containers as was used for it to enter on site (Skips/vans etc). The waste is then transported to the Ghallis Landfill, or as directed by the authorities. Inert waste is disposed of in an authorized quarry.
3. Any WEEE is removed and handled separately.

## **4.3 Processing of Hazardous Materials**

### **4.3.1 Hazardous waste handled by the facility includes the following three main types, each of which is handled according to different operational procedures.**

1. Waste Electronic and Electrical Equipment
2. Clinical Waste
3. Hazardous waste

For each type of the above waste, all the necessary applications/documentations for the initial movement (and export) of hazardous waste are submitted to MEPA. The CP notes are duly filled on behalf of the client, which applications for a permit will include all the relevant information. Following the approval, the best and safest transport

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option is decided and duly entered on the work schedule. A CN note is then filled in to accompany the transport of the waste to Green Skip facility or to any other facility as approved by MEPA.

#### 4.3.2 Waste Electric and Electronic Equipment

Waste Electric and Electronic Equipment is handled in accordance with L.N. 63 of 2007 – Environment Protection ACT (CAP. 435) Waste Management (Electrical and Electronic Equipment) Regulations, 2007. According to these regulations, 'persons who intend to operate a WEEE collection, treatment and recovery scheme as required under these regulations, including the collection, sorting, storage, treatment, export, recovery and recycling of WEEE on behalf of producers shall require and obtain a valid permit from the competent authority in terms of the Waste Management (Permit and Control) Regulations, 2001'. Green Skip Services Ltd. has applied for this permit in accordance with these regulations.

#### 4.3.3 WEEE is transported after all the necessary permits from MEPA are in hand. WEEE could also be part of a bulky waste removal found in a skip , in this case it is removed from the rest of the collected waste. All WEEE is then passed on to a third party for sorting into different categories repackaged for storage prior to export, in standard cardboard boxes or as directed by the receiving facility, either local or foreign. (These are then stored on a pallet under shrink wrap until transport). Storage area for WEEE has been marked in Appendix H. Waste is visually inspected for any sign of damage. (If any damage is found this is dealt with immediately by clearing any leaks and repackaging where necessary) See Figure 1 below.





Figure 1: WEEE packaged for export

4.3.4 A Trans Frontier Movement Permit is sent to MEPA and once this has been processed, waste can be exported.

4.3.5 Clinical waste

Clients advise the Green Skip Services Ltd. administration regarding the nature of the clinical waste generated prior to its collection. The clients are advised about the best and approved methods of segregation and containment of both type A and B waste. These containers are subsequently collected in large, yellow 1100) litre specialized bins, presently provided by Wasteserv and these are transported directly to the Abattoir incinerator in Marsa. All relative tracking documentation is also duly filled by Green Skip Services Ltd. administration personnel and the required CP and CN documentation application are sent to MEPA and all relative permits must be in place prior to any movement of hazardous material.

4.3.6 Clinical waste only enters the Green Skip Services Ltd. site, on rare occasions and only as contingency, otherwise the waste is transported (as it is dealt with) directly to the thermal treatment facility at the Abattoir in Marsa.

#### 4.3.7 Hazardous waste

Upon request for hazardous waste management services, the administration advises the client that a 1litre/1kg sample of the hazardous material is to be submitted. This must be accompanied by MSDs of the material or materials in the waste, together with the production process that generated the waste if the waste in question is from a production process. The client is also asked if any analysis had been effected on the waste and if in the affirmative, a copy is requested. The material is then sent to the laboratories of the facilities that might accept the waste in order to be analysed. This ensures the appropriate means of disposal to be identified. The report on this analysis is kept as part of standard internal records.

- 4.3.8 Following the relevant application to MEPA to transport the waste from the client's site to Green Skip facility, the hazardous waste containment is visually inspected for any leakages or broken containers and the necessary precautions and safety measures are taken prior to collection. Since no hazardous waste treatment plant exists in Malta, the only possibility for hazardous waste treatment involves its export, however should the possibility of treating hazardous waste locally, at an authorized facility arise, this option shall be seriously considered.. Adequate storage facilities are provided on site in order to professionally pack and store hazardous waste in the appropriate and safe manner (See Figure 2 below). The area designated for this storage prior to sending the material overseas is identified in Appendix H.



Figure 2: Hazardous waste packaged for export

- 4.3.9 These bins are located on concreted, dedicated areas in order to prevent any form of leaching into the ground. In the highly unlikely event that a leak occurs, this mitigated against by the provision of absorbent material in the sealed area around the bin. A secondary safety measure is the provision of channels which transport any liquid to a separate tank outside the bin area. This is then collected and transported as hazardous waste.

In the event of facilities for the treatment/disposal of hazardous waste being available locally, the client would then be able choose between utilizing the existing facilities or exporting hazardous material.

- 4.3.10 All the documentation involved in obtaining a permit to export any type of hazardous waste is dealt with. The clients are offered a 'one stop shop'/ all inclusive offer and all the required insurances, bank guarantees and shipping are dealt with by Green Skip Services Ltd. Green Skip Services have to date exported a large number of containers successfully and without any problems.

#### **4.4 Import and Exports**

- 4.4.1 These include local sales, leasing and/or hire of Environmental and Waste Management Products. The products include different types of plastic bins and facilities for wash rooms. Services include their delivery, maintenance and fitting of special features as per clients and market requirements. The products and equipment are stored in two separate stores.
- 4.4.2 Also the following exports are handled by the facility:
- Hazardous waste – including processing applications to MEPA regarding the necessary permits.
  - any other export in relation to the business

#### **4.5 Destruction Services**

- 4.5.1 Green Skip Services Ltd. also offers destruction services for confidential documents as well as damaged and expired products and goods. Items for destruction are accepted onto the site and destroyed by a third party, in the presence of a Green Skip Services Ltd. staff member who can vouch that it has been destroyed. A certificate of its destruction is also issued to the client. Any required documentation is duly filled in order to obtain the necessary permits and for record keeping.

#### **4.6 Other Activities**

- 4.6.1 Other Activities include:
- Vehicles and equipments are regularly maintained and serviced by qualified employees and records are kept by the responsible person/s.

- Other business and activities related to the sector include training courses provided to companies with an associated activity such as hotels and restaurants, industry and private hospitals and clinics.
- Training of employees include internal training of procedures and operations, as well as certification of employees by examination boards, such as City & Guilds, and by Institute of Health Care and ETC. Appendix E provides a list of relevant qualifications acquired by some of the staff.

## ***4.7 Emergency Action Plans***

4.7.1 Emergency action plans are covered in the Health and Safety Manual, in Appendix D.

## ***4.8 Operational Action Plans***

4.8.1 There are three main divisions in the company – Administration, Operational and Technical. Each of these has its own operational actions plans and work procedures, however each one liaises with the others for the smooth running of the business.

### **4.8.2 Administration**

- The office handles all enquiries for waste management and accords the required service to other company personnel.
- All bookings are listed on 'day sheets' and the name of the person in charge of the particular job is entered. These records are kept for several years. Each job is recorded on a record sheet in duplicate. This service sheet as it is normally referred to contains information regarding the client, person doing the job, type of material being collected and disposal facility (see sample in Appendix G)
- All records are filed and archived, together with the day sheets.
- All drivers are given their daily work sheets which record their work schedule, as per sample in Appendix G.
- Records are kept for all types of waste management, including handling, repackaging and export of hazardous and service of clinical waste.
- Clients are offered the service of the filling in all related documentation and applications for the permits in transporting and managing (presenting applications for removal of) hazardous, clinical and other wastes requiring special handling.

- Expired food wastes are also treated as special wastes and are also transported following a granting of permit issued by MEPA. The products are destroyed at Green Skip facility prior to being landfilled. A Waste Transfer Note issued by Wasteserv is also required for this service.
- Other wastes requiring specific permits from relative authorities are also applied for.

#### 4.8.3 Operational

- Workshop/Garage: This area houses different activities. During working hours it serves as a workshop and maintenance area and after working hours the garage serves for the parking of the vehicles (these are parked/garaged overnight.) All personnel are allocated their daily work, logistics and routes as pre-established.
- Maintenance: The maintenance area includes welding, vehicle maintenance and repairs, repairs of skips, spraying and other maintenance of bins.
- Record Keeping: Maintenance procedures of machinery and vehicles, and record of maintenance routine are filed in the main office and also kept at the service area.

#### 4.8.4 Technical

- This section is responsible for the maintenance of all company vehicles and machinery.
- All maintenance carried out on the vehicles and machinery is recorded by the technicians responsible. This information is then archived for future reference.

### ***4.9 Type of waste categories handled at the facility***

- 4.9.1 The European Waste Catalogue Codes of waste categories handled and expected to be handled by the facility are included as Appendix G.

### ***4.10 Projected quantities of waste handled at the facility***

- 4.10.1 Table 1 below gives the projected quantities of the different types of waste to be handled by the facility.

Table 1: Amounts of waste collected per year

TYPE OF WASTE	WEIGHT TO BE COLLECTED	
	Tonnes / year	Final Destination
<b>Glass</b>	3000	Local and export
<b>Plastic</b>	4000	Local and export
<b>Wood</b>	1500	Local and export
<b>Carton</b>	3000	Local and export
<b>Paper</b>	3000	Local and export
<b>WEEE</b>	120,000	Local and export
<b>Mixed Municipal Waste</b>	20,000	Local and export
<b>Mixed General Waste</b>	4,000	Local and export
<b>Inert Waste</b>	3,000	Local and export
<b>Mixed Inert Waste</b>	1,000	Local and export
<b>Metals</b>	5000	Local and export

#### **4.11 Transport of waste to the site**

4.11.1 Waste is transported to the site by means of the different vehicles listed in Table 2 below.

Table 2: Green Skips Services Limited - Company Vehicles

Green Skips Services Limited - Company Vehicles			
Registration Number	Vehicle Type	Year of Manufacture	Year of Purchase
GRN 111	M 85 Skip Loader	1986	1992
GRN 222	93M/230 Skip Loader	1990	1993
GRN 333	E10 Refuse Compaction Vehicle	1990	1995
GRN 777	Transit Truck	1989	2007
GRN 888	93M 220 Skip Loader	1995	2007
TFA 243	Freighter Skip Loader	1986	1996
DBI 468	ERF Truck	1994	2002

#### **4.12 Storage and reception facilities on site**

4.12.1 The storage area designated in the plan as “skip storage” has a capacity of approximately 1,000m<sup>3</sup>. This staging area is used for incoming material, work in progress, and finished product and space is managed according to necessity.

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#### **4.13 Bulk storage of waste prior to its handling**

4.13.1 If the collected waste cannot be handled immediately upon entering the site, it may be stored as bulk waste prior to its separation. Waste is stored in skips in the bulk storage area as marked in the site plans found in Appendix H.

#### **4.14 Projected date of commencement for the activity**

4.14.1 The facility is currently operational as per full development permission granted by the Planning Authority through Permit No. 4322/94 on the 6<sup>th</sup> November 1996.

#### **4.15 Type of emissions (if any) from the process and related activities**

4.15.1 As only dry waste is stored on site, it is anticipated that there will be no emissions as a result of the activity on site.

4.15.2 Dust arises mostly from the predominant west wind and therefore from the landfill. Vehicles and skips are regularly washed in a dedicated area in order to minimise dust accumulation on site (See Appendix H).

4.15.3 In order to prevent emissions resulting from flying parts when sawing or grinding, the saw and grinders are equipped with a dust capturing bag.

4.15.4 The main source of WEEE is in the form of waste equipment from importers, thus the WEEE would have already been degassed. As no processing of WEEE is currently carried out on site, and WEEE handling is restricted simply to packaging for export, it is not envisioned that the emissions normally associated with WEEE de-pollution will be released as a result of this activity. Hazardous waste is collected ready packaged under cover, as required for transport. If in the future this de-pollution service is offered, it shall be carried out according to EU standards and all the necessary equipment and health and safety standards shall be followed.

4.15.5 Chemicals are all contained in sealed drums. These are all inspected both prior to collection from the client, and well as prior to entry onto the site. Should a leak be discovered, this is dealt with immediately. There are therefore no emissions envisioned as a result of this activity.

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**4.16 Control of emissions (if any) and technical measures involved during abatement**

No emissions are envisaged.

**4.17 Anticipated standards for the emissions (if any) and comparison with legal requirements**

No emissions are envisaged.

**4.18 Information On Staffing And Management Of The Scheme**

4.18.1 The company employs 17 persons and it is envisaged that this number will increase as the company introduces other services.

Administration Staff: consists of 5 persons.

Operational Staff: consists of 6 drivers, 1 assistant and 4 employees

Technical Staff: consists of 1 person.

4.18.2 Professional or technical training is provided to the facility operators and staff.

4.18.3 All staff are trained by the responsible person within the company. The staff also have been trained by the ETC; Institute of Health and Safety, MSA, CIWM (Chartered Institute of Wastes Management) and MCAST.

4.18.4 A copy of staff qualifications is shown in Appendix G.

4.18.5 The managing directors have been pioneers in the Maltese Waste Industry. For many years they have been promoting professional practice in waste management and have attended numerous courses in Waste Management and Training of Staff. They are involved in the Malta Federation of Industry, raising professionalism within the industry as well as sharing their acquired knowledge.



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## **5. AMENITY MANAGEMENT AND MONITORING**

### ***5.1 Amenity Management***

5.1.1 An Amenity Management system allows the scheme to achieve the necessary aesthetic, environmental and safety attributes.

In order for there to be an effective integrated management system, the following are checked and reviewed regularly:

- The site and surrounding environment
- Staff participation at all stages.
- Staff training and continuous development programme.
- Advisor input and standard.
- Storage and transport of waste
- Application equipment care and maintenance.
- Records and monitoring
- Emergency Procedure.

5.1.2 Further details on all these can be found in corresponding sections below, as well as in the Health and Safety Manual.

### ***5.2 Nature and quantities of emissions from the site into the air, water and onto land***

#### **5.2.1 Air**

No gaseous emissions into the air are envisaged.

#### **5.2.2 Water**

No liquids are expected to leak into either the marine habitat or groundwater. Mitigation measures adopted are detailed in section 5.4.

#### **5.2.3 Land**

No contamination of surrounding land is expected as a result of the activity on site. Mitigation measures adopted are detailed in section 5.4.

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### ***5.3 Significant effects of such emissions on the environment***

No detrimental effects are expected on the surrounding environment.

### ***5.4 Mitigation measures to minimize hazards and nuisance arising within the facility.***

- 5.4.1 A 3.2m wall surrounding the perimeter of the facility premises keeps all windblown materials on-site.
- 5.4.2 To improve the facility's environmental performance, the site has been equipped with two water reservoirs having a total capacity of over 330,000 litres. The facility utilises collected rain water daily according to requirement.
- 5.4.3 Concreting and asphaltting of the entire site area is currently underway in order to prevent leaching of any spills. Spills are easily controlled by the use of spill kits.
- 5.4.4 Surface water is collected where possible and reused thus minimising the volume of water diverted to the sewerage system.
- 5.4.5 An oil and sediment interceptor has been installed
- 5.4.6 Water resulting from washing processes is directed to the underground reservoir for recycling and re-use.
- 5.4.7 Leachate (if any) arising from the waste will be channeled to gullies and either treated in-situ or sealed and exported from the site.
- 5.4.8 No leachate is disposed of in the ground or surface water.

### ***5.5 Monitoring procedures***

#### ***5.5.1 Documented emergency procedures***

An emergency plan for the facility will be developed and will include the following:

- Training of employees to be adequately prepared to respond to emergency situations that may arise on/off the site during their employment.
- Drills and simulations to ensure that the above-mentioned training is producing the desired results.

- Emergency telephone numbers: including local emergency services as well as office numbers.
- Mapping of evacuation routes from the administration building and facility.
- List of Chemicals and hazardous Materials on site.
- List of Emergency equipment and location.

## 5.6 Control measures

### 5.6.1 Control and monitoring of Stack Emissions and Odour

There are no burning or incineration activities on site.

### 5.6.2 Control and monitoring of noise

5.6.2.1 The background noise levels around the Ghallis landfill facility in the vicinity, have been measured as follows:

Existing noise levels (dB(A))				
Time of day	L <sub>Aeq</sub>	L <sub>A90</sub>	L <sub>A10</sub>	L <sub>Amax</sub>
Average over 1.5 hour day-time period 07.00 – 19.00	59.6	48.5	58.4	79.8

(Source: ES for a Waste Management Facility at Ghallis Ta' Gewwa, Naxxar, Malta - 2004)

5.6.2.2 There are two ways in which the scheme has the potential to increase noise levels in the vicinity of the site:

- Traffic noise
- Operational noise

#### 5.6.2.3 Traffic Noise

In order for there to be an audible increase in noise levels, there needs to be a noise increase of 3dB(A), equivalent to 50% increase in traffic movement. In view of the current number of vehicles entering the nearby Ghallis Landfill as well as the local traffic using the road, it is highly unlikely that the extra vehicles associated with the site (mainly small vans and private vehicles) will exceed 50% of the existing traffic volume. As such, noise impacts from this source are insignificant.

#### 5.6.2.4 Operational Noise

The development has the potential of generating noise from the following sources:

- Vehicle movements

- Equipment - Compactor, shredder and crusher unit
- Emergency generator

#### 5.6.2.5 Vehicle Movements

Traffic movements associated with the site are discussed in paragraph 5.6.2.3; this section concludes that it is highly unlikely that vehicle movements cause a noticeable increase in ambient noise levels.

#### 5.6.2.6 Equipment

Use of the compactor, shredder and glass crushing units is sporadic and for short periods of time. The sound power level for this equipment is in the order of between 80 and 90dB(A) (at a 1m distance). The noise generated by these units is attenuated by the presence of the perimeter wall the distance to the nearest sensitive receptors and the existing noise generated by the nearby Landfill and as such is not discernable above the existing ambient noise conditions.

#### 5.6.2.7 Generator

While the electricity required at the site is made available from the nearest mains power supply, certain equipment require more electrical power therefore a generator on site to provide an emergency power source. The generator is located within a separate generator room which provides adequate sound insulation in the event of a requirement to use the generator.

### 5.6.3 Control and monitoring on releases to the sewers

5.6.3.1 There is no sewer connection to the facility. All waste water, including waste water from the washing of skips which does not contain hazardous waste, is collected in a cesspit which is emptied and its contents discharged into the main sewerage system.

5.6.3.2 Hazardous waste is stored in large bins (E.g. WEEE is stored in Bin 12, see Site Plans). These bins are located on concreted, dedicated areas in order to prevent any form of leaching into the ground. In the highly unlikely event that a leak occurs, this is mitigated against by the provision of absorbent material in the sealed area around the bin. A secondary safety measure is the provision of channels which transport any liquid to a separate tank outside the bin area. This is then collected and transported as hazardous waste.

### 5.6.4 Control on releases to land including disposal routes

General and organic waste is deposited in authorized landfills or as directed by the relevant authorities.

- 5.6.5 Control on releases to an on-site effluent treatment plant  
There is no on-site effluent treatment plant.

5.6.6 Control of fires at the site

The Managing Directors shall be responsible for the management of Health and Safety at the treatment facility. A private company (certified) carried out a complete fire fighting survey and all required fire fighting equipment as recommended by the expert company are in place.

Fire extinguishers and fire aid kits are available on site. All fire extinguishers are regularly maintained - to ensure they are in good working order – and certified. Also, procedures in case of fire are known and regularly communicated to all employees and adequately visible safety notices are placed on site. Regular fire drills are carried out which ensure that the staff have basic fire fighting training in the event of a fire on site. Further information is found in the health and safety manual, Appendix G.

5.6.7 Control of vermin at the site.

COMTEC Ltd. have been contracted to ensure an adequate vermin control for the whole of the site. The company regularly issues reports following maintenance and inspections on site. The Service Contract is included as Appendix D.

5.7 Control of windblown materials including litter outside the facility

- 5.7.1 The entire site is surrounded by a 3.2 meter high wall. This prevents any windblown materials from leaving the site.

- 5.7.2 The company also employs the practice of good housekeeping (with a number of litter bins available around the site).

5.8 Control of Leaks and Spillages arising from the operation of on site machinery or otherwise.

- 5.8.1 Activities which are most likely to generate spillages include depollution and dismantling of WEEE products such as fridges, air conditioners (category 1 and 2). This activity is carried out by the importers themselves and does not take place on site.

5.8.2 In the case of accidental spillages, all members of staff are familiar with the spillages clean up standard procedure:

- Spills are cleaned immediately
- Spill recovery material – readily available throughout the site – is placed on the spill
- Spills are collected in sealed metal or plastic drums for export from the facility as hazardous waste

## **6. RECORD KEEPING AND REPORTING**

6.1 The operator of the Waste Management (Recycling Plant) and treatment facility has compiled and maintains records:

- Weight Bridge records
- Employee Records and Attendance Records
- Routine Inspection Records
- Accident records
- Damage logs
- Maintenance records
- Correspondence/Consignment Notes and Notices from MEPA
- Records of materials stored
- Records of materials sold