Waste Types & Quantities

Attachment H1

H.1 WASTE TYPES & QUANTITIES

Table H.1(a) Quantities of Wastes in Relation to Each Class of Activity Applied for

Waste Management Act 3rd Schedule (Disposal) Activities		Waste Management Act 4th Schedule (Recovery) Activities	
Not Applicable		Class 3	30,000 tonnes/year
		Class 13	8,000 tonnes/year

Table H.1 (b)i. Annual Quantities and Nature of Waste to be Handled at the Facility under Class 3 of the WMA 4th Schedule (Recovery) Activities

Year	Non-hazardous Waste (tonnes /year)	Hazardous Waste (tonnes /year)	Total Annual Quantity (tonnes /year)
2006	1,250	2,500	3,750
2007	5,667	11,333	18,000
2008	10,000	20,000	30,000

The facility has been operational since March 2006. At the present time, the activity is operating under a valid Waste Permit from Dublin City Council (refer *Annex B3-2*).

The projected WEEE acceptance rates indicate that the facility is likely to be running on a one shift basis for the second half of 2006 and all of 2007. A two shift operation is planned to be introduced in 2008. The facility's maximum capacity (38,000 tonnes/year) is anticipated to be achieved in 2008. From this point, the Site will operate on a 24hr basis.

Table H.1 (b)ii. Annual Quantities and Nature of Waste to be Handled at the Facility under Class 13 of the WMA 4th Schedule (Recovery) Activities

Year	Non-hazardous Waste (tonnes /year)	Hazardous Waste (tonnes /year)	Total Annual Quantity (tonnes /year)
2006	0	8,000 (1)	8,000
2007	0	8,000	8,000
2008	0	8,000	8,000
2009	0	8,000	8,000

(1) This figure is based on the Site handling two thirds of the estimated volume of fridges and freezers that are estimated to arise each year in Ireland (WEEE Task Force Report, April 2004). 12,750 Tonnes per annum.

The Site will not have the necessary equipment ability to remove ODS refrigerant gases from refrigerators, freezers and similar items. However, such items will be accepted at the facility as part of the Site's 'one-stop-shop' approach to WEEE recovery. These items will subsequently be packaged and transferred to an appropriately licensed facility for processing.

Table H.1 (c) Waste Types and Quantities

WASTE TYPE	Tonnes/year (existing)	Tonnes/year (proposed)	Total Tonnage (over the life of site)
Household	0 Note (1)	0	0
Commercial	0 Note (1)	0	0
Sewage Sludge	0	0	0
Construction and Demolition	0	0	0
Industrial Non-Hazardous Sludges	0	0	0
Non-Hazardous Solids	1,660	9,940	199,880
Hazardous ***(Specify detail in Table H 1.2)**	3,333	28,006 recovered (maximum proposed) and 8,000 held in storage for off site processing	560,120 recovered and 160,000 transferred
Inert Waste imported for restoration purposes	**0**	0	0

(1) WEEE arising from either a commercial or household source is considered to be hazardous waste. The WEEE arriving at the site is anticipated to arise predominantly from commercial/municipal sources. This will include Local Authority collection points, retailer drop-offs and third part transportation operations (permitted waste collection companies).

Table H.1.2 Hazardous Waste Types and Quantities

Reference was made to the European Waste Catalogue Codes as presented in Commission Decision 2000/532/EC

HAZARDOUS WASTE	DETAILED DESCRIPTION	Tonne/yr (Existing)	Estimated Tonnes/year (Proposed)
Transformers and capacitors potentially containing PCBs	16 02 09* To be held onsite in quarantine & transferred to a licensed contractor.	0	10
Discarded equipment containing or contaminated by PCBs, other than those mentioned in 16 02 09	16 02 10* To be held onsite in quarantine & transferred to a licensed contractor.	0	10
Discarded equipment containing chlorofluorocarbons, HCFC or HCF	16 02 11* To be held onsite in quarantine & transferred to a licensed contractor.	0	8,000
Discarded equipment containing free asbestos	16 02 12* To be held onsite in quarantine & transferred to a licensed contractor.	0	10
Discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 012	16 02 13* Processed & recovered onsite.	0	19,966
Fluorescent Light tubes and other mercury containing devices	20 01 21* Either held onsite in quarantine & transferred to a licensed contractor, or processed onsite in a specialist mobile unit.	0	10
Lead Batteries	16 06 01* To be held onsite in quarantine & transferred to a licensed contractor.	0	5
Ni-Cd Batteries	16 06 02* To be held onsite in quarantine & transferred to a licensed contractor.	0	3
Mercury Containing Batteries	16 06 03* To be held onsite in quarantine & transferred to a licensed contractor.	0	2
TOTAL			**28,006**

Note that within Code 16 02 13* (Discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 012), there may be a variety of potentially hazardous components. This may include mercury switches, printed circuit boards (containing heavy metals), lead solder, waste inks and toners, waste oils, oily water etc. However, none of these items will be accepted as independent waste streams onto the Site. Rather, they will integral components of WEEE which arrives under Code 16 02 13*, and hence they have not been assigned an individual EWC code or waste volume.

Waste Acceptance Procedure

Attachment H2

H2 WASTE ACCEPTANCE PROCEDURE

H2.1 INTRODUCTION

The Site proposes to accept all types of WEEE, (including WEEE which they are unable to process), in order to provide a 'one-stop-shop' for their customers. Any WEEE which cannot be processed on the Site will be transferred to an appropriately licensed contractor for recovery (e.g. fridges containing ozone depleting gases), recycling (e.g. waste oils) or disposal (e.g. PCB contaminated items) as required.

It is anticipated that the majority of WEEE arriving on the Site will originate from either the waste sector (i.e. licensed hazardous waste collection contractors), or from the local authorities as part of their WEEE obligations. It is not expected that the Site will receive significant volumes of WEEE directly from consumers, retailers or manufacturers. The use of contracted waste collectors will allow for a greater degree of control and segregation over the oncoming waste streams. The Operator intends to include specific conditions regarding these issues in all collection contracts negotiated with the Site.

Once accepted at the gate, the WEEE will be segregated into the following basic categories:

- Small WEEE (e.g. toaster) that can go straight into Module 2, at point H2.1;
- Large WEEE (e.g. photocopier) for manual dismantling prior to processing in Module 2, this is undertaken in the *Waste Intake and Sorting Area*;
- WEEE containing Cathode Ray Tubes (CRT) - which is placed in the *CRT Storage Area* prior to being processed through a purpose-designed separation unit;
- WEEE containing oil -which is emptied and cleaned at the *Oil Separation Station* prior to processing in Module 2;
- ODS containing equipment - which is stored in the *Waste Quarantine Area* prior to being sent to an appropriate treatment facility;
- Florescent light bulbs - which are stored in specific coffins in the *Waste Quarantine Area*; and
- Items which do not meet the Site's Waste Acceptance Criteria, such as those potentially containing Polychlorinated Biphenyls (PCBs), Ozone Depleting Substances (ODS), radioactive sources or asbestos. These will be stored in the dedicated *Waste Quarantine Area*.

The location of each area is shown on *Drawing 04* and a description of the overall process, including the operation of each process Module, is included in *Attachment D2*.

The following provides a brief description of where each segregated WEEE stream will enter the process.

H2.2 MATERIALS RECEIPT AND SHIPMENT

Prior to receipt, all commercial suppliers of WEEE to the facility will be asked to submit either:

- an online registration (on the *TechRec Ireland* website) of the incoming load. This will include details of the contents, weight, source and anticipated arrival time; or

- a paper file (using a pre-defined format) advising of similar information.

The data will then be uploaded into the company's computer purpose designed tracking system *We³* and will be linked to a Sales Order. The booking in process at the gate will then involve the cross referencing and verification of the data.

Items which arrive without such prior notification (e.g. from a small retail outlet) will be manually counted and weighed at the Site and the relevant data entered into We³.

The We³ system can also be used by potential customers of the end products, in order to generate a work schedule.

Waste Inspection Area

The majority of waste is expected to arrive on Site in relatively large quantities, in commercial transport vehicles of greater than 6.5 tonnes. These trucks will be directed to one of four docking stations located along the northern Site access. Smaller vehicles (e.g. vans) will be unloaded within the building, at the *Waste Inspection Area* (refer *Drawing 04*). Forklifts will be available assist with all unloading activities and loading will not be undertaken outside of the building.

When the waste arrives it will be unloaded and inspected and segregated as outlined in *Section H2.1*. The *Waste Inspection Area* is located internally in the north-east corner of the building (refer *Drawing 04*). The area is located on a solid concrete floor and there are no internal drainage points. The waste inspection area will be provided with an appropriate spill kit and fire extinguisher.

The *Waste Inspection Area* will contain sufficient floor space to allow the preliminary separation of the waste into the categories defined in *Section H2.3*. These categories are largely defined by the method of processing required by the WEEE item (as outlined in *Section H2.1*).

Waste Quarantine Area

The *Quarantine Area* is located in the north-east corner of the building (refer *Drawing 04).* There are no floor drains present in this area and the floor is comprised of a high grade finished concrete. Any items of WEEE which cannot be processed on the Site will be segregated and stored in this area. This will include items potentially containing PCB oils/resins, ODS, asbestos or radioactive materials.

It is recognised that it can be difficult to establish whether an item of WEEE may potentially contain such contaminants, particularly with older industrial equipment. To assist with the identification process, a list of equipment that could potentially contain such substances is being developed, which will be referenced by the Site operators during the sorting process.

Once such an item has been identified, it will be removed from the Waste Acceptance/ Inspection Area and temporarily stored in the Waste Quarantine Area. The items within the quarantine area will be stored in designated and segregated areas. Items with the potential for leaks/spills (e.g. oil filled transformers), will be provided with appropriate secondary containment.

Hazardous components which are removed during the process (e.g. oils, batteries, mercury switches etc) will also be stored within a dedicated area within the *Quarantine Area.* Appropriate containers will be used for the storage and transport of each hazardous waste stream (e.g. metal lamp coffins for fluorescent tubes, bunded drums for waste oils, sealed plastic boxes for batteries etc). Fridges and freezers will be stored as whole items within a dedicated area (Refer *Drawing 04*).

The *Quarantine Area* will be provided with appropriate secondary containment (e.g. bunded pallets for some items), spill kits and fire extinguishers. All quarantined items will be transferred to an appropriately licensed waste contractor for off-site for recovery/treatment/disposal. *Rialta Environmental Limited* (a licensed hazardous waste contractor and a member of the *One51 Limited Group*), will be used for the majority of such waste transfers. The disposal facilities will vary depending on the waste stream, however, only appropriately licensed hazardous waste facilities will be considered.

H2.3 PROCESS FLOW SCENARIOS

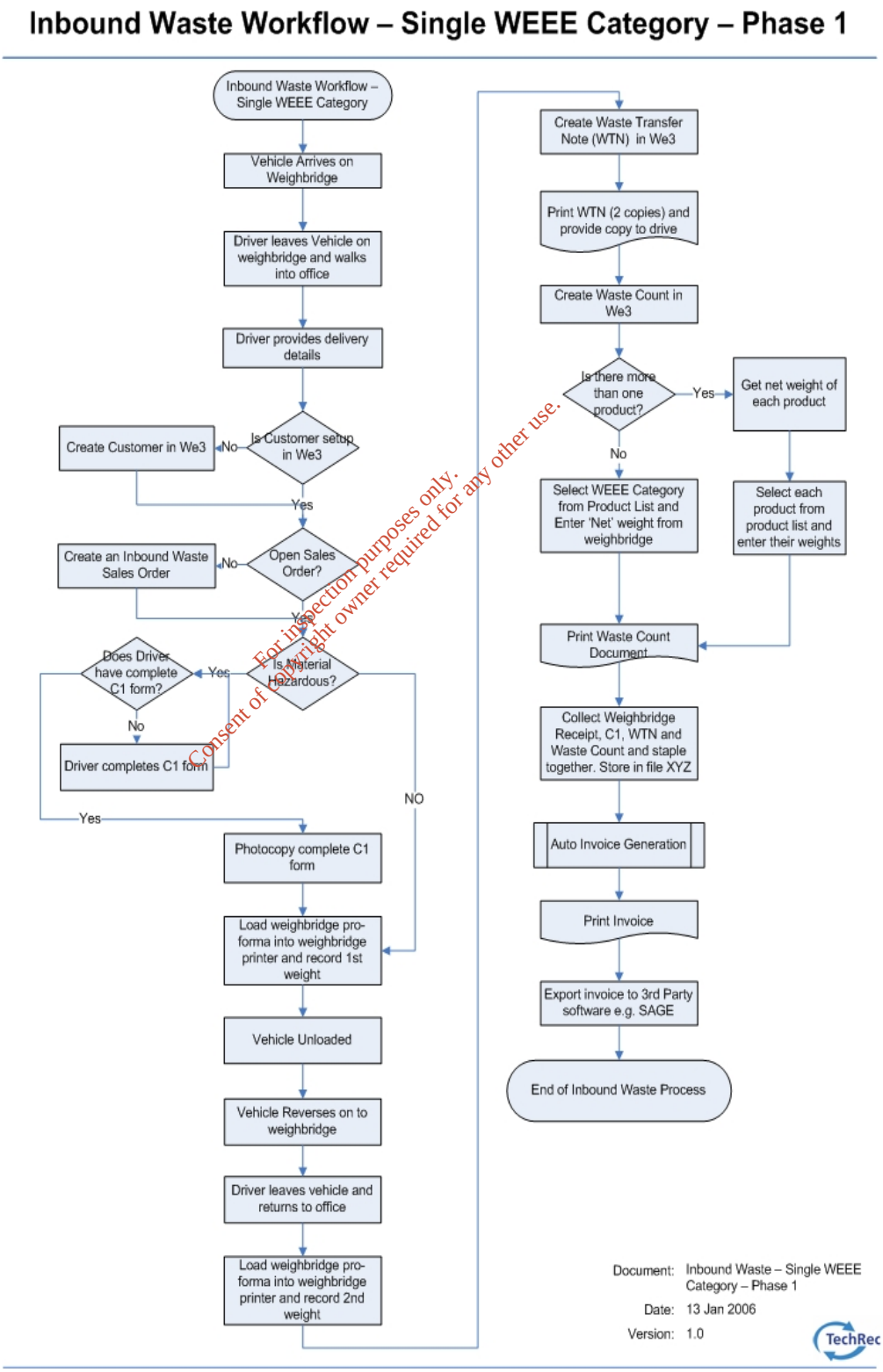
The following provides a four process flow diagrams to describe the main scenarios for the receipt, acceptance and flow of WEEE through the facility. This includes:

- Scenario A (Inbound) - Receipt and Processing of a Single Category or Segregated Categories of WEEE;
- Scenario B (Inbound) - Receipt and Processing of Non-segregated WEEE;
- Scenario C (Outbound) – Resalable Materials; and
- Scenario D (Outbound) – Waste Materials.

Scenario A

Receipt and Processing of a Single Category or Segregated Categories of WEEE

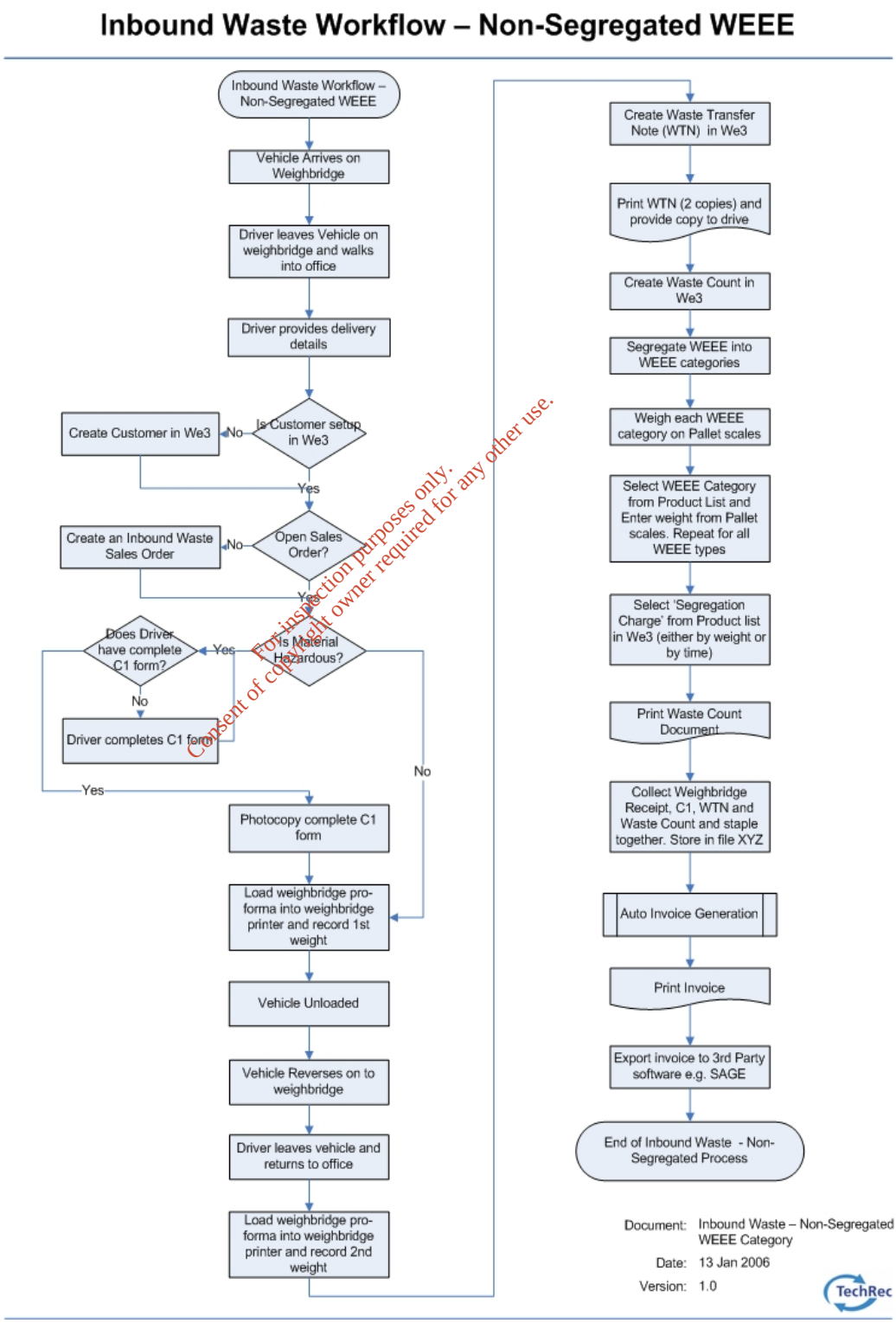
A consignment of single category, or appropriately segregated WEEE is delivered to the Site. Under this scenario, *TechRec* will charge the agent delivering the WEEE a set rate per kilogram of material delivered. All outputs of process remain the property of *TechRec*.



Scenario B

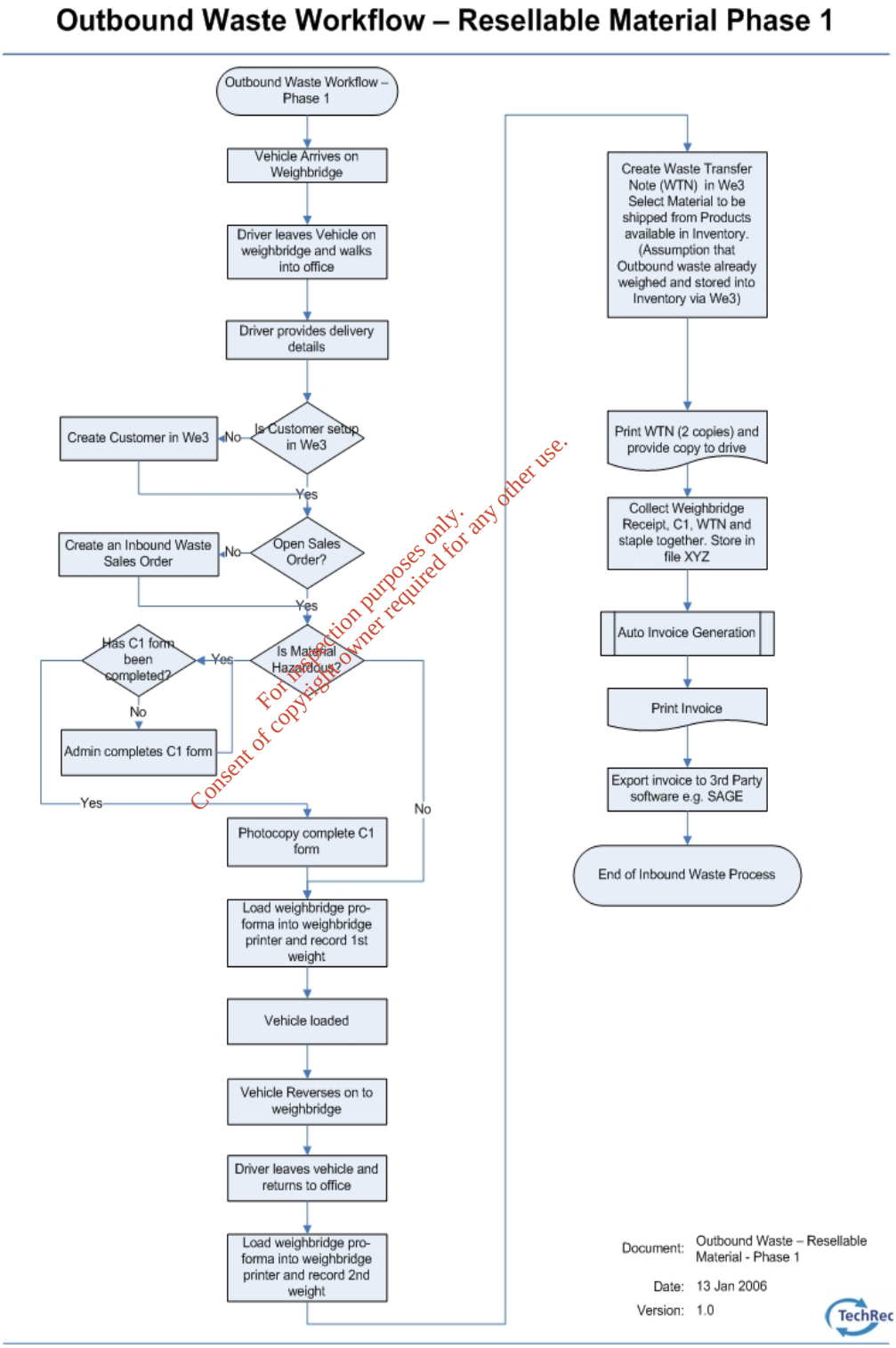
Receipt and Processing of Non-segregated WEEE

A consignment of non-segregated WEEE is delivered to the Site. *TechRec* will typically agree to receive the WEEE. However, an additional service charge will be applied to process such material (either by weight or by time incurred). All outputs of process remain the property of *TechRec*.



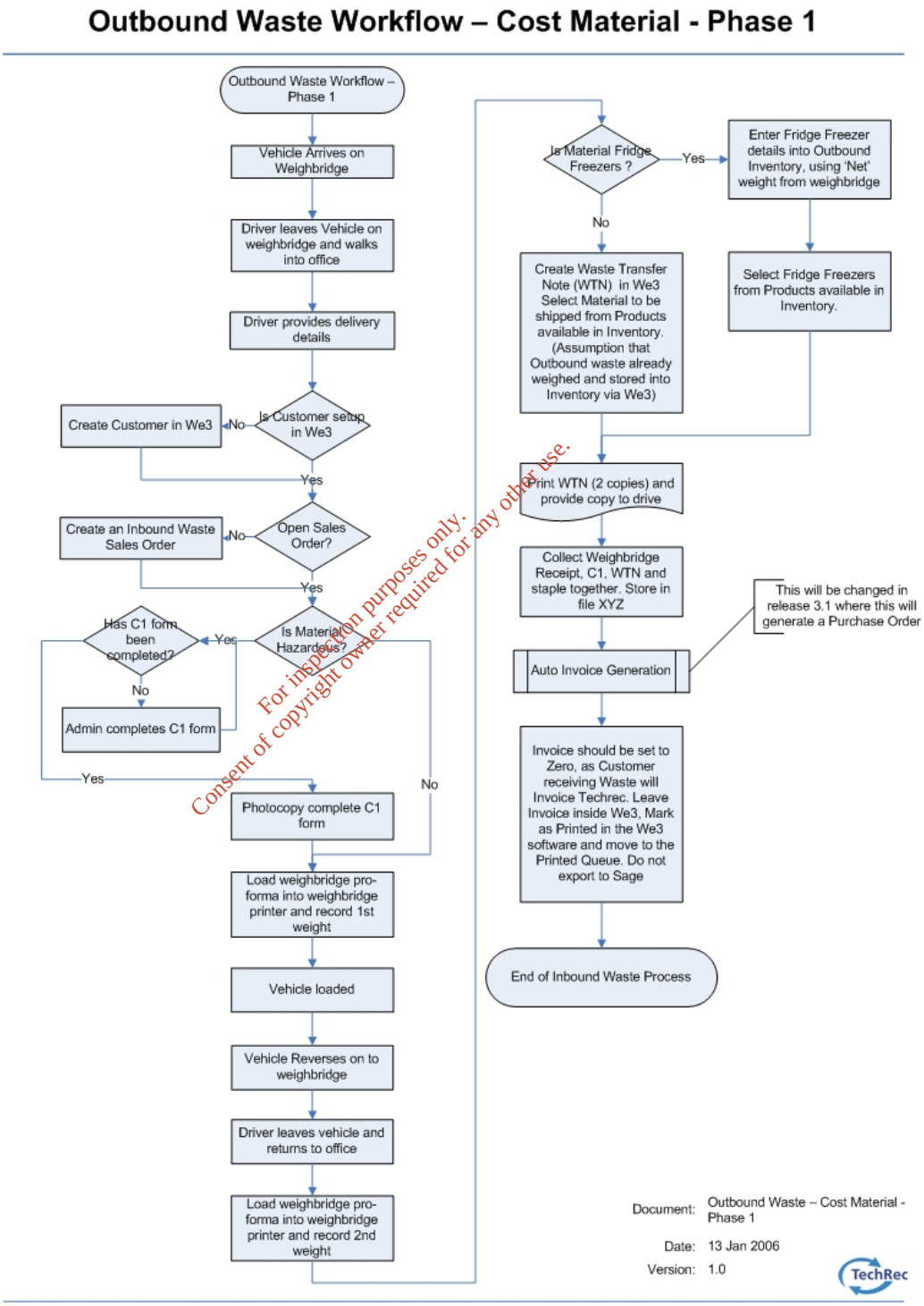
Scenario C
Distribution of Resalable Material

In this scenario, a consignment of processed material (e.g. segregated metals, plastics, glass) is collected from *TechRec* by a licensed contractor. *TechRec* will receive payment for the goods from the end-use customer (e.g. a smelter).



Scenario D
Disposal of Waste Materials

In this scenario, a consignment of non-saleable waste materials (e.g. oils) or potentially hazardous items (e.g. batteries) is collected from the Site by a licensed hazardous waste contractor. *TechRec* will be charged a fee for this service.



Waste Handling & Operating Procedures

Attachment H3

H.3. Waste Handling & Operating Procedures.

Segregated WEEE Category	Waste Handling	Operating Procedures
Small items of WEEE (e.g. toasters, hard drives, non-mobile phones etc)	Placed on an in-ground conveyer belt (H2.1) which delivers the WEEE through a vibrating chute (H2.2) to the QZ machine (Z2.1). After entering Module 2, the WEEE components continue through the process in a largely automated manner. There is no operator intervention required, other than at the manual sorting and picking stations. The operators will continuously monitor key aspects and controls mechanisms (e.g. temperature, conveyor speed, filter pressure drop etc) of the equipment from the control room.	**Operation of QZ Machine (Z2.1)** <u>Inspecting the machine:</u> Do not inspect the machine during operation. If possible, inspect the machine only after several hours of uninterrupted downtime with forced ventilation. <u>Before switching on:</u> Ensure that there are no people inside the unit before starting the machine. The following requirements must be met before work can commence: • Repair and maintenance work must be completed correctly. After a shift change, the new operator must confer with the previous operator and check the operating logbook for its recent history and alarms. • Check and replace the two chain beaters in the QZ if necessary. Always ensure that machine components and the working environment are clean and free of dust (fire prevention). Never place objects in the area around the motors or allow the machine to operate in a state that may prevent the electric motors from cooling properly. Ensure the motor housings are free of dust. <u>Operation and checks during operation:</u> The machine operation will always be supervised by suitably trained and qualified specialists. This will include: checking the input material for any unacceptable objects; checking the parameters displayed on the main control console; and constantly supervising the working equipment. Detecting faults at an early stage can prevent or minimise serious damage and machine downtimes. Monitoring the discharged material helps to prevent faults, as deterioration in the quality of the material may indicate a fault in the machine. If the machine overloads as a result of a fault, it will shut down or stop automatically to prevent serious mechanical damage. Automatic shutdowns are triggered by a motor circuit-breaker. It is importante to note that the rotating parts on the QZ continue to run for a period of time, after the machine is switched off. The machine can be started again once all of the listed requirements and operating conditions have been met. The operator will wear appropriate noise protection when inspecting the soundproof booth while the QZ is operating, and inspection will be performed every 15 minutes. All WEEE will be inspected prior to being fed into the QZ machine, and items with the following components will be dismantled by hand or excluded from the shredding process: • Adhesive and resinous composites;

Segregated WEEE Category	Waste Handling	Operating Procedures
		• Composite materials in fluid or viscous form; • Excessively damp materials; • Individual pieces that exceed 800 mm in length or have an edge length that exceeds 400 mm; • Individual pieces weighing more than 30 kg; • Unprocessed material that cannot be reduced sufficiently in the cross flow shredder because of its fracture characteristics (e.g. solid rubber); • Some plastics, depending on quantity and mixture ratio; and • Materials that melt when heated. **QZ Drive unit:** The QZ Machine is powered by a three-phase motor. There is a V-belt pulley (with a reduction ratio of approximately 1-2 at 50 Hz mains frequency) on both the motor shaft and the drive unit, which are connected by two quadruple V-belts. The electric drive system of the CFS is activated when a release signal is issued. The drive should not be switched on and off manually during the shredding cycle. A built-in temperature sensor fitted to a retaining thread, monitors the temperature of the drive unit. The QZ will be shut down if the temperature of the bearing unit exceeds 95 °C during operation. <u>Automatic operation preparation:</u> Choose key switch on position 'Auto', press 'reset' button once. Ensure the following conditions are met: • All mechanic/electric operating units are in a functional state; • No emergency shut-down systems are operational; • Air pressure at compressor and jet-filter is within the specified limits; • No release lines have been triggered and all doors and covers are shut; and • The receiving Modules are is in operation. If the plant is ready to be started, the start button will glow and then flash every 1.6 seconds. If the plant is not ready the red stop button will flash. <u>Automatic operation (starting):</u> Start sequence at the Human Interface (HMI): Press start-up warning  , the signal lamp on  the right screen edge will appear and the signal horn rings. As soon as the signal lamp glows permanently, the green  can be pressed. <u>Start sequence on the spot:</u> Press start up warning, the signal lamp flashes every 1.0 sec, and the signal horn rings. As soon as the

Segregated WEEE Category	Waste Handling	Operating Procedures
		signal lamp glows permanently, the green Start button can be pressed and the plant module starts to drive. <u>Stop sequence at the HMI or on the spot:</u> The following incidences result in a stopping of the drives: • the stop button is pressed; • a release line(s) is pulled; • at least one drive within the module isn't working; or • compressed air at the jet-filter or compressor is below the minimum pressure.
Large items of WEEE (e.g. washing machines, photocopiers etc).	Manual dismantling prior to processing in Module 2.	Manual dismantling takes place at the 'waste intake and sorting area' where items such as batteries, mercury switches etc, are removed. Where possible, these large items will also be dismantled into smaller pieces (e.g. by cutting or unscrewing sections). The dismantled WEEE is then placed on the in-ground conveyer (H2.1) which delivers the WEEE to Module 2 through a vibrating chute (H2.2) to the Cross Flow Shredder (QZ) machine (Z2.1), as described above.
WEEE containing Cathode Ray Tubes (CRT's) (e.g. computer monitor, TV screens etc)	Placed in the CRT storage area prior to being processed through a specialist separation unit. The separation of the CRT into its constituent parts is carried out in a specialised unit. The full details of the processing unit are provided in *Attachment D2*.	The CRT separator is designed to disassemble the CRT into its two main glass parts, namely Funnel Glass and Panel Glass. This is undertaken in a part manual, part automatic system. The 'electric gun discharge' unit is also removed at this stage as a separate waste stream. Additional manual separation before, and after, the CRT separator helps segregate a number of waste streams for recycling, including: plastics (e.g. the TV cover); metal (e.g. stands and brackets) and wiring/caballing. The residual WEEE is placed on the in-ground conveyer (H2.2) and is delivered to Module 2 as previously described.
WEEE containing oils (e.g. non-PCB containing transformers, electrical heaters, hydraulic systems etc)	WEEE that has been drained of oil/water is placed on the in-ground conveyer (H2.1) and is delivered to Module 2 as previously described. It is noted that some larger items may also go through Module 1 after being drained for a degree of manual dismantling.	As described above.
CFC containing equipment	Stored in a dedicated 'Fridge and Freezer Area' in the *Quarantine Area* prior to being transferred to an appropriately licensed treatment facility.	These items are not processed onsite.

Segregated WEEE Category	Waste Handling	Operating Procedures
Fluorescent light tubes	The Operator is considering the use of a mobile treatment plant to process the light tubes. This would not be undertaken without the submission of addition information to the Agency and receipt of their prior written approval. A summary of the process is provided in *Attachment D2.* At the present time, the light tubes will be collected and sent offsite for further processing.	Will be operated and monitored by the owner of the mobile plant, if and when it is used on the Site.
The Fine Fraction - which refers to that fraction separated at the Splitting Drum Separator (F2.7)	Proceeds via a conveyer belt (H3.8) to a Ripple Chute (H3.9) where the material is exposed to impulses from bottom of the trough, conveying it towards the end of the trough in a projectile motion. At the same time, the material is distributed over the width of the trough. 'Unbalanced' motors are used to vibrate the trough multi-directionally to help separate the heavier and lighter fractions. The material then passes over a belt Magnetic Separator (F3.9) which removes ferrous material (*waste stream 3.5*) which is sent to B3.1 for further hand sorting. The remaining material then passes through a Drum Magnetic Separator (F3.10). The ferromagnetic parts contained in the feed material are magnetized by the fixed magnetic field inside the drum and stick to the rotating drum rotor. The bars welded onto the drum entrain the adhered material and move it out of the magnetic field. As a result of gravity and centrifugal force, the magnetic material drops directly down from the drum shell, while the non-magnetic material is discharged from the drum in a parabolic motion. These two product streams can be separated by means of adjustable separating sheets or corresponding positioning of the collection devices. The ferrous material is collected as a *waste stream 3.5* and sent to B3.1 for further	**Operation of Ripple Chute (H3.9):** On initial operation check each of the following: • All screw connections prior for correct initial tension using a torque wrench. Loose screw connections can quickly cause fatigue fractures and cause machine damage; • Set the balance motor's direction of rotation in accordance with the Operating Manual; • For troughs equipped with exciter magnets, follow the manufacturer's specifications according to the provided operating manual; • Adjust the unbalance motor power level as required, according to the Operating Manual; and • Set the motors' direction of rotation in accordance with the Operating Manual. **Operation of Drum Magnetic Separator:** On initial operation check each of the following: • The outside of the drum for adhering foreign matter; • The fastening of the motor; and • Chain tension and install chain guard if available, observe arrows indicating the direction of rotation. **Operation of non-ferrous metal separator:** On initial operation check each of the following: • The situation of the eccentric magnet system with the pole drum; • The rotational speed of the eccentric magnet system; • The inclination of the pole drum frame with the conveyor belt; • The belt speed; and • The vertical and horizontal position and the inclination of the conveyor channel: - The speed of the conveyor channel drive, - The position of the separating vertex (optional). **Operation of Module 3:** Position key switch on 'Auto', then press 'reset' button once. If the following conditions are met the plant is ready to be started:

Segregated WEEE Category	Waste Handling	Operating Procedures
	hand sorting. The non-ferrous fraction then passes onto another Ripple Chute (H3.10) to a Non-ferrous Metal Separator (F3.11).	• All mechanic/electric operating units are in a functional state; • No emergency shut-down systems are operational; • Air pressure at compressor and jet-filter is within the specified limits; • No release lines have been triggered and all doors and covers are shut; and • The receiving Modules are is in operation. The start button glows if the plant is ready to be started, then flashes every 1.6 seconds. The red stop button glows if the plant is not ready to be started. <u>Automatic operation (starting):</u> Start sequence at the Human Interface (HMI): Press start-up warning  , the signal lamp on  the right screen edge will appear and the signal horn rings. As soon as the signal lamp glows permanently, the green Start button  can be pressed. <u>Start sequence on the spot:</u> Press start up warning, the signal lamp flashes every 1.0 sec, and the signal horn rings. As soon as the signal lamp glows permanently, the green Start button can be pressed and the plant module starts to drive. <u>Stop sequence at the HMI or on the spot:</u> The following incidences result in a stopping of the drives: • the stop button is pressed; • a release line(s) is pulled; • at least one drive within the module isn't working; or • compressed air at the jet-filter or compressor is below the minimum pressure.
Ferrous Fraction	The manual sorting station is made up of a Silo (B3.1), Ripple Chute (H3.13) and Conveyor (H3.14). Materials removed at this stage may include batteries, capacitors, metal fractions that can be sent for reuse, material to be returned to H2.1 and material to go to B4.1. More details on the waste separation at this stage are presented in *Attachment H.4*.	**For operation of Ripple Chute (H3.12) see (H3.9).** On initial operation check each of the following: • All screw connections prior for correct initial tension using a torque wrench. Loose screw connections can quickly cause fatigue fractures and cause machine damage; • Set the balance motor's direction of rotation in accordance with the Operating Manual; • For troughs equipped with exciter magnets, follow the manufacturer's specifications according to the provided operating manual; • Adjust the unbalance motor power level as required, according to the Operating Manual; and • Set the motors' direction of rotation in accordance with the Operating Manual.
Non-ferrous Fraction	Passes onto a Ripple Chute (H3.10) to a Non-ferrous Metal Separator (F3.11). The Non-	

Segregated WEEE Category	Waste Handling	Operating Procedures
	ferrous Metal Separator (F3.11) incorporates a rapidly rotating permanent magnet pole system. The fast alternating frequency of the magnetic field produces strong eddy currents in the non-ferrous metals which, in turn, produce magnetic fields with a repulsing effect to the external magnetic fields. The non-ferrous parts are ejected from the remaining material flow. Material removed at this stage is identified as *waste stream NE II 3.3* (Cu, Zn, Pb, Ms, Al) and is directed to a second manual sorting station (B3.1).	
Material that has not been removed at the Non-ferrous Metal Separator (F3.11)	Fed via a Ripple Chute (H3.12) to a Density Separator (F3.12) which separates the material into light and heavy fractions, of which the heavy fraction is sent to the manual sorting station (B3.1) for further sorting. The Density Separator (F3.12) separates products of different specific weights, regardless of their size. The closer the particle sizes of the product, the greater the accuracy of separation. The product stream fed into the density separator is evenly spread onto the lengthwise inclined working screen, by means of a spreading device. Compressed air is blown through the screen from underneath by a fan (V3.3). The air from underneath makes the products move in a flow-like state. Material of a higher specific weight settles onto the screen, where the eccentric drive supplies the screen with movement to transport this fraction towards the upper part. Material of lower specific weight floats to the surface where it is moved towards the lower end of the screen.	**Operation of Density Separator (F3.12):** First, switch on the ventilator drive. Second, when the ventilator has reached its final speed, switch on the eccentric drive. To switch the machine off, reverse this sequence and switch off the eccentric drive first, followed by the ventilator. If this sequence not adhered to, too much material will be transported towards the heavy parts discharge. During feed, ensure that the material is distributed evenly over the entire width. Only restrict the air as long as the heavy parts are moving upwards and are discharged into the open or to upstream units via the heavy parts discharge. With certain products, the machine has to be operated over a longer period of time until enough heavy material has accumulated on the upper part for it to be discharged. If light material is discharged together with the heavy material, increase the amount of air. In general, the following applies: • Too much light material in the heavy parts discharge. - Increase the amount of air. • Too much heavy material in the light parts discharge. - Decrease the amount of air. If all the heavy parts accumulate on one side, check if the working screen is installed absolutely horizontally. It may be necessary to readjust the machine. If the working screen is absolutely horizontal, check the direction of vibration. If the working screen vibrates to the side, the movement may become uneven and the material will drift to the side. Another possible cause could be uneven air distribution. If in spite of opened air registers, light material is transported to the heavy parts discharge, the working screen may be clogged. It is necessary to clean the working screen at regular intervals, depending on the type of material. **Screen replacement/screen cleaning** The machine has both an automatic mode and a manual mode (for switching individual motors). This allows the eccentric drive to be switched on while the ventilator is switched off, so that the working screen can be cleared of material automatically, i.e. the material moves towards the heavy parts

Segregated WEEE Category	Waste Handling	Operating Procedures
		discharge and the working screen can be easily removed for cleaning. **Exchanging/cleaning of the working screen** Proceed as follows: • Open the cover on the heavy parts side by opening the two locking clamps (1). • Loosen the two wing screws (2). • Slide the screen holder (3) up and retighten the wing screws (2). • Pull out the air distribution screen (4) by the handle. • Pull out the working screen (5) and clean or replace it. • Reinsert the working screen. • Loosen the wing screws, slide in the screen holder, and retighten the wing screws – working screen and air distribution screen are now in place again. • Close the cover on the heavy parts side by closing the two locking clamps (1).
The light fraction from Density Separator (F3.12) and Cyclone (F3.15) and the fraction separated out at the Module 3 manual sorting station (B3.1)	Deposited in the Feeding Bin and Belt (B4.1 and H4.1) which feeds the Hammer Mill (Z2.1) which crushes the material to a finer grain size. Prior to the Hammer Mill, the material travels along a conveyor belt (H2.1) to a manual picking station (H4.8) where batteries, capacitors etc are removed as indicated in the process flow diagram, *Drawing 16* and detailed in *Attachment H.4*. The residual material then travels along a conveyer belt (H2.2) and vibrating chute (H2.3) to the Hammer Mill (Z2.1). Crushing takes place between two rotating hammers and the fixed deflection bars, located inside the chamber. The grain size depends on the size and type of the exchangeable grids. The Hammer Mill is enclosed in a sound proof room of similar construction to that used on the QZ (Z2.1) and noise levels outside the room are recorded by the manufacturers as being less than 85dB (refer to the Manual). The material is circulated 3 times through the Hammer Mill, and is then sent to Screening Machine RSM 500/1300 (F4.7). Crushed material leaving the Hammer Mill travels along a Ripple Chute (H4.4) to a Zig Zag Classifier (F4.1). The Zig Zag Classifier	**Operation of the Hammer Mill (Z2.1):** The material to be crushed is transported to the mill by the conveyor belt. The crushing takes place between two rotating hammers and the fixed deflection bars, located inside the chamber. The grinding fineness depends on the size and type of the selected exchangeable grids. The material is either discharged mechanically via screw conveyors, belt conveyors or trough conveyors, or pneumatically. **Sequence for switching the machine on:** 1. Switch on suction; 2. Switch on material discharge; 3. Switch on hammer mill, await the maximum speed; and 4. Switch on material feed. **Sequence for switching the machine off**: 1. Switch off material supply; 2. Let hammer mill run empty, then switch it off; 3. Switch off material discharge; and 4. Switch off suction. **Operation of the Screening Machine (F4.7):** Upon initial operation: • Check all screw connections of the screening machine prior to initial operation for correct initial tension using a torque wrench. Loose screw connections can quickly cause fatigue fractures and thus machine damage.

Segregated WEEE Category	Waste Handling	Operating Procedures
	(F4.1) operates on the principle of cross-flow and up-current separation. Air, injected from the bottom via a slide valve, flows through the material falling into the feed shaft, removing light material and fine dust in the air current. Due to the specially designed form of the classification area, the falling material circulates and collides with the zigzag edges of the classifier several times. This process removes most of the dust and light materials. The degree of separation depends on the number of cascades, the amount of air removed by the ventilator and the type and amount of feed material. Dust and light material removed from this process pass through an abatement system which is described below in the *Air Emissions* section of *Attachment D2*. Material from the Zig Zag Classifier (F4.1) passes to a Ripple Chute (H4.5) and a Drum Magnetic Separator (F4.6). Ferrous material is removed by the Drum Magnetic Separator in the same manner as described in Module 3 (F3.10) and is collected as *waste stream 4.5,* detailed in *Attachment H.4*. The remaining material passes along a conveyor (H4.6) at which point it is either, re-circulated back to the hammer mill via conveyor belt H4.7 or is sent to a Screening Machine RSM 500/1300 (F4.7). Unbalanced motors are used to vibrate the screening machine and the material is exposed to impulses which convey it towards the discharge point in a projectile motion. Grains smaller than the width of the screen pass through it and are transported to the collection point for this sized fraction. Three *waste steams 4.1, 4.2 and 4.3* are collected as indicated in the process flow *Drawing 18* and detailed in *Attachment H.4*. The waste fractions are stored until there is sufficient quantity to process that particular fraction through the	• Check and set the balance motor's direction of rotation according to the specifications stated in the unbalance motors' operating manual. • Check screen surface for correct initial tension. **Operation of the Zig Zag classifier (F4.1):** 1. Open the zigzag classifier and check for foreign matter 2. Switch on suction 3. Switch on discharge 4. Switch on material supply Switch-off sequence: 1. Switch off material supply 2. Switch off discharge 3. Switch off suction

Segregated WEEE Category	Waste Handling	Operating Procedures
	Air Jig (F5.1) to provide even greater separation to the product streams.	
High density metal fractions (*waste stream 4.1*), low density plastic fractions (*waste stream 4.2*), low density metal fractions (*waste stream 4.3*), cyclone/filter dust (*waste stream 4.4*).	The Air Jig separates products of different specific weights, regardless of their size. The closer the particle size range of the product, the higher the separation accuracy. The product being fed into the density separator is spread onto the lengthwise inclined screen by means of a Ripple Chute (H5.1) and conveyor belt (H5.2). Compressed air is blown through the screen from underneath by a fan (V5.1). As described previously, the eccentric drive supplies the working screen with movement for transport of heavier material towards the upper part of the screen, while the lighter fraction 'floats' to the bottom part of the screen. A fan (V5.2) removes out the air from the machine ensuring that the amount of air removed always exceeds the amount of air blown in, so that a slightly negative pressure is maintained. This helps prevents dust from escaping the machine.	For operation of Density Separator refer to the description for (F3.12), for operation of Ripple Chute (H5.1) refer to the description for H3.9 and for operation of Conveyor belt (H5.2) refer to the description for (H3.14).
Material from the air abatement system (F4.2 and F4.5) for the ZigZag Classifier (F4.1)	Further processed through the Electrostatic Separator (F6.1) to remove metallic material. The Electrostatic Separator can be used for granular products with a density of 1-3 g/cm^3 and a grain size of 0.1 to 3 mm. Once sufficient material is collected, it is placed in a Silo (B6.1) and fed via Conveyor (H6.1) onto a rotating and earthed drum. The material mixture comes into the corona electrode field and a static field electrode (to improve the separation effect). The material is charged electro-statically in the corona field (a high voltage field). Conductive materials with good surface conductivity loose their charge quickly and are discharged from the drum as it revolves. Non-conductive materials, with less	**Operation of the Electrostatic Separator:** The separator operates in two modes automatic and manual. Automatic mode: 1. Unlock Emergency stop, 2. Switch key 1 into auto mode position, 3. Turn main switch to on position, 4. Press Start button The red warning lamp on the control cabinet turns on. The separator will only start if the key switch is in the auto position and all doors are closed. Manual mode: When running the manual mode, all electric locks in the auto mode that are used for the protection of the technical sequence and machine parts, are cancelled. For this reason, in manual mode accuracy and attention by the operation staff is required. The manual mode is only used in exceptional cases and is chosen for adjustment, maintenance and inspection works. It can also be run with open housing doors. **Start**:

Segregated WEEE Category	Waste Handling	Operating Procedures
	surface conductivity, hold a charge for a longer and remain on the drum. Non-conductive materials, which are not de-charged while on the drum, move into the neutralising electrode field. The material will be then de-charged will subsequently fall off the drum. (Non-conductive material which does not fall off the drum is brushed off). As a result of the separation there are three products: conductive, non-conductive and mixed product. These are categorised as *waste streams 4.1* and *4.2*, details of which are provided in *Attachment H.4*.	1. Unlock emergency stop, 2. Turn key switch one to position 'manual' (in this position is is not possible to remove the key, 3. Turn main switch to 'on' position It is possible to start the following by using buttons 1 to 13 independently : High voltage 1 for corona and field electrode, high voltage 2 for neutralising electrode, upper and lower drums, upper and lower vibration feeders and the auger feeders. Manual mode is only possible if key switch one is in 'manual' position and all doors are closed. **Stop**: 1. Turn key switch one to 'auto' and remove key, close and lock door of control tableu (protection against unauthorized operation), 2. Switch main switch top 'off' position. It is possible to switch off the Electrostatic Separator independently by using buttons 1 to 13 independently: High voltage 1 for corona and field electrode, high voltage 2 for neutralising electrode, upper and lower drums, upper and lower vibration feeders and the auger feeders. For Operation of Silo (B6.1) and Conveyor (H6.1) refer to the descriptions for Silo (B3.1) and Conveyor (H3.14).
Air emissions containing entrained metal and plastic dusts from the Hammer Mill (Z4.1), Zig Zag Classifier (F4.1) and Picking Station (H4.8).	Drawn through an air abatement system by a fan (V4.1) and are initially ducted to a Multicon Sifter Type MKS (F4.2). The sifting is based on the principle of cross-flow and up-current separation. The material is sucked into the feed shaft and is deflected at the central point inside the sifter. It is then distributed sideways via a central distribution cone. Simultaneously, air is drawn in via a scavenging air valve and flows through the material centrally (from the base). Dispersible light material is entrained by the upward air current and is separated in the subsequent filter. The expansion of the sifting area towards the top reduces the air velocity causing light material to drop down along the sifter walls. This will be removed in the lower part of the sifter via a lateral belt of air ports. This air stream air separates further fine particles from the light material which are transported to a High Performance Cyclone (F4.3). The interaction of the air currents and vortexes inside the sifter, together with the	**Operation of module 4:** Automatic start at HMI and on the spot start – same as modules 2 and 3. Stop sequence also occurs at HMI or on the spot: The following incidences result in a stopping of the drives: • the stop button is pressed; • the HM react due to overload or blocking; • the emergency stop button is pressed; • violent opening of a safety door or cover; • voltage breakdown; • bus fault in the controlling system; or • fire alarm. **Operation of Multicone Sifter Type MK (F4.2):** <u>Initial operation:</u> • Open the multicone sifter and check for foreign matter • Check the central distribution cone for a tight fit <u>Switch-on sequence:</u> 1. Switch on suction 2. Switch on discharge 3. Switch on material supply

Segregated WEEE Category	Waste Handling	Operating Procedures
	zigzag walls of the sifter housing leads to strong material circulation and contact. The discharged material passes through a Screening Machine RSM 500/1300 (F4.5) which operates as described previously. There are three waste streams collected as shown in the process flow diagram, *Drawing 18*, which are either sent to the Electrostatic Separator (F6.1); back to the Hammer Mill (Z4.1) for further processing, or is discarded as *dust waste stream 4.4 (*refer *Attachment H.4)*. The decision to whether to reprocess or discard the material depends on the judgement of the operator.	<u>Switch-off sequence:</u> 1. Switch off material supply 2. Switch off discharge 3. Switch off suction **Operation of High Performance Cyclone (F4.3)**: <u>Initial operation</u> 1. open the cyclone and check for foreign matter 2. check central shielding cone for tight fit 3. Switch-on sequence: 4. Switch on suction 5. Switch on discharge 6. Switch on material supply <u>Switch-off sequence</u>**:** 1. Switch off material supply 2. Switch off discharge 3. Switch off suction
The light fraction drawn off from the Multicon Sifter (F4.2)	Passes through a High Performance Cyclone (F4.3) which operates on the same principal as the cyclone in the Module 2 (F2.5) air abatement system. The *waste stream 4.4* from the cyclone is collected for disposal (refer *Attachment H.4)*. The remaining air passes through a Tube Jet Filter (F4.4) which is a duplicate of unit described in Module 2 (F2.6). This removes the dust before the gas is exhausted to the atmosphere via stack (A1-1), with an emission point 3m above roof level.	**For operation of High Performance Cyclone (F4.3) see above.** **Operation of Tube Jet Filter (F4.4):** <u>Initial operation for the micro-filtration:</u> 1. Before initial operation, please check the fit of the filtering jig and also test it for leaks. 2. The rated air flow must to be adjusted at every filter system, otherwise a filter overloading occurs and the filtering material can be damaged. The initial resistance of the new filtering material is < 1 mbar. 3. With grinding products of < 5 µ, the coarse product is used as a primary coat and provides a filter resistance of about 4 mbar. Fresh product should not to be introduced until then. 4. A radial ventilator, which is topped to the filter, is to be adjusted precisely with the air of the grinding and the air of the injector. 5. A new radial ventilator with felt ring sealing at the shaft will leak around 5 – 7 % of the input air. 6. During initial operation, the pause time of the filter de-dusting should be adjusted to match the filter resistance. Adjust the top working point at 5 – 8 mbar initially. Filter differential pressures between 10 – 12 mbar are normal during operation. **Filters:** <u>Installation and change of tube – Via the Top</u>

Segregated WEEE Category	Waste Handling	Operating Procedures
		First ensure that the outer grounding is detached. To install the filter tubes open the Toro spherical head. The blast pipes, (which are lodged to the bottom sheet) have to be dissembled, and it t is essential to observe the sequence of disassembly. For Filters with electrical links, it is necessary to remove the skinner from the clamp. Pull the injector nozzle out of the holding device of the cage injector tool slanting to the top. Then the supporting case can be pulled out of the filter tube, straight and slowly. Never remove the filter tube and the supporting cage at the same time, or on an angle. Finally, pull the filter tube out of the bottom of the tube approx. 10 cm, compress it and pull it out slowly and slant to the top without letting the filter tube drag at the bottom of the tube. To insert the new filter tube into the bottom of the tube, compress the filter tube at the bottom. Then insert it without touching the bottom of the filter. Then insert the supporting cage into the filter tube. Please do not insert the filter tube and supporting cage at the same time. Press the injector nozzle with the ring collar into the retainer on one side and then the other side. If it is too hard to do by hand, use a rubber mallet. For Filters with electrical links it is necessary to attach the skinner onto the clamp on the injector nozzle. The blast pipes have to be re-assembled in the same sequence, and the filter door or Toro spherical head closed and locked. The outer grounding has to be reattached. If dust deposits occur at the bottom of the filter in the cage, check if all tubes are installed properly. If they are, the filter material is most likely damaged and the tube must be changed again. <u>In summary, the following sequence should be undertaken when changing filter tubes:</u> a. switch off the main fan; b. Open the filter door; c. remove blast pipes; d. pull out injector nozzles ; e. pull out supporting cage; f. pull out the tube; and g. assemble new tube. <u>Installation and change of tube – SIDE REMOVAL:</u> First open the filter door. The filter tubes are mounted to the bottom of the tube through hose clips. Unfasten the hose clips and dismantle the filter tube including the supporting cage by light canting downward. When mounting, the supporting cage is to be installed into the filter tube. The filter tube, which projects ontop, is to be turned down into the supporting cage. Attach both parts onto the holder of the supporting cage through hose clips, until the supporting cage snaps in. Fasten tight the hose clip again. For Filters with electrical links it is necessary to attach the clamp onto a skinner on the cage. If dust deposits occur at the bottom of the filter, check if all tubes are installed properly. If they are, the filter

Segregated WEEE Category	Waste Handling	Operating Procedures
		material is most likely damaged and the tube must be changed again. <u>In summary, the following sequence should be undertaken when changing filter tubes:</u> a) switch off the main fan; b) open the filter door; c) pull out the tube ; d) pull out supporting cage; and e) assemble new tube.
The air drawn out of the Air Jig by the fan (V5.2)	Is passed through a Vibrating Filter 200/36 (F5.2) which is a duplicate of the Vibrating Filter (F3.14) described in Module 3. This removes entrained particulates prior to discharging the air back into the building. Details of the disposal route for the collected filter dust fraction, *waste stream 4.4* are provided in *Attachment H.4.*	**Operation of Vibrating Filter (F5.2):** <u>Installation and initial operation:</u> The filter must be installed in a torsion-proof rack and bolted tightly. The hoses must be fastened with hose clamps. Make sure the hoses are not twisted and are installed tightly. The dust outlet (if not already discharged by means of cellular wheel sluice or similar devices) and inspection doors must be closed tightly. The vibrator motors must be securely bolted according to the manufacturer's specifications. <u>The filter should be started up in the following sequence:</u> 1. Dust discharge unit 2. Vibrator 3. Main ventilator
The air drawn out of the Electrostatic Separation unit by the fan (V6.1)	Removes the light dust fraction and passes it through a Vibrating Filter (F6.2). Details of the disposal route for the collected filter dust fraction, *waste stream 4.4* are provided in *Attachment H.4.*	For operation of the Vibrating Filter (F6.2) see above (F5.2).

Annex H4-1 Waste Collection Permits

Headquarters
P.O. Box 3000
Johnstown Castle Estate
County Wexford
Ireland

WASTE LICENCE

HAZARDOUS WASTE TRANSFER FACILITY

Waste Licence
Register Number: 184-1
Licensee: Atlas Environmental Ireland Limited

Location of Facility: Clonminam Industrial Estate, Portlaoise, County Laois

INTRODUCTION

This introduction is not part of the licence and does not purport to be a legal interpretation of the licence.

Atlas Environmental Ireland Limited currently holds an IPC Licence (Reg No. 472) to refine and reuse waste oils, recover waste oil filters, treat oily solid wastes and treat/bioremediate contaminated soils at their facility in Clonminam Industrial Estate, Portlaoise, County Laois. Atlas Environmental have applied to review their existing IPC licence by applying for a Waste Licence in order to expand the range of waste activities carried out at the facility in the future. The acceptance and processing of oil based waste and oil contaminated soils waste will continue at the facility.

The new licence will enable Atlas Environmental to expand into the hazardous waste transfer business, to recover wastewater sludges by a new sludge drying facility, and treat/transfer additional waste materials, which derive mainly from the automotive services sector in addition to treatment of waste acid/base solutions and waste electronic goods (WEEE).

This licensee is required to manage and operate the facility to ensure that the activities do not cause environmental pollution. The licensee is required to carry out regular environmental monitoring and submit all monitoring results, and a wide range of reports on the operation and management of the facility to the Agency.

This licence sets out in detail the conditions under which Atlas Environmental Ireland Limited will operate and manage the facility.

This licence is being granted in substitution for the Integrated Pollution Control Licence granted to the licensee on the 27 January 2000 and bears Waste Licence Register No: 184-1. The previous Integrated Pollution Control Licence (Register No: 472) is superseded by this licence.

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DECISION & REASONS FOR THE DECISION

Reasons for the Decision

The Environmental Protection Agency (the Agency) is satisfied, on the basis of the information available, that the waste activity, or activities, licensed hereunder will comply with the requirements of Section 40(4) of the Waste Management Act, 1996.

In reaching this decision the Agency has considered the application and supporting documentation received from the applicant, a submission and an objection received and the reports of its inspectors.

Part I Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Act, 1996, the Environmental Protection Agency (the Agency), under Section 46(2) of the said Act hereby grants this Waste Licence to Atlas Environmental Ireland Limited to carry on the waste activities listed below at Clonminam Industrial Estate, Portlaoise, County Laois subject to conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Act 1996

Class 6.	**Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule:** This activity is limited to the biological treatment and remediation of contaminated soils, hazardous contaminated soils or other associated organic material.
Class 7.	**Physico-chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcination) which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule (including evaporation, drying and calcination):** This activity is limited to the drying of non hazardous sludge, the shredding of waste tyres, separation of hydrocarbon sludges into oil, water and sludge fractions, and other waste treatment activities subject to the agreement of the Agency, prior to the subsequent disposal of segregated fractions off site.
Class 12.	**Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule:** This activity is limited to the compaction and repackaging of waste prior to disposal off site.
Class 13.	**Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned was produced:** This activity is limited to storage and bulking of waste prior to disposal off site.

Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Act 1996

Class 2.	**Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes):** This activity is limited to the reclamation and remediation of contaminated soils, hazardous contaminated soils, or other associated organic material by soil treatment on site or export off-site for processing at a licensed facility for further reuse. This activity can also refer to other waste treatment activities subject to the agreement of the Agency, and the subsequent recovery of segregated fractions.
Class 4.	**Recycling or reclamation of other inorganic materials:** This activity is limited to the shredding and recovery of tyres and other inorganic materials, as agreed by the Agency.
Class 5.	**Regeneration of acids or bases:** This activity is limited to the reconditioning of acids or bases for reuse.
Class 8.	**Oil re-refining or other re-uses of oil:** This activity is limited to the recycling and treatment of waste oil and waste fuel, and the separation of hydrocarbon sludges, into oil, water and sludge fractions, and the subsequent recovery of segregated fractions, and the re-refining of other oils subject to the agreement of the Agency.
Class 9.	**Use of any waste principally as a fuel or other means to generate energy:** This activity is limited to the use of recovered oil as a fuel for the generation of power or steam.
Class 11.	**Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule:** This activity is limited to the use of waste obtained from any activity referred to in a preceding paragraph of this Schedule for onward recovery, on or offsite, subject to the agreement of the Agency.
Class 12.	**Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule:** This activity is limited to the recovery of oily solid wastes and used filters for onward recovery.
Class 13.	**Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced:** This activity is limited to the storage of waste materials at the facility prior to on site recovery or consignment to off site recovery facilities.

INTERPRETATION

All terms in this licence should be interpreted in accordance with the definitions in the Waste Management Act, (the Act), unless otherwise defined in this section.

Adequate lighting	20 lux measured at ground level.
Agreement	Agreement in writing.
Annually	At approximately twelve monthly intervals.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
Application	The application by the licensee for this waste licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
BAT	Best Available Techniques as defined in Section 5(2) of the 1992 Act as amended.
Bi-annually	All or part of a period of six consecutive months.
Biodegradable waste	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard.
Condition	A condition of this licence.
Consignment Note	All movements of hazardous waste within Ireland must be accompanied by a "C1" consignment note issued by a local authority under the Waste Management (Movement of Hazardous Waste) Regulations (SI No. 147 of 1998).
Construction and Demolition Waste	All wastes which arise from construction, renovation and demolition activities.
Containment boom	A boom which can contain spillages and prevent them from entering drains or watercourses.
Daytime	8.00 a.m. to 10.00 p.m.
Documentation	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
Emergency	Those occurrences defined in Condition 9.4.
Emission Limits	Those limits, including concentration limits and deposition levels established in *Schedule C: Emission Limits,* of this licence.
ELV	End-of-Life Vehicles.
European Waste Catalogue (EWC)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 94/3/EC and any subsequent amendment published in the Official Journal of the European

	Community.
Hours of Operation	The hours during which the facility is authorised to be operational.
Hours of Waste Acceptance	The hours during which the facility is authorised to accept waste.
Incident	The following shall constitute an incident for the purposes of this licence: a) an emergency; b) any emission which does not comply with the requirements of this licence; c) any exceedance of the daily duty capacity of the waste handling equipment; d) any trigger level specified in this licence which is attained or exceeded; and e) any indication that environmental pollution has, or may have, taken place.
Industrial Waste	As defined in Section 5(1) of the Act.
Inert waste	Waste as defined in SI 336 of 2002 Waste Management (Licensing) (Amendment) Regulations, 2002.
Landfill Directive	Council Directive 1999/31/EC.
Licence	A Waste Licence issued in accordance with the Act.
Licensee	Atlas Environmental Ireland Limited.
Liquid Waste	Any waste in liquid form and containing less than 2% dry matter. Any waste tankered to the facility.
Maintain	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to adequately perform its function.
Mobile Plant	Self-propelled machinery used for the emplacement of wastes or for the construction of specified engineering works.
Monthly	A minimum of 12 times per year, at approximately monthly intervals.
Municipal waste	As defined in Section 5(1) of the Waste Management Act 1996.
Night-time	10.00 p.m. to 8.00 a.m.
Noise Sensitive Location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Quarterly	At approximately three monthly intervals.
Sanitary Authority	Laois County Council.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
SCADA	Supervisory Control and Data Acquisition system.
Sludge	The accumulation of solids resulting from chemical coagulation, flocculation and/or sedimentation after water or wastewater treatment with greater than

	2% dry matter.
Specified Emissions	Those emissions listed in *Schedule C: Emission Limits* of this licence.
Specified Engineering Works (SEW)	Those engineering works listed in *Schedule B: Specified Engineering Works* of this licence.
Trigger Level	A parameter value specified in the licence, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Wastewater	Contaminated water including water that has been used for washing and/or flushing (including foul water and trade effluent).
WEEE	Waste Electrical and Electronic Equipment.
Weekly	During all weeks of plant operation, and in the case of emissions, when emissions are taking place; with no more than one measurement in any one week.
EPA Working Day	Refers to the following hours; 9.00 a.m. to 5.30 p.m. Monday to Friday inclusive.

PART II CONDITIONS

CONDITION 1 SCOPE OF THE LICENCE

1.1. Waste activities at the facility shall be restricted to those listed and described in Part I: Activities Licensed and authorised by this licence.

1.2. For the purposes of this licence, the facility is the area of land outlined in red on Drawing 'Site Boundary Plot ref No 184041-1', Attachment B2, of the application. Any reference in this licence to "facility" shall mean the area thus outlined in red.

1.3. This licence is for the purposes of waste licensing under the Waste Management Act 1996 only and nothing in this licence shall be construed as negating the licensee's statutory obligations or requirements under any other enactments or regulations.

1.4. Only those waste categories and quantities listed in *Schedule A: Waste Acceptance* of this licence, shall be accepted at the facility.

1.5. Waste Acceptance Hours and Hours of Operation

1.5.1 The facility may be operated between the hours of 07:00 – 23:00 Monday to Sunday inclusive.

1.5.2 Waste shall be accepted at the facility between the hours of 07:30 – 21:00 Monday to Sunday inclusive.

1.6. Where the Agency considers that a non-compliance with any condition of this licence has occurred, it may serve a notice on the licensee specifying:

1.6.1 That only those wastes as specified, if any, in the notice are to be accepted at the facility after the date set down in the notice;

1.6.2 That the licensee shall undertake the works stipulated in the notice, and/or otherwise comply with the requirements of the notice as set down therein, within the time-scale contained in the notice; and

1.6.3 That the licensee shall carry out any other requirement specified in the notice.

When the notice has been complied with, the licensee shall provide written confirmation that the requirements of the notice have been carried out. No waste, other than that which is stipulated in the notice, shall be accepted at the facility until written permission is received from the Agency.

1.7 Every plan, programme or proposal submitted to the Agency for its agreement pursuant to any condition of this licence shall include a proposed timescale for its implementation. The Agency may modify or alter any such plan, programme or proposal in so far as it considers such modification or alteration to be necessary and shall notify the licensee in writing of any such modification or alteration. Every such plan, programme or proposal shall be carried out within the timescale fixed by the Agency but shall not be undertaken without the agreement of the Agency. Every such plan, programme or proposal agreed by the Agency shall be covered by the conditions of this licence.

1.8 This licence is being granted in substitution for the Integrated Pollution Control Licence granted to the licensee on the 27th of January 2000 and bears Waste Licence Register No: 184-1. The previous Integrated Pollution Control Licence (Register No: 472) is superseded by this licence.

REASON: *To clarify the scope of this licence.*

CONDITION 2 MANAGEMENT OF THE FACILITY

2.1 Facility Management

2.1.1 The licensee shall employ a suitably qualified facility manager with experience commensurate with the expertise required who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced, deputy shall be present on the facility at all times during its operation.

2.1.2 Both the facility manager and deputy, and any replacement manager or deputy, shall successfully complete both the FAS waste management training programme (or equivalent agreed by the Agency) and associated on site assessment appraisal within twelve months of appointment.

2.1.3 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience, as required and shall be aware of the requirements of this licence.

2.2 Management Structure

2.2.1 Within three months from the date of grant of this licence, the licensee shall submit written updated details of the management structure of the facility to the Agency. Any proposed replacement in the management structure shall be notified in advance in writing to the Agency. Written details of the management structure shall include the following information.

a) the names of all persons who are to provide the management and supervision of the waste activities authorised by the licence, in particular the name of the facility manager and any nominated deputies;

b) details of the responsibilities for each individual named under a) above; and

c) details of the relevant education, training and experience held by each of the persons nominated under a) above.

2.3 Environmental Management System (EMS)

2.3.1 The licensee shall maintain an EMS. The EMS shall be updated on an annual basis with amendments being submitted as part of the AER, to the Agency for its agreement.

2.3.2 The EMS shall include as a minimum the following elements:

2.3.2.1 Schedule of Environmental Objectives and Targets

The objectives should be specific and the targets measurable. The Schedule shall address a five-year period as a minimum. The Schedule shall include a time-scale for achieving the objectives and targets and shall comply with any other written guidance issued by the Agency.

2.3.2.2 Environmental Management Plan (EMP)

The EMP shall include, as a minimum, the following:

(i) methods by which the objectives and targets will be achieved in the coming year and the designation of responsibility for targets;

(ii) any other items required by written guidance issued by the Agency.

2.3.2.3 Corrective Action Procedures

The Corrective Action Procedures shall detail the corrective actions to be taken should any of the procedures detailed in the EMS not be followed.

2.3.2.4 Awareness and Training Programme

The Awareness and Training Programme shall identify training needs, for personnel who work in or have responsibility for the licensed facility.

2.4 Mass Balance of Specified Substances

2.4.1 The licensee shall, at a date to be agreed in writing by the Agency, and having regard to any Regulations made under Section 64 of the Waste Management Act, 1996 as amended, submit to the Agency for its agreement a Mass Balance of Specified Substances (MBSS), which shall include a list of substances and the methodology to be used in their determination.

2.4.2 Following an agreement on Condition 2.4.1 above, the MBSS shall be reviewed and submitted to the Agency annually.

2.5 Communications Programme

2.5.1 The licensee shall maintain a Communications Programme to inform the local community and ensure that members of the public can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility. This shall be established within six months of the date of grant of this licence.

REASON: *To make provision for the proper management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment.*

CONDITION 3 FACILITY INFRASTRUCTURE

3.1 The licensee shall establish all infrastructure referred to in this licence prior to the commencement of the licensed activities or as required by the conditions of this licence. No waste shall be accepted at the facility without prior agreement of the Agency.

3.2 No alteration to, or reconstruction in respect of, the activity or any part thereof which would, or is likely to, result in a material change or increase in:

(i) the nature or quantity of any emission;

(ii) the abatement/treatment or recovery systems;

(iii) the range of processes to be carried out;

(iv) the fuels, raw materials, intermediates, products or wastes generated, or any changes in; and

(v) the site management and control with adverse environmental significance, shall be carried out or commenced without prior notice to, and without the prior written agreement of, the Agency.

3.3 Specified Engineering Works

3.3.1 The licensee shall submit proposals for all Specified Engineering Works, as defined in *Schedule B: Specified Engineering Works* of this licence, to the Agency for its agreement at least two months prior to the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.

3.3.2 All specified engineering works shall be supervised by a competent person(s) and that person, or persons, shall be present at all times during which relevant works are being undertaken.

3.3.3 Following the completion of all specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall include the following information:-

a) a description of the works;

b) as-built drawings of the works;

c) records and results of all tests carried out (including failures);

d) drawings and sections showing the location of all samples and tests carried out;

e) daily record sheets/diary;

f) name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;

g) name(s) of individual(s) responsible for supervision of works and for quality assurance validation of works;

h) records of any problems and the remedial works carried out to resolve those problems; and

i) any other information requested in writing by the Agency.

3.4 Facility Notice Board

3.4.1 The licensee shall provide and maintain a Facility Notice Board at the entrance leading to the facility from the main road so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm.

3.4.2 The board shall clearly show:-

a) the name and telephone number of the facility;

b) the normal hours of opening;

c) the name of the licence holder;

d) an emergency out of hours contact telephone number;

e) the licence reference number; and

f) where environmental information relating to the facility can be obtained.

3.5 Facility Security

3.5.1 Security fencing and gates shall be installed and maintained around the boundary of the facility, except where the existing boundary walls are in place as described in Attachment D 1.a. of the application and Drawing No. At-Wst 1 (D1). The base of the fencing shall be set in the ground.

3.5.2 Unless otherwise agreed by the Agency, security shall include a CCTV surveillance system as described in Attachment D.1.a of the application.

3.5.3 The licensee shall remedy any defect in the gates and/or fencing as follows:-

a) a temporary repair shall be made by the end of the working day; and

b) a repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

3.6 Facility Roads and Site Surfaces

3.6.1 Site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility. A one way traffic system with appropriate signage shall be operated at the facility and sufficient car parking areas shall be provided and maintained.

3.6.2 Traffic awaiting access to the facility shall not queue along the public road.

3.6.3 The licensee shall provide and maintain impermeable concrete surface at the facility entrance area, at the car parking area, where vehicle movement takes place and at all waste handling and storage areas. All concreted areas at the facility shall be constructed to British Standard 8110.

3.7 Facility Office

3.7.1 The licensee shall provide and maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.

3.7.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.

3.8 Waste Inspection and Quarantine Areas

3.8.1 The Waste Inspection Areas as specified in Drawing No. At-Wst 1 (D1) shall be provided and maintained at the facility.

3.8.2 The Waste Quarantine Areas specified in Attachment D.1.h of the application as 'Quarantine Areas A, B & C and segregation tanks 21, 31, and 41" shall be provided and maintained at the facility.

3.8.3 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection areas and the waste quarantine areas shall be clearly identified and segregated from each other.

3.9 Weighbridge and Wheel Cleaning

3.9.1 The licensee shall provide and maintain a weighbridge and wheelwash (to the satisfaction of the Agency) at the facility.

3.10 Waste Handling, Ventilation and Processing plant

3.10.1 Items of plant deemed critical to the efficient and adequate processing of waste at the facility (including *inter alia* waste oil processing, oil filter crushing, battery handling, tyre shredding) shall be provided on the following basis:-

a) 100% duty capacity;

b) 50% standby on ventilation plant, and other plant to be agreed by the Agency;

c) Provision of contingency arrangements and/or back up and spares in the case of breakdown of critical equipment.

3.10.2 The licensee shall install and maintain a negative air pressure and emissions control system at the proposed Sludge Drying Unit and associated underground storage tank, and install an odour abatement unit to the sludge drying exhaust stack as described in Section 8.4.2 of the EIS submitted with the application, and the Article 14(2)(b) reply dated 30 April 2003.

3.10.3 Within six months from the date of grant of this licence, the licensee shall provide a report for the agreement of the Agency detailing the duty and standby capacity in tonnes per day, of all waste handling and processing equipment to be used at the facility. These capacities shall be based on the licensed waste intake, as per *Schedule A: Waste Acceptance,* of this licence.

3.10.4 The quantity of waste to be accepted at the facility on a daily basis shall not exceed the duty capacity of the equipment at the facility. Any exceedance of this intake shall be treated as an incident.

3.10.5 Within six months from the date of grant of this licence, the licensee shall provide a report for the agreement of the Agency detailing the ventilation requirements for the new integrated waste recovery and transfer facility building. Any remedial works recommended in this report must be implemented within a time-scale to be agreed by the Agency.

3.11 Sludge Drying Facility

3.11.1 Within four months prior to the intended date of commencement, the licensee shall submit to the Agency for its agreement SEW proposals for the treatment of sludge waste, and the commissioning of the associated Combined Heat and Power Plant (CHP).

3.11.2 Appropriate infrastructure for the drying of sludge shall be established and maintained at the facility prior to any sludge being treated.

3.11.3 The quantity of sludge stored prior to treatment shall not exceed 50 cubic metres at any time unless otherwise agreed by the Agency.

3.12 Waste Water Collection System / Surface Water Management

3.12.1 The licensee shall discharge wastewater to the Laois County Council sewer (via the industrial park sewer) as per Drawing number At-Wst 2. Wastewater shall pass through the series of chambers and the regulator specified in Section 7.3.1.1 of the EIS and shall be monitored by a SCADA system prior to discharge to the sewer.

3.12.2 Runoff from all areas used for the handling and storage of waste including the soil remediation area and vehicle wash water shall discharge to the wastewater collection system as specified in Condition 3.12.1 above.

3.12.3 Runoff from all areas not used for the handling and storage of waste shall be discharged to surface water via the Class 1 oil interceptors, and pass through the v-notch weir before discharge to the municipal surface water system.

3.12.4 All wastewater gullies, drainage grids and manhole covers shall be painted with red squares whilst all surface water discharge gullies, drainage grids and manhole covers shall be painted with blue triangles. These colour codes shall be maintained so as to be visible at all times during facility operation, and any identification designated in this licence (e.g. SW1) shall be inscribed on these manholes.

3.12.5 The drainage system, bunds, silt traps and oil separators shall be inspected weekly, desludged as necessary and properly maintained at all times. All sludge and drainage from these operations shall be collected for safe disposal. A written record shall be kept of the inspections, desludging, cleaning, disposal of associated waste products, maintenance and performance of the interceptors, bunds and drains.

3.13 Tank and Drum Storage Areas

3.13.1 All tank and drum storage areas shall be rendered impervious to the materials stored therein.

3.13.2 All tank and drum storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:-

a) 110% of the capacity of the largest tank or drum within the bunded area; or

b) 25% of the total volume of substance which could be stored within the bunded area.

3.13.3 All drainage from bunded areas shall be diverted for collection and safe disposal.

3.13.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.

3.13.5 The integrity and water tightness of all the bunds and their resistance to penetration by water or other materials stored therein shall be confirmed by the licensee and shall be reported to the Agency within 12 months of the date of grant of this licence. This confirmation shall be repeated at least once every three years thereafter and reported to the Agency on each occasion.

3.13.6 Fuels, waste oils, effluent, and acids shall be stored only at the tank locations and underground storage locations (USTs) specified in Attachment D.1.g and Drawing No. At-Wst 1 of the application unless the prior written agreement of the Agency has been obtained. All tanks and containers shall be clearly marked to illustrate their contents and shall comply with Condition 3.13.2 above. All USTs to be installed shall be double skinned steel with leak detection and overspill protection.

3.13.7 Within three months of date of grant of this licence the bunded area labelled as 'Sludge Bay' adjacent to Tank 20 shall be inspected/tested and repaired as may be necessary. A report on this work, by a suitably qualified civil/structural engineer, to include a certification of the Sludge Bay as fit-for-purpose shall be submitted to the Agency within four months of the date of grant of this licence. Wastes dropped onto the sludge bay shall be moved as soon as practicable to suitable containers, and in any case by the end of each working day. The licensee shall store oily solid wastes and sludges in UN approved drums within a bunded storage area as described in Section 2.7.2 of the EIS.

3.13.8 The licensee shall submit a proposal for the installation of high liquid level alarms at pump sumps or other treatment plant chambers from which spillage might occur within three months from the date of grant of this licence.

3.13.9 The licensee shall undertake a programme of testing and inspection of underground tanks and pipelines to ensure that all underground fuel, sludge, effluent and foul sewer pipes are tested at least once every three years, unless otherwise agreed by the Agency. A report on such tests shall be included in the AER.

3.14 Soil Remediation Area

3.14.1 The licensee shall provide and maintain a soil remediation/recovery area at the location indicated in Drawing No. At-Wst 1 (D1). This infrastructure shall at a minimum comprise the following:-

a) an impermeable concrete slab;

b) roofing over the entire soil remediation area;

c) collection and disposal infrastructure for all run-off and its connection to wastewater collection system;

d) appropriate screening to provide visual and noise screening;

e) all stockpiles shall be adequately contained to minimise dust and odour generation;

f) within three months of the date of grant of this licence, the licensee shall review the measures in place to store, treat and monitor soils of a hazardous nature at this facility and shall provide a report to the Agency for its agreement, making recommendations for the control of dust, odour, vapours (including BTEX) and potential for exposure of humans and environmental receptors in a release, and run-off from the soil remediation facility. USEPA 'Corrective Action Management Units' guidance (CAMU Regulations (40 CFR 264.552; 67 FR 3007)), shall be incorporated into this review. Any monitoring requirements and remedial works recommended in this report must be implemented within a time-scale to be agreed by the Agency.

3.15 Groundwater Management

3.15.1 Effective groundwater management infrastructure shall be provided and maintained at the facility during construction, operation, restoration and aftercare of the facility. As a minimum, the infrastructure shall be capable of the protection of the groundwater resources from pollution by the waste activities.

3.15.2 Within three months from the date of grant of this licence, the licensee shall establish three groundwater monitoring wells in the underlying bedrock with bollard protection, at locations to be agreed by the Agency to complement the existing four shallow (gravel) monitoring wells, to allow for the monitoring of groundwater levels and quality in the main bedrock aquifer. Two monitoring boreholes should be located on the east side and downgradient of the soil remediation area and the main fuel gantry.

3.15.3 All groundwater monitoring wells shall have their elevations (mOD Malin) marked on their respective casings or borehole caps. The licensee shall submit to the Agency the top of casing and ground level elevations for all groundwater boreholes.

3.15.4 Within one month from the date of grant of this licence, the licensee shall pump out the contents of the existing 'Sludge Bay' adjacent to Tank 20, and shall carry out investigations to determine if the contents of the sludge bay have impacted on the underlying soil and groundwater quality, and shall provide a report to the Agency for its agreement. Any remedial works recommended in this report must be implemented within a time-scale to be agreed by the Agency.

3.16 Fire Control

3.16.1 The licensee shall provide and maintain a firewater retention capacity as described in Attachment F 4 (Report URS ref 46605/003 Section 9.7.3) of the application.

3.17 Monitoring Infrastructure

3.17.1 Monitoring infrastructure which is damaged or proves to be unsuitable for its purpose shall be replaced within three months of it being damaged or recognised as being unsuitable.

REASON: *To provide appropriate infrastructure for the protection of the environment.*

CONDITION 4 RESTORATION AND AFTERCARE

4.1. The decommissioning of the facility shall be as described in Attachment G (a) (Residuals Management Plan, 28/2/2002 URS) of the application. At least three months prior to the cessation of waste activities on the facility, the licensee shall submit a detailed Decommissioning Plan to the Agency for its agreement.

4.2. A final validation report to include a certificate of completion for the decommissioning of the facility, for all or part of the site as necessary, shall be submitted to the Agency within three months of execution of the decommissioning. The licensee shall carry out such tests, investigations or submit certification, as requested by the Agency, to confirm that there is no continuing risk to the environment.

REASON: *To provide for the restoration of the facility.*

CONDITION 5 FACILITY OPERATIONS

5.1 All waste processing shall be carried out inside the waste processing buildings or at the specific waste infrastructure locations shown in Drawing No. At -Wst 1.

5.2 Waste Acceptance and Characterisation Procedures

5.2.1 Waste arriving at the facility shall be weighed, documented and directed to the relevant waste processing building.

5.2.2 The procedures for waste acceptance and waste handling shall be as detailed in Attachment E.3 (E3 (a) to E3 (f) inclusive) of the application, or as otherwise agreed in writing; and shall meet any applicable requirements of EU Council Decision 2003/33/EC.

5.2.3 No waste shall be stored at the facility in other than designated storage areas shown in Drawing No. At -Wst 1, or as otherwise agreed by the Agency. The designated storage areas shall be marked on the floor or otherwise delineated within three months of the date of grant of this licence.

5.2.4 Any waste deemed unsuitable for processing at the facility and/or in contravention of this licence shall be immediately separated and removed from the facility at the earliest possible time. Temporary storage of such wastes shall be in a designated Waste Quarantine Area. Waste shall be stored under appropriate conditions in the quarantine areas to avoid spillage/leakage, odour generation, the attraction of vermin and any other nuisance or objectionable condition.

5.2.5 A record of all inspections of incoming waste loads shall be maintained.

5.2.6 Waste shall be accepted at the facility, only from customers who are holders of a waste permit, unless exempted, under the Waste Management (Collection Permit) Regulations 2001 or from other licensed/permitted facilities.

5.3 Waste Oil Processing

5.3.1 Waste Oils accepted for reprocessing on site shall be limited to the following sources:

(a) Ship lubricant and fuel oils;

(b) Automobile lubricating oils;

(c) Used automobile oil filters.

5.3.2 Waste Oils arising from industrial sources, tank & interceptor cleaning operations, bring stations and oil-spill clean up operations shall be accepted only for reprocessing on site having satisfied the Waste Oils Acceptance Procedure (Attachment E3 (a) of the application), or as otherwise agreed in writing.

5.3.3 The heating of waste oils will be carried out at the appropriate temperature so as to avoid their combustion. A safety cut off temperature detection unit shall be installed on

the oil heating tanks and calibrated annually. A calibration certificate will be submitted as part of the AER. Within 3 months of the date of issue of this licence, the licensee will submit a proposal for agreement with the Agency setting out a procedure for the identification of the operating temperature.

5.3.4 Monitoring of Reprocessed Oil shall be carried out as specified in *Schedule G.1: Monitoring of Reprocessed Oil Quality*, of this licence. A log shall be kept by the licensee detailing the results of this monitoring and shall be available for inspection by authorised persons of the Agency at all reasonable times.

5.3.5 Reprocessed Oil shall be sent off site only for reuse if it meets the criteria set out in *Schedule G.2: Reprocessed Oil Quality Standard*, of this licence.

5.4 Battery Handling and Storage

5.4.1 All batteries shall be stored in leak proof and corrosion proof plastic containers pending recovery or disposal, as detailed in Attachment E.4 of the application.

5.4.2 Lead acid batteries and other wet cell batteries (including wet cell nickel cadmium batteries) may be drained of electrolyte prior to storage of the drained cells pending recovery or disposal.

5.4.3 The licensee shall within twelve months of the date of grant of this licence investigate the possibility of neutralising battery electrolyte at the facility. A report on the investigation, including conclusions drawn and recommendations shall be submitted as part of the EMP for the agreement of the Agency.

5.5 Sludge Treatment

5.5.1 The following sludges shall be accepted for recovery on site as specified in Attachment A1 of the application, unless otherwise agreed by the Agency:

(a) Non-hazardous sludges;

(b) Treated sewage sludge;

(c) Wastewater treatment sludge.

5.5.2 Treated sludges sent off-site for recovery and or disposal must meet the criteria set out in EU Council Decision 2003/33/EC and shall be conveyed to licensed landfill unless otherwise agreed by the Agency.

5.6 Soil Treatment

5.6.1 Only contaminated soils as specified in *Schedule A: Waste Acceptance* of the licence shall be accepted at the facility for treatment. Soils contaminated with asbestos and metals are not acceptable at the facility. The following items shall accompany each soil consignment as a minimum:-

(a) EWC Code to describe the soil consignment;

(b) the items identified in the 'Soil Acceptance Procedure' of Attachment E3(B) of the application;

(c) an assessment to determine if the waste is hazardous as specified in the 'Agency Procedure for Identification of the Hazardous Components of Waste – Hazardous Waste Classification Tool';

(d) a conceptual site model description in accordance with British Standard BS10175:2001, to identify the contaminants and their concentrations at the

originating site. The parameters for soil testing shall be Mineral Oil, Gasoline Range Organics, Polycyclic Aromatic Hydrocarbons, BTEX, Metals and Asbestos unless otherwise agreed by the Agency.

5.6.2 All stockpiles shall be maintained so as to minimise dust, leachate, vapour and odour generation.

5.6.3 The soil bioremediation treatment process shall be as specified in Items 8, 9, and 10 of Attachment E.3(b) of the application.

5.6.4 Treated soils sent off-site for recovery and or disposal must meet the criteria set out in EU Council Decision 2003/33/EC and shall be conveyed to licensed landfill unless otherwise agreed by the Agency.

5.7 Operational Controls

5.7.1 No waste shall have a retention time in the facility in excess of six months unless otherwise agreed by the Agency.

5.7.2 Liquid wastes stored or generated at the facility shall be stored in dedicated tanks or containers.

5.7.3 All containers accepted at the facility shall be whole and sound. Any leaking or otherwise ruptured containers shall immediately be overdrummed or the contents transferred to a sound container in a manner which will not adversely affect the environment.

5.7.4 All drums shall be stored on pallets or shelves to a maximum stacking height of three drums within a bunded area in accordance with Condition 3.13. IBCs shall be stored to a maximum stacking height of three containers. During storage, each drum or IBC shall be accessible for identification purposes.

5.7.5 All redrumming or other exposure of drum contents to the atmosphere shall take place indoors. Appropriate control measures shall be put in place to minimise fugitive emissions which may arise from such activity.

5.7.6 Scavenging shall not be permitted at the facility.

5.7.7 Gates shall be locked shut when the facility is unsupervised.

5.7.8 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.

5.7.9 Fuels shall be stored only at appropriately bunded locations on the facility.

5.7.10 All tanks and drums shall be labelled to clearly indicate their contents.

5.7.11 No smoking shall be allowed on the facility (other than in the facility office).

5.7.12 All spillages of liquid waste shall be cleaned up so as to prevent spilled fluid draining to sewer or flowing beyond the boundary of the licensed facility and in any case so as not to adversely affect the environment.

5.8 Off-site Disposal and Recovery

5.8.1 Waste sent off-site for recovery or disposal shall be conveyed only by a waste carrier agreed in advance by the Agency. Any request for such agreement of a waste carrier shall include the following;

i) Copies of the waste carrier's permit(s) under the Waste Management (Collection Permit) Regulations 2001 as applicable.

ii) Details of the waste types it is proposed the carrier will transfer from the facility.

5.8.2 All waste transferred from the facility shall be transferred only to an appropriate facility agreed by the Agency. Any request for agreement of such a facility shall be forwarded to the Agency at least one month in advance of its proposed use and shall include the following:

i) A copy of the waste permit or waste licence where applicable;

ii) The proposed waste types and quantities;

iii) Details of any limitations on waste types and quantities acceptable at the facility.

5.8.3 All wastes removed off-site for recovery or disposal shall be transported from the facility to the consignee in a manner which will not adversely affect the environment.

5.9 Maintenance

5.9.1 All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer. Written records of the calibrations and maintenance shall be made and kept by the licensee.

5.9.2 The licensee shall maintain and clearly label and name all sampling and monitoring locations.

5.9.3 The wheel-wash shall be inspected on a daily basis and drained as required. Silt, stones and other accumulated material shall be removed as required from the wheel-wash and disposed of appropriately.

5.9.4 The licensee shall maintain all waste processing equipment and infrastructure in accordance with the manufacturers instructions.

5.10 Landscaping

5.10.1 A proposal for the Landscaping of the facility shall be submitted within 3 months and carried out within 12 months of commencement of waste activities.

***REASON**: To provide for appropriate operation of the facility to ensure protection of the environment.*

CONDITION 6 EMISSIONS

6.1 No specified emission from the facility shall exceed the emission limit values set out in *Schedule C: Emission Limits* of this licence. There shall be no other emissions of environmental significance.

6.2 The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.

6.3 Emission limits for emissions to atmosphere in this licence shall be interpreted in the following way.

6.3.1 Non-Continuous Monitoring

(i) For any parameter where, due to sampling/analytical limitations, a 30 minute samples is inappropriate, a suitable sampling period should be employed and the value obtained therein shall not exceed the emission limit value.

(ii) For all other parameters, no 30 minute mean value shall exceed the emission limit value.

(iii) For flow, no hourly or daily mean value shall exceed the emission limit value.

6.4 Emissions to Surface Water

6.4.1 The trigger levels for surface water discharges from the facility measured at monitoring point SW01 are:

(a) BOD 25mg/l

(b) COD 250mg/l

(c) Oil Fats & Grease 15mg/l

(d) Suspended Solids 60mg/l.

6.4.2 No substance shall be discharged in a manner, or at a concentration which, following initial dilution causes tainting of fish or shellfish.

6.5 Dust Emissions

6.5.1 The trigger level for PM10 from the facility measured at any location on the boundary of the facility is:

(a) PM10 greater than 50 µg/m3 for a daily sample.

6.6 There shall be no direct emissions to groundwater.

6.7 There shall be no clearly audible tonal component or impulsive component in the noise emissions from the activity at the noise sensitive locations.

6.8 Disposal of wastewater

6.8.1 All wastewater shall be discharged to sewer.

6.9. Emissions to Sewer

6.9.1. Unless otherwise agreed in advance with the Agency and the Sanitary Authority, the following shall apply for the discharge of wastewater, which shall be via the sewer indicated on Drawing No. At –Wst 2. There shall be no other discharge or emission to sewer of environmental significance.

6.9.2. No substance shall be present in emissions to sewer in such concentrations as would constitute a danger to sewer maintenance personnel working in the sewerage system, or as would be damaging to the fabric of the sewer, or as would interfere with the biological functioning of a downstream wastewater treatment works.

6.9.3. The licensee shall permit authorised persons of the Agency and the Sanitary Authority to inspect, examine and test, at all reasonable times, any works and apparatus installed, in connection with the discharge or emission, and to take samples of the discharge or emission.

6.9.4. No discharge or emission to sewer shall take place, which might give rise to any reaction within the sewer or to the liberation of by-products, which may be of environmental significance.

6.9.5. The licensee shall ensure that the discharge shall not contain dissolved methane, petroleum spirits or organic solvents (including chlorinated organic solvents), at concentrations, which would give rise to flammable or explosive vapours in the sewer.

6.9.6. Non-trade effluent wastewater (e.g. firewater, accidental spillage) which occurs on-site shall not be discharged to the sewer without the prior authorisation of the Sanitary Authority.

6.9.7. The licensee shall provide and maintain an inspection chamber in a suitable position in connection with each pipe through which a discharge or emission is being made. Each such inspection chamber or manhole shall be constructed and maintained by the licensee so as to permit the taking of samples of the discharge.

6.9.8. Monitoring and analytical equipment shall be operated and maintained as necessary so that monitoring accurately reflects the discharge or emission.

6.9.10 The licensee shall submit monitoring results to the Sanitary Authority on an annual basis.

6.10 Emission limit values for waste water emissions to sewer in this licence shall be interpreted in the following way:-

a) Continuous monitoring

No flow value shall exceed the specified limit;

b) Non-Continuous monitoring

Eight out of ten consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling shall exceed 1.2 times the emission limit value; and

c) No grab sample shall exceed 1.2 times the emission limit value.

REASON: *To control emissions from the facility and provide for the protection of the environment.*

CONDITION 7 NUISANCE CONTROL

7.1 The licensee shall, at a minimum of one week intervals, inspect the facility and its immediate surrounds for nuisances caused by vermin, mud, dust, noise and odours. Written records shall be made of all inspections and any actions taken as a result of these inspections.

7.2 The licensee shall ensure that dust, noise and odours do not give rise to nuisance at the facility or the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution or contravene any national statutory protection granted in respect of protected species or cause significant interference with amenities or the environment beyond the site boundary.

7.3 The road network at the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.

7.4 Litter Control

7.4.1 All loose litter or other waste placed on or in the vicinity of the facility, other than in accordance with the requirements of this licence, shall be removed, subject to the agreement of the landowners, immediately and in any event by 10.00 a.m. of the next working day after such waste is discovered.

7.4.2 The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the facility are appropriately covered.

7.5 Dust Control

7.5.1 In dry weather, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance.

7.6 Prior to exiting the facility, all waste vehicles shall use the wheelwash.

7.7 Noise

7.7.1 Noise from the activity shall not give rise to sound pressure levels (L_{Aeq} 30min) measured at noise sensitive locations which exceed the limit value(s) by more than 2 dB(A).

7.8 Odour Control

7.8.1 The licensee shall undertake an independent odour audit of the facility within three months of the date of commissioning of the sludge drying plant and shall submit to the Agency for its agreement a proposal on the requirement of annual audits.

7.8.2 The licensee shall submit to the Agency a report on the effectiveness of the negative air pressure and emissions control system no later than three months after the installation of the sludge dryer infrastructure, as specified in Condition 3.10.2, and implement any additional measures required within a timescale to be agreed with the Agency.

REASON: *To provide for the control of nuisances.*

CONDITION 8 MONITORING

8.1 The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule D: Monitoring* of this licence. Unless otherwise specified by this licence, all environmental monitoring shall commence no later than two months after the date of grant of this licence.

8.2 The licensee shall amend the frequency, locations, methods and scope of monitoring as required by this licence only upon the written instruction of the Agency and shall provide such information concerning such amendments as may be requested in writing by the Agency. Such alterations shall be carried out within any timescale nominated by the Agency.

8.3 Monitoring and analysis equipment shall be operated and maintained in accordance with the manufacturers' instructions (if any) so that all monitoring results accurately reflect any emission, discharge or environmental parameter.

8.4 The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency.

8.5 The licensee shall maintain all sampling and monitoring points, and clearly label and name all sampling and monitoring locations, so that they may be used for representative sampling and monitoring.

8.6 The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.

8.7 All automatic monitors, to include the SCADA control system, and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on, unless alternative sampling or monitoring has been agreed, in writing, by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. Prior written agreement for the use of alternative equipment, other than in emergency situations, shall be obtained from the Agency.

8.8 Nuisance Monitoring

8.8.1 A windsock shall be installed at the facility and wind direction and strength shall be recorded during all nuisance inspections.

REASON: *To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions.*

CONDITION 9 CONTINGENCY ARRANGEMENTS

9.1 In the event of an incident the licensee shall immediately:-

a) identify the date, time and place of the incident;

b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;

c) isolate the source of any such emission;

d) evaluate the environmental pollution, if any, caused by the incident;

e) identify and execute measures to minimise the emissions/malfunction and the effects thereof;

f) provide a proposal to the Agency for its agreement within one month of the incident occurring to:-

i) identify and put in place measures to avoid reoccurrence of the incident; and

ii) identify and put in place any other appropriate remedial action.

9.2 The Emergency Response Procedure (ERP) for the facility shall be as described in Attachment K (Emergency Preparedness SOP#8, Nov 02). The ERP shall be updated on an annual basis.

9.3 The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used the absorbent material shall be disposed of at an appropriate facility.

9.4 Emergencies

9.4.1 In the event of a complete breakdown of equipment or any other occurrence which results in the closure of the transfer station building, any waste arriving at or already collected at the facility shall be transferred directly to appropriate landfill sites or any other appropriate facility until such time as the transfer station building is returned to a fully operational status. Such a breakdown event will be treated as an emergency and rectified as soon as possible.

9.4.2 All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects.

9.4.3 No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities.

***REASON**: To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions.*

CONDITION 10 RECORDS

10.1 The licensee shall keep the following documents at the facility office:-

a) the current waste licence relating to the facility;

b) the current EMS for the facility;

c) the previous year's AER for the facility;

d) application(s) for a licence; and,

e) all written procedures produced by the licensee which relate to the licensed activities.

10.2 The licensee shall maintain a written record for each load of waste arriving at and departing from the facility. The licensee shall record the following:-

a) the date;

b) the name of the carrier (including if appropriate, the waste collection permit details);

c) the vehicle registration number;

d) the name of the producer(s)/collector(s) of the waste as appropriate;

e) the name of the waste facility (if appropriate) from which the load originated including the waste licence or waste permit register number;

f) a description of the waste including the associated EWC codes;

g) the quantity of the waste, recorded in tonnes;

h) the name of the person checking the load;

i) where loads or wastes are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed including the waste licence and waste permit register number of these facilities as appropriate; and

j) where applicable a consignment note number (including transfrontier shipment notification and movement/tracking form numbers, as appropriate).

10.3 Written Records

The following written records shall be maintained by the licensee:-

a) the types and quantities of waste recovered at the facility each year. These records shall include the relevant EWC Codes and any details required to complete national reports on waste statistics;

b) all training undertaken by facility staff;

c) results from all integrity tests of bunds and other structures and any maintenance or remedial work arising from them;

d) details of all nuisance inspections;

e) the names and qualifications of all persons who carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring; and

f) details of daily floor washing and cleaning.

10.4 The licensee shall maintain a written record of all complaints relating to the operation of the activity. Each such record shall give details of the following:-

a) date and time of the complaint;

b) the name of the complainant;

c) details of the nature of the complaint;

d) actions taken on foot of the complaint and the results of such actions; and,

e) the response made to each complainant.

REASON: *To provide for the keeping of proper records of the operation of the facility.*

CONDITION 11 REPORTS AND NOTIFICATIONS

11.1 Unless otherwise agreed by the Agency, all reports and notifications submitted to the Agency shall:-

a) be sent to the Agency's Headquarters;

b) comprise one original and three copies unless additional copies are required;

c) be formatted in accordance with any written instruction or guidance issued by the Agency;

d) include whatever information as is specified in writing by the Agency;

e) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;

f) be submitted in accordance to the relevant reporting frequencies specified by this licence, such as in *Schedule E: Recording and Reporting to the Agency* of this licence;

g) be accompanied by a written interpretation setting out their significance in the case of all monitoring data; and

h) be transferred electronically to the Agency's computer system if required by the Agency.

11.2 In the event of an incident occurring on the facility, the licensee shall:-

a) notify the Agency as soon as practicable and in any case not later than 10.00 am the following working day after the occurrence of any incident;

b) submit a written record of the incident, including all aspects described in Condition 9.1(a-f), to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident;

c) in the event of any incident which relates to discharges to surface/sewer water, notify Laois County Council as soon as practicable and in any case not later than 10:00am on the following working day after such an incident; and

d) Should any further actions be taken as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.

11.3 Waste Recovery Reports

Within six months of the date of grant of this licence, a report examining waste recovery options shall be submitted to the Agency for its agreement. This report shall address methods to contribute to the achievement of the recovery targets stated in national and European Union waste policies and shall include the following:-

a) the separation of recyclable materials from the waste;

b) the recovery of metal waste and white goods;

c) the recovery of commercial waste, including cardboard;

d) the recovery of waste oil and metals from oil filter cartridges via very high pressure briquetting, or approved alternative; and

e) other wastes.

11.4 Monitoring Locations

Within three months of the date of grant of this licence, the licensee shall submit to the Agency an appropriately scaled drawing(s) showing all the monitoring locations that are stipulated in this licence. The drawing(s) shall include the reference code of each monitoring point.

11.5 National Reporting

The licensee shall submit data as required for the National Waste Database. Such data shall be in accordance with any relevant guidance issued by the Agency.

11.6 Annual Environmental Report

11.6.1 The licensee shall submit to the Agency for its agreement, by 31st March each year, an Annual Environmental Report (AER).

11.6.2 The AER shall include as a minimum the information specified in *Schedule F: Content of the Annual Environmental Report*, of this licence and shall be prepared in accordance with any relevant written guidance issued by the Agency.

REASON: *To provide for proper reporting and notification of the Agency.*

CONDITION 12 CHARGES AND FINANCIAL PROVISIONS

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of €16,571.18 or such sum as the Agency from time to time determines, towards the cost of monitoring the activity or otherwise in performing any functions in relation to the activity, as the Agency considers necessary for the performance of its functions under the Waste Management Act, 1996. The licensee shall in 2005 and subsequent years, not later than January 31

of each year, pay to the Agency this amount updated in accordance with changes in the Public Sector Average Earnings Index from the date of the licence to the renewal date. The updated amount shall be notified to the licensee by the Agency. For 2004, the licensee shall pay a pro rata amount from the date of this licence to 31st December. This amount shall be paid to the Agency within one month of the date of grant of this licence.

12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased the licensee shall contribute such sums as determined by the Agency to defraying its costs.

12.2 Financial Provision for Closure, Restoration and Aftercare

12.2.1 The Environmental Liabilities Risk Assessment (ELRA) for the facility and proposal for Financial Provision shall be as described in Attachment G(B) of the application (ELRA, URS, March 2002).

12.2.2 The licensee shall within three months establish and maintain a fund, or provide a written guarantee for the costs determined under Condition 12.2.1. The type of fund established and means of its release/recovery shall be agreed by the Agency prior to its establishment.

12.2.3 The licensee shall within two weeks of purchase, renewal or revision of the financial provision required under Condition 12.2.1, forward to the Agency written proof of such indemnity.

12.2.4 Unless otherwise agreed any revision to the fund shall be computed using the following formula:

Cost = (ECOST x WPI) + CiCC

Where:

Cost	=	Revised decommisioning and aftercare cost.
ECOST	=	Existing decommisioning and aftercare cost.
WPI	=	Appropriate Wholesale Price Index [Capital Goods, Building & Construction (i.e. Materials & Wages) Index], as published by the Central Statistics Office, for the year since last closure calculation/revision.
CiCC	=	Change in compliance costs as a result of change in site conditions, changes in law, regulations, regulatory authority charges, or other significant changes.

12.3 Sanitary Authority Charges

12.3.1 The Sanitary Authority charge of €0.98 per cubic metre of trade effluent discharged shall be paid to the Sanitary Authority directly on a yearly basis, in each February. The licensee shall also defray annual monitoring costs of €4,157.11 incurred by the Sanitary Authority. Sanitary Authority charges will increase from time to time in response to increased costs in providing drainage and monitoring.

REASON: *To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.*

SCHEDULE A : Waste Acceptance

A.1 Waste Acceptance

Table A.1 Waste Categories and Quantities

WASTE TYPE	MAXIMUM (TONNES PER ANNUM) Note 1
Hazardous	
Waste Oil & Sludges	35,000
The following contaminated soils mentioned in the EWC are only acceptable for the soil remediation process: 17 05 03 – 17 05 08; 19 11 01; 19 11 05; 19 13 01 – 19 13 08; 20 02 02, unless otherwise agreed by the Agency.	40,000
Oil Filters	1,000
Other Hazardous Wastes [Oily Solid Waste, Solvents, Mixed fuels, Antifreeze, Brakefluid, Fluorescent tubes, Aerosol cans, Batteries (except mercury batteries EWC 16 06 03), ELV, Acids and or Bases, WEEE] NOTE 2	5,000
Total Hazardous	***81,000***
Non-Hazardous	
Industrial Sludge, Treated Sewage Sludge, Wastewater Treatment Sludge	20,000
Other non hazardous & non putresible waste	9,000
Total Non-Hazardous	*29,000*
TOTAL	110,000

Note 1: The quantities of the individual waste types may be adjusted, only with the agreement of the Agency, subject to the total waste quantity remaining the same. The tonnage of any individual waste stream accepted on site for processing must be in accordance with documented storage, handling and treatment capacities.

Note 2: Additions to this list must be agreed in advance in writing with the Agency.

SCHEDULE B : Specified Engineering Works

Specified Engineering Works
Installation of Sludge Drying Facility and associated CHP plant, and 50,000L underground storage tank.
Installation of tanks or drum storage infrastructure.
Installation of any new silt traps and oil interceptors.
Installation of waste handling, processing, recycling/recovery infrastructure and installation of increased waste processing capacity.
Construction of a designated storage areas for storage of waste.
Works associated with the Soil Remediation Area.
Modifications to scope of the bioremediation process as specified in Condition 5.6.3.
Any other works notified in writing by the Agency.

SCHEDULE C : Emission Limits

C.1 Noise Emissions: (Measured at the monitoring points indicated in Table D.1.1).

Day dB(A) L_{Aeq}(30 minutes)	Night dB(A) L_{Aeq}(30 minutes)
55	45

C.2 Dust Deposition Limits: (Measured at the monitoring points indicated in Table D.1.2).

Level (mg/m^2 /day)[Note 1]
350

Note 1: 30 day composite sample with the results expressed as mg/m^2 /day.

C.3 Surface Water Discharge Limits:

Measured at the monitoring point SW01.

Parameter	Emission Limit Value
Mineral oils	5mg/l for discharges from Class I interceptor to receiving water
Suspended Solids	60 mg/l

C.4 Sewer Emission Limits

Emission Point Reference No.: FS1 as per Drawing No At-Wst2, and Table H10 of the application

Name of Receiving Sewer: Laois County Council Foul Sewer

Location : Yard to rear of Canteen

Volume to be emitted [Note 1]**:**

Maximum in any one day : 40 m^3

Hourly discharge rates (m^3/hr):	***Average***	***Maximum***
0600 to 12 noon	1.25	1.25
12 noon to 1800	1.25	1.875
1800 to 0600	2.08	3.12

Parameter	Emission Limit Value
Parameter	**Emission Limit Value**
Temperature	43°C (max.)
PH	6-8.5
Chemical Oxygen Demand (kg/day)	200
	mg/l
Suspended Solids	400
Sulphates	800
Chlorides	6000
Total Phosphorus (as P)	50
Ammonia	80
Phenols (as C_6H_5OH)	50
Copper	0.5
Zinc	0.5
Lead	0.5
Cadmium	0.05
Fats, Oils & Greases	300

Note 1: Subject to compliance with Condition 6.9.6.

SCHEDULE D : Monitoring

Monitoring to be carried out as specified below.

D.1 Monitoring Locations

Monitoring locations shall be those as set out in Tables D.1.1 & D.1.2 below, and as indicated in Drawing No At-Wst2, Figure 9.1 of the EIS, and Figure 2 Attachment J3 (URS Nov 2002) of the application.

Table D.1.1 Noise, Surface Water and Wastewater Monitoring Locations

NOISE	SURFACE WATER	WASTEWATER	GROUNDWATER
STATIONS	STATIONS	STATIONS	STATIONS
N1	SW01	FS1	BH 101
N2			BH 102
N3			BH 103
N4			BH 104
N5			Three monitoring points established in bedrock aquifer as specified in Condition 3.15.2

Table D.1.2 Emissions to Atmosphere Monitoring Locations

DUST Note 3	PM_{10}	BOILER	AIR PRESSURE & EMISSIONS CONTROL SYSTEM
STATIONS	STATIONS	STACK	STATIONS
DP1	Note 1	A 01	Note 2
DP2			
DP3			

Note 1: Locations to be as per dust monitoring locations above.
Note 2: Emission point(s) to be agreed by the Agency in accordance with Condition 3.10.2.
Note 3: Locations to be as per the Article 14(2)(b) reply dated 30 April 2003.

D.2 Dust

Table D.2.1 Dust Monitoring Frequency and Technique

Parameter ($mg/m^2/day$)	Monitoring Frequency	Analysis Method/Technique
Dust	FOUR times a year Note 2	Standard Method Note 1

Note 1: Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). A modification (not included in the standard) which 2 methoxy ethanol may be employed to eliminate interference due to algae growth in the gauge.
Note 2: Twice during the period May to September.

D.3 Noise

Table D.3.1 Noise Monitoring Frequency and Technique

Parameter	Monitoring Frequency	Analysis Method/Technique
$L(A)_{EQ}$ [30 minutes]	Annual	Standard [Note 1]
$L(A)_{10}$ [30 minutes]	Annual	Standard [Note 1]
$L(A)_{90}$ [30 minutes]	Annual	Standard [Note 1]
Frequency Analysis(1/3 Octave band analysis)	Annual	Standard [Note 1]

Note 1: "International Standards Organisation. ISO 1996. Acoustics - description and Measurement of Environmental noise. Parts 1, 2 and 3."

D.4 Surface Water Emissions

Table D.4.1 Surface Water Monitoring Frequency and Techniques

Parameter	Surface Water Monitoring Frequency	Analysis Method/Technique
pH	Weekly	Electrometry
COD	Weekly	Standard Methods [Note 1]
Suspended Solids	Bi-annually	Standard Methods [Note 1]
Mineral Oils	Monthly	Standard Methods [Note 1]

Note 1: "Standards Methods for the Examination of Water and Wastewater", (prepared and published jointly by A.P.H.A., A.W.W.A & W.E.F) 20th Ed., American Public Health Association, 1015 Fifteenth Street, Washington DC 20005, USA.

D.5 Wastewater Emissions

Table D.5.1 Wastewater Monitoring Frequency and Techniques

Parameter	Monitoring Frequency	Analysis Method/Technique [Note 2]
Flow	Continuous	On-line flow meter with recorder
Temperature	Daily	Temperature probe
PH	Daily	pH electrode/meter
Chemical Oxygen Demand	Daily [Note 1]	Standard Method
Suspended Solids	Daily [Note 1]	Gravimetric
Ammonia (as N)	Daily [Note 1]	Standard Method
Sulphates	Weekly [Note 1]	Standard Method
Chlorides	Weekly [Note 1]	Standard Method
Total Phosphorus (as P)	Weekly [Note 1]	Standard Method
Phenols (as C_6H_5OH)	Weekly [Note 1]	Standard Method
Copper	Weekly [Note 1]	Atomic Absorption/ICP
Zinc	Weekly [Note 1]	Atomic Absorption/ICP
Lead	Weekly [Note 1]	Atomic Absorption/ICP
Cadmium	Weekly [Note 1]	Atomic Absorption/ICP
Fats, Oils & Greases	Weekly [Note 1]	Standard Method
Metals Screen [Note 3]	Quarterly	ICP
Respirometry Testing	Bi-annually	To be agreed by the Agency

Note 1: All samples shall be collected on a 24 hour flow proportional composite sampling basis.
Note 2: Or an alternative method to the satisfaction of the Agency.
Note 3: Metals to be screened for to be agreed by the Agency in advance.

D.6 Groundwater

Table D.6.1 Groundwater - Parameters /Frequency

Parameter [Note 1]	GROUNDWATER Monitoring Frequency
Visual Inspection/Odour [Note 2]	Monthly
Groundwater Level [Note 4]	Monthly
Dissolved Oxygen [Note 4]	Annually
Electrical Conductivity [Note 4]	Monthly
pH [Note 4]	Monthly
Temperature [Note 4]	Monthly
Total Alkalinity	Annually
Calcium	Annually
Manganese	Annually
Sulphate	Annually
Cyanide (Total)	Annually
Chloride	Annually
Sodium	Annually
List I/II organic substances [Note 3]	Quarterly
Mineral Oil	Quarterly
BTEX	Quarterly
PAH	Quarterly
Phenols	Quarterly
Arsenic	Quarterly
Cadmium	Quarterly
Copper	Quarterly
Chromium (Total)	Quarterly
Iron	Quarterly
Magnesium	Quarterly
Lead	Quarterly
Mercury	Quarterly
Potassium	Quarterly
Zinc	Quarterly

Note 1: All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures.

Note 2: Where there is evident gross contamination of groundwater, additional samples should be analysed.

Note 3: Samples screened for the presence of organic compounds using Gas Chromatography / Mass Spectrometry (GC/MS) or other appropriate techniques and using the list I/II Substances from EU Directive 76/464/EEC and 80/68/EEC as a guideline. Recommended analytical techniques include: volatiles (US Environmental Protection Agency method 524 or equivalent), semi-volatiles (US Environmental Protection Agency method 525 or equivalent), and pesticides (US Environmental Protection Agency method 608 or equivalent).

Note 4: For groundwater and surfacewater these parameters should be measured on-site with a portable electronic meter.

D.7 Meteorological Monitoring

Table D.7.1 Meteorological Monitoring:

Data to be obtained from a location on the facility

Parameter	Monitoring Frequency	Analysis Method/Technique
Precipitation Volume	Daily	Standard
Temperature (min/max.)	Daily	Standard
Wind Force and Direction	Daily	Standard
Evaporation	Monthly [Note 1]	Standard
Evapotranspiration	Monthly [Note 1]	Standard
Humidity	Monthly [Note 1]	Standard
Atmospheric Pressure	Daily [Note 1]	Standard

Note 1: These parameters may be obtained from the nearest Met Station.

D.8 Air

Table D.8.1 Monitoring of Emissions to Atmosphere at A-01

Emission Point Reference No.: A-01

Parameter	Monitoring Frequency	Analysis Method/Technique
Sox	Annually	Flue gas analyser
Nox	Annually	Flue gas analyser
CO	Annually	Flue gas analyser
Combustion Efficiency	Annually	Flue gas analyser

Table D.8.2 Monitoring of Emissions to Atmosphere at A-02

A –02 (Single Exhaust Stack at the Sludge Drying Unit)

Control Parameter	Monitoring Required Note 2	Monitoring Equipment	Backup Equipment
VOC	Annually	To be agreed	To be agreed
Ammonia	Weekly	Colorimetric Indicator Tubes [Note 1]	Spare tubes
Hydrogen sulphide	Weekly	Colorimetric Indicator Tubes [Note 1]	Spare tubes
Mercaptans	Weekly	Colorimetric Indicator Tubes [Note 1]	Spare tubes
Amines	Bi-annually	NIOSH method 2010 [Note 1]	
Odour units	Bi-annually	Olfactometric	
Particulates	Bi-annually	Isokinetic/Gravimetric	

Note 1: Or an equivalent method acceptable to the Agency.
Note 2: Records shall be kept at the facility of all monitoring and visual checks.

Table D.8.3 PM_{10} and Odour Monitoring Frequency and Technique

Parameter [Note 1]	Monitoring Frequency	Analysis Method/Technique
PM_{10}(µg/m^3)	Annually	See [Note 2]
Odour [Note 4]	Quarterly [Note 3]	See [Note 3]

Note 1: Meteorological monitoring to be carried out concurrently with all above monitoring.
Note 2: As described in prEN12341 "Air Quality - field test procedure to demonstrate reference equivalence of sampling methods for PM10 fraction of particulate matter" or an alternative agreed in writing by the Agency.
Note 3: Odour measurements shall be by olfactometric measurement and analysis for mercaptans, hydrogen sulphide, ammonia, amines as set out in Table D.8.3.
Note 4: Location for odour sampling to be agreed by the Agency in accordance with Condition 3.10.2.

SCHEDULE E : Recording and Reporting to the Agency

Report	Reporting Frequency [Note1]	Report Submission Date
Annual Environment Report (AER)	Annually	By 31 March annually, commencing 2005.
Environmental Management System Updates	Annually	Annually as part of the AER.
Noise Monitoring	Annually	Annually as part of the AER
PM_{10} Monitoring	Annually	Annually as part of the AER
Odour monitoring	Annually	Annually as part of the AER
Monitoring of Surface Water Quality	Quarterly [Note 2]	Ten days after end of the quarter being reported on.
Monitoring of Groundwater Quality	Quarterly [Note 2]	Ten days after end of the quarter being reported on.
Monitoring of Wastewater	Quarterly [Note 2]	Ten days after end of the quarter being reported on.
Dust Monitoring	Quarterly [Note 2]	Ten days after the end of quarter being reported on.
Monitoring of Emissions to Atmosphere & Air quality	Quarterly [Note 2]	Ten days after end of the quarter being reported on.
Waste quantities received and baling details	Quarterly [Note 2]	Ten days after end of the quarter being reported on.
Specified Engineering Works reports	As they arise	Prior to the works commencing.
Record of incidents	As they occur	Within five days of the incident.
Any other monitoring	As they occur	Within ten days of obtaining results.
Bund, tank and container integrity assessment	Every three years	Six months from the date of grant of licence and one month after end of the three year period being reported on.

Note 1: Unless altered at the request of the Agency.

Note 2: Submitted as one integrated report.

SCHEDULE F : Content of the Annual Environmental Report

Annual Environmental Report Content [Note 1]
Reporting Period.
Waste activities carried out at the facility.
Quantity and Composition of waste recovered, received and disposed of during the reporting period and each previous year (relevant EWC codes to be used).
Summary report on emissions.
Summary of results and interpretations of environmental monitoring, including a location plan of all monitoring locations.
Resource and energy consumption summary.
Development / Infrastructural works in place and planned, to process waste quantities projected for the following year (including plant operating capacity, provision of adequate standby capacity and provision of contingency, backup and spares in the case of breakdown).
Schedule of Environmental Objectives and Targets for the forthcoming year.
Report on the progress towards achievement of the Environmental Objectives and Targets contained in previous year's report.
Full title and a written summary of any procedures developed by the licensee in the year which relates to the facility operation.
Tank, drum, pipeline and bund testing and inspection report.
Boiler Efficiency.
Reported Incidents and Complaints summaries.
Ventilation Capacity & Spares.
Review of Nuisance Controls.
Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.
Volume of wastewater produced and volume of wastewater transported off-site/ sent to sewer.
Groundwater Contour Plan for all seven monitoring wells for the preceding February and August.
Report on negative Air Pressure & Emission Control System.
Any other items specified by the Agency.

Note 1: Content to be revised subject to the agreement of the Agency after cessation of waste acceptance at the facility.

SCHEDULE G : Reprocessed Oil Quality

G.1 Monitoring of Reprocessed Oil Quality

Parameter	Limit (mg/kg)
Cadmium	25
Nickel	100
Chromium	50
Vanadium	100
Lead	800
Chlorine	3000
Sulphur	10000
Ash	15000
PCB's	10
Other [Note 1]	

Note 1: Other parameters as may be specified by the Agency.

G.2 Reprocessed Oil Quality Standard

Parameter	Monitoring Frequency [Note 1]	Analysis Method [Note 2]
Cadmium	Per batch release	Atomic Absorption
Nickel	Per batch release	Atomic Absorption
Chromium	Per batch release	Atomic Absorption
Copper	Per batch release	Atomic Absorption
Vanadium	Per batch release	Atomic Absorption
Lead	Per batch release	Atomic Absorption
Chlorine	Per batch release	Standard Method
Fluorine	Per batch release	Standard Method
Sulphur	Per batch release	Standard Method
Ash	Per batch release	Standard Method
Water	Per batch release	Karl Fisher
PCB's	Per batch release	ASTM D4059-96
Other [Note 3]		

Note 1: Any alteration to the Monitoring Frequency specified subject to the prior written agreement of the Agency.
Note 2: Or an alternative method to the satisfaction of the Agency.
Note 3: Other parameters as may be specified by the Agency.

Sealed by the seal of the Agency on this the 16th day of January 2004.

PRESENT when the seal of the Agency was affixed hereto:

Padraic Larkin **Director/Authorised Person**

Waste and Contaminated Land (NI) Order 1997

WASTE MANAGEMENT LICENCE

LICENCE REF No:- LN/04/07/A

FACILITY TYPE:- Storage and Recycling of Waste Refrigeration Equipment

The Department of the Environment, in pursuance of the Waste and Contaminated Land (NI) Order 1997, hereby grants a waste management licence authorising the storage and recycling of waste refrigeration equipment on the land specified in schedule 1 to this licence to:

COD International Ltd, 110 Trewmount Road, Killyman, DUNGANNON, BT71 7EF (Company Registration Number NI041742)

those persons being in occupation of the said land, the said licence being subject to the conditions specified in schedule 2 to this licence.

SCHEDULE 1 - SPECIFIED LAND.

The licence relates to the land at 110 Trewmount Road, Killyman, DUNGANNON, BT71 7EF (hereinafter called "the site") shown on Location Plan No. 202/03/01 and 202/03/03, as approved by Planning Service on 18 July 2003, and PLA/COD/01 rev B, dated 02 June 2004, forming part of the application of 13 November 2002 and attached to this licence.

Signed Anne Blacker

Name ANNE BLACKER

Authorised officer of DOE

Dated 29 Sept 2004

YOUR ATTENTION IS DRAWN TO THE RIGHTS OF APPEAL DETAILED AT THE END OF THIS LICENCE.

Order of Department of Public Works of the Canton of Zurich

0443

of 15 February 2005

G 6 m
(G 14 m)
(G 20 m)
(G 23 m)

Regensdorf. Dietiker AG für Rohmetalle. Limited operating licence pursuant to waste regulations. Extension of permit as receiver of special waste in accordance with the Regulation on Traffic in Special Waste. E 0096 0169.
AWR I 490 Regensdorf, 96.

In a letter dated 2 December 2004 the company Dietiker AG für Rohmetalle (ROAG), Regensdorf, filed the following applications with the Department of Waste, Water, Energy and Air (AWEL):

- application for operating licence pursuant to waste regulations in accordance with section 4 of the Cantonal Waste Act (AbfG) of 25 September 1994 and
- application for extension and amendment of the permit as a receiver of certain special waste in accordance with the Regulation on Traffic in Special Waste (VVS) of 12 November 1986.

A. Initial position

On 20 October 1999 AWEL granted ROAG's (plant number E 0096 0169) application for an extension of its permit as a receiver of certain special waste pursuant to VVS as per order no. 2534. The VVS receiver permit had been set to expire on 31 October 2004.

The permit as a receiver of certain special waste pursuant to VVS will in future be part of any operating licence in accordance with waste regulations. The granting of the aforementioned permit by the Department of Public Works was substantially based, among other things, on a plant operation by-law. Regarding the expiry of the VVS receiver permit, AWEL urged ROAG to submit an operation by-law in a letter dated 24 June 2004. A final version, dated 12 January 2005, was received by AWEL on 13 January 2005.

In connection with the receipt, interim storage and passing on of scrap metal and special waste, ROAG relies exclusively on the personnel and materials infrastructure of Dietiker Metallhandel AG (DIAG). DIAG was issued an operating permit pursuant to waste regulations as per order no. 3129 on 29 November 2004.

B. Operation by-law / operating permit pursuant to waste regulations

The operation by-law dated 12 January 2005 meets the requirements set out in the sample operation by-law of AWEL (April 2004) and is thus in compliance with the provisions of AbfG and the Cantonal Waste Regulation (AbfV) of 24 November 1999. As a result, the operating permit required under section 4 AbfG and section 2 (1) (b) AbfV can be issued.

C. Permit as a receiver of certain special waste

C.1 Existing permits

ROAG, domiciled in Regensdorf, is registered in the Commercial Register of the canton of Zurich under the company number CH-020.3.906.710-0. It has a permit to receive special waste classified as 1015, 1711, 1810, 1821, 2010, 2020, 2021, 2030, 2033, 2610, 2650, 2810, 2811, 2820, 2821, 3220 and 3221 (Order no. 2534 dated 20 October 1999).

ROAG puts all special waste in interim storage in roofed DIAG facilities without outflow and with impervious floor covering for the operating area.

C.2 Assessment

The requirements under section 17 (2) (a-g) VVS regarding the issuance of a permit are deemed met on the basis of the documents submitted.

The Department of Public Works d e c r e e s:

Dietiker AG für Rohmetalle, Althardstrasse 345, Regensdorf, shall be issued an operating permit pursuant to waste regulations (AWR I 490 Regensdorf).

Authoritative documentation:

1 Operation by-law dated 12 January 2005

Authoritative collateral provisions:

1. The provisions contained in the operation by-law shall be complied with.
2. Considerable changes to the operation by-law shall be subject to the approval of the Department of Waste, Water, Energy and Air (AWEL). Such changes shall be communicated voluntarily and immediately to AWEL, Walcheplatz 2, Postfach, 8090 Zurich. In addition, address changes shall be communicated to the Swiss Agency for the Environment, Forests and Landscape (BUWAL), Dept. Waste/VVS, 3003 Berne.
3. The permit shall expire after five (5) years on 31 March 2010. If the permit holder wishes to maintain the permit, he shall submit an application for extension to AWEL no later than six months prior to expiry of the permit.
4. The annual report shall be submitted to AWEL, together with the annual report of DIAG, voluntarily and regularly by the end of February of the following year at the latest.

II. The existing permit of Dietiker AG für Rohmetalle, Regensdorf (E 0096 0169) to receive certain special waste shall be extended and amended in accordance with the Regulation on Traffic in Special Waste (VVS) of 12 November 1986.

Authoritative documents:

1 Order no. 2534 dated 20 October 1999
2 Letter (M. Eckert) dated 19 November 2004
3 Operation by-law dated 12 January 2005
4 Letter (M. Eckert) dated 12 January 2005

Authoritative collateral provision:

1. Upon expiry or revocation of the operating permit pursuant to the Waste Management Act of 25 September 1994, the permit for receiving special waste shall expire as well.

III. The permit shall pertain exclusively to the receipt, interim storage and passing on of the special waste listed hereinafter at the premises of Althardstrasse 345 in Regensdorf. Any further processing shall not be permitted.

1015	Accumulator acids
1711[1]	Sludges containing chromium, cobalt, copper, molybdenum, nickel, other heavy metals or beryllium
1810	Magnesium-containing shavings and particles
1821	Insulation residue from the recycling of cable scrap
2010	Blast furnace slag without flue ash
2020	Dusts, fine particles, flue ash
2021	Filter dust with non-ferrous metals from used air purification
2030	Glass foam, slag, used furnace lining
2033	Aluminium and magnesium-containing light metal scrapings
2610	Solid metallic oxide waste
2650	Spent catalysts from chemical processes
2810[1]	Dehydrated metallic hydroxide sludge
2811[1]	Metal hydroxide sludge, spadeable, free of cyanide and chromium VI
2820[1]	Non-dehydrated metal hydroxide sludge
2821[1]	Metal hydroxide sludge, not spadeable, free of cyanide and chromium VI
3220	Used batteries and accumulators
3221	Lead accumulators

[1] Non-solid special waste or special waste containing liquids may be stored only in special storage areas equipped with non-drainage stacking shafts.

IV. The permit to receive certain special waste pursuant to VVS may be revoked if the requirements are no longer complied with or if the permit holder violates the provisions of VVS or this permit. Requirements are, for example:

a) Dietiker AG für Rohmetalle must be able to provide proof at any time that it can pass on special waste accepted by it or residue from the recycling of such waste which is also classified as special waste to a company that is licensed to receive special waste in accordance with VVS or that it has a valid export permit issued by the Swiss Agency for the Environment, Forests and Landscape (BUWAL).

b) Voluntary reporting of changes to facts on which this permit has been made contingent to the Department of Waste, Water, Energy and Air (AWEL), Walcheplatz 2, Postfach, 8090 Zurich, and the voluntary reporting of address changes to BUWAL, Department for Waste, 3003 Berne, as well.

c) The timely and complete submission of lists of special waste received [Form 319.552 d] pursuant to section 23 VVS to the competent government agencies (these lists must be submitted to AWEL, BUWAL [addressed to BUWAL, Department for Waste, 3003 Berne] and, if necessary, to the corresponding government agencies of other cantons [in excerpts] no later than one month following the end of a quarter).

d) Compliance at all times with the requirements of any such laws and regulations on water protection, air hygiene and hazardous incidents, as are in force from time to time.

V. Any serious mistakes in deliveries (e.g., explosives waste, infectious waste, devices or components containing explosive or highly toxic constituents) shall be reported to AWEL as part of the annual report.

VI. The permit to receive certain special waste pursuant to VVS pertains exclusively to the provisions of VVS regarding companies receiving special waste, subject to any additional conditions as may be contained in other decrees, especially decrees respecting fire protection, workplace safety, etc., as well as any conditions imposed for construction by the municipality of Regensdorf.

VII. The state shall not be liable for any damage that may arise in the exercise of this permit.

VIII. With respect to this order, the following fees are set and invoiced to Dietiker AG für Rohmetalle, Althardstrasse 345, 8105 Regensdorf:

-	State fee:	CHF 1,160.00	(Acc. 8000 0010 01/85123.71.001)
-	Issuance fee:	CHF 120.00	(Acc. 8000 0010 01/85123.71.001)
	Total	CHF 1,280.00	

IX. An appeal against this order can be lodged with the canton government, 8090 Zurich, within thirty days from the date of delivery of such order accompanied by a written statement of the reasons for the appeal. The statement of appeal shall be drawn up in triplicate and shall contain both an application and the reasons for the appeal. The order appealed shall be attached thereto. The evidence invoked shall be described accurately and attached to such extent as is possible. Substantive and procedural findings of the canton government are subject to fees; the party failing in the proceedings shall bear the costs.

X. Copies hereof to be sent to:

- Dietiker AG für Rohmetalle, Althardstrasse 345, 8105 Regensdorf (by registered letter with acknowledgment of receipt);
- Municipal Council of Regensdorf, 8105 Regensdorf;
- BUWAL, Department for Waste/VVS, 3003 Berne;
- Building Insurance Company of the canton of Zurich, Chief Fire Officer of the canton;
- General Secretariat of the Department of Public Works, Department for Finance and Controlling;
- Department of Waste, Water, Energy and Air (AWEL).

Zurich, 15 February 2005
BH/rpf

Statement prepared by:

Department of
Waste, Water, Energy and Air (AWEL)

[Signature]
Administrative Assistant

Headquarters
P.O. Box 3000
Johnstown Castle Estate
County Wexford
Ireland

WASTE LICENCE

Waste Licence Register No:	188-1
Licensee:	Greenstar Materials Recovery Limited
Location of Facility:	Site 14B, Phase 3, Road 3A, Greenogue Industrial Estate, Rathcoole, County Dublin

INTRODUCTION

This introduction is not part of the licence and does not purport to be a legal interpretation of the licence.

This licence is for the operation of a waste transfer station located at Site 14B, Phase 3, Road 3A, Greenogue Industrial Estate, Rathcoole, Co. Dublin. The quantity of waste to be accepted at the facility is limited to 95,000 tonnes per annum consisting of household waste, commercial waste and industrial waste and construction and demolition waste.

All waste will be segregated and processed inside the transfer station. Dry recyclable waste (e.g. paper, cardboard, plastics, wood, metals and aluminium cans) will be segregated at the facility by the use of a grab machine, a trommel and a picking line. A shredder may be used to reduce larger sized items of dry recyclable waste. The segregated recyclable waste will be baled/compacted at the site prior to recovery off-site. Residual waste will be transferred for disposal off-site. Municipal solid waste that has not been source segregated will be baled at the facility prior to disposal off-site.

The licensee must manage and operate the facility to ensure that the activities do not cause environmental pollution. The licensee is required to carry out regular environmental monitoring and submit all monitoring results, and a wide range of reports on the operation and management of the facility to the Agency.

The licence sets out in detail the conditions under which Greenstar Materials Recovery Limited will operate and manage this facility.

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DECISION & REASONS FOR THE DECISION

Reasons for the Decision

On the basis of the information before it, the Environmental Protection Agency is satisfied that the waste activity, or activities, licensed hereunder will comply with the requirements of Section 40(4) of the Waste Management Acts, 1996-2003.

In reaching this decision the Environmental Protection Agency has considered the application and supporting documentation received from the applicant, one submission and one objection received and the report of its inspectors.

INTERPRETATION

All terms in this licence should be interpreted in accordance with the definitions in the Waste Management Act, (the Act), unless otherwise defined in this section.

Adequate lighting	20 lux measured at ground level.
Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Agreement	Agreement in writing.
Annually	At approximately twelve monthly intervals.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
Application	The application by the licensee for this waste licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
BAT	Best Available Technology as defined in Section 5(2) of the Act (as amended).
Bi-annually	All or part of a period of six consecutive months.
Biodegradable waste	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard.
Condition	A condition of this licence.
Consignment Note	All movements of hazardous waste within Ireland must be accompanied by a "C1" consignment note issued by a local authority under the Waste Management (Movement of Hazardous Waste) Regulations (SI No. 147 of 1998).
Construction and Demolition Waste	All wastes which arise from construction, renovation and demolition activities.
Containment boom	A boom which can contain spillages and prevent them from entering drains or watercourses.
Daytime	8.00 a.m. to 10.00 p.m.
Documentation	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.

Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
Emergency	Those occurrences defined in Condition 9.4.
Emission Limits	Those limits, including concentration limits and deposition levels established in *Schedule C: Emission Limits* of this licence.
European Waste Catalogue (EWC)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC and any subsequent amendment published in the Official Journal of the European Community.
Green waste	Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation.
Hours of Operation	The hours during which the facility is authorised to be operational.
Hours of Waste Acceptance	The hours during which the facility is authorised to accept waste.
Incident	The following shall constitute an incident for the purposes of this licence: a) an emergency; b) any emission which does not comply with the requirements of this licence; c) any exceedance of the daily duty capacity of the waste handling equipment; d) any trigger level specified in this licence which is attained or exceeded; and e) any indication that environmental pollution has, or may have, taken place.
Industrial Waste	As defined in Section 5(1) of the Act.
Inert waste	Waste as defined in SI 336 of 2002 Waste Management (Licensing) (Amendment) Regulations, 2002.
Landfill Directive	Council Directive 1999/31/EC.
Licence	A Waste Licence issued in accordance with the Act.
Licensee	Greenstar Materials Recovery Limited
Liquid Waste	Any waste in liquid form and containing less than 2% dry matter. Any waste tankered to the facility.
Maintain	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to adequately perform its function.
Mobile Plant	Self-propelled machinery used for the emplacement of wastes or for the construction of specified engineering works.
Monthly	A minimum of 12 times per year, at approximately monthly intervals.
Municipal waste	As defined in Section 5(1) of the Act.
Night-time	10.00 p.m. to 8.00 a.m.

Noise Sensitive Location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Quarterly	At approximately three monthly intervals.
Sanitary Authority	South Dublin County Council
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
Specified Emissions	Those emissions listed in *Schedule C: Emission Limits* of this licence.
Specified Engineering Works	Those engineering works listed in *Schedule B: Specified Engineering Works* of this licence.
TOC	Total Organic Carbon.
Transfrontier Shipment Notification	Transfrontier shipment notification and movement/tracking form numbers are required for all exports of waste from, into or through the state under the Waste Management (Transfrontier Shipment of Waste) Regulations (SI No. 149 of 1998).
Trigger Level	A parameter value specified in the licence, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Wastewater	Contaminated water including water that has been used, for washing, and/or flushing (including foul water).
Weekly	During all weeks of plant operation, and in the case of emissions, when emissions are taking place; with no more than one measurement in any one week.
White Goods	Refrigerators, cookers, ovens and other similar appliances.
EPA Working Day	Refers to the following hours; 9.00 a.m. to 5.30 p.m. Monday to Friday inclusive.

Part I Schedule of Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Acts, 1996-2003, the Environmental Protection Agency (the Agency), under Section 40(1) of the said Acts hereby grants this Waste Licence to Greenstar Materials Recovery Limited to carry on the waste activity/activities listed below at Site 14B, Phase 3, Road 3A, Greenogue Industrial Estate, Rathcoole, Co. Dublin subject to conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Acts 1996-2003

Class 11.	**Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.** This activity is limited to mixing of waste recovered on-site with other compatible waste prior to disposal off-site.
Class 12.	**Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.** This activity is limited to the compaction and baling of wastes prior to disposal off-site.
Class 13.	**Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.** This activity is limited to storage of waste prior to disposal off-site.

Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Acts 1996-2003

Class 2.	**Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes):** This activity is limited to the recovery of wastes such as paper, plastics, cardboard, wood, timber, food waste and green waste.
Class 3.	**Recycling or reclamation of metals and metal compounds:** This activity is limited to the recovery of metals from the incoming waste streams.
Class 4.	**Recycling or reclamation of other inorganic materials:** This activity is limited to the recovery of glass and construction and demolition waste.
Class 12.	**Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule:** This activity is limited to the exchange of unprocessed construction and demolition wastes for plastics, cardboard and paper wastes recovered at other Greenstar waste management facilities.
Class 13.	**Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced:** This activity is limited to storage of waste prior to recovery off-site.

PART II CONDITIONS

CONDITION 1 SCOPE OF THE LICENCE

1.1 Waste activities at the facility shall be restricted to those listed and described in Part I: Activities Licensed and authorised by this licence.

1.2 For the purposes of this licence, the facility is the area of land outlined in green on Drawing No. 03048-B1 Rev. A *Leased Area* of the Additional Information submitted 12/08/03. Any reference in this licence to "facility" shall mean the area outlined in red.

1.3 This licence is for the purposes of waste licensing under the Waste Management Acts 1996-2003 only and nothing in this licence shall be construed as negating the licensee's statutory obligations or requirements under any other enactments or regulations.

1.4 Only those waste categories and quantities listed in *Schedule A: Waste Acceptance* of this licence, shall be accepted at the facility.

1.5 Waste shall be accepted at the facility, only from customers who are holders of a waste permit, unless exempted, under the Waste Management (Collection Permit) 2001 or from other licensed/permitted facilities

1.6 No hazardous wastes or liquid wastes shall be accepted at the facility.

1.7 Waste Acceptance Hours and Hours of Operation

1.7.1 Waste shall be accepted at the facility only between the hours of 7:00 to 19:30 Monday to Friday inclusive and 8.00 to 15:00 on Saturdays.

1.7.2 The facility shall be operated only during the hours of 6:30 to 20:30 Monday to Friday inclusive and 7:00 to 16:00 on Saturdays.

1.7.3 Waste shall not be accepted at the facility on Sundays or on Bank Holidays.

1.8 Every plan, programme or proposal submitted to the Agency for its agreement pursuant to any Condition of this licence shall include a proposed timescale for its implementation. The Agency may modify or alter any such plan, programme or proposal in so far as it considers such modification or alteration to be necessary and shall notify the licensee in writing of any such modification or alteration. Every such plan, programme or proposal shall be carried out within the timescale fixed by the Agency but shall not be undertaken without the agreement of the Agency. Every such plan, programme or proposal agreed by the Agency shall be covered by the conditions of this licence.

REASON: *To clarify the scope of this licence.*

CONDITION 2 MANAGEMENT OF THE FACILITY

2.1 Facility Management

2.1.1 The licensee shall employ a suitably qualified facility manager who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced, deputy shall be present on the facility at all times during its operation.

2.1.2 Both the facility manager and deputy, and any replacement manager or deputy, shall successfully complete both the FAS waste management training programme (or equivalent agreed by the Agency) and associated on site assessment appraisal within twelve months of appointment.

2.1.3 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience, as required and shall be aware of the requirements of this licence.

2.2 Management Structure

2.2.1 Within three months from the date of grant of this licence, the licensee shall submit written details of the management structure of the facility to the Agency. Any proposed replacement in the management structure shall be notified in advance in writing to the Agency. Written details of the management structure shall include the following information.

a) the names of all persons who are to provide the management and supervision of the waste activities authorised by the licence, in particular the name of the facility manager and any nominated deputies;

b) details of the responsibilities for each individual named under a) above; and

c) details of the relevant education, training and experience held by each of the persons nominated under a) above.

2.3 Environmental Management System (EMS)

2.3.1 The licensee shall establish and maintain an EMS. Within twelve months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement a proposal for a documented Environmental Management System (EMS) for the facility. Following the agreement of the Agency, the licensee shall establish and maintain such a system. The EMS shall be updated on an annual basis with amendments being submitted to the Agency for its agreement.

2.3.2 The EMS shall include as a minimum the following elements:

2.3.2.1 Schedule of Environmental Objectives and Targets

The objectives should be specific and the targets measurable. The Schedule shall address a five-year period as a minimum. The Schedule shall include a time-scale for achieving the objectives and targets and shall comply with any other written guidance issued by the Agency.

2.3.2.2 Environmental Management Plan (EMP)

The EMP shall include, as a minimum, the following:

(i) methods by which the objectives and targets will be achieved in the coming year and the designation of responsibility for targets;

(ii) any other items required by written guidance issued by the Agency.

2.3.2.3 Corrective Action Procedures

The Corrective Action Procedures shall detail the corrective actions to be taken should any of the procedures detailed in the EMS not be followed.

2.3.2.4 Awareness and Training Programme

The Awareness and Training Programme shall identify training needs, for personnel who work in or have responsibility for the licensed facility.

2.4 Communications Programme

2.4.1 The licensee shall establish and maintain a Communications Programme to ensure that members of the public can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility. This shall be established within six months of the date of grant of this licence.

REASON: *To make provision for the proper management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment.*

CONDITION 3 FACILITY INFRASTRUCTURE

3.1 The licensee shall establish all infrastructure referred to in this licence prior to the commencement of the licensed activities or as required by the conditions of this licence.

3.2 Specified Engineering Works

3.2.1 The licensee shall submit proposals for all Specified Engineering Works, as defined in *Schedule B: Specified Engineering Works* of this licence, to the Agency for its agreement at least two months prior to the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.

3.2.2 All specified engineering works shall be supervised by a competent person(s) and that person, or persons, shall be present at all times during which relevant works are being undertaken.

3.2.3 Following the completion of all specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall include the following information:-

a) a description of the works;

b) as-built drawings of the works;

c) records and results of all tests carried out (including failures);

d) drawings and sections showing the location of all samples and tests carried out;

e) daily record sheets/diary;

f) name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;

g) name(s) of individual(s) responsible for supervision of works and for quality assurance validation of works;

h) records of any problems and the remedial works carried out to resolve those problems; and

i) any other information requested in writing by the Agency.

3.3 Facility Notice Board

3.3.1 The licensee shall provide and maintain a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm.

3.3.2 The board shall clearly show:-

a) the name and telephone number of the facility;

b) the normal hours of opening;

c) the name of the licence holder;

d) an emergency out of hours contact telephone number;

e) the licence reference number; and

f) where environmental information relating to the facility can be obtained.

3.4 Facility Security

3.4.1 Within six months of the date of grant of this licence, security fencing, gates and closed circuit television (CCTV) shall be installed and maintained around the facility boundary. The base of the fencing shall be set in the ground.

3.4.2 The licensee shall remedy any defect in the gates and/or fencing as follows:-

a) a temporary repair shall be made by the end of the working day; and

b) a repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

3.5 Facility Roads and Site Surfaces

3.5.1 Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.

3.5.2 Within six months of the date of grant of this licence, the licensee shall provide, and maintain an impermeable concrete surface in all areas of the facility, the surfaces shall be concreted and constructed to British Standard 8110 or an alternative as agreed by the Agency.

3.6 Facility Office

3.6.1 The licensee shall provide and maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.

3.6.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.

3.7 Waste Inspection and Quarantine Areas

3.7.1 Within six months of the date of grant of this licence, a Waste Inspection Area and a separate Waste Quarantine Area shall be provided and maintained at the facility.

3.7.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The

waste inspection area and the waste quarantine area shall be clearly identified and segregated from each other.

3.7.3 The waste quarantine area shall be secured and rendered impervious to the material stored therein with all drainage diverted for collection and safe disposal.

3.8 Weighbridge and Vehicle Wash Area

3.8.1 The licensee shall provide and maintain a weighbridge at the facility.

3.8.2 Within six months of the date of grant of this licence, the licensee shall provide and maintain a vehicle wash area at the facility.

3.8.3 The vehicle wash area shall be used by all vehicles leaving the facility as required to ensure that no wastewater or waste is carried off-site. All water from the vehicle wash area shall be directed to the wastewater drainage system.

3.9 Waste handling, ventilation and processing plant

3.9.1 Items of plant deemed critical to the efficient and adequate processing of waste at the facility (including *inter alia* waste loading vehicles and ejector trailers) shall be provided on the following basis:-

a) 100% duty capacity;

b) 50% standby capacity available on a routine basis; and

c) Provision of contingency arrangements and/or back up and spares in the case of breakdown of critical equipment.

3.9.2 Within three months from the date of grant of this licence, the licensee shall provide a report for the agreement of the Agency detailing the duty and standby capacity in tonnes per day, of all waste handling and processing equipment to be used at the facility. These capacities shall be based on the licensed waste intake, as per *Schedule A: Waste Acceptance* of this licence.

3.9.3 The quantity of waste to be accepted at the facility on a daily basis shall not exceed the duty capacity of the equipment at the facility. Any exceedance of this intake shall be treated as an incident.

3.10 Tank and Drum Storage Areas

3.10.1 All tank and drum storage areas shall be rendered impervious to the materials stored therein.

3.10.2 All tank and drum storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:-

a) 110% of the capacity of the largest tank or drum within the bunded area; or

b) 25% of the total volume of substance which could be stored within the bunded area.

3.10.3 All drainage from bunded areas shall be diverted for collection and safe disposal.

3.10.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.

3.10.5 The integrity and water tightness of all the bunds and their resistance to penetration by water or other materials stored therein shall be confirmed by the licensee and shall be reported to the Agency following its installation and prior to its use as a storage area.

This confirmation shall be repeated at least once every three years thereafter and reported to the Agency on each occasion.

3.11 Drainage system, pipeline testing

3.11.1 The drainage systems described below for wastewater and surface water run-off shall be installed within six months from the date of grant of this licence, unless otherwise agreed by the Agency.

3.11.2 All wastewater and surface water run-off from waste storage/handling area(s) including the surface water run-off from the weighbridge shall be discharged to the wastewater drainage system.

3.11.3 Surface water run-off from all areas other than waste storage/handling area(s) shall be discharged to the surface water run-off drainage system.

3.11.4 The licensee shall install and maintain silt traps and oil interceptors at the facility to ensure that all surface water run-off and wastewater (excluding toilet and canteen wastewater) discharges from the facility pass through a silt trap and oil interceptor prior to discharge. The interceptors shall be a Class I full retention interceptor. The silt traps and interceptors shall be in accordance with European Standard prEN 858 (installations for the separation of light liquids).

3.11.4.1 A manual shut-off valve shall be installed at the interceptors.

3.11.5 The licensee shall submit a drawing to the Agency within three months of the date of grant of this licence, indicating all drainage arrangement at the site as detailed in the licence.

3.11.6 Within three months from the date of grant of this licence, all foul sewer gullies, drainage grids and manhole covers shall be painted with red squares whilst all surface water discharge gullies, drainage grids and manhole covers shall be painted with blue triangles. These colour codes shall be maintained so as to be visible at all times during facility operation, and any identification designated in this licence (e.g. SW1) shall be inscribed on these manholes.

3.11.7 The drainage system, bunds, silt traps and oil separators shall be inspected weekly, desludged as necessary and properly maintained at all times. All sludge and drainage from these operations shall be collected for safe disposal. A written record shall be kept of the inspections, desludging, cleaning, disposal of associated waste products, maintenance and performance of the interceptors, bunds and drains.

3.11.8 The integrity and water tightness of all underground pipes and tanks and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee and shall be reported to the Agency following their installation and prior to their use. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

3.12 Monitoring Infrastructure

3.12.1 Replacement of Infrastructure: monitoring infrastructure which is damaged or proves to be unsuitable for its purpose shall be replaced within three months of it being damaged or recognised as being unsuitable.

REASON: *To provide appropriate infrastructure for the protection of the environment.*

CONDITION 4 RESTORATION AND AFTERCARE

4.1. Decommissioning and Aftercare of the facility shall be carried out to an agreed plan and to an agreed standard sufficient to return the site to a satisfactory state. The licensee shall update decommissioning and closure plans when required by the Agency.

***REASON**: To provide for the restoration of the facility.*

CONDITION 5 FACILITY OPERATIONS

5.1 All waste processing shall be carried out inside the waste transfer building.

5.2 Waste Acceptance and Characterisation Procedures

5.2.1 Within six months of the date of grant of this licence, the licensee establish and maintain detailed written and site specific procedures for the acceptance and handling of wastes.

5.2.2 Waste arriving at the facility shall be inspected at the point of entry to the facility and subject to this inspection, weighed, documented and directed to the Waste Transfer Building. Each load of waste arriving at the Waste Transfer Building shall be inspected upon tipping within this building. Only after such inspections shall the waste be processed for disposal or recovery.

5.2.3 Any waste deemed unsuitable for processing at the facility and/or in contravention of this licence shall be immediately separated and removed from the facility at the earliest possible time. Temporary storage of such wastes shall be in a designated Waste Quarantine Area. Waste shall be stored under appropriate conditions in the quarantine area to avoid putrefaction, odour generation, the attraction of vermin and any other nuisance or objectionable condition.

5.2.4 A record of all inspections of incoming waste loads shall be maintained.

5.3 Operational Controls

5.3.1 The floor of the waste transfer building shall be cleaned on a weekly basis and on a daily basis where putrescible waste is handled. The floor of the storage bays for recovered wastes shall be washed down and cleaned on each occasion such bays are emptied, or as a minimum on a weekly basis.

5.3.2 Scavenging shall not be permitted at the facility.

5.3.3 Gates shall be locked shut when the facility is unsupervised.

5.3.4 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.

5.3.5 Fuels shall be stored only at appropriately bunded locations on the facility.

5.3.6 All tanks and drums shall be labelled to clearly indicate their contents.

5.4 Off-site Disposal and Recovery

5.4.1 All waste transferred from the facility shall be transferred by an authorised or exempted carrier, and only to an appropriate facility. In relation to the use of such facilities the licensee shall maintain on site for inspection the following information;

(i) A copy of the waste permit or waste licence where applicable.

(ii) The proposed waste types and quantities.

(iii) Details of any limitations on waste types and quantities acceptable at the facility.

5.5 Maintenance

5.5.1 All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer. Written records of the calibrations and maintenance shall be made and kept by the licensee.

5.5.2 The vehicle wash area shall be inspected on a daily basis and drained as required. Silt, stones and other accumulated material shall be removed as required from the wheel-wash and disposed of appropriately.

5.5.3 The licensee shall maintain the compactor(s)/baler(s) and shredder in accordance with the manufacturers instructions.

5.6 Landscaping

5.6.1 Landscaping of the facility as described in Section 13 *Landscape* and shown on Drawing No. LD162 Rev. B *Landscape Plan* of the Environmental Impact Statement shall be carried out within twelve months of the date of grant of this licence.

***REASON**: To provide for appropriate operation of the facility to ensure protection of the environment.*

CONDITION 6 EMISSIONS

6.1 No specified emission from the facility shall exceed the emission limit values set out in *Schedule C: Emission Limits* of this licence. There shall be no other emissions of environmental significance.

6.2 The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.

6.3 Emissions to Surface Water

6.3.1 No wastewater and contaminated surface water run-off shall be discharged to surface water drains and courses.

6.3.2 The trigger levels for surface water discharges from the facility measured at monitoring point SW-1 are:-

a) BOD 25mg/l

b) Suspended Solids 35mg/l

6.3.3 No substance shall be discharged in a manner, or at a concentration which, following initial dilution causes tainting of fish or shellfish.

6.4 There shall be no direct emissions to groundwater.

6.5 There shall be no clearly audible tonal component or impulsive component in the noise emissions from the activity at the noise sensitive locations.

6.6 Emissions to Sewer

6.6.1 Unless otherwise agreed in advance by the Agency and the Sanitary Authority, the following shall apply for the discharge of wastewater and surface water run-off from waste storage/handling area(s). There shall be no other discharge or emission to sewer of environmental significance.

6.6.2 No substance shall be present in emissions to sewer in such concentrations as would constitute a danger to sewer maintenance personnel working in the sewerage system, or as would be damaging to the fabric of the sewer, or as would interfere with the biological functioning of a downstream wastewater treatment works.

6.6.3 The effluent shall be screened prior to discharge to remove gross solids and avoid blockages in the sewer.

6.6.4 The licensee shall permit authorised persons of the Agency and the Sanitary Authority to inspect, examine and test, at all reasonable times, any works and apparatus installed, in connection with the discharge or emission, and to take samples of the discharge or emission.

6.6.5 No discharge or emission to sewer shall take place which might give rise to any reaction within the sewer or to the liberation of by-products which may be of environmental significance.

6.6.6 Materials classifiable as 'Hazardous Wastes' under the Waste Management Act, 1996, shall not be discharged to the foul sewer.

6.6.7 The licensee shall ensure that the discharge shall not contain dissolved methane, petroleum spirits or organic solvents (including chlorinated organic solvents), at concentrations which would give rise to flammable or explosive vapours in the sewer.

6.6.8 Non-trade effluent wastewater (e.g. firewater, accidental spillage) which occurs on-site shall not be discharged to the sewer without the prior authorisation of the Sanitary Authority.

6.6.9 The licensee shall provide and maintain an inspection chamber in a suitable position in connection with each pipe through which a discharge or emission is being made. Each such inspection chamber or manhole shall be constructed and maintained by the licensee so as to permit the taking of samples of the discharge.

6.6.10 The licensee shall submit monitoring results to the Sanitary Authority on an annual basis.

6.6.11 The method of calculating the volumes of trade effluent discharged shall be as agreed with the Sanitary Authority.

6.7 Emissions to sewer in this licence shall be interpreted in the following way:-

a) Continuous monitoring.

No flow value shall exceed the specified limit.

b) Non-Continuous monitoring.

Eight out of ten consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling shall not exceed 1.2 times the emission limit value.

c) No grab sample shall exceed 1.2 times the emission limit value.

REASON: *To control emissions from the facility and provide for the protection of the environment.*

CONDITION 7 NUISANCE CONTROL

7.1 The licensee shall ensure that vermin, birds, flies, mud, dust, litter and odours do not give rise to nuisance at the facility or in the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.

7.2 The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.

7.3 Litter Control

7.3.1 All loose litter or other waste, placed on or in the vicinity of the facility, other than in accordance with the requirements of this licences, shall be removed, subject to the agreement of the landowners, immediately and in any event by 10.00am of the next working day after such waste is discovered.

7.3.2 The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the facility are appropriately covered.

7.4 Dust/Odour Control

7.4.1 All putrescible waste for disposal stored overnight at the facility, shall be stored in suitably covered and enclosed containers within the Waste Transfer Building, and shall be removed from the facility within forty eight hours, except at Bank Holiday weekends. At Bank Holiday weekends, waste for disposal shall be removed within seventy-two hours of its arrival on site.

7.4.2 Only non-putrescible waste shall be stored in suitably covered and enclosed containers at the designated waste container area shown on Drawing No. D623/D2 Rev. E *Site 14B, Road 3A, Site Layout*, with drainage to the wastewater drainage network.

7.4.3 In dry weather, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance.

7.4.4 Within nine months of the date of grant of this licence, the licensee shall install and provide adequate measures for the control of odours and dust emissions, including fugitive dust emissions, from the facility. Such measures shall at a minimum include the following:-

7.4.4.1 Dust curtains or equivalent, subject to the agreement of the Agency, shall be maintained on the entry/exit points from the waste transfer building. All other doors in this building shall be kept closed where possible.

7.4.4.2 Installation of an odour management system.

7.4.4.3 Provision of 100% duty capacity and 20% stand by capacity, back ups and spares must be provided for the air handling, ventilation and abatement plant.

REASON: *To provide for the control of nuisances.*

CONDITION 8 MONITORING

8.1 The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule D: Monitoring* of this licence. Unless otherwise specified by this licence, all environmental monitoring shall commence no later than two months after the date of grant of this licence.

8.2 The licensee shall amend the frequency, locations, methods and scope of monitoring as required by this licence only upon the written instruction of the Agency and shall provide such information concerning such amendments as may be requested in writing by the Agency. Such alterations shall be carried out within any timescale nominated by the Agency.

8.3 Monitoring and analysis equipment shall be operated and maintained in accordance with the manufacturers' instructions (if any) so that all monitoring results accurately reflect any emission, discharge or environmental parameter.

8.4 The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency.

8.5 The licensee shall maintain all sampling and monitoring points, and clearly label and name all sampling and monitoring locations, so that they may be used for representative sampling and monitoring.

8.6 Within three months of the date of grant of this licence, the licensee shall submit to the Agency an appropriately scaled drawing(s) showing all the monitoring locations that are stipulated in this licence, including any noise sensitive locations to be monitored. The drawing(s) shall include the eight-digit national grid reference of each monitoring point.

8.7 The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.

8.8 Within one month of the date of grant of this licence, the following information shall be submitted to the Agency for its agreement: the names, qualifications and a summary of relevant experience of all persons that will carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring. Any proposed changes to the above shall be submitted in writing to the Agency for its agreement.

8.9 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on, unless alternative sampling or monitoring has been agreed, in writing, by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. Prior written agreement for the use of alternative equipment, other than in emergency situations, shall be obtained from the Agency.

8.10 Archaeological Assessment

8.10.1 Prior to the development of any undisturbed area, the advice of The Development Applications Section of the Department of the Environment, Heritage and Local Government (formerly Dúchas) shall be sought. On completion of such development a report of the results of any archaeological monitoring shall be submitted to The Development Applications Section and to the Agency.

8.11 Nuisance Monitoring

8.11.1 The licensee shall, at a minimum of one week intervals, inspect the facility and its immediate surrounds for nuisances caused by litter, vermin, birds, flies, mud, dust and odours.

REASON: *To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions.*

CONDITION 9 CONTINGENCY ARRANGEMENTS

9.1 In the event of an incident the licensee shall immediately:-

a) identify the date, time and place of the incident;

b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;

c) isolate the source of any such emission;

d) evaluate the environmental pollution, if any, caused by the incident;

e) identify and execute measures to minimise the emissions/malfunction and the effects thereof;

f) provide a proposal to the Agency for its agreement within one month of the incident occurring to:-

i) identify and put in place measures to avoid reoccurrence of the incident; and

ii) identify and put in place any other appropriate remedial action.

9.2 Within six months of the date of grant of this licence, submit a written Emergency Response Procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situations which may originate on the facility and shall include provision for minimising the effects of any emergency on the environment. This shall include a risk assessment to determine the requirements at the facility for fire fighting and fire water retention facilities. The Fire Authority shall be consulted by the licensee during this assessment.

9.3 The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used the absorbent material shall be disposed of at an appropriate facility.

9.4 Emergencies

9.4.1 In the event of a complete breakdown of equipment or any other occurrence which results in the closure of the transfer station building, any waste arriving at or already collected at the facility shall be transferred directly to appropriate landfill sites or any other appropriate facility until such time as the transfer station building is returned to a fully operational status. Such a breakdown event will be treated as an emergency and rectified as soon as possible.

9.4.2 All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects.

9.4.3 No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities.

9.4.4 In the event that monitoring of local wells indicates that the facility is having a significant adverse effect on the quantity and/or quality of the water supply this shall be treated as an emergency and the licensee shall provide an alternative supply of water to those affected.

***REASON**: To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions.*

CONDITION 10 RECORDS

10.1 The licensee shall keep the following documents at the facility office:-

a) the current waste licence relating to the facility;

b) the current EMS for the facility;

c) the previous year's AER for the facility;

d) all written procedures produced by the licensee which relate to the licensed activities; and

e) licence application(s)

10.2 The licensee shall maintain a written record for each load of waste arriving at and departing from the facility. The licensee shall record the following:-

a) the date;

b) the name of the carrier (including if appropriate, the waste collection permit details);

c) the vehicle registration number;

d) the name of the producer(s)/collector(s) of the waste as appropriate;

e) the name of the waste facility (if appropriate) from which the load originated including the waste licence or waste permit register number;

f) a description of the waste including the associated EWC codes;

g) the quantity of the waste, recorded in tonnes;

h) the name of the person checking the load;

i) where loads or wastes are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed, including waste licence and waste permit registration number of these facilities as appropriate; and

j) where applicable a consignment note number (including transfrontier shipment notification and movement/tracking form numbers, as appropriate).

10.3 Written Records

The following written records shall be maintained by the licensee:-

a) the types and quantities of waste recovered at the facility each year. These records shall include the relevant EWC Codes and any details required to complete national reports on waste statistics;

b) all training undertaken by facility staff;

c) results from all integrity tests of bunds and other structures and any maintenance or remedial work arising from them;

d) details of all nuisance inspections; and

e) the names and qualifications of all persons who carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring.

10.4 The licensee shall maintain a written record of all complaints relating to the operation of the activity. Each such record shall give details of the following:-

a) date and time of the complaint;

b) the name of the complainant;

c) details of the nature of the complaint;

d) actions taken on foot of the complaint and the results of such actions; and,

e) the response made to each complainant.

10.5 A written record shall be kept at the facility of the programme for the control and eradication of vermin and fly infestations at the facility. These records shall include as a minimum the following:-

a) the date and time during which spraying of insecticide is carried out;

b) contractor details;

c) contractor logs and site inspection reports;

d) details of the rodenticide(s) and insecticide(s) used;

e) operator training details;

f) details of any infestations;

g) mode, frequency, location and quantity of application; and,

h) measures to contain sprays within the facility boundary.

REASON: *To provide for the keeping of proper records of the operation of the facility.*

CONDITION 11 REPORTS AND NOTIFICATIONS

11.1 No alteration to, or reconstruction in respect of, the activity or any part thereof which would, or is likely to, result in:

a) A material change or increase in:

- The nature or quantity of any emission;
- The abatement/treatment or recovery systems;
- The range of processes to be carried out;
- The fuels, raw materials, products or wastes to be generated or accepted, or

b) Any changes in:

- The site management and control with adverse environmental significance,

shall be carried out or commenced without prior notice to, and without the prior written agreement of, the Agency.

11.2 Unless otherwise agreed by the Agency, all reports and notifications submitted to the Agency shall:-

a) be sent to the Agency's Regional Inspectorate, McCumiskey House, Richview, Clonskeagh Road, Dublin 14;

b) comprise one original and two copies unless additional copies are required;

c) be formatted in accordance with any written instruction or guidance issued by the Agency;

d) include whatever information as is specified in writing by the Agency;

e) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;

f) be submitted in accordance to the relevant reporting frequencies specified by this licence, such as in *Schedule E: Recording and Reporting to the Agency* of this licence;

g) be accompanied by a written interpretation setting out their significance in the case of all monitoring data; and

h) be transferred electronically to the Agency's computer system if required by the Agency.

11.3 In the event of an incident occurring on the facility, the licensee shall:-

a) notify the Agency as soon as practicable and in any case not later than 10.00 am the following working day after the occurrence of any incident;

b) submit a written record of the incident, including all aspects described in Condition 9.1(a-e), to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident;

c) in the event of any incident which relates to discharges to surface/sewer water, notify Eastern Regional Fisheries Board and/or South Dublin County Council as soon as practicable and in any case not later than 10:00am on the following working day after such an incident; and

d) Should any further actions be taken as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.

11.4 Annual Environmental Report

11.4.1 The licensee shall submit to the Agency for its agreement, by 31st March 2005 and each calendar year thereafter, an Annual Environmental Report (AER).

11.4.2 The AER shall include as a minimum the information specified in Schedule F: *Content of Annual Environmental Report* and shall be prepared in accordance with any relevant written guidance issued by the Agency.

REASON: *To provide for proper reporting and notification of the Agency.*

CONDITION 12 CHARGES AND FINANCIAL PROVISIONS

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of € 13,446 or such sum as the Agency from time to time determines, towards the cost of monitoring the activity or otherwise in performing any functions in relation to the activity, as the Agency considers necessary for the performance of its functions under the Waste Management Acts, 1996-2003. The licensee shall in 2005 and subsequent years, not later than January 31 of each year, pay to the Agency this amount updated in accordance with changes in the Public Sector Average Earnings Index from the date of the licence to the renewal date. The updated amount shall be notified to the licensee by the Agency. For 2004, the licensee shall pay a pro rata amount from the date of this licence to 31st December. This amount shall be paid to the Agency within one month of the date of grant of this licence.

12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased the licensee shall contribute such sums as determined by the Agency to defraying its costs in regard to items not covered by the said annual contribution.

12.2 Financial Provision for Closure, Restoration and Aftercare

12.2.1 The licensee shall arrange for an independent third party risk assessment of the facility to be carried out. The risk assessment shall have particular regard to any accidents, emergencies, or other incidents, which might occur at the facility and their effect on the environment. The risk assessment shall include a comprehensive and fully costed Environmental Liabilities Risk Assessment for the facility together with a proposal for Financial Provision arising from the carrying on of the activities to which this licence relates including the decommissioning of the facility. The risk assessment shall be submitted to the Agency for its agreement within six months of the date of grant of this licence

12.2.2 The licensee shall within six months of the date of grant of this licence establish and maintain a fund, or provide a written guarantee for the costs determined under condition 12.2.1. The type of fund established and means of its release/recovery shall be agreed by the Agency prior to its establishment.

12.2.3 The amount of financial provision, held under Condition 12.2.2 shall be reviewed and revised as necessary, but at least annually. Any proposal for such a revision shall be submitted to the Agency for its agreement.

12.2.4 The licensee shall within two weeks of purchase, renewal or revision of the financial provision required under Condition 12.2.2, forward to the Agency written proof of such indemnity.

12.3 Sanitary Authority Charges.

12.3.1 The licensee shall pay to the Sanitary Authority a quarterly charge of 1.70 euro per cubic metre of trade effluent discharged to the foul sewer or such sum as may be determined from time to time, having regard to the variations in the cost of providing drainage and the variation in effluent reception and treatment costs. This amount shall be paid to the Sanitary Authority within one month of the date of grant of this licence and annually thereafter within one month of the date of notification by the Sanitary Authority of the updated annual amount.

12.3.2 The licensee shall pay to the Sanitary Authority an annual charge of €935, or such sum as may be determined from time to time, towards the cost of monitoring the discharge of trade effluent. This amount shall be paid to the Sanitary Authority within one month of the date of grant of this licence and annually thereafter within one month of the date of notification by the Sanitary Authority of the updated annual amount.

REASON: *To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.*

SCHEDULE A : Waste Acceptance

A.1 Waste Acceptance

Table A.1 Waste Categories and Quantities

WASTE TYPE	MAXIMUM (TONNES PER ANNUM)
Household waste	15,000
Commercial waste	37,500
Construction and demolition waste	5,000.
Industrial waste	37,500
TOTAL	95,000

Note 1: The quantities of the individual waste types may be adjusted, only with the agreement of the Agency, subject to the total annual waste quantity remaining the same.

SCHEDULE B : Specified Engineering Works

Specified Engineering Works
Installation of surface water run-off and wastewater drainage network and associate infrastructure
Installation of dust/odour system.
Development of the facility including installation of waste handling, processing, recycling/recovery infrastructure and installation of increased waste processing capacity.
Any other works notified in writing by the Agency.

SCHEDULE C : Emission Limits

C.1 Noise Emissions Arising from the Activity: (measured at any noise sensitive location).

Day dB(A) L_{Aeq}(30 minutes)	Night dB(A) L_{Aeq}(30 minutes)

55	45

C.2 *Dust Deposition Limits:* (Measured at the monitoring points indicated in ***Table D.1.1***).

Level (mg/m^2 /day)[Note 1]
350

Note 1: 30 day composite sample with the results expressed as mg/m^2 /day.

C.3 *Surface Water Discharge Limits:* (Measured at the monitoring points indicated in *Table D.1.1*).

Parameter	Emission Limit Value
Mineral oils	5mg/l

C.4 *Emission Limits for Wastewater Emissions to Sewer*

Emission Point Reference No. SE-1

Volume to be emitted: Maximum in any one day: 10 m^3

Maximum rate per hour: 5 m^3/hr

Parameter	Emission Limit Value		
	Grab Sample (mg/l)	Daily Mean Concentration (mg/l)	Daily Mean Loading (kg/day)
BOD	3000	2500	25.0
COD	6000	5000	50.0
Ammoniacal Nitrogen	100	70	0.7
Suspended solids	2000	1500	15.0
Sulphate <<applicable to discharges to sewer>>	1000	1000	10.0
PH	6 - 10	6 - 10	
Temperature	42 °C	42 °C	
Detergents (as MBAS)	100	100	1.0
Fats, Oils, Grease	100	100	1.0

SCHEDULE D : Monitoring

Monitoring to be carried out as specified below.

D.1 Monitoring Locations

Monitoring locations shall be those as set out in Table D.1.1and shown on Drawing J10 Rev. A *Monitoring Locations* of the application.

Table D.1.1 Noise, Surface water and Wastewater Monitoring Locations

DUST	NOISE	SURFACE WATER	WASTEWATER
STATIONS	STATIONS	STATIONS	STATIONS
DS-01	N1	SW-1	SE-1
DS-02	N2		
DS-03	N3		
DS-04	Any noise sensitive locations.		

D.2 Dust

Table D.2.1 Dust Monitoring Frequency and Technique

Parameter ($mg/m^2/day$)	Monitoring Frequency	Analysis Method/Technique
Dust	Three times a year [Note 2]	Standard Method [Note 1]

Note 1: Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). A modification (not included in the standard) which 2 methoxy ethanol may be employed to eliminate interference due to algae growth in the gauge.

Note 2: Twice during the period May to September.

D.3 Noise

Table D.3.1 Noise Monitoring Frequency and Technique

Parameter	Monitoring Frequency	Analysis Method/Technique
$L(A)_{EQ}$ [30 minutes]	Annual	Standard [Note 1]
$L(A)_{10}$ [30 minutes]	Annual	Standard [Note 1]
$L(A)_{90}$ [30 minutes]	Annual	Standard [Note 1]
Frequency Analysis(1/3 Octave band analysis)	Annual	Standard [Note 1]

Note 1: "International Standards Organisation. ISO 1996. Acoustics - description and Measurement of Environmental noise. Parts 1, 2 and 3."

D.4 Surface Water Emissions

Table D.4.1 Surface water Monitoring Frequency and Techniques

Parameter	Monitoring Frequency	Analysis Method/Technique
Visual inspection [Note 2]	Daily	Not applicable
PH	Quarterly	Electrometry
Biological Oxygen Demand	Quarterly	Standard Methods[Note 1]
Suspended Solids	Quarterly	Standard Methods[Note 1]
Mineral Oils	Quarterly	Standard Methods[Note 1]
Total Nitrogen	Quarterly	Standard Methods[Note 1]
Total Ammonia	Quarterly	Standard Methods[Note 1]
Chemical Oxygen Demand	Quarterly	Standard Methods[Note 1]
Electrical Conductivity	Quarterly	Standard Methods[Note 1]
Temperature	Quarterly	Standard Methods[Note 1]

Note 1: "Standards Methods for the Examination of Water and Wastewater", (prepared and published jointly by A.P.H.A., A.W.W.A & W.E.F) 20th Ed., American Public Health Association, 1015 Fifteenth Street, Washington DC 20005, USA.
Note 2: The visual inspection to be carried out at surface water monitoring location SW-1.

D.5 Emissions to Sewer

Table D.5.1 Emission to Sewer Monitoring Frequency and Techniques

Parameter	Monitoring Frequency[Note 2]	Analysis Method/Technique
PH	Every two months	Electrometry
Biological Oxygen Demand	Every two months	Standard Methods[Note 1]
Suspended Solids	Every two months	Standard Methods[Note 1]
Fats, Oils, Grease	Every two months	Standard Methods[Note 1]
Temperature	Every two months	Temperature probe
Sulphate (as SO_4)	Every two months	Standard Methods[Note 1]
Ammoniacal nitrogen	Every two months	Standard Methods[Note 1]
Chemical Oxygen Demand	Every two months	Standard Methods[Note 1]
Detergents (as MBAS)	Every two months	Standard Methods[Note 1]

Note 1: "Standards Methods for the Examination of Water and Wastewater", (prepared and published jointly by A.P.H.A., A.W.W.A & W.E.F) 20th Ed., American Public Health Association, 1015 Fifteenth Street, Washington DC 20005, USA.
Note 2: All sampling by grab unless otherwise specified.

SCHEDULE E : Recording and Reporting to the Agency

Report	Reporting Frequency Note1	Report Submission Date
Environmental Management System Updates	Annually	As part of the AER.
Annual Environment Report (AER)	Annually	By 31 March of each calendar year, commencing 2005.
Record of incidents	As they occur	Within five days of the incident.
Bund, tank and container integrity assessment	Every three years	Six months from the date of grant of licence and one month after end of the three year period being reported on.
Specified Engineering Works reports	As they arise	Prior to the works commencing.
Monitoring of Surface Water Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Wastewater	Quarterly	Ten days after end of the quarter being reported on.
Dust Monitoring	Three times a year	Ten days after the period being reported on.
Noise Monitoring	Annually	One month after end of the year being reported on.
Any other monitoring	As they occur	Within ten days of obtaining results.

Note 1: Unless altered at the request of the Agency

SCHEDULE F : Content of the Annual Environmental Report

Annual Environmental Report Content
Reporting Period.
Waste activities carried out at the facility.
Quantity and Composition of waste recovered, received and disposed of during the reporting period and each previous year (relevant EWC codes to be used).
Summary report on emissions.
Summary of results and interpretations of environmental monitoring, including a location plan of all monitoring locations.
Resource and energy consumption summary.
Development / Infrastructural works in place and planned, to process waste quantities projected for the following year (including plant operating capacity, provision of adequate standby capacity and provision of contingency, backup and spares in the case of breakdown)
Schedule of Environmental Objectives and Targets for the forthcoming year.
Report on the progress towards achievement of the Environmental Objectives and Targets contained in previous year's report.
Full title and a written summary of any procedures developed by the licensee in the year which relates to the facility operation.
Tank, drum, pipeline and bund testing and inspection report.
Reported Incidents and Complaints summaries.
Review of Nuisance Controls.
Report on waste recovery
Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.
Report on training of staff
Volume of wastewater produced and volume of wastewater transported off-site.
Any other items specified by the Agency.

Note 1 Content to be revised subject to the agreement of the Agency after cessation of waste acceptance at the facility.

Sealed by the seal of the Agency on this the 5th day of August 2004.

PRESENT when the seal of the Agency was affixed hereto:

Padraic Larkin Director/Authorised Person

Schedule of Conditions

Waste Management (Collection Permit) Regulations, 2001

WASTE COLLECTION PERMIT

Permit Register Reference Number CP D119/1

Dublin City Council being a nominated authority under Section 34(1)(a)(a) of the Waste Management Act, 1996 (as amended), has granted a waste collection permit to **Clearway Disposals Ltd. T/A Hammond Lane Metal Company** hereinafter called the permit holder, of **Pigeon House Road, Ringsend, Dublin 4,** subject to the attached schedule of conditions.

The permit holder is authorised by this permit to collect **ferrous metals, non-ferrous metals and water containing oil** in the following local authority areas only:

Dublin City Council	**South Dublin County Council**
Fingal County Council	**Dun Laoghaire/Rathdown County Council**

The permit holder shall only use vehicles with the following registration number for the purpose of waste collection as set out in this permit:

00 D 93995	**96 WH 742**	**94 WH 1568**	**00 WH 3647**
95 WH 2098	**94 D 32044**	**97 WH 2459**	**87 D 3871**
00 D 75601	**97 D 62277**	**99 D 46357**	**95 D 48026**
98 D 10566	**95 D 46357**	**XIB 6775**	**DLZ 4076**
PDZ 4230	**UIB 7369**	**PIB 9034**	**SIB 1497**
KIB 2575	**CLZ 7288**		

The permit holder shall only transfer waste to the facilities **outlined in condition 2.2 of this permit**.

_____ **Dated this _____day of _____2002**

Head of Waste Management Services

INTERPRETATION

Act	The Waste Management Act, 1996 (No.10 of 1996), as amended.
Activity	A waste collection activity for the purposes of section 34(1)(a) of the Act.
Agency	The Environmental Protection Agency (EPA) established under Section 19 of the Environmental Agency Act, 1992 (No. 7 of 1992).
Collection	As defined in Section 5(1) of the Act.
Construction and Demolition Waste	All waste that arises from construction, renovation and demolition activities, including all wastes mentioned in Chapter 17 of the European Waste Catalogue.
Disposal	As defined in Section 4(3) of the Act.
Environmental Pollution	As defined in Section 5(1) of the Act.
European Waste Catalogue (EWC)	As defined in Section 5(1) of the Act.
Further Information	Information and particulars received pursuant to a notice under Article 9(1) of the Waste Management (Collection Permit) Regulations, 2001 (S.I. No. 402 of 2001).
Hazardous Waste	As defined in Section 4(2) of the Act.
Maintain	Keep in a fit state, including such regular inspection, servicing and repair as may be necessary to adequately perform its function.
Mechanically Propelled Vehicle	A vehicle intended or adapted for propulsion by mechanical means.
Permit	A waste collection permit issued in accordance with the Waste Management (Collection Permit) Regulations, 2001 (S.I. No. 402 of 2001).
Recovery	As defined in Section 4(4) of the Act.
Skip	A container used for the storage or removal of builder's materials, rubble, waste, rubbish or other materials and which is designed to be propelled by a mechanically propelled vehicle.
Treatment	As defined in Section 5(1) of the Act.
Waste	As defined in Section 4(1) of the Act.
Waste Licence	A licence for the purpose of Section 39(1) of the Act.
Waste Permit	A waste permit issued in accordance with the Waste Management (Permit) Regulations, 1998 (S.I. No. 165 of 1998).

Conditions

1. Scope of Permit

1.1 The permit holder may collect wastes specified in condition 1.2 in the following local authority areas:

Dublin City Council
Fingal County Council
South Dublin County Council
Dun Laoghaire/Rathdown County Council

1.2 The permit holder may collect the following waste types only:

ferrous metals
non-ferrous metals
water containing oil

1.3 The conditions of this permit are based upon the information provided by the applicant during the application process. The permit holder shall notify Dublin City Council in writing of any proposed changes in the information furnished and shall obtain written agreement from Dublin City Council prior to these changes occurring.

1.4 Dublin City Council may at any time review, and subsequently amend the conditions of, or revoke this permit. Dublin City Council shall review this permit at least once in each period of two years after the date on which the permit was granted or reviewed, as the case may be.

1.5 This waste collection permit and any condition imposed therein shall not relieve the permit holder of his/ her statutory obligations under any other enactment whatsoever.

1.6 This permit is non- transferable.

2. Management of the Waste Collection Activity

2.1 The permit holder shall ensure that where waste collected under this permit is transferred to a facility for the purpose of a recovery or activity in respect of which section 39(1) of the Waste Management Act, 1996 applies:

(i) there is in force a waste licence or a waste permit in relation to the carrying on of the activity concerned at that facility, or

(ii) an application for such licence or permit has been made to and is under consideration by, the Agency or relevant local authority and the activity may also be carried on pending a decision in relation to the said application.

2.2 The permit holder shall transport waste to the following licensed/permitted facilities outlined in the application for waste collection permit CP D119/1 and *no other facilities whatsoever:*

(i) **Hammond Lane Metal Company,** Pigeon House Road, Ringsend, Dublin 4
Waste Permit Application Register Number: **WP 98041**

(ii) **Pipe and Drain Services Limited,** Upper Sheriff Street, Dublin 1
Environmental Protection Agency Waste Licence Register Number: **35-1**

(iii) Clearway Disposals Ltd., **Hammond Lane Metal Company,** Pigeon House Road, Ringsend, Dublin 4
Waste Permit Register Number: **WP 98007**

(iv) Laois County Council, **Atlas Ireland,** Clonminam Industrial Estate, Portlaoise
Waste Permit Register Number: **WO-1**

(v) **Atlas Oil Laboratories Limited,** Clonminam Industrial Estate, Portlaoise, Co. Laois
IPC Licence Number: **472**

(vi) **Hammond Lane Metal Company,** The Batteries, Athlone, Co. Westmeath
Waste Permit Register Number: **WP 1**

(vii) **Clearway Disposals Limited,** 41 Dobbin Road, Portadown, Co. Armagh, Northern Ireland, BT62 3EY
Belfast City Council Waste Disposal Licence Number: **Z/90/0511**
Consent Number: **1540/91**

(viii) **Hammond Lane Limited,** Ringaskiddy, Co. Cork
Waste Permit Register Number: **5/99**

2.3 The permit holder shall carry or shall cause to be carried a copy of this permit at all times on each vehicle which is used for the purposes of the activity to which this permit relates.

2.4 The permit holder shall not move hazardous waste within the state unless such movement is fully in compliance with the requirements of the Waste Management (Movement of Hazardous Waste) Regulations, 1998.

2.5 The permit holder shall not export waste from the State unless such export is fully in compliance with the requirements of Council Regulation (EEC) No. 259/93 of 1 February, 1993 on the supervision and control of shipments of waste within, into and out of the European Community.

2.6 The permit holder shall be familiar with the requirements placed on holders of household or commercial waste arising from any bye-laws made under section 35 of the Waste Management Act, 1996 by the local authorities in whose area the collection activity is being carried out, and shall keep a copy of all such bye-laws at the address of the principal place of business.

2.7 Where bye-laws referred to in condition 2.6 have been made by one or more of the relevant local authorities, the permit holder shall not collect waste from holders unless it has been presented in accordance with the requirements of the bye-laws in force in a particular local authority area.
This includes the following:

a) Dublin City Council Bye-laws for the Collection, Storage and Presentation of Commercial Waste and Certain Related Waste Management Matters.

b) Dublin City Council Bye-laws for Collection, Storage and Presentation of Household Waste and Certain Related Management Matters.

2.8 The permit holder shall identify all hazards associated with the wastes being collected, and shall be familiar with best practices regarding its safe movement and handling and shall adopt all necessary, reasonable and practicable safety measures accordingly.

2.9 The permit holder shall ensure that all operatives employed in the waste collection
activity are familiar with the conditions of the permit.

2.10 The permit holder shall submit an "**Emergency Response Procedure**" to Dublin City Council within three months of the date of grant of this permit. This shall include provisions for any emergency situation which may arise. This procedure shall include details of an emergency response unit, replacement vehicles and clean up equipment that may be necessary to minimise the effects of any emergency on the environment.

2.11 **Atmospheric Emissions**

2.11.1 All consignments of waste being transported by skips lorries trucks and tippers to be covered during transit.
2.11.2 All vehicles used for transporting waste to be washed down on a weekly basis or more frequently if the vehicle is subject to gross soiling.
2.11.3 All dry/ dusty wastes to be dampened down prior to transit.
2.11.4 All organic wastes including food to be transported in airtight containers.
2.11.5 All other practicable precautions shall be taken to prevent nuisance.

2.12 **Noise Emissions**

2.12.1 The rated noise from the operation of waste transit processes (defined as LAeq 1 hour) shall not exceed the background noise level (as defined in B.S. 4142. Method for rating industrial noise affecting mixed residential and industrial areas.) by 10 dB or more.
2.12.2 Noise levels should not be so loud, so continuous, so repeated, of such duration or pitch or occurring at such times as to give reasonable cause for annoyance to a person in any premises in the neighbourhood or to a person lawfully using any public place.

2.13 Any spillage of waste which occurs in the course of the collection operation, shall be cleaned up immediately and at the latest within an hour of the spillage occurring.

2.14 The permit holder is required to have a docket system of recording waste permit holder shall develop a docket system for recording waste collection. The individually numbered collection dockets shall as a minimum contain the following details:

a) Date of waste collection;
b) Origin of the waste collected;
c) Shall be signed by the producer of the waste, or his representative (except in the case of bag or wheeled bin domestic waste collection);
d) Description of the waste collected (including EWC code for commercial, industrial or hazardous waste);
e) Destination of the waste collected;
f) Shall be signed by the receiver of the waste;
g) The docket shall be available for inspection in the vehicle until control of the waste has been handed over to the operator of the permitted or licensed facility. After that time, the dockets shall be retained at the principal office of the waste collector for a period of three years.

3. Vehicles, Skips and Receptacles

3.1 All vehicles used by the permit holder for the collection and transportation of waste shall be fit for the purpose and maintained in accordance with the manufacturers recommendations.

3.2 All vehicles shall have the name and contact telephone number(s) of the permit holder clearly displayed on the outside in letters a minimum of 75 mm tall.

3.3 Each skip/ tanker/ container which is used for the purposes of the activity to which the permit relates shall be marked on at least two sides with the following information in clearly legible indelible lettering at least 125 millimetres high:

a) name of the permit holder
b) address of principal place of business,
c) telephone number
d) where provided for in bye-laws made under Section 72 of the Roads Act, 1993, the licence number of the skip operator

3.4 Each skip/ tanker/ container if not permanently coupled to the collection vehicle, which is used for the purposes of the activity to which this permit relates and which is to be placed or left on the public road shall:

a) have permanently attached horizontal markings of a type clearly visible to road users which are at least 150 millimetres high and extend along the full length of all sides, approximately halfway between the top and bottom of the skip/tanker/container.
b) not be painted in any colour likely to decrease visibility at night.

3.5 If skips are used for the purpose of the activity to which the activity relates the permit holder shall provide in written agreement with the hirer,

(i) that no skip shall be loaded higher than a point 1 metre above its upper edge.
(ii) that no skip is used for the disposal of hazardous waste.
(iii) that each skip will be removed within 24 hours of it being fully loaded.

4. Notification and Record Keeping

4.1 The permit holder shall notify Dublin City Council in relation to any conviction for an offence prescribed under article 19 of the Waste Management (Collection Permit) Regulations, 2001 or any requirement of an order under sections 57 or 58 of the Waste Management Act, 1996, within fourteen days of such a conviction or the imposition of such a requirement.

4.2 The permit holder shall notify the relevant local authority (i.e. the authority in whose area the incident occurs) immediately after the occurrence of any incident connected with the waste collection activity which caused or has the potential to cause environmental pollution or a threat to human health. The permit holder shall include as part of the notification the date and time of the incident, details of the occurrence, and steps taken to avoid recurrence. A written record of the incident will be sent to Dublin City Council.

4.3 The permit holder shall, not later than 28th February in each year furnish to Dublin City Council an Annual Environmental Report (AER) in respect of waste collection activities carried out by the permit holder in the preceding calendar year. This shall contain the following information and is to be provided in electronic format (Microsoft Excel or in a format which can be readily imported into this application):

a) Summary of records maintained under condition 2.14 of the permit. This shall include the following information:
   (i) The quantity of waste collected (tonnes, or litres in the case of liquids)
   (ii) The quantity of waste collected in each local authority area (tonnes or litres, where applicable)
   (iii) Composition of waste collected (use relevant EWC code(s))
   (iv) Details of commercial/ industrial waste producers from whom waste was collected
   (v) The quantity of waste sent to each disposal facility, to each recovery facility and directly exported for recovery or disposal and its destination (tonnes or litres, where applicable)

b) Details of any waste, its composition and quantity rejected by any facility and the alternative route for the waste.

c) The reference number of the Waste Licence/ Permit or the Waste Licence/ Permit Application, the postal address, the location, and ownership details of the facilities to which waste was be submitted for recovery/ disposal.

d) Summary of the number of skips/ receptacles/ tankers used by the permit holder and the volume of each.

e) Proposals for changes in collection systems (pay by weight, segregated collection etc.) which shall be introduced in order to increase the volume of waste going for recycling/ recovery.

f) Any incidents that have occurred in relation to the activities to which this permit relates, any complaints received by the permit holder and details of how these were addressed.

g) Details of insurance policies held

h) Summary of charges

i) Information on any offence (prescribed under Article 19 of the Waste Management (Collection Permit) Regulations, 2001), the nature of the offence and any penalty or requirement imposed by the court.

j) Information in relation to the terms of any requirement imposed on the applicant by order of a court under Sections 57 or 58 of the act.

4.4 The permit holder shall, not later than 28th February in each year furnish to Dublin City Council an Annual Environmental Report (AER) in respect of waste collection activities carried out by the permit holder in the preceding calendar year. The content of the Annual Environmental Report is specified in condition 4.3. The AER is to be provided in electronic format (Microsoft Excel or in a format which can be readily imported into this application).

4.5 The permit holder shall not compile information that is false or misleading, and will maintain the records in accordance with condition 4.3 on a continuous basis where appropriate. These records shall be kept at the address of the principal place of business for at least three years.

4.6 The records maintained by the permit holder in accordance with condition 4.3 and condition 2.14 shall be made available for inspection by an authorised person of any of the relevant local authorities at the address of the principal place of business during normal office hours.

4.7 In cases where the permit holder directly charges fees to householders for the provision of waste collection facilities, the permit holder must notify Dublin City Council in advance of any proposal to increase the level of fees charged.

5. Charges and Financial Provisions

5.1 Costs incurred by Dublin City Council, and any of the local authorities listed in condition 1.1, in the ongoing monitoring of compliance with this collection permit including the costs of inspections, investigations and analyses of waste samples will be recouped periodically. Notice shall be given in writing and an invoice for the amount being charged shall be issued to the permit holder.

5.2 The permit holder shall effect and maintain a policy of insurance insuring him or her as respects any liability on his or her part to pay any damages or costs on account of injury to person or property arising from the activities concerned. All insurance policies shall be extended to indemnify all local authority areas in which the permit holder collects as listed in condition 1.1 and Dublin City Council.

5.3 The permit holder shall submit copies of the insurance policies held under section 5.2 above to Dublin City Council as part of the Annual Environmental Report.

6. Conditions Specific to the Waste Stream

HAZARDOUS WASTE

6.1 The permit holder shall only deliver hazardous waste to facilities that have an appropriate licence/permit to accept such hazardous waste for disposal or recovery.

6.2 The permit holder shall, within two months from the date of grant of this permit, submit a written consent from each facility to which it is proposed to deliver hazardous waste, confirming that the facility will accept waste from the permit holder.

6.3 Each vehicle shall have a list in their collection vehicle of acceptable and unacceptable hazardous wastes at the facilities outlined in condition 2.2. This shall include a back-up plan in the event that a hazardous waste load is refused.

6.4 All receptacles used for the collection of hazardous waste should be clearly identified as containing hazardous waste in addition to the normal labelling requirements under relevant legislation.

6.5 The European Waste Catalogue Codes and corresponding waste descriptions for the particular types of wastes to be collected shall be submitted to Waste Management Services Division of Dublin City Council within one month of the date of receipt of this permit by the permit holder.

ENVIRONMENT AGENCY

CERTIFICATE OF REGISTRATION UNDER THE CONTROL OF POLLUTION (AMENDMENT) ACT 1989

Regulation Authority

Name: Midlands Region - Upper Trent

Address: Sentinel House
9 Wellington Crescent
Fradley Park, Lichfield
Post Code: WS13 8RR

Tel: 01543 444141 Telex: Fax: 01543 404931

The following information is hereby certified by the above-mentioned authority to be information which at the date of this certificate is entered in the register which they maintain under regulation 3 of the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991:-

Name(s) of registered carrier: Hawkeswood Metal Recycling Ltd

Registration number: BUT/773642

Business name (if any): Hawkeswood Metal Recycling Ltd

Address of registered carrier's principal place of business: Riverside Works
Trevor Street
Birmingham
West Midlands
B7 5RG

Tel: 0121 327 7000 Telex: Fax: 0121 326 6666

Date of registration: 17/03/2004

Date of expiry of registration*: 17/03/2007

Date on which last amendment (if any) was made to the carrier's entry in the register: 17/03/2004

Signature of authorised officer of the regulation authority: Date: 17 MAR 2004

[See Team Leader Customer Contact & Authorisations

QMS Quality Management Systems

Registration Certificate

This document certifies that the environmental management systems of

HAWKESWOOD METAL RECYCLING LIMITED

have been assessed and approved by QMS Quality Management Systems to the following environmental management systems, standards and guidelines:-

BS EN ISO 14001 : 1996

The approved environmental management systems apply to the following:-

THE PROVISION OF METAL RECYCLING AND ASSOCIATED SERVICES.

Original Approval: 7th July 2003

Current Certificate: 7th July 2003

Certificate Expiry: 6th July 2013

Certificate Number: GB 11281

On behalf of QMS International plc

ISO 14001
REGISTERED FIRM

IAC ACCREDITATION

This Certificate remains valid while the holder maintains environmental management systems in accordance with the standards and guidelines above, which will be audited by QMS Quality Management Systems

This certificate is the property of QMS International plc and must be returned in the event of cancellation.

A division of QMS International plc

ZER-QMS

QUALITÄT KOMPETENZ

CERTIFICATE

The ZER-QMS GmbH
hereby certifies that the

HERBORN GmbH,
Lange Streng 9,
65462 Ginsheim-Gustavsburg

has entered into a Supervisory Contract No. 062/1062/Efb.

Proof has been furnished within the framework of this Supervisory Contract that the Company fulfills the requirements of the Ordinance on Waste Management Companies and in accordance with § 52 KrW-/AbfG (*Waste Act*) is entitled to use the designation

Specialized Waste Management Company

with respect to the locations and activities more closely described in the annex. The annex is an integral part of the certificate consisting of one page.

Cologne, 24.11.2003

(Head of Certified Authority)

(Dr. E. Schiffer, Expert)

ZER-QMS, Zertifizierungsstelle,
Qualitäts- und Umweltgutachter GmbH,
Von-der-Wettern-Str. 25, 51149 Köln

Zertifizierungsstelle,
Qualitäts- und Umweltgutachter GmbH

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

Headquarters
P.O. Box 3000
Johnstown Castle Estate
County Wexford
Ireland

WASTE LICENCE

Licence Register No:	81-3
Licensee:	KTK Landfill Limited
Location of Facility:	Brownstown and Carnalway, Kilcullen, County Kildare.

INTRODUCTION

This introduction is not part of the licence and does not purport to be a legal interpretation of the licence.

This Waste Licence relates to an existing privately owned and operated, specially engineered landfill accepting commercial and non-hazardous industrial wastes at KTK Landfill Limited, Brownstown and Carnalway, Kilcullen, County Kildare. The application for a Review of the Waste Licence is to allow for: (a) the redesignation of an inert waste disposal area to a commercial and industrial waste disposal area, (b) the relocation of site infrastructure within the site, and (c) the amendment of the Restoration Plan to comply with the recommendations of the Agency's Landfill Manual on minimum slopes and gradients of the restored surface.

The disposal of putrescible wastes is not permitted under the terms of this licence and no hazardous wastes, liquid wastes, sludges (other than dewatered non-hazardous industrial sludge/filtercake with >25% solids), vegetable matter wastes, food-stuff wastes or green wastes shall be disposed of in the landfill. Construction waste containing asbestos will be allowed in accordance with the landfill directive and any procedures adopted by the Landfill Directive Technical Adaption Committee. The infrastructure at the facility includes access roads, site offices, two weighbridges, a leachate collection and management system including leachate storage and monitoring infrastructure.

The facility was constructed in 1999 and has a total capacity of approximately 1,540,500 tonnes.

The licence sets out in detail the conditions under which KTK Landfill Limited will operate and manage this facility.

Table of Contents

Glossary of Terms

All terms in this licence should be interpreted in accordance with the definitions in the Waste Management Acts 1996 to 2005, (the Acts), unless otherwise defined in this section.

Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Adequate lighting	20 lux measured at ground level.
AER	Annual Environmental Report.
Agreement	Agreement in writing.
Annually	At approximately twelve monthly intervals.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of this licence application.
Application	The application by the licensee for this licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
BAT	Best Available Techniques.
Bi-annually	All or part of a period of six consecutive months.
Biennially	Once every two years.
BOD	5 day Biochemical Oxygen Demand.
CEN	Comité Européen De Normalisation – European Committee for Standardisation.
COD	Chemical Oxygen Demand.
Construction and Demolition Waste	Wastes that arise from construction, renovation and demolition activities: Chapter 17 of the EWC or as otherwise may be agreed.
Containment boom	A boom which can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.
Daily	During all days of plant operation, and in the case of emissions, when emissions are taking place; with at least one measurement on any one day.
Day	Any 24 hour period.
Daytime	0800 hrs to 2200 hrs.
dB(A)	Decibels (A weighted).
DO	Dissolved Oxygen.
Documentation	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.

Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
EMP	Environmental Management Programme.
Emission Limits	Those limits, including concentration limits and deposition rates established in *Schedule B: Emission Limits,* of this licence.
Environmental Damage	Has the meaning given it in Directive 2004/35/EC.
EPA	Environmental Protection Agency.
European Waste Catalogue (EWC)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC and any subsequent amendment published in the Official Journal of the European Community.
Facility	Any site or premises used for the purposes of the recovery or disposal of waste.
Fortnightly	A minimum of 24 times per year, at approximately two week intervals.
GC/MS	Gas Chromatography/Mass Spectroscopy.
Green waste	Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation.
Heavy Metals	This term is to be interpreted as set out in "Parameters of Water Quality, Interpretation and Standards" published by the Agency in 2001. ISBN 1-84095-015-3.
HFO	Heavy Fuel Oil.
Hours of Operation	The hours during which the facility is authorised to be operational.
Hours of Waste Acceptance	The hours during which the facility is authorised to accept waste.
ICP	Inductively Coupled Plasma Spectroscopy.
Incident	The following shall constitute an incident for the purposes of this licence: a) an emergency; b) any emission which does not comply with the requirements of this licence; c) any exceedence of the daily duty capacity of the waste handling equipment; d) any trigger level specified in this licence which is attained or exceeded; and, any indication that environmental pollution has, or may have, taken place.
Inert waste	Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not

	endanger the quality of surface water and/or groundwater.
Initial Development Works	Means such works, actions or constructions as may be specified, which for the purposes of environmental protection and safe construction and operation of the facility, have to be carried out in the initial stages of site development, and in any case prior to the commencement of construction of the landfill cells.
Installation	A stationary technical unit or plant where the activity concerned referred to in the First Schedule of EPA Acts 1992 and 2003 is or will be carried on, and shall be deemed to include any directly associated activity, which has a technical connection with the activity and is carried out on the site of the activity.
IPPC	Integrated Pollution Prevention & Control.
K	Kelvin.
kPa	Kilo Pascals.
Landfill Directive	Council Directive 1999/31/EC.
Leq	Equivalent continuous sound level.
Licensee	KTK Landfill Limited, Brownstown and Carnalway, Kilcullen, County Kildare.
Liquid Waste	Any waste in liquid form and containing less than 2% dry matter.
List I	As listed in the EC Directives 76/464/EEC and 80/68/EEC and amendments.
List II	As listed in the EC Directives 76/464/EEC and 80/68/EEC and amendments.
Local Authority	Kildare County Council.
Maintain	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to adequately perform its function.
Mass Flow Limit	An Emission Limit Value which is expressed as the maximum mass of a substance which can be emitted per unit time.
Mass Flow Threshold	A mass flow rate, above which, a concentration limit applies.
Monthly	A minimum of 12 times per year, at approximately monthly intervals.
Night-time	2200 hrs to 0800 hrs.
Noise Sensitive Location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Oil Separator	Device installed according to the International Standard I.S.EN 858-2:2003 (Separator systems for light liquids, (e.g. oil and petrol)-Part 2:Selection of nominal size, installation, operation and maintenance.
PER	Pollution Emission Register.
Quarterly	All or part of a period of three consecutive months beginning on the first day of January, April, July or October.

Regional Fisheries Board	Eastern Regional Fisheries Board.
Sanitary Authority	Kildare County Council.
Sanitary Effluent	Waste water from facility toilet, washroom and canteen facilities.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
SOP	Standard Operating Procedure.
Standard Method	A National, European or internationally recognised procedure (eg, I.S. EN, ISO, CEN, BS or equivalent), as an in-house documented procedure based on the above references, a procedure as detailed in the current edition of "Standard Methods for the Examination of Water and Wastewater", (prepared and published jointly by A.P.H.A., A.W.W.A & W.E.F), American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or, an alternative method as may be agreed by the Agency.
Storm Water	Rain water run-off from roof and non-process areas.
The Agency	Environmental Protection Agency.
TOC	Total Organic Carbon.
Trade Effluent	Trade Effluent has the meaning given in the water pollution Acts 1977 and 1990.
Trigger Level	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Weekly	During all weeks of plant operation, and in the case of emissions, when emissions are taking place; with at least one measurement in any one week.
WWTP	Waste Water Treatment Plant.

Decision & Reasons for the Decisions

Reasons for the Decision

The Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this licence, any emissions from the activity will comply with and will not contravene any of the requirements of Section 83(5) of the Section 40(4) of the Waste Management Acts 1996 to 2005.

In reaching this decision the Environmental Protection Agency has considered the application, supporting documentation and objection received from the applicant and the reports of its inspectors.

Part I Schedule of Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Acts 1996 to 2005, the Environmental Protection Agency (the Agency), under Section 46(8)(a) of the said Acts hereby grants this Waste Licence to KTK Landfill Limited to carry on the waste activity/activities listed below at Brownstown and Carnalway, Kilcullen, County Kildare, subject to conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence. For the purposes of Article 48 of the Waste Management Licensing Regulations 2004 (SI 395) this facility is classed as a non-hazardous waste landfill.

Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Acts 1996 to 2005

Class 1.	Deposit on, in or under land (including landfill).
Class 5.	Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.
Class 11.	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
Class 13.	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Acts 1996 to 2005

Class 3.	Recycling or reclamation of metals and metal compounds.
Class 4.	Recycling or reclamation of other inorganic materials.
Class 13.	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

Part II Schedule of Activities Refused

None of the proposed activities as set out in the licence application have been refused.

Part III Conditions

Condition 1. Scope

1.1 Waste activities at this facility shall be restricted to those listed and described in Part I Activities Licensed and shall be as set out in the licence application or as modified under Condition 1.6 of this licence and subject to the conditions of this licence.

1.2 Waste Acceptance Hours and Hours of Operation

(a) Waste may be accepted at the facility for disposal at the landfill only between the hours of 0700 and 1730 Monday to Friday inclusive (Bank Holidays excluded) and 0800 and 1530 on Saturdays.

(b) The hours of operation at the facility shall be between the hours of 0700 and 1800 Monday to Friday inclusive and 0700 and 1600 on Saturdays.

1.3 Activities at this facility shall be limited as set out in *Schedule A: Limitations,* of this licence.

1.4 The facility shall be controlled, operated, and maintained and emissions shall take place as set out in this licence. All programmes required to be carried out under the terms of this licence, become part of this licence.

1.5 For the purposes of this licence, the facility authorised by this licence, is the area of land outlined in orange on Drawing No. KFK/2000 Rev A, Nov.'04 entitled "Site location" of the application. Any reference in this licence to "facility" shall mean the area thus outlined in orange. The licensed activities shall be carried on only within the area outlined.

1.6 No alteration to, or reconstruction in respect of, the activity or any part thereof which would, or is likely to, result in

(a) a material change or increase in:

- The nature or quantity of any emission,
- The abatement/treatment or recovery systems,
- The range of processes to be carried out,
- The fuels, raw materials, intermediates, products or wastes generated, or

(b) any changes in:

- Site management infrastructure or control with adverse environmental significance,

shall be carried out or commenced without prior notice to, and without the agreement of, the Agency.

1.7 This licence is for the purposes of waste licensing under the Waste Management Acts 1996 to 2005 only and nothing in this licence shall be construed as negating the licensee's statutory obligations or requirements under any other enactments or regulations.

1.8 This licence has been granted in substitution for the waste licence granted to the licensee on 8th April 2002 and bearing Waste Licence Register No.: 81-2. The previous waste licence (Reg. No. 81-2) is superseded by this licence.

Reason:	*To clarify the scope of this licence.*

Condition 2. Management of the Facility

2.1 Facility Management

2.1.1 The licensee shall employ a suitably qualified and experienced facility manager who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced, deputy shall be present on the facility at all times during its operation or as otherwise required by the Agency.

2.1.2 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience, as required and shall be aware of the requirements of this licence. In addition, the facility manager and his/her deputy shall successfully complete FAS waste management training programme or equivalent agreed with the Agency.

2.2 Environmental Management System (EMS)

2.2.1 The licensee shall maintain an Environmental Management System (EMS) The EMS shall be updated on an annual basis.

2.2.2 The EMS shall include as a minimum the following elements:

2.2.2.1 Management and Reporting Structure.

2.2.2.2 Schedule of Environmental Objectives and Targets.

The licensee shall maintain a Schedule of Environmental Objectives and Targets. The Schedule shall as a minimum provide for a review of all operations and processes, including an evaluation of practicable options, for energy and resource efficiency, the use of cleaner technology, cleaner production, and the prevention, reduction and minimisation of waste, and shall include waste reduction targets. The Schedule shall include time frames for the achievement of set targets and shall address a five year period as a minimum. The Schedule shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).

2.2.2.3 Environmental Management Programme (EMP)

The licensee shall maintain an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.2. It shall include:

(a) designation of responsibility for targets;

(b) the means by which they may be achieved;

(c) the time within which they may be achieved.

The EMP shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).

A report on the programme, including the success in meeting agreed targets, shall be prepared and submitted to the Agency as part of the AER. Such reports shall be retained on-site for a period of not less than seven years and shall be available for inspection by authorised persons of the Agency.

2.2.2.4 Documentation

(i) The licensee shall establish and maintain an environmental management documentation system which shall be to the satisfaction of the Agency.

(ii) The licensee shall issue a copy of this licence to all relevant personnel whose duties relate to any condition of this licence.

2.2.2.5 Corrective Action

The licensee shall maintain procedures to ensure that corrective action is taken should the specified requirements of this licence not be fulfilled. The responsibility and authority for initiating further investigation and corrective action in the event of a reported non-conformity with this licence shall be defined

2.2.2.6 Awareness and Training

The licensee shall maintain procedures for identifying training needs, and for providing appropriate training, for all personnel whose work can have a significant effect upon the environment. Appropriate records of training shall be maintained.

2.2.2.7 Communications Programme

The licensee shall maintain a Communications Programme to ensure that members of the public can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility.

Reason: *To make provision for management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment.*

Condition 3. Infrastructure and Operation

3.1 The licensee shall establish all infrastructure referred to in this licence, to the design set out in the Application documentation or as may be otherwise specified or varied by the conditions of this licence.

3.2 Facility Notice Board

3.2.1 The licensee shall provide and maintain a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm.

3.2.2 The board shall clearly show:-

a) the name and telephone number of the facility;
b) the normal hours of opening;
c) the name of the licence holder;
d) an emergency out of hours contact telephone number;
e) the licence reference number; and
f) where environmental information relating to the facility can be obtained.

3.3 The landfill footprint (maximum lateral extent of landfilling) shall be as indicated in KTK/2007 Rev A of the Application.

3.4 Wastes shall not be deposited in any new cell without the prior written agreement of the Agency.

3.5 Phased Construction Plan.

3.5.1 Two months prior to the commencement of site development for Phase 6, the licensee shall submit to the Agency for its agreement a construction schedule, sequence and timescale (Construction Plan) incorporating the requirements of this licence and to give effect to the commitments in the application documentation. This Plan shall have regard to the agreed Specified Engineering Works under Licence Reg. No 81-2. The Construction Plan for cell development shall have regard to the sequencing necessary to provide short, medium and long term screening of the operational areas.

3.6 Specified Engineering Works

3.6.1 The licensee shall submit proposals for any Specified Engineering Works, as defined in *Schedule D: Specified Engineering Works*, of this licence, to the Agency for its agreement at least two months prior to the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.

3.6.2 All specified engineering works shall be supervised by an appropriately qualified person, and that person, or persons, shall be present at all times during which relevant works are being undertaken.

3.6.3 Following the completion of any specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall, as appropriate, include the following information:-

(a) A description of the works;

(b) As-built drawings of the works;

(c) Records and results of all tests carried out (including failures);

(d) Drawings and sections showing the location of all samples and tests carried out;

(e) Name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;

(f) Records of any problems and the remedial works carried out to resolve those problems; and

(g) Any other information requested in writing by the Agency.

3.7 Landfill Lining

3.7.1 Unless otherwise agreed in writing, the landfill lining system shall comprise:-

(i) A composite liner consisting of a 1m layer of clay with a hydraulic conductivity of less than or equal to $1x10^{-9}m^3/m^2/s$, overlain by a 2mm thick high density polyethylene (HDPE) layer;

(ii) A geotextile protection layer placed over the HDPE layer;

(iii) A 500mm thick drainage layer placed over the geotextile layer with a minimum hydraulic conductivity of 1×10^{-3} $m^3/m^2/s$, of pre-

washed, uncrushed, granular, rounded stone (16-32mm grain size) incorporating leachate collection drains;

(iv) The lining system on the base of the facility shall be laid to a minimum slope of 1:50, and

(v) The side walls shall be designed and constructed to achieve an equivalent protection.

3.8 Facility Security

3.8.1 Security and stockproof fencing and gates shall be installed and maintained. The base of the fencing shall be set in the ground. Subject to the implementation of the restoration and aftercare plan and to the agreement of the Agency, the requirement for such site security may be removed.

3.8.2 Gates shall be locked shut when the facility is unsupervised.

3.8.3 The licensee shall remedy any defect in the gates and/or fencing as follows:-

(i) A temporary repair shall be made by the end of the working day; and

(ii) A repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

3.9 Facility Roads and Hardstanding

3.9.1 Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.

3.9.2 The facility entrance and hardstanding areas shall be appropriately paved and maintained in a fit and clean condition.

3.10 Facility Office

3.10.1 The licensee shall provide and maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.

3.10.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.

3.11 Waste Inspection and Quarantine Areas

3.11.1 A Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the facility.

3.11.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be clearly identified and segregated from each other.

3.11.3 Drainage from these areas shall be directed to the leachate management system.

3.12 Tank and Drum Storage Areas

3.12.1 All tank and drum storage areas shall be rendered impervious to the materials stored therein.

3.12.2 All tank and drum storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:

(a) 110% of the capacity of the largest tank or drum within the bunded area; or
(b) 25% of the total volume of substance which could be stored within the bunded area.

3.12.3 All drainage from bunded areas shall be diverted for collection and safe disposal.

3.12.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.

3.12.5 The integrity and water tightness of all the bunds and their resistance to penetration by water or other materials stored therein shall be confirmed by the licensee and shall be reported to the Agency by the 31st January 2004. This confirmation shall be repeated at least once every three years thereafter and reported to the Agency on each occasion.

3.13 The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used the absorbent material shall be disposed of at an appropriate facility

3.14 Weighbridge and Wheel Cleaner

3.14.1 The licensee shall provide and maintain a weighbridge and wheel cleaners at the facility.

3.14.2 The wheel cleaners shall be used by all vehicles leaving the facility as required to ensure that no process water or waste is carried off-site. All water from the wheel cleaning area shall be directed to the leachate management system.

3.15 Leachate Management Infrastructure

3.15.1 Leachate management infrastructure shall be provided and maintained at the facility as described in the Application documentation, or as may be varied by a licence condition.

3.15.2 All structures for the storage and/or treatment of leachate shall be fully enclosed except for inlet and outlet piping.

3.16 Landfill Gas Management

3.16.1 Landfill Gas management infrastructure shall be provided and maintained at the facility as described in the Application documentation, or as may be varied by a licence condition.

3.16.2 All buildings constructed on the facility shall have regard to the guidance given in the Department of Environment 1994 publication “Protection of New Buildings and Occupants from Landfill Gas” and any subsequent revisions.

3.17 Groundwater

3.17.1 All wells & boreholes shall be adequately sealed to prevent surface contamination and, as may be appropriate, decommissioned according to the UK Environment Agency guidelines ‘Decommissioning Redundant Boreholes and Wells’ (or as otherwise may be agreed by the Agency).

3.17.2 Groundwater monitoring wells shall be constructed having regard to the guidance given in the Agency's landfill manual "Landfill Monitoring".

3.18 Maintenance

3.18.1 All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer. Written records of the calibrations and maintenance shall be made and kept by the licensee.

3.18.2 The licensee shall maintain and clearly label and name all sampling and monitoring locations.

REASON: To provide for appropriate operation of the facility to ensure protection of the environment.

Condition 4. Interpretation

4.1 Emission limit values for emissions to atmosphere in this licence shall be interpreted in the following way:

4.1.1 Continuous Monitoring:

(i) No 24 hour mean value shall exceed the emission limit value.

(ii) 97% of all 30 minute mean values taken continuously over an annual period shall not exceed 1.2 times the emission limit value.

(iii) No 30 minute mean value shall exceed twice the emission limit value.

4.1.2 For Non-Continuous Monitoring

(i) For any parameter where, due to sampling/analytical limitations, a 30 minute sample is inappropriate, a suitable sampling period should be employed and the value obtained therein shall not exceed the emission limit value.

(ii) For flow, no hourly or daily mean value, calculated on the basis of appropriate spot readings, shall exceed the relevant limit value.

(iii) For all other parameters, no 30 minute mean value shall exceed the emission limit value.

4.2 The concentration limits for emissions to atmosphere specified in this licence shall be achieved without the introduction of dilution air and shall be based on gas volumes under standard conditions of :-

4.2.1 In the case of landfill gas flare:

Temperature 273 K, pressure 101.3 kPa, dry gas at 3% oxygen; and

4.2.2 In the case of landfill gas combustion plant:

Temperature 273 K, pressure 101.3 kPa, dry gas; 5% oxygen.

4.3 Emission limit values for emissions to sewer in this licence shall be interpreted in the following way:-

4.3.1 Continuous monitoring:

(i) No flow value shall exceed the specified limit.

(ii) No pH value shall deviate from the specified range.

(iii) No temperature value shall exceed the limit value.

4.3.2 Composite Sampling:

(i) No pH value shall deviate from the specified range.

(ii) For parameters other than pH and flow, eight out of ten consecutive composite results, based on flow proportional composite sampling, shall not exceed the emission limit value. No individual result similarly calculated shall exceed 1.2 times the emission limit value.

4.3.3 Discrete Sampling

For parameters other than pH and temperature, no grab sample value shall exceed 1.2 times the emission limit value.

4.4 Where the ability to measure a parameter is affected by mixing before emission, then, with agreement from the Agency, the parameter may be assessed before mixing takes place.

4.5 Noise

4.5.1 Noise from the facility shall not give rise to sound pressure levels (Leq,T) measured at the boundary of the activity which exceed the limit value(s).

4.6 Dust and Particulate Matter

Dust and particulate matter from the activity shall not give rise to deposition levels which exceed the limit value(s).

Reason: To clarify the interpretation of limit values fixed under the licence.

Condition 5. Emissions

5.1 No specified emission from the facility shall exceed the emission limit values set out in *Schedule B: Emission Limits* of this licence. There shall be no other emissions of environmental significance.

5.2 The licensee shall ensure that the activities shall be carried out in a manner such that emissions including odours do not result in significant impairment of, and/or significant interference with amenities or the environment beyond the facility boundary.

5.3 No substance shall be discharged in a manner, or at a concentration which, following initial dilution causes tainting of fish or shellfish.

5.4 The licensee shall ensure that vermin, birds, flies, mud, dust, litter and odours do not give rise to nuisance at the facility or in the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.

5.5 Disposal of Leachate

5.5.1 No leachate shall be discharged to surface water.

5.5.2 All leachate or contaminated water tankered from the facility shall be transported to Athy Waste Water Treatment Plant and disposed of there,

unless otherwise agreed with the Agency. The quantity disposed of shall be restricted to 55m^3 per day unless otherwise agreed by the Agency and with the prior agreement of the Sanitary Authority. Procedures for the disposal of leachate at the treatment plant shall be in accordance with any written requirements of the Sanitary Authority.

5.5.3 Unless otherwise agreed in advance by the Agency and the Sanitary Authority, no specified discharge or emission to sewer shall exceed the emission limit value set out in the Schedule C.4 Leachate Tankered to the Wastewater Treatment Plant. There shall be no other discharge or emission to sewer of environmental significance.

5.5.4 No substance shall be present in emissions to sewer in such concentrations as would constitute a danger to sewer maintenance personnel working in the sewerage system, or as would be damaging to the fabric of the sewer, or as would interfere with the biological functioning of a downstream wastewater treatment works.

5.5.5 The licensee shall permit authorised persons of the Agency and the Sanitary Authority to inspect, examine and test, at all reasonable times, any works and apparatus installed, in connection with the discharge or emission, and to take samples of the discharge or emission.

5.5.6 No discharge or emission to sewer shall take place which might give rise to any reaction within the sewer or to the liberation of by-products which may be of environmental significance.

5.5.7 The licensee shall ensure that the discharge shall not contain dissolved methane, petroleum spirits or organic solvents (including chlorinated organic solvents), at concentrations which would give rise to flammable or explosive vapours in the sewer.

5.5.8 Non-trade effluent wastewater (e.g. firewater, accidental spillage) which occurs on-site shall not be discharged to the sewer without the prior authorisation of the Sanitary Authority.

5.5.9 The licensee shall submit monitoring results in relation to emissions to sewer to the Sanitary Authority on an annual basis.

5.6 Prior to the acceptance of waste for disposal, the licensee shall submit to the Agency for approval, evidence to demonstrate that an agreement is in place regarding leachate removal (from the site) and treatment.

5.7 The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the installation/facility. Any such debris or deposited materials shall be removed without delay.

Reason: *To provide for the protection of the environment by way of control and limitation of emissions and to provide for the requirements of the Sanitary Authority in accordance with Section 52 of the Waste Management Acts 1996 to 2005.*

Condition 6. Control and Monitoring

6.1 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and as in accordance with *Schedule C: Control & Monitoring*, of this licence:

6.1.1 Analysis shall be undertaken by competent staff in accordance with documented operating procedures.

6.1.2 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics determined.

6.1.3 Such procedures shall be subject to a programme of Analytical Quality Control using control standards with evaluation of test responses.

6.1.4 Where analysis is sub-contracted it shall be to a competent laboratory.

6.2 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring has been agreed in writing by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. Agreement for the use of alternative equipment, other than in emergency situations, shall be obtained from the Agency.

6.3 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission or discharge.

6.4 All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer.

6.5 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the agreement of the Agency following evaluation of test results.

6.6 The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency.

6.7 The licensee shall prepare a programme, to the satisfaction of the Agency, for the identification and reduction of fugitive emissions. This programme shall be included in the Environmental Management Programme.

6.8 The integrity and water tightness of all underground pipes and tanks and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

6.9 Storm water

6.9.1 A visual examination of the storm water discharge shall be carried out daily. A log of such inspections shall be maintained.

6.9.2 The drainage system, bunds, silt traps and oil separators shall be inspected weekly, desludged as necessary and properly maintained at all times. All sludge and drainage from these operations shall be collected for safe disposal.

6.10 Groundwater

Subject to the agreement of the well owners, all private wells within 500m of the facility shall be included in the monitoring programme set out in *Schedule C: Control & Monitoring*, of this licence

6.11 Noise

6.11.1 The licensee shall carry out a noise survey of the site operations annually. The survey programme shall be undertaken in accordance with the methodology specified in the 'Environmental Noise Survey Guidance Document' as published by the Agency.

6.12 Telemetry

6.12.1 A telemetry system shall be installed and maintained at the facility. All facility operations linked to the telemetry system shall also have a manual control which will be reverted to in the event of break in power supply or during maintenance.

6.12.2 This system shall include for:-

(i) Recording of leachate levels in the lined cells and lagoon;

(ii) Recording of levels in the surface water lagoon and flows to the perimeter streams;

(iii) Quality of the surface water at the inlet to the surface water lagoons and being discharged to the perimeter streams; and

(iv) Permanent gas monitoring system to be installed in the site office and any other enclosed structures at the facility.

6.13 Leachate Management

6.13.1 Leachate levels in the waste shall not exceed a level of 1.0m over the top of the liner at the base of the landfill.

6.13.2 The level of leachate in the pump sumps shall be monitored as outlined in *Schedule C: Control & Monitoring*, of this licence .

6.13.3 The frequency of leachate removal from the leachate holding tank shall be such that a minimum freeboard of 0.5m shall be maintained in the tank at all times.

6.13.4 Unless treated on the facility, leachate stored in the leachate storage lagoon shall be disposed of by tankering off-site in fully enclosed road tankers.

6.13.5 Recirculation of leachate or other contaminated water shall only be undertaken within cells which have been lined to the satisfaction of the Agency.

6.14 Landfill Gas

6.14.1 The construction, location and installation phasing of landfill gas monitoring locations shall be as agreed by the Agency.

6.14.2 At least two rounds of landfill gas sampling (one during falling atmospheric pressure) in locations external to the disposal cells should be completed prior to commencement of filling of any new area.

6.14.3 Flares shall be operated to ensure a burn chamber residence time of minimum 0.3 sec and burn temperature of minimum 1000°C.

6.14.4 In relation to landfill derived gases the following shall constitute a trigger level:

(i) Methane greater than 1% v/v; or,
(ii) Carbon Dioxide greater than 1.5% v/v,

measured in any monitoring borehole, service duct, manhole or other point as may be specified, located external to the body of waste.

6.15 Litter Control

6.15.1 The measures and infrastructure as described in the Application documentation shall be applied to control litter at the facility.

6.15.2 All litter control infrastructure shall be inspected on a daily basis. The licensee shall remedy any defect in the litter netting as follows:-
(i) A temporary repair shall be made by the end of the working day; and
(ii) A repair to the standard of the original netting shall be undertaken within three working days.

6.15.3 All loose litter or other waste, placed on or in the vicinity of the facility, other than in accordance with the requirements of this licence, shall be removed, subject to the agreement of the landowners, immediately and in any event by 10.00am of the next working day after such waste is discovered.

6.15.4 The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the facility are appropriately covered.

6.16 Odour Control

6.16.1 All odorous or odour forming wastes shall be covered as soon as practicable and in any case at the end of the working day.

6.16.2 Where it is proposed to take biological sludges at the facility, these must be subject to pre-treatment (e.g. lime stabilisation) prior to acceptance at the facility.

6.16.3 When siting and operating landfill gas infrastructure regard shall be had to the potential for, and mitigation of, odour nuisance.

6.17 Dust control

In dry weather, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance.

6.18 Prior to exiting the facility, all waste vehicles shall use the wheelwash.

6.19 Operational Controls

6.19.1 Only one working face shall exist at the landfill at any one time for the deposit of waste other than cover or restoration materials.

6.19.2 The working face of the landfill shall be no more than 3.5 metres in height after compaction, no more than 35 metres wide and have a slope no greater than 1 in 3.

6.19.3 All waste deposited at the working face shall be compacted, using a steel wheeled compactor, and covered as soon as is practicable and at any rate prior to the end of the working day.

6.19.4 The working face, or faces, shall each day at the end of the day, be covered with suitable material.

6.19.5 All large hollow objects and other large articles deposited at the facility shall be crushed, broken up, flattened or otherwise treated.

6.19.6 Wastes once deposited and covered shall not be excavated, disturbed or otherwise picked over with the exception of works associated with the construction and installation of necessary infrastructure or otherwise only with the prior agreement from the Agency.

6.19.7 Any cover material at any location within the facility which is eroded, washed off or otherwise removed shall be replaced by the end of the working day.

6.19.8 Scavenging shall not be permitted at the facility.

6.19.9 Unless otherwise agreed by the Agency, all sludges shall be covered immediately with other waste.

6.19.10 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.

6.19.11 No smoking shall be allowed at the facility.

6.20 Stability Assessment

The licensee shall carry out a stability assessment of the side slopes of the facility annually. The results of this assessment shall be reported as part of the AER.

Reason: *To provide for the protection of the environment by way of treatment and monitoring of emissions and to provide for the requirements of the Sanitary Authority in accordance with Section 52 of the Waste Management Acts 1996 to 2005.*

Condition 7. Resource Use and Energy Efficiency

7.1 The licensee shall carry out an audit of the energy efficiency of the site within one year of the date of grant of this licence. The audit shall be carried out in accordance with the guidance published by the Agency; "Guidance Note on Energy Efficiency Auditing". The energy efficiency audit shall be repeated at intervals as required by the Agency.

7.2 The audit shall identify all opportunities for energy use reduction and efficiency and the recommendations of the audit will be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.

7.3 The licensee shall identify opportunities for reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible. Reductions in water usage shall be incorporated into Schedule of Environmental Objectives and Targets.

7.4 The licensee shall undertake an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated. The assessment should take account of best international practice for this type of activity. Where improvements are identified, these shall be incorporated into the Schedule of Environmental Objectives and Targets.

Reason: *To provide for the efficient use of resources and energy in all site operations.*

Condition 8. Materials Handling

8.1 Disposal or recovery of waste shall only take place in accordance with the conditions of this licence and in accordance with the appropriate National and European legislation and protocols.

8.2 Waste sent off-site for recovery or disposal shall be transported only by an authorised waste contractor. The waste shall be transported only from the site of the activity to the site of recovery/disposal in a manner which will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.

8.3 Waste Acceptance and Characterisation Procedures

8.3.1 Only pre-treated wastes are acceptable for disposal as set out in Article 6 (a) of the Landfill Directive.

8.3.2 Waste shall only be accepted at the facility, from Local Authority waste collection or transport vehicles or holders of waste permits, unless exempted or excluded, issued under the Waste Management (Collection Permit) Regulations 2001.

8.3.3 Whole used tyres (other than bicycle tyres and tyres with an outside diameter greater than 1400mm) shall not be disposed of at the facility. Shredded tyres shall not be disposed of at the facility from 16 July 2006.

8.3.4 No hazardous wastes (other than as may be permitted under Condition 8.5) or liquid wastes shall be disposed of at the facility.

8.3.5 The licensee shall ensure that inert waste accepted at the facility is subject to treatment where technically feasible.

8.3.6 The licensee shall maintain written procedures for the acceptance and handling of all wastes. These procedures shall include details of the pre-treatment of all waste to be carried out prior to acceptance at the facility and shall also include methods for the characterisation of waste in order to distinguish between inert, non-hazardous and hazardous wastes. The procedures shall have regard to the EU Decision (2003/33/EC) on establishing the criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive (1999/31/EC) on the landfill of waste.

8.4 Inert Waste

Inert waste accepted at the facility shall comply with the standards established in the EU Decision (2003/22/EC).

8.5 Asbestos Waste

8.5.1 Asbestos waste to be disposed of at the facility shall comply with the requirements of Article 6(c)(iii) of the Landfill Directive (1999/31/EC) and be accepted and managed in accordance with the procedures laid down in Section 2.3.3 of the Annex to Council Directive 2003/33/EC.

8.5.2 Asbestos based waste must be double wrapped in heavy gauge plastic, which is clearly labelled to indicate the presence of asbestos.

8.5.3 Disposal of asbestos waste shall be into prepared bays or trenches of at least 2 metres in depth.

8.5.4 Deposited asbestos waste shall be covered immediately with at least 250mm of suitable material. At the end of the day, the waste shall be covered with a minimum of 500mm of suitable material.

8.5.5 No asbestos waste shall be present within 2.5 metres of the final surface levels.

8.5.6 The amount of waste containing asbestos shall be limited to a maximum of 10% or 100,000 tonnes (whichever is the least) of total waste intake for the landfill.

8.6 With the exception of use of recovered fuels as may be approved for this site by the Agency, no waste shall be burnt at the facility.

Reason: *To provide for the appropriate handling of materials and the protection of the environment.*

Condition 9. Accident Prevention and Emergency Response

9.1 The licensee shall, within six months of date of grant of this licence, ensure that a documented Accident Prevention Policy is in place which will address the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.

9.2 The licensee shall ensure that a documented Emergency Response Procedure is in place, which shall address any emergency situation which may originate on-site. This Procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.

9.3 In the event of an incident the licensee shall immediately:-

(i) isolate the source of any such emission;

(ii) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;

(iii) evaluate the environmental pollution, if any, caused by the incident;

(iv) identify and execute measures to minimise the emissions/malfunction and the effects thereof;

(v) identify the date, time and place of the incident:

(vi) provide a proposal to the Agency for its agreement within one month of the incident occurring or as otherwise agreed by the Agency to:-

- identify and put in place measures to avoid reoccurrence of the incident; and
- identify and put in place any other appropriate remedial action.

Reason: *To provide for the protection of the environment.*

Condition 10. Closure, Restoration and Aftercare

10.1 The licensee shall restore the facility on a phased basis. Unless otherwise agreed, filled cells shall be permanently capped within twenty-four months of the cells having been filled to the required level.

10.2 Landscaping

10.2.1 Landscaping of the facility shall be as described in the application documentation.

10.2.2 Unless otherwise agreed by the Agency, the finished (post settlement restored) levels of the landfill shall be as indicated in Drawing Reference KTK/2009 Rev A of the Application.

10.2.3 Completed areas of the landfill shall be profiled so that no depressions exist in which water may accumulate. Any depressions arising after profiling shall be rectified by the emplacement of suitable capping or restoration materials.

10.3 Final Capping

10.3.1 Unless otherwise agreed by the Agency, the final capping shall consist of the following:-.

(i) Top soil (150 -300mm);

(ii) Subsoils, such that total thickness of top soil and subsoils is at least 1m;

(iii) Drainage layer of 0.5m thickness having a minimum hydraulic conductivity of $1x10^{-4}$ m/s or a geosynthetic material that provides equivalent transmissivity;

(iv) Compacted mineral layer of a minimum 0.6m thickness with a permeability of less than $1x10^{-9}$ m/s or a geosynthetic material (e.g. GCL) or similar that provides equivalent protection; and

(v) Gas collection layer of natural material (minimum 0.3m) or a geosynthetic layer.

10.4 No material or object that is incompatible with the proposed restoration of the facility shall be present within one metre of the final soil surface levels.

10.5 All soils shall be stored to preserve the soil structure for future use.

10.6 Closure, Restoration & Aftercare Management Plan (CRAMP):

10.6.1 The licensee shall, within six months of date of grant of this licence, prepare for agreement by the Agency, a fully detailed and costed plan for the closure, restoration and long-term aftercare of the site or part thereof. This plan shall have regard to the commitments given in the application documentation for Licence Register 81-1, 81-2 and 81-3 (as may be varied herein).

10.6.2 The plan shall be maintained and reviewed annually and proposed amendments thereto notified to the Agency for agreement as part of the AER. No amendments may be implemented without the prior written agreement of the Agency.

10.7 The CRAMP shall include as a minimum, the following:-

10.7.1 A scope statement for the plan.

10.7.2 The criteria, including those specified in this licence, which define the successful closure & restoration of the facility or part thereof, and which ensures minimum impact to the environment.

10.7.3 A programme to achieve the stated criteria.

10.7.4 Where relevant, a test programme to demonstrate the successful implementation of the plan.

10.7.5 Details of the long-term supervision, monitoring, control, maintenance and reporting requirements for the restored facility.

10.7.6 Details of costings for the plan and a statement as to how these costs will be underwritten.

10.8 A final validation report to include a certificate of completion for the CRAMP, for all or part of the site as necessary, shall be submitted to the Agency within three months of execution of the plan. The licensee shall carry out such tests, investigations or submit certification, as requested by the Agency, to confirm that there is no continuing risk to the environment.

Reason: *To make provision for the proper closure of the activity ensuring protection of the environment.*

Condition 11. Notifications, Records and Reports

11.1 The licensee shall notify the Agency by both telephone and either facsimile or electronic mail, if available, to the Agency's Headquarters in Wexford, or to such other Agency office as may be specified by the Agency, as soon as practicable after the occurrence of any of the following:

11.1.1 Any release of environmental significance to atmosphere from any potential emission point including bypasses.

11.1.2 Any emission which does not comply with the requirements of this licence.

11.1.3 Any malfunction or breakdown of key control equipment or monitoring equipment set out in S*chedule C: Control & Monitoring*, of this licence which is likely to lead to loss of control of the abatement system.

11.1.4 Any incident with the potential for environmental contamination of surface water or groundwater, or posing an environmental threat to air or land, or requiring an emergency response by the Local Authority.

The licensee shall include as part of the notification, date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any emissions.

11.2 In the event of any incident which relates to discharges to sewer, having taken place, the licensee shall notify the Local and Sanitary Authority as soon as practicable, after such an incident.

11.3 In the case of any incident which relates to discharges to water, the licensee shall notify the Local Authority and the Eastern Regional Fisheries Board as soon as practicable after such an incident.

11.4 The licensee shall make a record of any incident. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident. The record shall include all corrective actions taken to; manage the incident, minimise wastes generated and the effect on the environment, and avoid recurrence. The licensee shall as soon as practicable following incident notification, submit to the Agency the incident record.

11.5 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.

11.6 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility.

11.7 The licensee shall as a minimum keep the following documents at the site:-

(i) the licences relating to the facility;

(ii) the current EMS for the facility;

(iii) the previous year's AER for the facility;

(iv) records of all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the facility;

(v) relevant correspondence with the Agency;

(vi) an up to date site drawings/plans showing the location of key process and environmental infrastructure, including monitoring locations and emission points

and this documentation shall be available to the Agency for inspection at all reasonable times.

11.8 The licensee shall submit to the Agency, by the 31st March of each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in *Schedule E: Reporting*, of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.

11.9 A full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall be maintained on a monthly basis and shall as a minimum contain details of the following:

(i) The tonnages and EWC Code for the waste materials imported and/or sent off-site for disposal/recovery.

(ii) The names of the agent and carrier of the waste, and their waste collection permit details, if required (to include issuing authority and vehicle registration number).

(iii) Details of the ultimate disposal/recovery destination facility for the waste and its appropriateness to accept the consigned waste stream, to include its permit/licence details and issuing authority, if required.

(iv) Written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site.

(v) Details of all wastes consigned abroad for Recovery and classified as 'Green' in accordance with the EU Transfrontier Shipment of Waste Regulations

(Council Regulation EEC No. 259/1993, as amended). The rationale for the classification must form part of the record.

(vi) Details of any rejected consignments.

(vii) Details of any approved waste mixing.

(viii) The results of any waste analyses required under *Schedule C: Control & Monitoring*, of this licence.

(ix) The tonnages and EWC Code for the waste materials recovered/disposed on-site.

11.10 In relation to landfilling activities, the licensee shall notify the Agency of any wastes presented at but not accepted to the facility.

11.11 Prior to the development of any undisturbed area, the advice of the Heritage Section of the Department of the Environment, Heritage and Local Government shall be sought.

11.12 Waste Recovery Reports

11.12.1 The licensee shall as part of their EMP prepare a report examining waste recovery options shall be submitted to the Agency for its agreement in the AER. This report shall address methods to contribute to the achievement of the recovery targets stated in national and European Union waste policies and shall include the following:-

a) proposals for the contribution of the facility to the achievement of targets for the reduction of biodegradable waste to landfill as specified in the Landfill Directive;

b) the separation of recyclable materials from the waste;

c) the recovery of Construction and Demolition Waste;

d) the recovery of metal waste;

e) inert waste to be used for cover/restoration material at the facility.

Reason: To provide for the collection and reporting of adequate information on the activity.

Condition 12. Financial Charges and Provisions

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of €24,228, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activity as the Agency considers necessary for the performance of its functions under the Waste Management Acts 1996 to 2005. The first payment shall be a pro-rata amount for the period from the date of this licence to the 31st day of December, and shall be paid to the Agency within one month from the date of the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Waste Management Acts 1996 to 2005, and all such payments shall be made within one month of the date upon which demanded by the Agency.

12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased the licensee shall contribute such sums as determined by the Agency to defraying its costs in regard to items not covered by the said annual contribution.

12.2 Sanitary Authority Charges

12.2.1 The licensee shall pay to the Sanitary Authority €1.27 per cubic metre of leachate at 500 ppm COD discharged to the foul sewer or such sum as may be determined from time to time, having regard to the variations in the cost of providing drainage and the variation in effluent reception and treatment costs. Payment to be annually on demand.

12.3 Environmental Liabilities

12.3.1 The licensee shall as part of the AER provide an annual statement as to the measures taken or adopted at the site in relation to the prevention of environmental damage, and the measures in place in relation to the underwriting of costs for remedial actions following anticipated events or accidents/incidents, as may be associated with the carrying on of the activity.

12.3.2 The licensee shall arrange for the completion, by an independent and appropriately qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment (ELRA), which addresses the liabilities from past and present activities. The assessment shall include those liabilities and costs identified in Condition 10 for execution of the RMP/CRAMP. A report on this assessment shall be submitted to the Agency for agreement within twelve months of date of grant of this licence. The ELRA shall be reviewed as necessary to reflect any significant change on site, and in any case every three years following initial agreement: review results are to be notified as part of the AER.

12.3.3 \As part of the measures identified in Condition 12.3.1, the licensee shall, to the satisfaction of the Agency, make financial provision to cover any liabilities identified in Condition 12.3.2. The amount of indemnity held shall be reviewed and revised as necessary, but at least annually. Proof of renewal or revision of such financial indemnity shall be included in the annual 'statement of measures' report identified in Condition 12.3.1.

12.3.4 Unless otherwise agreed, any revision to that part of the indemnity dealing with restoration and aftercare liabilities (refer Condition 10), shall be computed using the following formula:-

$$\text{Cost} = (\text{ECOST} \times \text{WPI}) + \text{CiCC}$$

Where:-

Cost = Revised restoration and aftercare cost

ECOST = Existing restoration and aftercare cost

WPI = Appropriate Wholesale Price Index [Capital Goods, Building & Construction (i.e. Materials & Wages) Index], as published by the Central Statistics Office, for the year since last closure calculation/revision.

CiCC = Change in compliance costs as a result of change in site conditions, changes in law, regulations, regulatory authority charges, or other significant changes.

12.4 Cost of landfill of waste

In accordance with the provisions of Section 53A of the Waste Management Acts 1996 to 2005, the licensee shall ensure the costs in the setting up, operation of, provision of financial security and closure and after-care for a period of at least 30 years shall be covered by the price to be charged for the disposal of waste at the facility. The statement required under Section 53A(5) of said Acts is to be included as part of the AER.

Reason: *To provide for adequate financing for monitoring and financial provisions for measures to protect the environment and to provide for the requirements of the Sanitary Authority in accordance with Section 52 of the Waste Management Acts 1996 to 2005.*

SCHEDULE A : Limitations

A.2 WASTE ACCEPTANCE

Table A.2 Waste Categories and Quantities

WASTE TYPE Note 1	MAXIMUM (TONNES PER ANNUM) Notes 2 & 3
Commercial	222,750
Construction & Demolition	7,750
Industrial Non-Hazardous Solids	24,750
Dewatered Industrial Non-Hazardous Sludges/Filtercakes with > 25% solids	13,750
Construction materials containing Asbestos – EWC 17/06/05*	6,000
TOTAL	275,000

Note 1: Any proposals to accept other compatible waste streams must be agreed in advance with the Agency and the total amount of waste must be within the amount specified.

Note 2: The individual limitation on waste streams may be varied with the agreement of the Agency subject to the overall total limit staying the same.

Note 3: C & D or Inert waste/secondary materials or compost imported to the site for use in construction are not included in these limitations. A detailed statement (with mass balance) of waste used in construction should be included as part of the AER.

SCHEDULE B : Emission Limits

B.1 EMISSIONS TO AIR

Landfill Derived Gas Concentration Limits:
(Measured in any building on or adjacent to the facility and perimeter boreholes).

Methane	Carbon Dioxide
20 % LEL (1% v/v)	1.5 % v/v

Emission Limits Values for Landfill Gas Plant:

Emission Point Reference numbers: See Drawing Ref: KTK/2008
Minimum discharge height: 5m

Parameter	Flare (enclosed) Emission Limit Value Note 1	Utilisation Plant Emission Limit Value (mg/m^3) Note 1
Nitrogen oxides (NO_x)	150 mg/m	500
Carbon Monoxide (CO)	-	1400
Total Volatile Organic compounds (VOCs)	-	1000
Total Non Methane Volatile Organic compounds (VOCs)	-	75

Note 1: Dry gas referenced to 5% oxygen by volume for utilisation plants and 3% oxygen by volume for flares.

Dust Deposition Limits:
Measured at the monitoring points indicated D1A – D6A as outlined in the application (or as may be amended under Condition 6.3.

Level (mg/m^2 /day) Note 1
350

Note 1: 30 day composite sample with the results expressed as mg/m^2 /day.

B.2 EMISSIONS TO WATER

There are no Emissions to Water of environmental significance.

B.3 EMISSION TO SEWER

Leachate Tankered to the Wastewater Treatment Plant or discharged to Sewer.

pH	COD Note 1	BOD Note 1
6 - 8	**25,000 mg/l**	**10,000 mg/l**

Note 1: This limit may be altered subject to the prior written agreement of the Sanitary Authority.

B.4. NOISE EMISSIONS

Day dB(A) L_{Aeq}(30 minutes)	Night dB(A) L_{Aeq}(30 minutes)
55 Note 1	45 Note 1

Note 1: There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise sensitive location.

SCHEDULE C : Control &Monitoring

C.1.1 CONTROL OF EMISSIONS TO AIR

Emission Point Reference No.: Flare Stacks & Generation Plant

Description of Treatment: Gas Extraction & Combustion

Control Parameter	Monitoring	Key Equipment[Note 1]
Continuous burn	Continuous with alarm/call-out	Flame detector or equivalent approved Pumps/engines
Extraction	Continuous with alarm/call-out	Pressure gauge or equivalent approved Pumps/engines

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.

C.1.2 MONITORING OF EMISSIONS TO AIR

Emission Point Reference No.: Flare Stacks & Generation Plant

Parameter	Flare (enclosed) Monitoring Frequency	Utilisation Plant Monitoring Frequency	Analysis Method[Note1]/Technique
Inlet			
Methane (CH_4) % v/v	Continuous	Weekly	Infrared analyser or equivalent approved
Carbon dioxide (CO_2) % v/v	Continuous	Weekly	Infrared analyser or equivalent approved
Oxygen (O_2) % v/v	Continuous	Weekly	Electrochemical or equivalent approved
Process Parameters			
Combustion Temperature	Continuous	Quarterly	Temperature Probe/datalogger
Residence Time	Quarterly	Quarterly	To be agreed.
Outlet			
Carbon monoxide (CO)	Continuous	Continuous	Flue gas analyser/datalogger or equivalent approved
Nitrogen Oxides (Nox)	Biannually	Biannually	Flue gas analyser or equivalent approved
Sulphur dioxide (SO_2)	Biannually	Biannually	Flue gas analyser or equivalent approved
Particulates	Not applicable	Annually	Isokinetic/Gravimetric or equivalent approved

Note 1: All monitoring equipment used should be intrinsically safe.

C.1.3 MONITORING OF LANDFILL GAS EMISSIONS

Location: Perimeter Landfill Gas boreholes [Note 1]
And
At least one monitoring point per cell (to be Agreed)
and
Other selected locations as may be specified

Parameter	Monitoring Frequency	Analysis Method/Technique [Note 2]
Methane (CH_4)	Monthly	InfraRed Analyser/FID
Carbon Dioxide (CO_2)	Monthly	InfraRed
Oxygen (O_2)	Monthly	Electrochemical Cell
Atmospheric pressure & Trend	Monthly	Standard method

Note 1: All perimeter monitoring boreholes must be installed to the standards specified in the Agency Guidance on Landfill Monitoring.
Note 2: Or other method agreed.

C2.1 LEACHATE MONITORING

Location: Leachate Holding Tank (L), Side slopes risers to leachate sumps

PARAMETER [Note 1]	LEACHATE [Note 2] Monitoring Frequency
Visual Inspection/Odour	Daily
Leachate Level	Weekly
BOD	Quarterly
COD	Quarterly
Chloride	Annually
Ammoniacal Nitrogen	Annually
Electrical Conductivity	Annually
Ph	Annually
Metals / non metals [Note 3]	Annually
Cyanide (Total)	Annually
Fluoride	Annually
List I/II organic substances [Note 4]	Annually
Mercury	Annually
Sulphate	Annually
Total P/orthophosphate	Annually
Total Oxidised Nitrogen	Annually

Note 1: All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures.
Note 2: Visual Inspection and Leachate Levels to be monitored at all leachate monitoring points in the cells, Collection sumps and holding tank. Leachate composition to be monitored at the leachate holding tank.
Note 3: Metals and elements to be analysed by AA/ICP should include as a minimum: boron, cadmium, calcium, chromium (total), copper, iron, lead, magnesium, manganese, nickel, potassium, sodium and zinc.
Note 4: Samples screened for the presence of organic compounds using Gas Chromatography / Mass Spectrometry (GC/MS) or other appropriate techniques and using the list I/II Substances from EU Directive 76/464/EEC and 80/68/EEC as a guideline. Recommended analytical techniques include: volatiles (US Environmental Protection Agency method 524 or equivalent), semi-volatiles (USEPA method 525 or equivalent, and pesticides (USEPA method 608 or equivalent).

C.3 AMBIENT MONITORING

Air Monitoring

Location: D1A – D6A (incl.) Drawing Ref: KTK/2002

Parameter (mg/m^2/day)	Monitoring Frequency	Analysis Method/Technique
Dust	Three times a year[Note 2]	Standard Method[Note 1]

Note 1: Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). Any modifications to eliminate interference due to algae growth in the gauge should be reported to the Agency.
Note 2: Twice during the period May to September.

Groundwater Monitoring

Location: All Groundwater Wells (Drawing Ref. KTK/2002)

PARAMETER[Note 1]	Monitoring Frequency
Visual Inspection/Odour [Note 2]	Monthly
Groundwater Level (wells)	Monthly
Dissolved Oxygen	Quarterly
Total Organic Carbon	Quarterly
Electrical Conductivity	Quarterly
Ammoniacal Nitrogen	Quarterly
Chloride	Quarterly
Fluoride	Quarterly
Sulphate (SO_4)	Quarterly
Total alkalinity	Quarterly
Metals / non metals [Note 3]	Quarterly
Mercury	Quarterly
Barium	Quarterly
Arsenic	Quarterly
Nitrate & Nitrite	Quarterly
Total P/orthophosphate	Quarterly
Phenols	Quarterly
List I/II organic substances (Screen) [Note 4]	Annually
Faecal Coliforms	Annually
Total Coliforms	Annually

Note 1: All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures.
Note 2: Where there is evident gross contamination, additional samples should be analysed and the full suite of parameters shown tested.
Note 3: Metals and elements to be analysed by AA/ICP should include as a minimum: boron, cadmium, calcium, chromium (total), copper, iron, lead, magnesium, manganese, nickel, potassium, sodium and zinc.
Note 4: Samples screened for the presence of organic compounds using Gas Chromatography / Mass Spectrometry (GC/MS) or other appropriate techniques and using the list I/II Substances from EU Directive 76/464/EEC and 80/68/EEC as a guideline. Recommended analytical techniques include: volatiles (US Environmental Protection Agency method 524 or equivalent), semi-volatiles (USEPA method 525 or equivalent, and pesticides (USEPA method 608 or equivalent).

Storm Water/Surface Water Monitoring

Location: **Surface water monitoring points** (Drawing Ref. KTK/2002)

PARAMETER[Note 1]	**SURFACE WATER Monitoring Frequency**
Visual Inspection/Odour [Note 2]	Weekly
Dissolved Oxygen	Quarterly
COD	Quarterly
BOD	Quarterly
Electrical Conductivity	Quarterly
Ammoniacal Nitrogen	Quarterly
Chloride	Quarterly
pH	Quarterly
Total Suspended Solids	Quarterly
Sulphate (SO_4)	Quarterly
Metals / non metals [Note 3]	Quarterly
Mercury	Quarterly
Nitrate and Nitrite	Quarterly
Total P/orthophosphate	Quarterly
Total alkalinity	Quarterly
Total Organic Carbon	Quarterly
List I/II organic substances (Screen) [Note 4]	Annually
Faecal Coliforms	Annually
Total Coliforms	Annually

Note 1: All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures.

Note 2: Where there is evident gross contamination, additional samples should be analysed and the full suite of parameters shown tested.

Note 3: Metals and elements to be analysed by AAS/ICP should include as a minimum: boron, cadmium, calcium, chromium (total), copper, iron, lead, magnesium, manganese, nickel, potassium, sodium and zinc.

Note 4: Samples screened for the presence of organic compounds using Gas Chromatography / Mass Spectrometry (GC/MS) or other appropriate techniques and using the list I/II Substances from EU Directive 76/464/EEC and 80/68/EEC as a guideline. Recommended analytical techniques include: volatiles (US Environmental Protection Agency method 524 or equivalent), semi-volatiles (USEPA method 525 or equivalent, and pesticides (USEPA method 608 or equivalent).

Meteorological Monitoring

Location : At the facility at a location to be agreed, or from an agreed representative station in the region.

Parameter	Monitoring Frequency	Analysis Method/Technique
Precipitation Volume	Daily	Standard
Temperature (min/max.)	Daily	Standard
Wind Direction	Daily	Standard
Wind Force Note 1	Daily	Standard
Atmospheric Pressure Note 1	Daily	Standard

Note 1: Monitoring frequency for these parameters may be decreased with the agreement of the Agency.

Asbestos Fibre Monitoring

Monitoring Locations: (1) Point of tipping, (2) 10m downwind of tipping.

Parameter (fibres/ml)	Monitoring Frequency	Analysis Method/Technique
Asbestos Fibre Concentration	Annual Note 1	Standard Method Note 2

Note 1: Where applicable samples to be taken during the disposal of asbestos based construction materials, or otherwise specified in writing by the Agency.

Note 2 : Method used shall be "Asbestos Fibre in Air" Health and Safety Executive MDHS 39/4, UK (1995) or another method agreed with the Agency. Monitoring shall be carried out by an independent laboratory agreed by the Agency.

SCHEDULE D : Specified Engineering Works

Specified Engineering Works
Development of the facility including preparatory works and lining.
Installation of Landfill Gas Management Infrastructure.
Installation of Leachate Management Infrastructure.
Installation of Groundwater Control Infrastructure.
Installation of Surface Water Management Infrastructure.
Final capping.
Any other works notified in writing by the Agency.

SCHEDULE E : Reporting

Completed reports shall be submitted to:

The Environmental Protection Agency
Office of Environmental Enforcement
PO Box 3000
Johnstown Castle Estate
Wexford **or** Any other address as may be specified by the Agency

Reports are required to be forwarded as required in the licence and as may be set out below:

Report	Reporting Frequency Note1	Report Submission Date
Annual Environment Report (AER)	Annually	By 31st March of each year.
Record of incidents	As they occur	Within five days of the incident.
Specified Engineering Works reports	As they arise	Prior to the works commencing.
Monitoring of landfill gas	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Surface Water Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Groundwater Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Leachate	Quarterly	Ten days after end of the quarter being reported on.
Dust Monitoring	Quarterly	Ten days after end of the quarter being reported on.

Note 1: Unless altered at the request of the Agency.

SCHEDULE F : Annual Environmental Report

Annual Environmental Report Content [Note 1]
Emissions from the installation/facility.
Waste management record.
Waste (sludge) analysis.
Waste Recovery Report.
Topographical survey.
Remaining void, projected completion date.
Resource consumption summary.
Complaints summary.
Schedule of Environmental Objectives and Targets.
Environmental management programme – report for previous year.
Environmental management programme – proposal for current year.
Pollution emission register – report for previous year.
Pollution emission register – proposal for current year.
Noise monitoring report summary.
Meteorological data summary.
Ambient monitoring summary.
Current monitoring location reference drawing.
Tank and pipeline testing and inspection report.
Reported incidents summary.
Energy efficiency audit report summary.
Report on progress made and proposals being developed to minimise generation of leachate for disposal.
Development / Infrastructural works summary (completed in previous year or prepared for current year).
Report on management and staffing structure of the installation/facility.
Report on the programme for public information.
Reports on financial provision made under this licence.
Statement on the costs of Landfill.
Review of Environmental Liabilities.
Any amendments to the CRAMP.
Detailed Statement, with mass balance, of C & D wastes and compost used in construction.
Any other items specified by the Agency.

Note 1: Content may be revised subject to the agreement of the Agency.

Sealed by the seal of the Agency on this the 16th day of February, 2006

PRESENT when the seal of the Agency was affixed hereto:

Dara Lynott, Director

中华人民共和国限制进口类可用作原料的固体废物进口许可证

IMPORT LICENCE OF THE PEOPLE'S REPUBLIC OF CHINA FOR RESTRICTED SOLID WASTES THAT CAN BE USED AS RAW MATERIALS

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3、利用商: Recycler 广州广钢MBA塑料新技术有限公司	4、进口许可证有效截止日期: Import licence expiry date 2006年10月31日
5、商品名称: Description of goods 乙烯聚合物的废碎料及下脚料	6、商品编码: Code of goods 3915100000
7、数量: Quantity 800000	8、计量单位: Unit 千克
9、报关口岸: Place of clearance 广州	10、贸易方式: Terms of trade 一般贸易
11、备注: Supplementary details	12、发证机关盖章: Issuing authority's stamp 国家环境保护总局 State Environmental Protection Administration 13、发证日期:2006年4月28日 Licence date

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5、商品名称: Description of goods 苯乙烯聚合物的废碎料及下脚料	6、商品编码: Code of goods 3915200000
7、数量: Quantity 1400000	8、计量单位: Unit 千克
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7、数量: Quantity 1371000	8、计量单位: Unit 千克
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第一联 报关凭证

Headquarters
P.O. Box 3000
Johnstown Castle Estate
County Wexford
Ireland

WASTE LICENCE

Waste Licence Register Number:	192-1	*
Licensee:	Rilta Limited t/a Sita Environmental	*
Location of Facility:	Block 402, Greenogue Business Park, Rathcoole, County Dublin	*

INTRODUCTION

This introduction is not part of the licence and does not purport to be a legal interpretation of the licence.

This licence is for the operation of a hazardous waste treatment facility on a green field site at Greenogue Business Park, Rathcoole, County Dublin. The quantity of waste to be accepted at the facility is limited to 62,500 tonnes per annum consisting of hazardous waste, commercial waste, construction and demolition waste, industrial sludges and industrial waste.

The facility comprises of three components namely: drum recovery centre, hydrocarbon waste treatment centre and hazardous waste transfer station. At the drum recovery centre, nominally empty industrial packaging such as steel drums, plastic drums and intermediate bulk containers (IBC) will be reconditioned or recycled. The principal process at the hydrocarbon waste treatment centre will be treatment/recovery of hydrocarbon contaminated waste from such sources as bilge tanks of ships, petrol stations and oil spills. The hazardous waste transfer station will allow for bulking up and transfer of hazardous waste for recovery/disposal.

The licensee must manage and operate the facility to ensure that the activities do not cause environmental pollution. The licensee is required to carry out regular environmental monitoring and submit all monitoring results, and a wide range of reports on the operation and management of the facility to the Agency.

The licence sets out in detail the conditions under which Rilta Limited t/a Sita Environmental will operate and manage this facility.

Table of Contents

DECISION & REASONS FOR THE DECISION

On the basis of the information before it, the Environmental Protection Agency is satisfied that the waste activity, or activities, licensed hereunder in Part I will comply with the requirements of Section 40(4) of the Waste Management Acts 1996 to 2003.

In reaching this decision the Environmental Protection Agency has considered the application and supporting documentation received from the applicant, a submission received from a third party and the report of its inspector.

No objection having been received to the proposed decision, the licence is granted in accordance with the terms of the proposed decision and the reasons therefor.

INTERPRETATION

All terms in this licence should be interpreted in accordance with the definitions in the Waste Management Acts 1996 to 2003, (the Acts), unless otherwise defined in this section.

Adequate lighting	20 lux measured at ground level.
Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Agreement	Agreement in writing.
Annually	At approximately twelve monthly intervals.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
Application	The application by the licensee for this waste licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
BAT	Best Available Techniques.
Bi-annually	All or part of a period of six consecutive months.
Biodegradable waste	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard.
Condition	A condition of this licence.
Consignment Note	All movements of hazardous waste within Ireland must be accompanied by a "C1" consignment note issued by a local authority under the Waste Management (Movement of Hazardous Waste) Regulations (SI No. 147 of 1998
Construction and Demolition Waste	All wastes which arise from construction, renovation and demolition activities.
Containment boom	A boom which can contain spillages and prevent them from entering drains or watercourses.
Daytime	8.00 a.m. to 10.00 p.m.
Documentation	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.

Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
Emergency	Those occurrences defined in Condition 9.4.
Emission Limits	Those limits, including concentration limits and deposition levels established in *Schedule C: Emission Limits,* of this licence.
European Waste Catalogue (EWC)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC and any subsequent amendment published in the Official Journal of the European Community.
Green waste	Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation.
Hours of Operation	The hours during which the facility is authorised to be operational
Hours of Waste Acceptance	The hours during which the facility is authorised to accept waste
Incident	The following shall constitute an incident for the purposes of this licence: a) an emergency; b) any emission which does not comply with the requirements of this licence; c) any exceedence of the daily duty capacity of the waste handling equipment; d) any trigger level specified in this licence which is attained or exceeded; and, e) any indication that environmental pollution has, or may have, taken place.
Industrial Waste	As defined in Section 5(1) of the Act.
Inert waste	Waste as so defined in S.I. No. 395 of 2004 Waste Management (Licensing) Regulations, 2004.
Landfill Directive	Council Directive 1999/31/EC.
Licence	A Waste Licence issued in accordance with the Acts.
Licensee	Rilta Limited t/a Sita Environmental.
Liquid Waste	Any waste in liquid form and containing less than 2% dry matter. Any waste tankered to the facility.
Maintain	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to adequately perform its function.
Mobile Plant	Self-propelled machinery used for the emplacement of wastes or for the construction of specified engineering works.
Monthly	A minimum of 12 times per year, at approximately monthly intervals.
Municipal waste	As defined in Section 5(1) of the Act.
Night-time	10.00 p.m. to 8.00 a.m.

Noise Sensitive Location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Oil Separator	Device installed according to the draft European Standard prEN 858 (Installations for the separation of light liquids, e.g. oil and petrol).
Recyclable Materials	Those waste types, such as cardboard, batteries, gas cylinders, etc, which may be recycled.
Quarterly	At approximately three monthly intervals.
Sanitary Authority	South Dublin County Council.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
SOP	Standard Operating Procedure.
Specified Emissions	Those emissions listed in *Schedule C: Emission Limits* of this licence.
Specified Engineering Works (SEW)	Those engineering works listed in *Schedule B: Specified Engineering Works* of this licence.
TOC	Total Organic Carbon.
Transfrontier Shipment Notification	Transfrontier Shipment Notification and movement/tracking form numbers are required for all exports of waste from, into or through the State under the Waste Management (Transfrontier Shipment of Waste) Regulations (S.I. No. 149 of 1998).
Trigger Level	A parameter value specified in the licence, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Wastewater	Contaminated water including water that has been used, for washing, and/or flushing (including foul water).
Weekly	During all weeks of plant operation, and in the case of emissions, when emissions are taking place; with no more than one measurement in any one week.
White Goods	Refrigerators, cookers, ovens and other similar appliances.
EPA Working Day	Refers to the following hours; 9.00 a.m. to 5.30 p.m. Monday to Friday inclusive.

Part I Schedule of Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Acts 1996 to 2003, the Environmental Protection Agency (the Agency), under Section 40(1) of the said Acts hereby grants this Waste Licence to Rilta Limited t/a Sita Environmental to carry on the waste activities listed below at Block 402, Greenogue Business Park, Rathcoole, Co. Dublin subject to conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Acts 1996 to 2003

Class 7.	Physico-chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcination) which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule (including evaporation, drying and calcination).
Class 11.	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
Class 12.	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
Class 13.	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Acts 1996 to 2003

Class 2.	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
Class 3.	Recycling or reclamation of metals and metal compounds.
Class 4.	Recycling or reclamation of other inorganic materials.
Class 6.	Recovery of components used for pollution abatement.
Class 8.	Oil re-refining or other re-uses of oil.
Class 13.	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

Part II: Schedule of Activities Refused

On the basis of the information before it, the Environmental Protection Agency (the Agency), pursuant to its powers under Section 40(1) of the Waste Management Acts 1996 to 2003, hereby refuses the following class of activity.

Refused waste disposal activities, in accordance with the Third Schedule of the Waste Management Acts 1996 to 2003

Class 4.	**Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.** Reason: The storage of waste oil/water mixtures in settlement tanks on-site and temporary storage of settled sludge and flocculated solids from the water treatment stage does not constitute a Class 4 Activity. This activity as described in the application is more appropriate to and acceptable under Class 7 and Class 13 of the Third Schedule.

PART III CONDITIONS

CONDITION 1 SCOPE OF THE LICENCE

1.1 Waste activities at the facility shall be restricted to those outlined in the licence application and listed and described in Part I: Activities Licensed and authorised by this licence subject to the conditions of this licence.

1.2 For the purposes of this licence, the facility is the area of land outlined in red on Drawing No. 1102/02/301 *Site Location* of the application. Any reference in this licence to "facility" shall mean this area outlined in red.

1.3 This licence is for the purposes of waste licensing under the Waste Management Acts 1996 to 2003 only and nothing in this licence shall be construed as negating the licensee's statutory obligations or requirements under any other enactments or regulations.

1.4 Only those waste categories and quantities listed in *Schedule A: Waste Acceptance* of this licence, shall be accepted at the facility.

1.5 Every plan, programme or proposal submitted to the Agency for its agreement pursuant to any Condition of this licence shall include a proposed timescale for its implementation. The Agency may modify or alter any such plan, programme or proposal in so far as it considers such modification or alteration to be necessary and shall notify the licensee in writing of any such modification or alteration. Every such plan, programme or proposal shall be carried out within the timescale fixed by the Agency but shall not be undertaken without the agreement of the Agency. Every such plan, programme or proposal agreed by the Agency shall be covered by the conditions of this licence.

REASON: *To clarify the scope of this licence.*

CONDITION 2 MANAGEMENT OF THE FACILITY

2.1 Facility Management

2.1.1 The licensee shall employ a suitably qualified and experienced facility manager who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced, deputy shall be present on the facility at all times during its operation.

2.1.2 Both the facility manager and deputy, and any replacement manager or deputy, shall successfully complete both the FAS waste management training programme (or equivalent agreed by the Agency) and associated on site assessment appraisal within twelve months of appointment.

2.1.3 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience, as required and shall be aware of the requirements of this licence.

2.2 Management Structure

2.2.1 Prior to the commencement of waste activities, the licensee shall submit written details of the management structure of the facility to the Agency. Any proposed replacement

in the management structure shall be notified in advance in writing to the Agency. Written details of the management structure shall include the following information.

a) the names of all persons who are to provide the management and supervision of the waste activities authorised by the licence, in particular the name of the facility manager and any nominated deputies;

b) details of the responsibilities for each individual named under a) above; and

c) details of the relevant education, training and experience held by each of the persons nominated under a) above.

2.3 Environmental Management System (EMS)

2.3.1 The licensee shall establish and maintain an EMS. Within three months from the date of grant of this licence, the licensee shall submit to the Agency for its agreement a proposal for a documented Environmental Management System (EMS) for the facility. Following the agreement of the Agency, the licensee shall establish and maintain such a system. The EMS shall be updated on an annual basis with amendments being submitted to the Agency for its agreement as part of the AER.

2.3.2 The EMS shall include as a minimum the following elements:

2.3.2.1 Schedule of Environmental Objectives and Targets

The objectives should be specific and the targets measurable. The Schedule shall address a five-year period as a minimum. The Schedule shall include a time-scale for achieving the objectives and targets and shall comply with any other written guidance issued by the Agency.

2.3.2.2 Environmental Management Plan (EMP)

The EMP shall include, as a minimum, the following:

(i) methods by which the objectives and targets will be achieved in the coming year and the designation of responsibility for targets;

(ii) any other items required by written guidance issued by the Agency.

2.3.2.3 Corrective Action Procedures

The Corrective Action Procedures shall detail the corrective actions to be taken should any of the procedures detailed in the EMS not be followed.

2.3.2.4 Awareness and Training Programme

The Awareness and Training Programme shall identify training needs, for personnel who work in or have responsibility for the licensed facility.

2.4 Communications Programme

2.4.1 The licensee shall establish and maintain a Communications Programme to ensure that members of the public can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility. This shall be established within six months of the date of grant of this licence.

REASON: *To make provision for the proper management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment.*

CONDITION 3 FACILITY INFRASTRUCTURE

3.1 The licensee shall establish all infrastructure referred to in this licence prior to the commencement of the licensed activities or as required by the conditions of this licence.

3.2 Specified Engineering Works

3.2.1 The licensee shall submit proposals for all Specified Engineering Works, as defined in *Schedule B: Specified Engineering Works* of this licence, to the Agency for its agreement at least two months prior to the intended date of commencement of any such works. No such works shall be carried out without the prior agreement of the Agency.

3.2.2 All specified engineering works shall be supervised by a competent person(s) and that person, or persons, shall be present at all times during which relevant works are being undertaken.

3.2.3 Following the completion of all specified engineering works, the licensee shall complete a construction quality assurance validation. The validation report shall be made available to the Agency on request. The report shall include as may be appropriate the following information:-

a) a description of the works;

b) as-built drawings of the works;

c) records and results of all tests carried out (including failures);

d) drawings and sections showing the location of all samples and tests carried out;

e) daily record sheets/diary;

f) name(s) of contractor(s)/individual(s) responsible for undertaking the specified engineering works;

g) name(s) of individual(s) responsible for supervision of works and for quality assurance validation of works;

h) records of any problems and the remedial works carried out to resolve those problems; and

i) any other information requested in writing by the Agency.

3.3 Facility Notice Board

3.3.1 The licensee shall provide and maintain a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm.

3.3.2 The board shall clearly show:-

a) the name and telephone number of the facility;

b) the normal hours of opening;

c) the name of the licence holder;

d) an emergency out of hours contact telephone number;

e) the licence reference number; and

f) where environmental information relating to the facility can be obtained.

3.4 Facility Security

3.4.1 Prior to commencement of waste acceptance at the facility, security and stockproof fencing and gates shall be installed and maintained as described in Section 3.5.2 *Security and Entry Control Facilities* of the EIS submitted with the application, unless

otherwise agreed by the Agency. The security fence and gates shall be at the locations shown on Drawing No. 1102/02/305 *Site Layout Plan*. The base of the fencing shall be set in the ground.

3.4.2 The licensee shall remedy any defect in the gates and/or fencing as follows:-

a) a temporary repair shall be made by the end of the working day; and

b) a repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

3.4.3 Gates shall be locked shut when the facility is unsupervised.

3.4.4 There shall be no casual public access to the facility.

3.5 Facility Roads and Site Surfaces

3.5.1 Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility.

3.5.2 Prior to commencement of waste acceptance at the facility, the licensee shall provide, and maintain an impermeable concrete surface in all areas of the facility, the surfaces shall be concreted and constructed to British Standard 8110 or an alternative as agreed by the Agency.

3.5.3 Traffic layout at the facility shall be such that emergency services' vehicles shall have access to all parts of the facility at all times.

3.6 Facility Office

3.6.1 The licensee shall provide and maintain an office at the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.

3.6.2 The licensee shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.

3.7 Waste Inspection and Quarantine Areas

3.7.1 Prior to commencement of waste acceptance at the facility, Waste Inspection Area(s) and separate Waste Quarantine Area(s) shall be provided and maintained at the facility.

3.7.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area(s) and the waste quarantine area(s) shall be clearly identified and segregated from each other.

3.7.3 The waste quarantine area(s) shall be secured, bunded and surfaced to deal with spillages.

3.8 Weighbridge and Vehicle Wash Area

3.8.1 Prior to commencement of waste acceptance at the facility, the licensee shall provide and maintain weighbridge(s) and a vehicle wash area at the facility.

3.8.2 The vehicle wash area shall be used by all vehicles leaving the facility as required to ensure that no wastewater or waste is carried off-site. All water from the vehicle wash area shall be directed to the wastewater drainage system.

3.9 Waste handling, ventilation and processing plant

3.9.1 Items of plant deemed critical to the efficient and adequate processing of waste at the facility (including *inter alia* waste loading vehicles and ejector trailers) shall be provided on the following basis:-

a) 100% duty capacity;

b) 20% standby capacity available on a routine basis; and

c) Provision of contingency arrangements and/or back up and spares in the case of breakdown of critical equipment.

3.9.2 Prior to the commencement of waste activities, the licensee shall provide a report for the agreement of the Agency detailing the duty and standby capacity in tonnes per day, of all waste handling and processing equipment to be used at the facility. These capacities shall be based on the licensed waste intake, as per *Schedule A: Waste Acceptance,* of this licence.

3.9.3 The quantity of waste to be accepted at the facility on a daily basis shall not exceed the duty capacity of the equipment at the facility. Any exceedance of this intake shall be treated as an incident.

3.10 Hazardous Waste Storage Areas and Tank and Drum Storage Areas

3.10.1 All tank, drum and hazardous waste storage areas shall be rendered impervious to the materials stored therein.

3.10.2 All tank, drum and hazardous waste storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:-

a) 110% of the capacity of the largest tank or drum within the bunded area; or

b) 25% of the total volume of substance which could be stored within the bunded area.

3.10.3 Daily visual inspection shall be carried out at all bunded areas to detect any possible spillages. Weekly visual inspections shall be carried out to assess all bunds and hardstanding areas for structural soundness and cracking/damage.

3.10.4 All spillages shall be treated as hazardous waste unless they are known to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal.

3.10.5 Each bunded area shall be clearly labelled so that it is legible to persons outside the bunded area. The labelling shall clearly indicate the material class type stored in that area and the maximum quantity of material that can be stored therein. The management and arrangements of the bunded areas shall ensure that no mixing of incompatible substances, as a result of spillages or otherwise, shall take place.

3.10.6 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.

3.10.7 The integrity and water tightness of all the bunds and their resistance to penetration by water or other materials stored therein shall be confirmed by the licensee and shall be reported to the Agency following its installation and prior to its use as a storage area. This confirmation shall be repeated at least once every three years thereafter and reported to the Agency on each occasion.

3.11 Underground Settlement Tanks

3.11.1 Prior to waste acceptance at the Hydrocarbon Waste Treatment Centre, a secondary containment system with leak detection shall be installed for the underground settlement tanks shown on Drawing No. GA-05 Rev. L *Foundation/Ground FL GA Hydrocarbon*

Waste Treatment Centre of the Article 16 reply received on 10/05/04. Installation shall be in accordance with *Installation, Decommissioning and Removal of Underground Storage Tanks,* PPG 27 EA.

3.11.2 The licensee shall complete a construction quality assurance validation for the above works as specified in Condition 3.2.3 including a certificate confirming that the tanks comply with BS EN 12285-1:2003 or equivalent.

3.12 Decant Room & Photographic Waste Processing Plant (PWPP) (Hazardous Waste Transfer Station).

3.12.1 Details of the decant room and PWPP must be agreed in advance by the Agency as part of SEW. The proposal must include and address the following as a minimum:

a) Bunding arrangements

b) Drainage arrangements

c) Air emissions

d) Noise emissions

e) Process control equipment

f) Back-up, maintenance and calibration requirements

g) Abatement equipment

h) Periods of emission

i) Volumes to be emitted

j) Stack characteristics including vent diameter and height above ground level

k) Assessment of compliance with Condition 11.1.

3.12.2 A noise prediction model shall be submitted to the Agency as part of the proposal to install and operate the decant room and PWPP.

3.12.3 An air emissions model shall be submitted to the Agency as part of the proposal to install and operate the decant room and PWPP.

3.12.4 Monitoring locations, frequency of monitoring, emission limit values, methods of analysis and monitoring parameters shall be agreed in advance by the Agency prior to the operation of the decant room and PWPP.

3.13 Drainage system, pipeline testing

3.13.1 Prior to commencement of waste acceptance, the wastewater drainage system shall be installed as described in Section D.1.I *Sewerage and Surface Water Drainage Infrastructure* and shown on Drawing No. D1 *Drainage Layout* and specified on Drawing No. GA-07 *Foundation/Ground FL GA Drum Recycling Centre*, Drawing No. GA-01 *Foundation/Ground FL GA Hazardous Waste Transfer Station* and Drawing No. GA-05 *Foundation/Ground FL GA Hydrocarbon Waste Treatment Centre* submitted as part of the Article 16 reply received on 10/05/04, unless otherwise agreed by the Agency.

3.13.2 In the Drum Recovery Centre and the Hazardous Waste Transfer Station, a manual shut-off valve shall be installed on the wastewater drainage network prior to discharge to the sewer. The shut-off valve shall be maintained in the closed position.

3.13.3 Surface water run-off from the vehicle wash area and the weighbridge area shall be discharged to the wastewater drainage system.

3.13.4 Surface water run-off from all areas other than the weighbridge area and the vehicle wash area shall be discharged to the surface water run-off drainage system.

3.13.5 The licensee shall install and maintain silt traps and oil interceptors at the facility to ensure that all surface water run-off and wastewater (excluding toilet and canteen wastewater) discharges from the facility pass through a silt trap and oil interceptor prior to discharge. For discharges to surface water, the interceptors shall be a Class I full retention interceptor which shall be fitted with a manual shut-off valve. For discharges to sewer, the interceptors shall be Class II full retention interceptor. The silt traps and interceptors shall be in accordance with European Standard prEN 858 (installations for the separation of light liquids).

3.13.6 The licensee shall submit a drawing to the Agency within six months of the date of grant of this licence, indicating all drainage arrangements at the site as detailed in this licence.

3.13.7 Prior to the commencement of waste activities, all foul sewer gullies, drainage grids and manhole covers shall be painted with red squares whilst all surface water discharge gullies, drainage grids and manhole covers shall be painted with blue triangles. These colour codes shall be maintained so as to be visible at all times during facility operation, and any identification designated in this licence (e.g. SW1) shall be inscribed on these manholes.

3.13.8 The drainage system, bunds, silt traps and oil separators shall be inspected weekly, desludged as necessary and properly maintained at all times. All sludge and drainage from these operations shall be collected for safe disposal. A written record shall be kept of the inspections, desludging, cleaning, disposal of associated waste products, maintenance and performance of the interceptors, bunds and drains.

3.13.9 The integrity and water tightness of all underground pipes and tanks and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee and shall be reported to the Agency following their installation and prior to their use. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

3.14 Monitoring Infrastructure

3.14.1 Groundwater

(i) All wellheads shall be adequately sealed to prevent surface contamination within six months from the date of grant of this licence.

(ii) Groundwater monitoring wells shall be constructed having regard to the guidance given in the Agency's landfill manual "Landfill Monitoring".

3.14.2 Replacement of Infrastructure

(i) Monitoring infrastructure which is damaged or proves to be unsuitable for its purpose shall be replaced within three months of it being damaged or recognised as being unsuitable.

REASON: *To provide appropriate infrastructure for the protection of the environment.*

CONDITION 4 RESTORATION AND AFTERCARE

4.1. Decommissioning and Aftercare of the facility shall be carried out to an agreed plan and to an agreed standard sufficient to return the site to a satisfactory state. A proposal for a Decommissioning and Aftercare Plan for the facility shall be submitted prior to commencement of waste acceptance at the facility. The licensee shall update decommissioning and closure plans when required by the Agency.

***REASON**: To provide for the restoration of the facility.*

CONDITION 5 FACILITY OPERATIONS

5.1 All waste processing shall be carried out inside the Drum Recovery Centre, the Hydrocarbon Waste Treatment Centre or the Hazardous Waste Transfer Station.

5.2 Waste Acceptance and Characterisation Procedures

5.2.1 Waste shall only be accepted at the facility, from Local Authority waste collection or transport vehicles or holders of waste permits, unless exempted or excluded, issued under the Waste Management (Collection Permit) Regulations 2001. Copies of these waste collection permits must be maintained at the facility.

5.2.2 Prior to commencement of waste acceptance at the facility, the licensee shall establish and maintain detailed written procedures and criteria for the acceptance, handling, sampling and bulking of all wastes to include decontamination, labelling, compatibility testing, analysis, weighing, documentation, transfer, storage and record keeping.

5.2.3 Hazardous wastes that are accepted at the facility as per *Schedule A: Waste Acceptance*, of this licence and fuels shall only be stored at appropriately bunded locations at the facility.

5.2.4 All waste accepted at the facility shall fulfil the waste acceptance criteria as required by Condition 5.2.2.

5.2.5 No hazardous waste may be accepted at the Hazardous Waste Transfer Station unless:

a) The licensee has been notified in advance of the types of waste (including EWC Codes) and the date of delivery;

b) The waste has been appropriately labelled using the relevant EWC Codes;

c) An effective procedure for accepting and handling the waste is in place and satisfactory staff training in the implementation of that procedure has been undertaken;

d) The waste has been classified in accordance with the UN publication *"Recommendations on the Transport of Hazardous Goods: Model Regulations"* as amended and fully characterised. Where necessary, and particularly in the case of new customers or waste types, its characteristics and hazardous properties have been confirmed by the licensee by sampling and analysis in advance of arrival at the facility;

e) A suitable designated storage area is immediately available at the Hazardous Waste Transfer Station; and

f) A designated waste quarantine area is immediately available at the facility for any waste which does not conform with the pre-notification and which cannot be otherwise accepted at the facility.

5.2.6 Each load of waste arriving at the facility shall be inspected at the point of entry to the facility and subject to this inspection, weighed, documented and directed to the Drum Recovery Centre, Hydrocarbon Waste Treatment Centre or Hazardous Waste Transfer Station. Only after such inspections shall the waste be processed for disposal or recovery.

5.2.7 Any waste deemed unsuitable for processing at the facility and/or in contravention of this licence shall be immediately separated and removed from the facility at the earliest possible time. Temporary storage of such wastes shall be in a designated Waste Quarantine Area. Waste shall be stored under appropriate conditions in the quarantine area to avoid putrefaction, odour generation, the attraction of vermin and any other nuisance or objectionable condition.

5.2.8 A record of all inspections of incoming waste loads shall be maintained.

5.2.9 Waste shall be accepted at the facility only from known customers or new customers subject to initial waste profiling and waste characterisation off-site. The written records of this off-site waste profiling and characterisation shall be retained by the licensee for all active customers and for a two year period following termination of licensee/customer agreements.

5.2.10 Prior to the acceptance of any waste at the facility, the licensee shall submit to the Agency for its agreement a site-specific tracking system to cater for all materials being accepted at the facility. Any modifications to the tracking system shall be agreed in advance with the Agency.

5.3 Labelling of containers, drums and tanks.

5.3.1 No container (including drums and tanks) shall be accepted at the facility whose contents are unknown and whose contents are not clearly displayed on a label.

5.3.2 All containers including waste and fuel storage tanks and drums shall be labelled to clearly indicate their contents. During storage, each container shall be accessible and shall be so placed to allow for the reading of the label.

5.3.3 All hazardous waste containers shall be uniquely marked with an identification code using indelible or other permanent or electronic markings. All containers shall be marked or labelled to clearly indicate their contents. All previous markings and labels shall be defaced or crossed out.

5.4 Operational Controls

5.4.1 No waste shall have a retention time at the facility in excess of six months, unless otherwise agreed by the Agency.

5.4.2 The floor of the Drum Recovery Centre, Hydrocarbon Waste Treatment Centre and Hazardous waste transfer building shall be washed down and cleared of all waste on a regular basis or at such intervals as agreed by the Agency.

5.4.3 Scavenging shall not be permitted at the facility.

5.4.4 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.

5.4.5 The licensee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive wastes. The waste shall be separated and protected from sources

of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical or mechanical), spontaneous ignition (e.g. heat-producing chemical reactions) and radiant heat.

5.5 Waste Repackaging

5.5.1 All containers accepted at the facility shall be whole and sound. Any leaking or otherwise ruptured drums or containers shall immediately be overdrummed or the contents transferred to a sound container in a manner which will not adversely affect the environment. This operation shall only be carried out in bunded areas such that any spillage arising from the activity may be contained and collected.

5.5.2 All operations involving the transfer of contents referred to in Condition 5.5.1 shall take place indoors, protected against spillage, in a designated area to be agreed with the Agency. Appropriate control measures shall be put in place to minimise any emissions which may arise from such activity.

5.6 Waste and Chemical Storage Tracking System

5.6.1 Within two months from the date of grant of the licence, an electronic waste and chemical storage tracking system shall be established and maintained.

5.6.2 The waste storage tracking system shall illustrate the location, identification code, volume and content of all waste containers held at the facility. The chemical storage tracking system shall illustrate the location, volume and content of all chemical containers whose volume exceeds 25 litres held at the facility.

5.6.3 The waste and chemical storage tracking system shall be updated daily by the end of each working day and shall be verified as updated by an authorised person or a nominated deputy as identified under Condition 2.1.1.

5.7 Blending/Mixing/Bulking of hazardous wastes

5.7.1 No blending, mixing or bulking up shall be carried out at the Hazardous Waste Transfer Building prior to approval from the Agency. Blending, mixing or bulking up of hazardous solid or liquid waste shall only be carried out in the decant room.

5.7.2 The compatibility of wastes to be bulked-up shall be established prior to such bulking-up taking place. The procedures to be in place under Condition 5.2.2 shall consider any compatibility testing that may be required, including, as far as is possible, the identification of any potentially abnormal or unusual situations.

5.7.3 Records shall be maintained of all compatibility tests carried out.

5.8 Processing of Photographic Waste

5.8.1 No photographic waste shall be processed at the facility prior to approval from the Agency. Processing of photographic waste shall only be carried out in the Hazardous Waste Transfer Station.

5.9 Processing of hydrocarbon waste

5.9.1 The processing of hydrocarbon waste at the Hydrocarbon Waste Treatment Centre shall be carried out as described in Section 3.3.2 *Hydrocarbon Waste Treatment Centre* of the EIS submitted with the application and shown on Fig. 3.3 *Hydrocarbon Waste Treatment Centre Process Flow Diagram* submitted as part of the Article 16 reply received 10/5/04, unless otherwise agreed by the Agency.

5.9.2 The heating of waste oils will be carried out at the appropriate temperature so as to avoid their combustion. A safety cut off temperature detection unit shall be installed on

the oil heating tanks and calibrated annually. A calibration certificate shall be submitted as part of the AER.

5.10 Off-site Disposal and Recovery

5.10.1 All waste transferred from the facility shall be transferred by an authorised or exempted carrier, and only to an appropriate facility agreed by the Agency. Any request for agreement of such a facility shall be forwarded to the Agency at least two weeks in advance of its proposed use and shall include the following;

(i) A copy of the waste permit or waste licence where applicable.

(ii) The waste types and quantities.

5.11 Wastewater Management

5.11.1 Wastewater treatment at the Hydrocarbon Waste Treatment Centre shall be carried out as described in Section 3.3.2 *Hydrocarbon Waste Treatment Centre* of the EIS submitted with the application, unless otherwise agreed by the Agency.

5.11.2 Discharge of wastewater from the Hydrocarbon Waste Treatment Centre to the wastewater drainage network shall cease in the event of breakdown of the on-site wastewater treatment system and the wastewater shall be tankered off-site in fully enclosed road tankers to an agreed Wastewater Treatment Plant or other authorised facility to be agreed by the Agency and disposed of there.

5.11.3 Wastewater stored in the on-site storage tanks and/or wastewater unsuitable for discharge to sewer shall be tankered off-site in fully enclosed road tankers to an authorised facility to be agreed by the Agency and disposed of there.

5.12 Maintenance

5.12.1 All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer. Written records of the calibrations and maintenance shall be made and kept by the licensee.

5.12.2 The vehicle wash shall be inspected on a daily basis and drained as required. Silt, stones and other accumulated material shall be removed as required from the wheel-wash and disposed of appropriately.

5.12.3 The licensee shall maintain all waste processing equipment and infrastructure in accordance with the manufacturers instructions.

5.13 Resource Use and Energy Efficiency

5.13.1 The licensee shall carry out an audit of the energy efficiency of the site within one year of the date of grant of this licence. The licensee shall consult with the Agency on the nature and extent of the audit and shall develop an audit programme to the satisfaction of the Agency. The audit programme shall be submitted to the Agency in writing at least one month before the audit is to be carried out. A copy of the audit report shall be available on-site for inspection by authorised persons of the Agency and a summary of the audit findings shall be submitted as part of the Annual Environmental Report. The energy efficiency audit shall be repeated at intervals as required by the Agency.

5.13.2 The audit shall identify all opportunities for energy use reduction and efficiency and the recommendations of the audit will be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.

5.13.3 The licensee shall identify opportunities for reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible. Reductions in water usage shall be incorporated into Schedule of Environmental Objectives and Targets.

5.13.4 The licensee shall undertake an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated. The assessment should take account of best international practice for this type of activity.. Where improvements are identified, these shall be incorporated into the Schedule of Environmental Objectives and Targets.

***REASON**: To provide for appropriate operation of the facility to ensure protection of the environment.*

CONDITION 6 EMISSIONS

6.1. No specified emission from the facility shall exceed the emission limit values set out in *Schedule C: Emission Limits* of this licence. There shall be no other emissions of environmental significance.

6.2. The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.

6.3. Emissions to Atmosphere

6.3.1. Emission limits for emissions to atmosphere in this licence shall be interpreted in the following way.

6.3.1.1. Non-Continuous Monitoring

(i) For any parameter where, due to sampling/analytical limitations, a 30 minute sample is inappropriate, a suitable sampling period should be employed and the value obtained therein shall not exceed the emission limit value.

(ii) For all other parameters, no 30 minute mean value shall exceed the emission limit value.

(iii) For flow, no hourly or daily mean value shall exceed the emission limit value.

(iv) Mass flow thresholds refer to a rate of discharge expressed in units of kg/h, above which the concentration emission limit value applies. Mass flow threshold rates shall be determined on the basis of a single 30 minute measurement (i.e. the concentration determined as a 30 minute average shall be multiplied by an appropriate measurement of flow and the result shall be expressed in units of kg/h).

(v) Mass flow shall be calculated on the basis of the concentration, determined as an average over the specified period, multiplied by an appropriate measurement of flow. No value, so determined, shall exceed the mass flow limit value.

(vi) At emission points A2 and A3, and where annual solvent usage is greater than 5 tonnes, the average of all the readings shall not exceed the emission limit value and no hourly average value shall exceed 1.5 times the emission limit.

At least three readings shall be obtained in each monitoring exercise.

6.3.2 The concentration limits for emission to atmosphere specified in this licence shall be achieved without the introduction of dilution air and shall be based on gas volumes under standard conditions of:

Temperature 273K, pressure 101.3kPa (no correction for oxygen or water content).

6.3.3 Emissions to atmosphere shall only be made at locations A1, A2 and A3 as illustrated on Drawing No. 1102/02/334 *Additional Monitoring Points* submitted as part of the Article 14 reply received 24/12/03, unless otherwise agreed by the Agency.

6.3.4 Fugitive emissions to air of volatile organic compounds shall not exceed the following limits:

(i) 20% of total solvent input where solvent consumption is greater than 15 tonnes per year.

(ii) 25% of total solvent input where solvent consumption is less than 15 tonnes per year.

6.3.5 The licensee shall prepare a solvent management plan (SMP) in accordance with any relevant guidelines in Schedule 6 of S.I. No. 543 of 2002 (Emissions of VOCs from Organic Solvent Regulations 2002) or as may be issued by the Agency from time to time. The solvent management plan shall be used to demonstrate compliance with the fugitive emission limit value. The SMP shall be submitted as part of the AER.

6.4. Emissions to Surface Water

6.4.1. No wastewater and/or contaminated surface water run-off shall be discharged to surface water drains and courses.

6.4.2. No substance shall be discharged in a manner, or at a concentration which, following initial dilution causes tainting of fish or shellfish.

6.5. There shall be no direct emissions to groundwater.

6.6. There shall be no clearly audible tonal component or impulsive component in the noise emissions from the activity at the noise sensitive locations.

6.7. Emissions to Sewer.

6.7.1. Unless otherwise agreed in advance by the Agency and the Sanitary Authority, the following shall apply for the discharge of wastewater and contaminated surface water run-off. There shall be no other discharge or emission to sewer of environmental significance.

6.7.1.1. No material from the drains in the Drum Recovery Centre and the Hazardous Waste Transfer Station shall be discharged to the foul sewer without the consent of the Agency and Sanitary Authority.

6.7.1.2. No substance shall be present in emissions to sewer in such concentrations as would constitute a danger to sewer maintenance personnel working in the sewerage system, or as would be damaging to the fabric of the sewer, or as would interfere with the biological functioning of a downstream wastewater treatment works.

6.7.1.3. The wastewater and contaminated surface water run-off discharged to sewer shall be screened prior to discharge to remove gross solids and avoid blockages in the sewer.

6.7.1.4. The licensee shall permit authorised persons of the Agency and the Sanitary Authority to inspect, examine and test, at all reasonable times, any works and apparatus installed, in connection with the discharge or emission, and to take samples of the discharge or emission.

6.7.1.5. No discharge or emission to sewer shall take place which might give rise to any reaction within the sewer or to the liberation of by-products which may be of environmental significance.

6.7.1.6. Materials classifiable as 'Hazardous Wastes' under the Waste Management Acts 1996 to 2003, shall not be discharged to the foul sewer.

6.7.1.7. The licensee shall ensure that the discharge shall not contain dissolved methane, petroleum spirits or organic solvents (including chlorinated organic solvents), at concentrations which would give rise to flammable or explosive vapours in the sewer.

6.7.1.8. Non-trade effluent wastewater (e.g. firewater, accidental spillage) which occurs on-site shall not be discharged to the sewer without the prior authorisation of the Sanitary Authority.

6.7.1.9. The licensee shall provide and maintain an inspection chamber in a suitable position in connection with each pipe through which a discharge or emission is being made. Each such inspection chamber or manhole shall be constructed and maintained by the licensee so as to permit the taking of samples of the discharge.

6.7.1.10. The licensee shall submit monitoring results to the Sanitary Authority on an annual basis.

6.7.1.11. The method of calculating the volumes of trade effluent discharges shall be as agreed with the Sanitary Authority.

6.8. Emission limit values for emissions to sewer in this licence shall be interpreted in the following way:-

a) Continuous monitoring.

No flow value shall exceed the specified limit.

b) Non-Continuous monitoring.

Eight out of ten consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling shall not exceed 1.2 times the emission limit value.

c) No grab sample shall exceed 1.2 times the emission limit value.

REASON: *To control emissions from the facility and provide for the protection of the environment and to provide for the requirements of the Sanitary Authority in accordance with Section 52 of the Waste Management Acts 1996 to 2003.*

CONDITION 7 NUISANCE CONTROL

7.1 The licensee shall ensure that mud, dust, litter and odours do not give rise to nuisance at the facility or in the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.

7.2 The road network in the vicinity of the facility shall be kept free from any debris caused by vehicles entering or leaving the facility. Any such debris or deposited materials shall be removed without delay.

7.3 Litter Control

7.3.1 All loose litter or other waste, placed on or in the vicinity of the facility, other than in accordance with the requirements of this licences, shall be removed, subject to the agreement of the landowners, immediately and in any event by 10.00am of the next working day after such waste is discovered.

7.3.2 The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the facility are appropriately covered.

7.4 Dust/Odour Control

7.4.1 In dry weather, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance.

7.4.2 Prior to the date of commencement of the waste activities at the facility, the licensee shall install and provide adequate measures for the control of odours and dust emissions, including fugitive dust emissions, from the facility. Such measures shall at a minimum include the following:-

7.4.2.1 Dust curtains shall be maintained on the entry/exit points from the waste facility buildings, all other doors in this building shall be kept closed where possible.

7.4.2.2 Installation of an odour management system.

7.4.2.3 Provision of 100% duty capacity and 50% stand by capacity, back ups and spares must be provided for the air handling, ventilation and abatement plant.

REASON: *To provide for the control of nuisances.*

CONDITION 8 MONITORING

8.1. The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule D: Monitoring* of this licence. Unless otherwise specified by this licence, all environmental monitoring shall commence no later than two months after the commencement of waste acceptance at the facility.

8.2. The licensee shall amend the frequency, locations, methods and scope of monitoring as required by this licence only upon the written instruction of the Agency and shall provide such information concerning such amendments as may be requested in writing by the Agency. Such alterations shall be carried out within any timescale nominated by the Agency.

8.3. Monitoring and analysis equipment shall be operated and maintained in accordance with the manufacturers' instructions (if any) so that all monitoring results accurately reflect any emission, discharge or environmental parameter.

8.4. The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency.

8.5. The licensee shall maintain all sampling and monitoring points, and clearly label and name all sampling and monitoring locations, so that they may be used for representative sampling and monitoring.

8.6. Within three months of the date of grant of this licence, the licensee shall submit to the Agency an appropriately scaled drawing(s) showing all the monitoring locations that are stipulated in

this licence including any noise sensitive locations to be monitored. The drawing(s) shall include the eight-digit national grid reference of each monitoring point.

8.7. The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.

8.8. Within one month of the date of grant of this licence, the following information shall be submitted to the Agency for its agreement: the names, qualifications and a summary of relevant experience of all persons that will carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring. Any proposed changes to the above shall be submitted in writing to the Agency for its agreement.

8.9. All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on, unless alternative sampling or monitoring has been agreed, in writing, by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. Prior written agreement for the use of alternative equipment, other than in emergency situations, shall be obtained from the Agency.

8.10. Biological Assessment

8.10.1. A biological assessment of the River Griffeen at the northern boundary of the facility shall be undertaken within six months of the date of commencement of waste acceptance at the facility and as may be required thereafter. This assessment shall use appropriate biological methods such as the EPA Q-rating system for the assessment of rivers and streams. The location of monitoring points shall be agreed by the Agency.

8.11. Archaeological Assessment

8.11.1. Prior to the development of any undisturbed area, the advice of The Heritage Section of the Department of the Environment, Heritage and Local Government (formerly Dúchas) shall be sought. On completion of such development a report of the results of any archaeological monitoring shall be submitted to The Development Applications Section and to the Agency.

8.12. Nuisance Monitoring

8.12.1. The licensee shall, at a minimum of one week intervals, inspect the facility and its immediate surrounds for nuisances caused by litter, mud, dust and odours.

REASON: *To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions.*

CONDITION 9 CONTINGENCY ARRANGEMENTS

9.1. In the event of an incident the licensee shall immediately:-

a) identify the date, time and place of the incident;

b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;

c) isolate the source of any such emission;

d) evaluate the environmental pollution, if any, caused by the incident;

e) identify and execute measures to minimise the emissions/malfunction and the effects thereof;

f) provide a proposal to the Agency for its agreement within one month of the incident occurring to:-

i) identify and put in place measures to avoid reoccurrence of the incident; and

ii) identify and put in place any other appropriate remedial action.

9.2. The licensee shall, prior to commencement of waste acceptance at the facility, submit a written Emergency Response Procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situations which may originate on the facility and shall include provision for minimising the effects of any emergency on the environment. This shall include a risk assessment to determine the requirements at the facility for fire fighting and fire water retention facilities. The Fire Authority shall be consulted by the licensee during this assessment.

9.3. The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used the absorbent material shall be disposed of at an appropriate facility.

9.4. Emergencies

9.4.1. In the event of a complete breakdown of equipment or any other occurrence which results in the closure of the facility, any waste arriving at or already collected at the facility shall be transferred directly to an appropriate licensed facility until such time as the facility is returned to a fully operational status. Such a breakdown event will be treated as an emergency and rectified as soon as possible.

9.4.2. All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects.

9.4.3. No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities.

***REASON**: To ensure compliance with the conditions of this licence by provision of a satisfactory system of monitoring of emissions.*

CONDITION 10 RECORDS

10.1 The licensee shall keep the following documents at the facility office:-

a) the current waste licence and specified attachments/drawings relating to the facility;

b) the current EMS for the facility;

c) the previous year's AER for the facility; and

d) all written procedures produced by the licensee which relate to the licensed activities.

10.2 The licensee shall maintain a record for each load of waste arriving at and departing from the facility. The licensee shall record the following:-

a) the date;

b) the name of the carrier (including if appropriate, the waste collection permit details);

c) the vehicle registration number;

d) the name of the producer(s)/collector(s) of the waste as appropriate;

e) the name of the waste facility (if appropriate) from which the load originated including the waste licence or waste permit register number;

f) a description of the waste including the associated EWC codes;

g) the quantity of the waste, recorded in tonnes;

h) the name of the person checking the load;

i) where loads or wastes are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed including the waste licence and waste permit register number of these facilities as appropriate; and

j) where applicable a consignment note number (including transfrontier shipment notification and movement/tracking form numbers, as appropriate).

10.3 The following records shall be maintained by the licensee:-

a) the types and quantities of waste recovered at the facility each year. These records shall include the relevant EWC Codes and any details required to complete national reports on waste statistics;

b) all training undertaken by facility staff;

c) results from all integrity tests of bunds and other structures and any maintenance or remedial work arising from them;

d) details of all nuisance inspections; and

e) the names and qualifications of all persons who carry out all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring.

10.4 The licensee shall maintain a record of all complaints relating to the operation of the activity. Each such record shall give details of the following:-

a) date and time of the complaint;

b) the name of the complainant;

c) details of the nature of the complaint;

d) actions taken on foot of the complaint and the results of such actions; and,

e) the response made to each complainant.

10.5 A record shall be kept of each consignment of wastewater removed from the facility. The record shall include the following:-

a) the name of the carrier;

b) the date and time of removal of wastewater from the facility;

c) the volume of wastewater, in cubic metres, removed from the facility on each occasion;

d) the name and address of the Waste Water Treatment Plant or other authorised facility agreed by the Agency to which the wastewater was transported; and

e) any incidents or spillages of wastewater during its removal or transportation.

REASON: *To provide for the keeping of proper records of the operation of the facility.*

CONDITION 11 REPORTS AND NOTIFICATIONS

11.1 No alteration to, or reconstruction in respect of, the activity or any part thereof which would, or is likely to, result in:

a) A material change or increase in:

- The nature or quantity of any emission;
- The abatement/treatment or recovery systems;
- The range of processes to be carried out;
- The fuels, raw materials, products or wastes to be generated or accepted, or

b) Any changes in:

- The site management and control with adverse environmental significance,

shall be carried out or commenced without prior notice to, and without the prior written agreement of, the Agency.

11.2 Unless otherwise agreed by the Agency, all reports and notifications submitted to the Agency shall:-

a) be sent to the Agency's Dublin Regional Inspectorate, McCumiskey House, Richview, Clonskeagh Road, Dublin 14;

b) comprise one original and two copies unless additional copies are required;

c) be formatted in accordance with any written instruction or guidance issued by the Agency;

d) include whatever information as is specified in writing by the Agency;

e) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;

f) be submitted in accordance to the relevant reporting frequencies specified by this licence, such as in *Schedule E: Recording and Reporting to the Agency* of this licence;

g) be accompanied by a written interpretation setting out their significance in the case of all monitoring data; and

h) be transferred electronically to the Agency's computer system if required by the Agency.

11.3 In the event of an incident occurring on the facility, the licensee shall:-

a) notify the Agency as soon as practicable and in any case not later than 10.00 am the following working day after the occurrence of any incident;

b) submit a written record of the incident, including all aspects described in Condition 9.1(a-e), to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident;

c) In the event of any incident which relates to discharges to sewer, having taken place, the licensee shall notify the Local and Sanitary Authority as soon as practicable, after such an incident and in any case not later than 10:00am on the following working day after such an incident;

d) In the case of any incident which relates to discharges to water, the licensee shall notify the Local Authority and the Eastern Regional Fisheries Board as soon as practicable after

such an incident and in any case not later than 10:00am on the following working day after such an incident; and

e) Should any further actions be taken as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.

11.4 Annual Environmental Report

11.4.1. The licensee shall submit to the Agency for its agreement, by 31st March each year, an Annual Environmental Report (AER) for the previous year.

11.4.2. The AER shall include as a minimum the information specified in Schedule F: *Content of Annual Environmental Report* and shall be prepared in accordance with any relevant written guidance issued by the Agency.

REASON: *To provide for proper reporting and notification of the Agency.*

CONDITION 12 CHARGES AND FINANCIAL PROVISIONS

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of €18,389, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activity as the Agency considers necessary for the performance of its functions under the Waste Management Acts 1996 to 2003. The first payment shall be a pro-rata amount for the period from the date of this licence to the 31st day of December, and shall be paid to the Agency within one month from the date of the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Waste Management Acts 1996 to 2003, and all such payments shall be made within one month of the date upon which demanded by the Agency.

12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased the licensee shall contribute such sums as determined by the Agency to defraying its costs in regard to items not covered by the said annual contribution.

12.2 Financial Provision for Closure, Restoration and Aftercare

12.2.1 The licensee shall arrange for the completion of a comprehensive and fully costed Environmental Liabilities Risk Assessment for the facility which will address liabilities arising from the carrying on of the activities to which this licence relates. A report on this assessment shall be submitted to the Agency for its agreement within six months of date of grant of this licence.

12.2.2 Within nine months of the date of grant of this licence, the licensee shall make a Proposal for Financial Provision to the Agency for its agreement to cover any liabilities incurred by the licensee in carrying on the activities to which this licence relates. Such provision shall be maintained by the licensee unless otherwise agreed by the Agency.

12.2.3 The amount of financial provision, held under Condition 12.2.2 shall be reviewed and revised as necessary, but at least annually. Any proposal for such a revision shall be submitted to the Agency for its agreement.

12.2.4 The licensee shall within two weeks of purchase, renewal or revision of the financial provision required under Condition 12.2.2, forward to the Agency written proof of such indemnity.

12.2.5 Unless otherwise agreed any revision to the fund shall be computed using the following formula:

Cost = (ECOST x WPI) + CiCC

Where:

Cost	=	Revised restoration and aftercare cost.
ECOST	=	Existing restoration and aftercare cost.
WPI	=	Appropriate Wholesale Price Index [Capital Goods, Building & Construction (i.e. Materials & Wages) Index], as published by the Central Statistics Office, for the year since last closure calculation/revision.
CiCC	=	Change in compliance costs as a result of change in site conditions, changes in law, regulations, regulatory authority charges, or other significant changes.

12.3 Sanitary Authority Charges.

12.3.1 The licensee shall pay to the Sanitary Authority a quarterly charge of €1.70 per cubic metre of trade effluent discharged to the foul sewer or such sum as may be determined from time to time, having regard to the variations in the cost of providing drainage and the variation in effluent reception and treatment costs. This amount shall be paid to the Sanitary Authority within one month of the date of grant of this licence and annually thereafter within one month of the date of notification by the Sanitary Authority of the updated annual amount.

12.3.2 The licensee shall pay to the Sanitary Authority an annual charge of €1,725.00, or such sum as may be determined from time to time, towards the cost of monitoring the discharge of trade effluent. This amount shall be paid to the Sanitary Authority within one month of the date of grant of this licence and annually thereafter within one month of the date of of notification by the Sanitary Authority of the updated annual amount.

REASON: *To provide for adequate financing for monitoring and financial provisions for measures to protect the environment and to provide for the requirements of the Sanitary Authority in accordance with Section 52 of the Waste Management Acts 1996 to 2003.*

SCHEDULE A : Waste Acceptance

A.1 Waste Acceptance

Table A.1 Waste Categories and Quantities

WASTE TYPE	MAXIMUM (TONNES PER ANNUM)[Note 1]
Commercial Waste	500
Construction and Demolition Waste	500
Industrial Sludges	1,000
Other Industrial Waste	3,000
Hazardous Waste [Note 2]	57,500
TOTAL	62,500

Note 1: The quantities of the individual waste types may be adjusted, only with the agreement of the Agency, subject to the total annual waste quantity remaining the same.

Note 2: Hazardous waste types as listed in Table E.2.2 *Hazardous waste Types and Quantities* of the application, or as may otherwise be agreed in writing.

SCHEDULE B : Specified Engineering Works

Specified Engineering Works
Installation of drainage network including silt traps and oil interceptors.
Installation of secondary containment system with leak detection to underground settlement tanks
Installation of decant room at Hazardous Waste Transfer Station
Installation of photographic waste treatment unit at Hazardous Waste Transfer Station
Development of the facility including installation of waste handling, processing, recycling/recovery infrastructure and installation of increased waste processing capacity.
Any other works notified in writing by the Agency.

SCHEDULE C : Emission Limits

C.1 Noise Emissions Arising from the Activity: (Measured at **any noise sensitive locations**).

Day dB(A) L_{Aeq}(30 minutes)	Night dB(A) L_{Aeq}(30 minutes)
55	45

C.*2* *Dust Deposition Limits:* (Measured at the monitoring points indicated in ***Table D.1.1***).

Level (mg/m^2 /day)[Note 1]
350

Note 1: 30 day composite sample with the results expressed as mg/m^2 /day.

C.3 Emissions to Atmosphere

Emission point:	*A1*	*A2*	*A3*
Volume to be emitted:			
Maximum in any one day	44,982 m^3	1224 m^3	21,420 m^3
Maximum per hour:	5,292 m^3	144 m^3	2,520 m^3

Minimum discharge height: 13.7m

C3.1 Emission limit values for emissions to air at emission point A1

Parameter	Emission Limit Value
T.A. Luft Organics Class 1	20 mg/m^3 (for mass emissions > 100 g/h of these compounds)
Total Organic Carbon (as C)	1 kg/hour

C.3.2 Emission limit values for emissions to air at emission point A2

Parameter	Emission Limit Value [Note 1]
T.A. Luft Organics Class 1	20 mg/m^3 (for mass emissions > 100 g/h of these compounds)
Total Organic Carbon (as C)	0.1 kg/h [Note 2]
	100 mg/m^3 [Note 3]
	75 mg/m^3 [Note 4]

Note 1: The emission limit value to be applied will be determined by the annual solvent use in the previous calendar year.
Note 2: Where annual solvent usage is less than 5 tonnes per annum.
Note 3: Where annual solvent usage is 5-15 tonnes per annum.
Note 4: Where annual solvent usage is above 15 tonnes per annum.

C.3.3 Emission limit values for emissions to air at emission point A3

Parameter	Emission Limit Value [Note 1]
T.A. Luft Organics Class 1	20 mg/m^3 (for mass emissions > 100 g/h of these compounds)
Total Organic Carbon (as C)	0.3 kg/h [Note 2]
	100 mg/m^3 [Note 3]
	50 mg/m^3 [Note 4]

Note 1: The emission limit value to be applied will be determined by the annual solvent use in the previous calendar year.
Note 2: Where annual solvent usage is less than 5 tonnes per annum.
Note 3: Where annual solvent usage is 5-15 tonnes per annum.

Note 4: Where annual solvent usage is above 15 tonnes per annum.

C.4 Surface Water Discharge Limits: (Measured at the **surface water** monitoring point **SW3**).

Parameter	Emission Limit Value
Mineral oils	5mg/l Note 1 100mg/l Note 2
Suspended Solids	35 mg/l Note 1

Note 1: for discharges from Class I interceptor to receiving water
Note 2: for discharges from Class II interceptor to sewer

C.5 Emission Limits for Wastewater Emissions to Sewer

Emission Point Reference No. EFF2
Volume to be emitted: Maximum in any one day: 200 m^3
Maximum rate per hour: 50 m^3/hr

Parameter	Emission Limit Value		
	Grab Sample (mg/l)	Daily Mean Concentration (mg/l)	Daily Mean Loading (kg/day)
BOD	1000	800	160
COD	3000	2400	480
Mineral Oils	10	10	2
Suspended solids	500	400	80
Sulphates (as SO_4)	1000	1000	200
pH	6 – 10		
Temperature	42ºC		
Detergents (as MBAS)	100	100	20
Toluene		1	0.2
o/m/p Xylenes	1	1	0.2
Zinc	5	5	1
Copper	5	5	1

SCHEDULE D : Monitoring

Monitoring to be carried out as specified below.

D.1 Monitoring Locations

Monitoring locations shall be those as set out in Table D.1.1and shown on Drawing No. 1102/02/304 *Field Monitoring Points* of the application, unless otherwise indicated or agreed by the Agency.

Table D.1.1 Monitoring Locations

Ground Water	Surface Water	Wastewater	Air	Dust Deposition	Noise
Stations	**Stations**	**Stations** Note 3	**Stations** Note 3	**Stations**	**Stations**
BH1	SW1	EFF2	A1	D1	N1
BH2	SW2		A2	D2	N2
BH3	SW3 Note 1		A3	D3	N3
	KS1 Note 2			D4	N4
	KS2 Note 2				Any noise sensitive locations

Note 1: The location of the final discharge monitoring point SW3 is to be agreed by the Agency.
Note 2: The monitoring locations KS1 and KS2 are only to be used for biological assessment in accordance with Condition 8.10.
Note 3: The locations of the wastewater monitoring point and air monitoring points are shown on Drawing No. 1102/02/334 *Additional Monitoring Points* of the Article 14 reply received 24/12/03.

D.2 Dust

Table D.2.1 Dust Monitoring Frequency and Technique

Parameter (mg/m^2/day)	Monitoring Frequency	Analysis Method/Technique
Dust	Three times a year Note 2	Standard Method Note 1

Note 1: Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). A modification (not included in the standard) which 2 methoxy ethanol may be employed to eliminate interference due to algae growth in the gauge.
Note 2: Twice during the period May to September.

D.3 Noise

Table D.3.1 Noise Monitoring Frequency and Technique

Parameter	Monitoring Frequency	Analysis Method/Technique
$L(A)_{EQ}$ [30 minutes]	Annual	Standard Note 1
$L(A)_{10}$ [30 minutes]	Annual	Standard Note 1
$L(A)_{90}$ [30 minutes]	Annual	Standard Note 1
Frequency Analysis(1/3 Octave band analysis)	Annual	Standard Note 1

Note 1: "International Standards Organisation. ISO 1996. Acoustics - description and Measurement of Environmental noise. Parts 1, 2 and 3."

D.4 Emissions to Air

Table D.4.1 Air emission monitoring Frequency and Technique

Parameter	Monitoring Frequency	Analysis Method/Technique
T.A. Luft Organics Class 1	annually Note 1	Adsorption/GC-MS or other method to be agreed by the Agency.
Total organic carbon (as C)	bi-annually Note 1	Adsorption/GC-MS or other method to be agreed by the Agency.
Characterisation of the VOC emission	annually Note 1	Adsorption/GC-MS or other method to be agreed by the Agency.

Note 1: Monitoring must occur during periods of maximum discharge. Production records should be available to demonstrate that gas sampling took place during periods of maximum loading.

D.5 Surface Water Emissions

Table D.5.1 Surface water Monitoring Frequency and Techniques

Parameter	Monitoring Frequency	Analysis Method/Technique
Visual Inspection Note 1	Daily	Standard Methods Note 2
pH	Quarterly	Electrometry
Chemical Oxygen Demand	Quarterly	Standard Methods Note 2
Suspended Solids	Quarterly	Standard Methods Note 2
Mineral Oils	Quarterly	Standard Methods Note 3

Note 1: The visual inspection to be carried out at the final discharge, surface water monitoring location SW3.

Note 2: "Standards Methods for the Examination of Water and Wastewater", (prepared and published jointly by A.P.H.A., A.W.W.A & W.E.F) 20th Ed., American Public Health Association, 1015 Fifteenth Street, Washington DC 20005, USA.

Note 3: Samples screened for the presence of organic compounds using Gas Chromatography / Mass Spectrometry (GC/MS) or other appropriate techniques and using the list of Substances from EU Directive 76/464/EEC and 80/68/EEC as a guideline. Recommended analytical techniques include volatiles (US Environmental Protection Agency method 524 or equivalent), semi-volatiles (USEPA method 525 or equivalent, and pesticides (USEPA method 608 or equivalent).

D.6 Wastewater Emissions

Table D.6.1 Wastewater Monitoring Frequency and Techniques

Parameter	Monitoring Frequency	Analysis Method/Technique
Flow to sewer	Continuous	
Biological Oxygen Demand	Monthly	Standard Methods Note 1, Note 2
Chemical Oxygen Demand	Monthly	Standard Methods Note 1, Note 2
Mineral Oils	Monthly	Standard Methods Note 1, Note 3
Suspended Solids	Monthly	Standard Methods Note 1, Note 2
Sulphates (as SO_4)	Monthly	Standard Methods Note 1, Note 2
Temperature	Monthly	Temperature probe Note 3
pH	Monthly	Electrometry Note 3
Toluene	Monthly	Standard Methods Note 1, Note 3
Detergents (as MBAS)	Monthly	Standard Methods Note 1, Note 3
o/m/p Xylenes	Monthly	Standard Methods Note 1, Note 3
Zinc	Monthly	Standard Methods Note 1, Note 2
Copper	Monthly	Standard Methods Note 1, Note 2
Metals Screen Note 4	Quarterly	ICP

Note 1: "Standards Methods for the Examination of Water and Wastewater", (prepared and published jointly by A.P.H.A., A.W.W.A & W.E.F) 20th Ed., American Public Health Association, 1015 Fifteenth Street, Washington DC 20005, USA.

Note 2: Sampling by 24-hour composite.

Note 3: Sampling by grab.

Note 4: Metals to be screened for to be agreed by the Agency in advance.

D.7 Groundwater

Table D 7.1 Groundwater - Parameters /Frequency

PARAMETER [Note 1]	MONITORING FREQUENCY
Visual Inspection/Odour [Note 2]	Monthly
Groundwater Level [Note 3]	Monthly
Dissolved Oxygen [Note 3]	Annually
Electrical Conductivity [Note 3]	Monthly
pH [Note 3]	Monthly
Temperature [Note 3]	Monthly
Total Alkalinity	Annually
Metals / non metals [Note 4]	Annually
Sulphate	Annually
Cyanide (Total)	Annually
Chloride	Annually
List I/II organic substances [Note 5]	Quarterly
Mineral Oil [Note 5]	Quarterly
BTEX [Note 5]	Quarterly
Arsenic	Quarterly
Mercury	Quarterly

Note 1: All the analysis shall be carried out by a competent laboratory using standard and internationally accepted procedures.
Note 2: Where there is evident gross contamination of groundwater, additional samples should be analysed.
Note 3: These parameters should be measured on site with a portable electronic meter.
Note 4: Metals and elements to be analysed by AA/ICP should include as a minimum: boron, cadmium, calcium, chromium (total), copper, iron, lead, magnesium, manganese, nickel, potassium, sodium and zinc.
Note 5: Samples screened for the presence of organic compounds using Gas Chromatography / Mass Spectrometry (GC/MS) or other appropriate techniques and using the list I/II Substances from EU Directive 76/464/EEC and 80/68/EEC as a guideline. Recommended analytical techniques include: volatiles (US Environmental Protection Agency method 524 or equivalent), semi-volatiles (USEPA method 525 or equivalent, and pesticides (USEPA method 608 or equivalent).

SCHEDULE E : Recording and Reporting to the Agency

Recurring Reports

Report	Reporting Frequency Note1	Report Submission Date
Environmental Management System Updates	Annually	As part of the AER.
Annual Environment Report (AER)	Annually	By 31st March of each calendar year.
Record of incidents	As they occur	Within five days of the incident.
Bund, tank and container integrity assessment	Every three years	Six months from the date of grant of licence and one month after end of the three year period being reported on as part of the AER.
Specified Engineering Works reports	As they arise	Prior to the works commencing.
Monitoring of Surface Water Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Groundwater Quality	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Wastewater	Quarterly	Ten days after end of the quarter being reported on.
Monitoring of Air Emissions	Bi-annually	Ten days after the period reported on.
Dust Monitoring	Three times a year	Submit as part of the AER.
Noise Monitoring	Annually	Submit as part of the AER.
Biological Monitoring	Annually	Six months from the date of grant of licence and thereafter as may be required as part of the AER.
Any other monitoring	As they occur	Within ten days of obtaining results.

Note 1: Unless altered at the request of the Agency

SCHEDULE F : Content of the Annual Environmental Report

Annual Environmental Report Content [Note 1]
Reporting Period.
Waste activities carried out at the facility.
Quantity and Composition of waste recovered, received and disposed of during the reporting period and each previous year (relevant EWC codes to be used).
Summary report on emissions.
Summary of results and interpretations of environmental monitoring, including a location plan of all monitoring locations.
Validation of air emission model using actual monitoring results from first year of operation of the facility.
Resource and energy consumption summary.
Development / Infrastructural works in place and planned, to process waste quantities projected for the following year (including plant operating capacity, provision of adequate standby capacity and provision of contingency, backup and spares in the case of breakdown).
Environmental Management System updates.
Schedule of Environmental Objectives and Targets for the forthcoming year.
Report on the progress towards achievement of the Environmental Objectives and Targets contained in previous year's report.
Full title and a written summary of any procedures developed by the licensee in the year which relates to the facility operation.
Tank, drum, pipeline and bund testing and inspection report.
Calibration certificate on oil heating temperature cut off detection unit.
Boiler efficiency test results.
Reported Incidents and Complaints summaries.
Review of Nuisance Controls.
Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.
Solvent Management Plan.
Waste Recovery Report.
Report on training of staff.
Volume of wastewater produced and volume of wastewater transported off-site.
Any other items specified by the Agency.

Note 1: Content to be revised subject to the agreement of the Agency after cessation of waste acceptance at the facility.

Sealed by the seal of the Agency on this the 2nd day of December, 2004

PRESENT when the seal of the Agency was affixed hereto:

Padraic Larkin, Authorised Person

30.MAR.2006 8:57 JEKER ELECTRONIC AG NR.952 S.1/2

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Bankgarantie Nr. 607381

Sie haben der Firma Swiss Glas AG, 8555 Müllheim am 08.12.2005 eine Bewilligung zum Betrieb einer Recyclinganlage erteilt. Die Bewilligung ist gültig bis zum 31.12.2010 und wurde unter der Bedingung des Nachweises genügender Deckung für von der Anlage oder deren Betrieb ausgehende Schäden und für allfällige Entsorgungskosten erteilt. Die Sicherheitsleistung beträgt CHF 300'000.00. Sie soll durch eine Bankgarantie sichergestellt werden und muss während der ganzen Dauer der Betriebsbewilligung gültig sein.

Auftraggeber:	Swiss Glas AG Heckenmoos 8555 Müllheim
Begünstigter:	Kanton Thurgau Amt für Umwelt Bahnhofstrasse 55 8510 Frauenfeld
Betrag:	CHF 300'000.00 (dreihunderttausend 00/100 Schweizer Franken)
Gültig ab:	01.04.2006
Gültig bis und mit:	31.12.2010

Im Auftrag der Firma Swiss Glas AG, 8555 Müllheim verpflichten wir uns hiermit unwiderruflich, Ihnen auf erstes Verlangen, ungeachtet der Gültigkeit und der Rechtswirkung der eingangs erwähnten Betriebsbewilligung und unter Verzicht auf jegliche Einwendungen und Einreden aus demselben, jeden Betrag bis maximal CHF 300'000.00 zu zahlen, gegen Erhalt Ihrer schriftlichen Zahlungsaufforderung und Ihrer schriftlichen Bestätigung, dass dem Amt für Umwelt ein Ausfall im anbegehrten Betrag erwachsen ist.

Jede unter dieser Garantie geleistete Zahlung erfolgt in Reduktion unserer Haftung.

Staatsgarantie

Thurgauer Kantonalbank

Fachzentrum Finanzieren

Aus Identifikationsgründen ist uns Ihre schriftliche Zahlungsaufforderung durch eine erstklassige Bank zuzuleiten, mit deren Bestätigung, dass sie rechtmässig unterzeichnet ist.

Eine Inanspruchnahme kann auch mit ordnungsgemäss geschlüsseltem Swift einer erstklassigen Bank erfolgen, unter Wiedergabe des vollen Wortlautes Ihrer Zahlungsaufforderung sowie mit deren Bestätigung, dass diese rechtmässig unterzeichnet ist und dass sie das Original Ihrer Inanspruchnahme mit eingeschriebenem Brief an uns weitergeleitet hat. Die Inanspruchnahme gilt als erfolgt, wenn entweder die schriftliche oder geschlüsselte Swift in unserem Besitze sind.

Die Garantie ist gültig bis 31.12.2010 und erlischt automatisch und vollumfänglich, sofern die Inanspruchnahme formell bis zu diesem Zeitpunkt nicht erfolgt ist.

Diese Garantie untersteht schweizerischem Recht. Der Gerichtsstand richtet sich nach den zwingenden gesetzlichen Bestimmungen. Soweit solche nicht zur Anwendung kommen, ist ausschliesslicher Gerichtsstand Weinfelden, ebenso der Erfüllungsort.

Mit freundlichen Grüssen

Thurgauer Kantonalbank

Staatsgarantie

8510 Frauenfeld
Bahnhofstrasse 55
Tel. 052 724 24 73
Fax 052 724 28 48

Internet
www.umwelt.tg.ch

AMT FÜR UMWELT KANTON THURGAU

Frauenfeld, 08.12.2005

12\02\Übrige Anlagen\ SwissGlas AG, Betr.-/Annahmebew.

Unser Zeichen Peter Schadegg/cs
Direktwahl Tel. 052 724 28 72
E-Mail: peter.schadegg@tg.ch

VERFÜGUNG

Betriebsbewilligung und Bewilligung zur Entgegennahme von Sonder-, ak- und anderen Abfällen

Bewilligungsinhaberin:	SwissGlas AG Heckenmoos 8555 Müllheim-Dorf
Objekt:	Betriebsgebäude der ehemaligen KVA Parzelle Nr. 909, Grundbuch Müllheim LK Koordinaten 719390/274350
VeVA-Betriebsnummer:	483100045
Bewilligungsumfang:	Betrieb einer Abfallanlage. Entgegennahme, Sortierung, Zwischenlagerung, Zerlegung, Aufbereitung und Weiterleitung von Sonder-, ak- und anderen Abfällen
Abfallarten:	- Sonderabfälle mit den LVA-Codes 16 02 09, 16 02 15, 16 06 01, 16 06 02, 16 06 03, 16 06 04, 16 06 05, 16 06 97, 16 06 98 und 20 01 21 - ak-Abfälle mit den LVA-Codes 16 02 11, 16 02 13, 16 02 16 und 16 02 98 - andere Abfälle mit dem LVA-Code 16 02 97
Entsorgungsverfahren:	D152/R152, D153/R153 und R5
Gültigkeit:	bis 31.12.2010

Das Amt für Umwelt verfügt:

1. Der SwissGlas AG wird die Bewilligung erteilt, auf der Parzelle Nr. 909 im Heckenmoos in 8555 Müllheim-Dorf eine Abfallanlage zu betreiben.

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2. Der SwissGlas AG wird die Bewilligung erteilt Sonderabfälle, andere kontrollpflichtige Abfälle (ak-Abfälle) und andere Abfälle entgegenzunehmen, zu sortieren, zwischenzulagern, zu zerlegen, aufzubereiten und weiterzuleiten.

Es handelt sich um die Sonderabfälle mit den LVA-Codes

16 02 09	Transformatoren und Kondensatoren, die PCB enthalten
16 02 15	Aus gebrauchten Geräten entfernte gefährliche Bestandteile (Getterpillen, Leuchtschichten und Bildröhren)
16 06 01	Bleibatterien und Bleiakkumulatoren
16 06 02	Nickel-Cadmium-Batterien/ Nickel-Cadmium-Akkumulatoren
16 06 03	Quecksilber enthaltende Batterien
16 06 04	Alkalibatterien
16 06 05	Andere Batterien und Akkumulatoren
16 06 97	Lithium-Batterien/Lithium-Akkumulatoren
16 06 98	Gemische von Batterien und/oder Akkumulatoren
20 01 21	Leuchtstoffröhren und andere quecksilberhaltige Abfälle

Es handelt sich um die ak-Abfälle mit den LVA-Codes

16 02 11	Gebrauchte Geräte, die teil- oder vollhalogenierte Fluorchlorkohlenwasserstoffe (FCKW) enthalten
16 02 13	Gebrauchte Geräte (PCB-, Asbest-, FCKW- und HFCKW-frei)
16 02 16	Aus gebrauchten Geräten entfernte elektronische Bestandteile (ohne gefährliche Bestandteile!) z.B. Bildröhren
16 02 98	Altkabel

Es handelt sich um den weiteren, nicht klassierten Abfall mit dem LVA-Code

16 02 97	Aus gebrauchten Geräten entfernte Bestandteile (keine elektronischen oder gefährlichen Bestandteile!)

3. Folgende Entsorgungsverfahren sind zugelassen:

Für die Abfälle mit den LVA-Codes 16 02 09, 16 02 15, 16 02 97, 16 02 98, 16 06 01, 16 06 02, 16 06 03, 16 06 04, 16 06 05, 16 06 97, 16 06 98 und 20 01 21:
D152/R152 Zusammenfügen, zwischenlagern und weiterleiten der Abfälle, um sie zu entsorgen/zu verwerten (keine Aufbereitung, Gebinde werden entleert).
Für den Abfall 16 02 15 (Bildröhren) auch
R5 Verwertung/Rückgewinnung anderer anorganischer Stoffe.

Für die Abfälle mit den LVA-Codes 16 02 11, 16 02 13, 16 02 16:
D153/R153 Sortieren, zusammenfügen, aufbereiten, zwischenlagern und weiterleiten der Abfälle, um sie zu entsorgen/zu verwerten (der Abfall wird dabei verändert, es werden z.B. Teilmengen entfernt oder Eigenschaften des Abfalls verändert). Die Kühlmittelkreisläufe dürfen nicht geöffnet werden.

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Für den Abfall 16 02 16 (Bildröhren) auch
R5 Verwertung/Rückgewinnung anderer anorganischer Stoffe.

4. Die Betriebs- und Empfängerbewilligung gilt bis zum 31.12.2010.

5. Der Jahresumsatz an Abfällen wird auf 15'000 t Bildröhren und auf 500 t Sonder-, ak- und andere Abfälle beschränkt, die maximale Lagermenge auf 3'000 t Bildröhren und ungereinigte Bildröhrenscherben sowie 50 t Sonder-, ak- und andere Abfälle.

6. Es wird eine Sicherheitsleistung von CHF 300'000.– zu Gunsten des Kantons Thurgau (Amt für Umwelt, AfU) festgelegt. Diese muss dem AfU bis am 31.01.2006 vorliegen und bis zum 30.06.2011 gültig sein.

7. Die Prozessbeschreibung „Bildröhrenaufbereitung" vom 24.10.2005 und die Betriebsordnung vom 28.11.2005 bilden einen integrierenden Bestandteil dieser Verfügung. Alle Änderungen dieser Papiere sind dem AfU jeweils vorgängig zu melden.
Die entsprechenden Personal-Pflichtenhefte sind dem AfU bis zum 31.03.2006 nachzureichen und alle nachfolgenden Änderungen dem AfU jeweils unverzüglich zu melden.

8. Die in den Erwägungen unter Punkt 12 erwähnten Auflagen bezüglich der folgenden Aspekte sind vollumfänglich einzuhalten:
- Störfallvorsorge
- Lagerung wassergefährdender Stoffe
- Gewässerschutz
- Luftreinhaltung
- Lärmschutz
- Brandschutz

9. Die SwissGlas AG darf nur die vorgängig unter Punkt 2 erwähnten Sonder-, ak- und anderen Abfälle entgegennehmen. Sonderabfälle ausschliesslich mit vollständig ausgefüllten Begleitscheinen.

10. Die SwissGlas AG meldet entgegengenommene Sonderabfälle innert 30 Arbeitstagen nach Ende jedes Quartals dem AfU und dem BUWAL (ab 2006 BAFU). Die Meldung muss in elektronischer Form erfolgen.

11. Die SwissGlas AG meldet entgegengenommene ak-Abfälle innert 45 Arbeitstagen nach Ende jedes Jahres dem AfU. Die Meldung muss in elektronischer Form erfolgen.

12. Die SwissGlas AG stellt dem AfU jeweils innert 45 Arbeitstagen nach Ende jedes Jahres eine Umsatz- und Lagerbilanz in Tonnen unaufgefordert zu. Aus dieser Bilanz müssen die im Berichtsjahr entgegengenommenen und weitergeleiteten Abfälle (aufgeschlüsselt nach Abfallart) und deren Hauptab-

nehmer sowie die Lagermengen per Ende Jahr, aufgeschlüsselt nach Abfallart, ersichtlich sein.

13. Es wird eine Verfahrensgebühr von CHF 1'500.– erhoben.

14. Mitteilung an:
    - SwissGlas AG, Heckenmoos, 8555 Müllheim-Dorf **(Einschreiben, mit Rechnung)**
    - Politische Gemeinde Müllheim, Gemeindehaus, Frauenfelderstr. 4, 8555 Müllheim-Dorf
    - BUWAL (ab 2006 BAFU), Abteilung Abfall, 3003 Bern
    - Arbeitsinspektorat, DIV, Hauspost
    - Feuerschutzamt, DJS, Hauspost
    - Departement für Bau und Umwelt
    - Intern: HEL, Abteilungen AA, LR

Rechtsmittel:

Gegen diese Verfügung kann innert 20 Tagen seit Zustellung beim Departement für Bau und Umwelt des Kantons Thurgau, 8510 Frauenfeld, schriftlich Rekurs geführt werden. Dieser ist zu begründen und hat einen Antrag zu enthalten. Er ist im Doppel unter Beilage der angefochtenen Verfügung einzureichen. Hinweis: Die Verfahrenskosten werden in Anwendung von § 76 ff VRG verlegt.

Das Amt für Umwelt hat festgestellt:

1. Seit Mitte 2000 betreibt die Immark AG auf dem Areal und in den Bauten der ehemaligen KVA Mittelthurgau im Heckenmoos in 8555 Müllheim ein Recyclingzentrum für Elektro- und Elektronikabfälle, Kühlgeräte, Bildröhrenglas, Verbundstoffe und Edelmetalle. Eine entsprechende Errichtungs- und Betriebsbewilligung wurde am 07.06.2000 erteilt.

2. Die Errichtungsbewilligung beruht u.a. auf dem „Umweltverträglichkeitsbericht für das Recyclingzentrum in Müllheim" der Immark AG. Die gültige UVB-Version datiert vom 06.04.2000.

3. Am 04.01.2001 ersuchte die Immark AG schriftlich, die Bewilligung für das Bildröhrenrecycling aus der oben erwähnten Bewilligung auszugliedern und dafür am gleichen Standort der Firma SwissGlas AG eine Betriebsbewilligung für die Aufbereitung und Verwertung von Bildröhrenglas aus TV- und PC-Geräten sowie von anderen technischen Gläsern zu erteilen.

4. Mit Verfügung vom 30.01.2001 wurde der SwissGlas AG eine Betriebsbewilligung, gültig bis zum 31.05.2005 erteilt.

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5. Anlässlich einer Besprechung des Amtes für Umwelt (AfU) mit einem Vertreter der SwissGlas AG vom 17.03.2005 wurde mündlich um die Erneuerung vorgenannter Bewilligungen nachgesucht.

6. An einer Folgebesprechung des AfU vom 12.04.2005 mit dem Vertreter der SwissGlas AG wurde ein schriftliches Gesuch mit Datum 11.04.2005 mit Unterlagen für eine Betriebs- und Annahmebewilligung übergeben.
Die Besprechung selber ergab jedoch, dass die langfristige Planung für die SwissGlas AG in Müllheim noch nicht abgeschlossen war und dass deshalb zuerst eine Verlängerung der vorgenannten Bewilligungen bis Ende 2005 gewünscht wurde.
Die Bewilligung der SwissGlas AG zum Betrieb einer Recyclinganlage (Abfallanlage) gemäss Verfügung vom 30.01.2001 wurde deshalb mit Verfügung vom 26.05.2005 ohne Änderung bis zum 31.12.2005 verlängert.

7. Es liegt für die SwissGlas AG eine Gewährleistungsgarantie der Thurgauer Kantonalbank vom 06.06.2005 über CHF 90'000.– zu Gunsten des Kantons Thurgau (Amt für Umwelt), gültig bis zum 31.03.2006 vor.

8. Anlässlich einer Besprechung des AfU mit Vertretern der SwissGlas AG und der Immark AG (Herren Stengele und Birchler) vom 26.10.2005 erklärten diese, dass in Zukunft nur noch die SwissGlas AG in Müllheim präsent sein werde, die Immark AG aber nicht mehr. Das AfU wurde deshalb ersucht, die Annahmebewilligung der Immark AG für Elektro- und Elektronikgeräte sowie für Sonderabfälle auf die SwissGlas AG zu übertragen.

9. Mit Brief vom 24.10.2005 wurde von der SwissGlas AG die Erneuerung der am 31.12.2005 auslaufenden Betriebs- und Empfängerbewilligung beantragt. Dazu wurden dem AfU verschiedene Unterlagen zugesandt.

10. Am 30.11.2005 wurde der SwissGlas AG der Entwurf dieser Verfügung zur Stellungnahme zugestellt.
Am 07.12.2005 bestätigte die SwissGlas AG ihr Einverständnis mit dem Verfügungsentwurf per E-Mail unter Beilage der Betriebsordnung vom 27.11.2005. Gleichzeitig wurde das AfU ersucht, die Frist zur Meldung der entgegengenommene ak-Abfälle und der Umsatz- und Lagerbilanz auf 45 Arbeitstage zu erhöhen. Dem konnte stattgegeben werden.

Das Amt für Umwelt zieht in Erwägung:

1. Anlagen in denen Abfälle sortiert, abgelagert, zwischengelagert oder mit biologischen, chemischen oder physikalischen Methoden behandelt werden, sind Abfallanlagen gemäss § 3 Abs. 3 des kantonalen Gesetzes über die Abfallbewirtschaftung (AbfG, RB 814.04).

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2. Nach § 1 Abs. 3 der Verordnung des Regierungsrates zum Gesetz über die Abfallbewirtschaftung (AbfV, RB 814.041) ist das Amt für Umwelt (AfU) zuständig für den Vollzug des AbfG.

3. Abfallanlagen für die Sammlung oder Behandlung von Sonderabfällen bedürfen nach § 8 Abs. 1 Ziff. 6 AbfV einer Errichtungsbewilligung.
Die Errichtungsbewilligung vom 07.06.2000 wurde im Rahmen der Bewilligung der Firma Immark AG für die gesamte Anlage und deren Standort, also inklusive SwissGlas AG, am 07.06.2000 erteilt. Diese ist auch für die SwissGlas AG allein gültig, da die Anlage durch die vorgesehenen Tätigkeiten keine wesentliche Änderung erfährt.

4. Abfallanlagen welche eine Errichtungsbewilligung benötigen, bedürfen nach § 9 AbfV auch einer Betriebsbewilligung. Diese wird nach § 9 Abs. 3 AbfG befristet.
Die Betriebsbewilligung kann unter Einhaltung der nachfolgenden Auflagen und in Analogie zu ähnlichen Anlagen resp. in Übereinstimmung mit der Empfängerbewilligung für fünf Jahre, also bis zum 31.12.2010 erteilt werden.

5. Art. 8 Abs. 1 der Verordnung über den Verkehr mit Abfällen (VeVA, SR 814.610) besagt, dass Sonderabfälle und ak-Abfälle nur entgegennehmen darf, wer eine Bewilligung der kantonalen Behörde hat.

6. Die in der VeVA Art. 9 lit. a bis d geforderten Angaben zum Bewilligungsgesuch ergeben sich aus den eingereichten Unterlagen.

7. Nach Art. 10 VeVA erteilt die kantonale Behörde die Bewilligung, wenn das Entsorgungsunternehmen in der Lage ist, die Abfälle umweltverträglich zu entsorgen.
Diese Vorgaben treffen für die SwissGlas AG in Müllheim zu. Die Empfängerbewilligung kann erteilt werden.

8. Nach Art. 10 Abs. 3 VeVA werden Empfängerbewilligungen für höchstens fünf Jahre erteilt. Die Bewilligung zur Entgegennahme der Sonderabfälle wird deshalb bis zum 31.12.2010 befristet.

9. Nach Art. 10 VeVA wird in der Empfängerbewilligung festgelegt, welche Abfälle entgegengenommen werden dürfen, wie diese entsorgt werden und welche Auflagen für die umweltverträgliche Entsorgung der Abfälle einzuhalten sind, insbesondere auch Mengenbeschränkungen.
Die SwissGlas AG darf, basierend auf dem Umweltverträglichkeitsbericht der Immark AG (Version 06.04.2000) und den schriftlich und mündlich geäusserten Anträgen, Sonderabfälle, ak-Abfälle und andere Abfälle wie folgt entgegennehmen und entsorgen:
Die Abfälle mit den LVA-Codes 16 02 09, 16 02 15, 16 02 97, 16 02 98, 16 06 01, 16 06 02, 16 06 03, 16 06 04, 16 06 05, 16 06 97, 16 06 98 und 20 01 21 für die Entsorgungsverfahren D152/R152 „Zusammenfügen, zwi-

schenlagern und weiterleiten der Abfälle, um sie zu entsorgen/zu verwerten (keine Aufbereitung, Gebinde werden entleert)".
Die Abfälle mit den LVA-Codes 16 02 11, 16 02 13, 16 02 15 (Bildröhren) und 16 02 16 (Bildröhren) für die Entsorgungsverfahren D153/R153 „Sortieren, zusammenfügen, aufbereiten, zwischenlagern und weiterleiten der Abfälle, um sie um sie zu entsorgen/zu verwerten (der Abfall wird dabei verändert, es werden z.B. Teilmengen entfernt oder Eigenschaften des Abfalls verändert)" resp. den Abfall 16 02 16 auch für das Entsorgungsverfahren R5 „Verwertung/Rückgewinnung anderer anorganischer Stoffe". Die Kühlmittelkreisläufe dürfen nicht geöffnet werden.
Der Jahresumsatz an Abfällen wird auf 15'000 t Bildröhren und auf 500 t Sonder-, ak- und andere Abfälle beschränkt, die maximale Lagermenge auf 3'000 t Bildröhren und ungereinigte Bildröhrenscherben sowie 50 t Sonder-, ak- und andere Abfälle.

10. Die Errichtungsbewilligung vom 07.06.2000 wurde mit dem Nachweis genügender Deckung für allfällige von der Anlage oder deren Betrieb ausgehende Schäden verknüpft (§ 8 Abs. 3 AbfG).
Bei den zur Entgegennahme vorgesehenen Abfällen handelt es sich zum Teil um mit einer vorgezogenen Entsorgungsgebühr resp. einem vorgezogenen Recyclingbeitrag abgesicherte Abfälle. Ein weiterer Teil sind Abfälle, deren Entsorgung Kosten verursacht.
Es werden maximal 3'000 t Bildröhren und ungereinigte Bildröhrenscherben sowie 50 t Sonder-, ak- und andere Abfälle gelagert, deren Entsorgung Kosten verursacht. Unter Annahme von durchschnittlichen Entsorgungskosten von CHF 100.– pro Tonne würde eine allfällige Entsorgung dieser Abfälle ca. CHF 300'000.– kosten. Eine Erhöhung der bestehenden Sicherheitsleistung auf diese Höhe ist deshalb gerechtfertigt.
Die Sicherheitsleistung hat vorzugsweise in Form einer unwiderrufbaren Bankgarantie zu Gunsten des Kantons Thurgau (Amt für Umwelt) zu erfolgen. Diese muss dem AfU bis spätestens am 31.01.2006 vorliegen und soll sechs Monate über den Ablauf der Betriebs- und Empfängerbewilligung, also bis zum 30.06.2011 gültig sein.

11. Gemäss § 9 Abs. 2 AbfG werden in der Betriebsbewilligung die zulässigen Abfälle und deren Behandlung, die Eingangs- und die Betriebskontrolle sowie das Pflichtenheft und die Ausbildung des Personals geregelt.
Die angenommenen Abfälle werden mit Ausnahme der mechanischen Entfrachtung von Elektro- und Elektronikgeräten resp. der Zerkleinerung von Bildröhren unbehandelt weitergeleitet. Die vorgesehenen Arbeiten, also das reine Sortieren, Entfrachten und Weiterleiten der angenommenen Abfälle, sind unproblematisch. Die Zerkleinerung der Bildröhren hingegen bedarf einer genaueren Regelung.
Die eingereichte Prozessbeschreibung „Bildröhrenaufbereitung" vom 24.10.2005 und die Betriebsordnung vom 28.11.2005 decken die vorgenannten Anforderungen grösstenteils ab. Diese Papiere bilden deshalb einen integrierenden Bestandteil dieser Verfügung. Alle Änderungen dieser Papiere

sind dem AfU jeweils vorgängig zu melden.
Es fehlen jedoch noch die entsprechenden Pflichtenhefte für das Personal. Diese sind bis zum 31.03.2006 dem AfU nachzureichen.
Alle Änderungen der Prozessbeschreibung „Bildröhrenaufbereitung" und des Betriebsreglements sind dem AfU vorgängig zu melden, Änderungen der Pflichtenhefte für das Personal jeweils unverzüglich nach der Änderung.

12. Laut § 9 Abs. 3 AbfG kann bei einer Erneuerung der Betriebsbewilligung verlangt werden, dass die Abfallanlage innert angemessener Frist dem Stand der Technik angepasst wird. Die in der Betriebsbewilligung vom 30.01.2001 festgelegten Auflagen werden deshalb wie folgt aktualisiert:

a) Störfallvorsorge
Da die Mengenschwellen für Sonderabfälle gemäss der Verordnung über den Schutz vor Störfällen (Störfallverordnung, StFV, SR 814.012) unterschritten werden, ist der Betrieb nicht der Störfallverordnung unterstellt. Falls die Mengenschwellen für Sonderabfälle überschritten werden, ist dies dem Amt für Umwelt vorgängig zu melden.

b) Lagerung wassergefährdender Stoffe
Betreffend der Lagerung wassergefährdender Stoffe gelten die Angaben im beigelegten "Merkblatt für die Projekteingabe, Einbau einer Abwasserbehandlungsanlage/Lagerung wassergefährdender Stoffe". Abfälle sind unter Dach oder zumindest auf befestigten Plätzen zu lagern.

c) Gewässerschutz
Die Lagerung von Abfällen hat unter Dach oder zumindest auf befestigten Plätzen zu erfolgen.
Das Einleiten von Abwasser in ein Gewässer als auch das Einleiten von Abwasser aus Gewerbe- oder Industriebetrieben in die Schmutzwasserkanalisation müssen vom AfU bewilligt werden [§ 8 Abs. 6 und 7 des kantonalen Einführungsgesetzes (RB 814.21) zum Gewässerschutzgesetz]. Da aus der Wasseraufbereitungsanlage kein Abwasser abgeleitet wird (Wasserkreislauf) ist keine Einleitbewilligung erforderlich. Sollte zukünftig betriebliches Abwasser abgeleitet werden, ist dem AfU vorher ein entsprechendes Gesuch zur Prüfung und Stellungnahme einzureichen.
Die im Untergeschoss vorgesehene Löschwassersperre (Rückhaltevolumen 10 m³, Volumen Wasserkreislauf 7 m³) ist permanent geschlossen zu halten.
Ausserordentliche Ereignisse sind dem Inhaber der Abwasserreinigungsanlage (ARA Müllheim) unverzüglich zu melden, wenn diese dazu führen können, dass der ordnungsgemässe Betrieb der Abwasseranlage erschwert oder gestört wird (Gewässerschutzverordnung, GSchV, SR 814.201, Art. 17 Abs. 2).
Ebenfalls sind ausserordentliche Ereignisse, die nachteilige Auswirkungen auf ein Gewässer haben könnten, unverzüglich der Kantonspolizei und dem AfU zu melden (GSchV, Art. 17, Abs. 3).
Sämtliche auf dem Betriebsareal befindlichen Abscheideanlagen (Einlaufschächte, Schlammsammler, Benzinabscheider usw.) sind vom Inhaber re-

gelmässig zu kontrollieren und so oft als nötig, in der Regel einmal jährlich, leeren und reinigen zu lassen.
Glasteile und dergleichen dürfen nicht in die Kanalisation gelangen. Um dies zu verhindern, sind sämtliche Einlaufschächte und Schlammsammler – falls nicht bereits vorhanden – mit auslaufseitigen Tauchbogen auszurüsten.
Für abzuleitendes Abwasser gelten die Anforderungen der GSchV.

d) Luftreinhaltung
Für die Abluft sämtlicher Anlagenteile gelten die Anforderungen der Luftreinhalte-Verordnung (LRV, SR 814.318.142.1) mit allfälligen Verschärfungen gemäss Massnahmenplan Lufthygiene. Insbesondere ist Anhang 1 Ziffer 4ff der LRV bezüglich Staub zu beachten. Anlagen, bei welchen Staub entsteht, sind abzusaugen und die Abluft zu reinigen. Für inerten Staub gilt ein Emissionsgrenzwert von 50 mg/Nm^3 Gesamtstaub. Die Gesamtstaubkonzentration der Abluft muss gewährleisten, dass die Emissionsgrenzwerte für jeden einzelnen Staubinhaltsstoff (Tabellen 52 und 72 und 83 Anhang 1 LRV) ebenfalls eingehalten sind. Bei Staubemissionskonzentrationen von maximal 10 mg/Nm^3 wird in der Regel angenommen, dass die Emissionsgrenzwerte für Staubinhaltsstoffe eingehalten sind. Wird die Abluft nach den Staubfiltern ganz oder teilweise in die Arbeitsräume zurück geführt, sind die Anforderungen der SUVA zu beachten.

e) Lärmschutz
Die Lärmemissionen aus der neuen Anlage sind soweit zu begrenzen, als dies technisch und betrieblich möglich, sowie wirtschaftlich tragbar ist. Die Lärmimmissionen der gesamten Anlage (inkl. Verkehr und Warenumschlag auf dem Betriebsareal) dürfen die Planungswerte gemäss Anhang 6 der Lärmschutzverordnung nicht überschreiten.
Der externe Warenumschlag hat werktags zwischen 07:00 und 20:00 Uhr zu erfolgen.

f) Brandschutz
Für sämtliche Bauvorhaben sowie für die bestehenden Bauten sind die Schweizerischen Brandschutzvorschriften VKF03, in Kraft seit dem 01.01.2005, verbindlich. Diese können bei der VKF, Bundesgasse 20, Postfach, 3001 Bern als CD oder in Papierform bestellt werden, aus dem Internet unter www.vkf.ch kopiert oder beim Feuerschutzamt eingesehen werden.
Die Anforderungen an den Feuerschutz müssen bei bestehenden Bauten und bei der Inbetriebnahme von neuen Bauten erfüllt sein.

13. Sonderabfälle dürfen laut Art. 11 VeVA nur entgegengenommen werden, wenn die erforderlichen Begleitscheine gemäss Anhang 1 VeVA vollständig ausgefüllt beiliegen, die Sonderabfälle mit den Angaben auf den Begleitscheinen übereinstimmen und das Entsorgungsunternehmen zur ihrer Entgegennahme berechtigt ist. Die Entgegennahme wird mittels Unterschrift auf den Begleitscheinen bestätigt.
Die SwissGlas AG darf nur Sonderabfälle mit den bewilligten Codes und ausschliesslich mit vollständig ausgefülltem Begleitschein entgegennehmen.

KANTON THURGAU

14. Entgegengenommene Sonderabfälle müssen innert 30 Arbeitstagen nach Ende jedes Quartals dem Bundesamt (BUWAL, ab 2006 BAFU) und der kantonalen Behörde (AfU) gemeldet werden (Art. 12 Abs. 1 und 3 VeVA). Die unaufgeforderte vierteljährliche Meldung muss in elektronischer Form erfolgen. Entweder durch eine Online-Eingabe in die vom BUWAL (ab 2006 BAFU) zur Verfügung gestellte elektronische Datenbank (veva-online) oder mit Hilfe des beim AfU erhältlichen elektronischen Formulars „Liste der entgegengenommenen Sonderabfälle".

15. Entgegengenommene ak-Abfälle müssen nach Ende jedes Jahres der kantonalen Behörde (AfU) gemeldet werden (Art. 12 Abs. 4 VeVA). Die unaufgeforderte jährliche Meldung muss innert 45 Arbeitstagen in elektronischer Form mit Hilfe des beim AfU erhältlichen elektronischen Formulars „Liste der entgegengenommenen ak-Abfälle" erfolgen.

16. Die SwissGlas AG stellt dem AfU zudem jeweils innert 45 Arbeitstagen nach Ende jedes Jahres eine Umsatz- und Lagerbilanz in Tonnen unaufgefordert zu. Aus dieser Bilanz müssen die im Berichtsjahr entgegengenommenen und weitergeleiteten Abfälle, aufgeschlüsselt nach Abfallart, und deren Hauptabnehmer sowie die Lagermengen per Ende Jahr, aufgeschlüsselt nach Abfallart, ersichtlich sein.

17. In Anwendung von § 76 ff des Gesetzes über die Verwaltungsrechtspflege (VRG, RB 170.1) in Verbindung mit § 9 ff der Verordnung des Grossen Rates über die Gebühren der kantonalen Verwaltungsbehörden (RB 631) wird die Verfahrensgebühr auf CHF 1'500.– festgelegt.

AMT FÜR UMWELT

Der Amtschef:

E. Müller

Erich R. Müller

Expediert: 12.12.2005

Nach Zustellung der Verfügung an die falsche Adresse, wird die Verfügung am 20.12.2005 erneut expediert.

NI041742

CERTIFICATE OF INCORPORATION ON CHANGE OF NAME

WHEREAS

C.O.D. INTERNATIONAL LTD

was incorporated as a

LIMITED company

under the Companies (Northern Ireland) order 1986,

on the SIXTEENTH day of OCTOBER two-thousand and ONE

AND WHEREAS by special resolution of the Company it has

changed its name;

NOW THEREFORE I hereby certify that the Company is a

LIMITED company incorporated under the name of

TECHREC (NI) LIMITED

Given under my hand at Belfast,

this the TWENTY-THIRD day of MAY two-thousand and SIX

for Registrar of
Companies for Northern Ireland