

Attachment C – Management of the Facility

Attachment C.1 Technical Competence and Site Management

Table C.1 – Technical competence

Name	Position	Responsibilities	Experience
Martin Morrissey	Managing Director	Overall management of the company	11 years experience in the waste sector
Michael Murphy	Finance Director	Management of financial function of the company	5 years experience in the waste sector. Qualification: ACA
Seamus Phelan	General Manager	Management of the non organics section of the company	10 years experience in the waste sector Qualification: Dip Env/Scie, Dip Ecology
Michael O Reilly	General Manager	Management of organics section of the company	5 years experience in the waste sector
Billy Healy	Operations Manager	Management of the logistics & operations of the company	5 years experience in the waste sector
Sean McGrath	Facility Manager	Management of all facilities	11 years experience in the waste sector

The management team is composed of experienced personnel who have spent many years in this sector of the waste industry. The general managers are responsible for all environmental aspects of the operation and in particular compliance with the waste license. They are assisted by the operations Manager and Facility managers whose duties will include compilation of environmental data and meeting the requirements of the waste license. The general managers will complete the FAS course for waste facility management.

Attachment C.2 Environmental Management System

An Environmental Management System (EMS) based on continual improvement will be implemented in line with the requirements of the Waste Licence.

Attachment C3 Hours of Operation

Wastes will be accepted at the facility in fully enclosed tankers and vehicles between the hours of 0800-1800 hours Monday to Friday and a half day on Saturdays 0800-1400 hours. Should there be a requirement for emergency acceptance outside these hours due to an extra-ordinary environmental incident or the like, the relevant authorities will be notified and permission sought in advance of any waste acceptance.

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Attachment D – Infrastructure and Operations**Attachment D1 Infrastructure**

- a) A steel 2.5m security fence will enclose the perimeter of the site. The site entrance will have security gates which will be locked every evening as shown on Drawing 16 in Volume II of the EIS
- b) For information on all access roads, please refer to Section 13 *Traffic* of the EIS
- c) Specifications for all hardstanding areas, including details of drainage are shown on Drawing 04 of Volume II the EIS
- d) Proposed plant is discussed in Section 2.1.2 *Description of Design, Size and Scale* and 2.2.2 *Description of Commissioning* of the EIS. Details of the weighbridge are included on Drawing 17 *Weighbridge Details*.
- e) No Wheel wash has been proposed for the site. However a wash-bay has been proposed. Details are found in Section 8.2.3 *Mitigation Measures*.
- f) Each intake of material for recycling/pre-treatment must be accompanied by a List / Certificate of analysis/ Material Safety Data Sheet for all its possible components. It is therefore not deemed necessary to house a full laboratory onsite. However, there will be relatively small laboratory facilities on site that will provide capability for monitoring the incoming waste materials, process fluids and effluents for pH, oil concentrations etc. on an ongoing basis.
- g) Fuel storage design and locations are detailed in Drawing 11 *Proposed Floor Plan* and Section 2 *Description of the Proposed Development* of the EIS
- h) All waste fluids are analysed at the source (where the fluids are generated/produced) and wastes will not be accepted without prior inspection of quality and composition. Therefore it is not deemed necessary to have a waste quarantine area on site. Fluids can be monitored in the reception tanks and if found to be unacceptable can be reloaded into a road tanker and exported off site back to the source or to a suitable treatment facility.
- i) On arrival to the site, trucks are directed to the weighbridge. Here, analytical data regarding testing conducted at source prior to arrival at the facility will also be documented along with details of the weight, load type and supplier of the waste materials. Waste materials can be inspected and monitored in the reception tanks.
- j) All details relating to site traffic can be located in *Section 13 Traffic* of the EIS
- k) All services available on site are outlined in Drawing 03 *Existing Site Services* and Drawing 04 *Proposed Site Services* and in Section 2 *Description of the Proposed Development* of the EIS.
- l) Sewage and surface water drainage infrastructure is described in Section 8 *Surface Water* of the EIS

- m) Details of all plants and sheds on site are outlined in Section 2 *Description of the Proposed Development* of the EIS
- n) Site accommodation is described in Section 2.1.2 *Description of Design, Size and Scale* of the EIS and accompanying drawings.
- o) Fire control systems are outlined in Section 2.1.3 *Health and Safety* of the EIS and in appendix 2.1 of the EIS
- p) There will be no civic amenity services on this site
- q) All waste recovery infrastructure is detailed in the Waste Licence Application and EIS. No other waste recovery infrastructure will be employed at the site.
- r) There will be no compost structures on this site
- s) Please refer to Section 2.1.2 *Description of Design, Size and Scale* of the EIS for further information. There will be no site infrastructure for construction and demolition waste. Approximately 1,000 tonnes/annum of contaminated soils will be stored on site periodically in sealed contained skips and bags prior to onward shipment to an appropriately licensed facility for treatment/disposal (e.g. ENVA Ltd., Rilta Ltd., Cedar Ltd.).
- t) No incineration will take place on site.
- u) There will be no other significant infrastructure on site.

Attachment D2 - Facility Operation

Please refer to Section 2.2.3 *Operation of the Project* of the EIS

Attachment E – Emissions

Attachment E1 Emissions to Atmosphere

Please refer to:

Section 10.8 *Potential Impacts* of the EIS

Attachment E2 Emissions to Surface Waters

Please refer to:

Section 8.2 *Surface Water* of the EIS

Attachment E3 Emissions to Sewer

Please refer to: Section 8.2.3 *Mitigation Measures* of the EIS.

The treatment processes at the site entail advanced technology and methodologies for separating out oil from water and for adjusting/neutralising acid/alkaline mixtures. The recovered oil products will be forwarded to suitable facilities for further treatment and/or reuse. The remaining water will be discharged to the foul sewer as an effluent. The quantity of effluent is difficult to determine at this point and will be highly dependent on the nature of the incoming liquids and the concentrations of oils in the incoming liquids. However, it is possible that there could be up to 40,000 m³ per annum of effluent generated at the facility though it is considered that the actual figure will be much less than this. Table E.1 details the predicted loading on the facility. The effluent will generally discharge to the foul sewer on an ongoing basis and therefore there will not be any surges to the sewer. The quality of effluent to be discharged will be similar to other plants of this nature operating in the country and will meet the requirements of South Dublin County Council and the Agency. Table E.2 below gives indicative composition of the effluent proposed.

Table E.1 Predicted Loading - Annual Waste Throughput:

Waste Type	(1) Heavy Oils	(2) Light Oils	(3) Acid / Process
Year 1 m ³ p.a.	4,500	5,500	0
Year 2 m ³ p.a.	8,000	10,500	0
Year 3 m ³ p.a.	12,000	12,000	4,000
Year 4 m ³ p.a.	12,500	14,500	6,500
Year 5 m ³ p.a.	18,000	18,000	9,000
Max. m ³ p.a.	18,000	18,000	9,000
Design Value m ³ p.a.	20,000	20,000	10,000
Daily (@ 250 d p.a.) m ³	80	80	40
Hourly Design m ³ (i.e. 2 x 4 m ³ /hr)	8	8	4

Table E.2: Emissions to Sewer

Proposed Effluent composition (FOUL ONLY):			
Max Hourly Flow	m ³		20
Max Daily Flow	m ³		150
BOD Concentration	mg/l	Mean	800
		Max.	1,200
COD Concentration	mg/l	Mean	1,650
		Max.	2,500
Suspended Solids	mg/l	Mean	400
		Max.	500
pH		Range	6 - 9
Temp.	°C	Mean	35
		Max.	50
Oils / Fats / Greases	mg/l	Mean	150
		Max.	200
Copper	mg/l	Mean	3
		Max.	5
Iron	mg/l	Mean	10
		Max.	15
Lead	mg/l	Max.	0.5
Tin	mg/l	Max.	2
Zinc	mg/l	Max.	5
Chromium	mg/l	Max.	15
Mercury	mg/l	Max.	0.1
Sulphates	mg/l	Mean	400
		Max.	600
Total Nitrogen	mg/l	Mean	75
		Max.	100
Total Phosphorus	mg/l	Mean	25
		Max.	35
Chlorides	mg/l	Mean	2,500
		Max.	3,500
Detergents	mg/l	Max.	100
Phenols	mg/l	Max.	15

In this regard it is proposed to monitor the effluent on a regular basis to ensure that it meets the quality requirements. Monitoring will be conducted on the effluent prior to discharge to the foul sewer. It is expected that any conditions/controls/monitoring that would normally be included in a discharge licence from the local authority will be detailed in the Waste Licence.

Attachment E4 Emissions to Groundwater

The facility has been designed for full containment with concrete slab across the entire site; enclosed building with concrete lower walls and all liquids will be stored, treated and processed in enclosed systems. Therefore there will be no direct discharges to groundwater.

Please refer to: Section 7.0 *Groundwater/Hydrogeology* of the EIS for further detail

Attachment E5 Noise Emissions

Please refer to:

Section 12.7 *Predicted Impacts from Noise and Vibration* of the EIS

Attachment E6 Environmental Nuisances

A list of potential environmental nuisances and controls which corresponds to the list included in the EPA's Waste Licence Application form is given below. Controls for some of these potential nuisances are not necessary for the reasons given below.

Bird Control

It is planned to treat some 46,000 tonnes of hazardous waste at the facility. Bird Control is not however an issue due to the nature of the waste stored and processed at the facility, in drums, tanks, and other containers and not of a nature that would significantly attract birds. These wastes will arrive in covered containers and all waste is handled indoors.

Experience at other much larger facilities of this nature has shown that bird scavenging has never become an issue for the operators. It is thought that the normal levels of staff movements and activities, noise etc. at these facilities are sufficient to keep any scavenging birds away. For these reasons birds are not an issue at the site and bird control is not deemed necessary.

Dust Control

The results of a dust deposition survey at the site are presented in Section 10.6 of the EIS. The results showed that dust emissions were relatively low at the site at the time of survey (March –April 2007). The most likely sources of dust at the site are from traffic movements along the access road and the construction works on the adjoining property to the south of the site.

The concrete surfaces will be washed and swept if required and therefore dust emissions from concrete areas are expected to be low in the future.

Air will be extracted at a rate of 4 air changes per day. On-site good house keeping and raw material handling practices will be stringently controlled through agreed protocols

All buildings will be completely enclosed with high speed roller shutter doors to prevent fugitive releases to atmosphere. These doors will be closed when not in use for trucks entering/exiting the building. If required, following delivery vehicles will be washed in the wash bay to remove any residual waste material

These measures will ensure that dust emissions from the facility will be kept to a minimum and will not impact on the surrounding environment.

Fire Control

The phone numbers of all emergency services including the fire brigade will be clearly posted adjacent to each phone on site. A mains water supply is available on site. Adequate fire hoses will be installed throughout the site. Fire extinguishers and alarms will be installed throughout the facility. Smoking is not allowed on site. Smoke detection alarms will be employed in all buildings.

Further details of fire safety and control can be found in Section 2.1.3 *Health and Safety*. Details of the proposed fire routes and evacuation procedures can be found in Appendix 2.1 of the EIS

Litter Control

There will be virtually no waste materials brought to the site that will generate litter. All wastes will consist of liquids or sludges and will be delivered, stored and treated in enclosed tanks and pipe/pumping systems. There may be very minor amounts of litter in the contaminated soils to be stored at the site (max. 1,000 t/a). The following controls will ensure that litter will not become an issue at the site:

- All wastes are transported to the site in covered containers and skips. Covers include either tarpaulin covers or nets,
- Litter patrols will be carried out at the site and environs and any litter found will be collected and treated at the facility.

Odour Control

As the waste types proposed for acceptance consist primarily of oils, waters with a small quantity of hydrocarbons and acids/alkalines it is not anticipated that significant odours will be generated by the proposed development. Nevertheless, odour control at the proposed facility will be provided in the form of carbon filter scrubbing units at the waste intakes and a comprehensive air extraction unit which has been incorporated into the design of the main processing buildings.

As the wastes remain fully enclosed from the moment they enter the site and through to processing, the quantity of vapours escaping from the process is expected to be extremely low. All intake balancing tanks are equipped with carbon filter scrubbing units and with the exception of breathing/filling losses it is reported that there will be no significant vapour/odour emission from these tanks. All buildings which will be completely enclosed with high speed roller shutter doors will be operated with air extraction at a rate of four volume changes per day. These controls should ensure that any potential vapours/odours are minimized and will remain at undetectable levels to the staff of the facility, visitors to the site and neighbouring users.

Roads Cleansing

There are no delineated roads on the site. All vehicles visiting the facility drive through the main yard. No new delineated roads are proposed as part of the extension to the facility. It is proposed to wash and sweep this area if and when required. As part of the proposed expansion a wash -bay will be installed to the east of the weighbridge area. This will prevent any off-site movement of dirt, which may be generated on site. Daily inspections of the access road will be carried out and in the unlikely event that mud accumulates on the road the company will ensure that it is power swept and washed as necessary.

Traffic Control

As stated above, there are currently no delineated roads on the site. Traffic can enter and exit the main yard through the access gate.

The site is currently a disused industrial site and as mentioned in the traffic assessment undertaken by White Young Green, the proposed development will not adversely affect traffic conditions in the local area.

The site layout has been designed to accommodate the internal movement of vehicles and prevent queuing of vehicles at the entrance. Traffic signage will be erected and will limit traffic movements within the site to 10 km/h. Trucks entering the site will be directed to the relevant area by the weighbridge operator. A barrier will be put in place to prevent public access beyond the entrance. This barrier will be controlled by the weighbridge administration office.

Vermin Control

The nature of the wastes proposed in this application will not attract any vermin such as rodents or flies etc. Therefore, it is not proposed to undertake any vermin control. However, this situation will be monitored on an ongoing basis and if for example there is an increase in rodent populations a specialist pest control company will be contracted to deal with the issue.

Attachment F – Control and Monitoring

Attachment F1 Treatment, Abatement and Control Systems

The entire process has been designed to treat liquids and sludges consisting in the main of oily waters, interceptor wastes, bilge waters, acid/alkaline wastes etc. which inherently provides substantial treatment and abatement to the wastes in question. These systems are detailed in section 2.2.3 of the EIS. In addition, there are a range of other abatement technologies planned at the facility which will reduce emissions from the processes and include the following:

- Carbon filters on the intake tanks
- An air handling system in the main building
- pH adjustment/neutralisation of the process effluents
- Regular monitoring of the process effluent to ensure that the effluent meets requirements prior to discharge to the main foul sewer.
- Full containment of all processes inside the main building to prevent/reduce visual intrusion, noise and dust emissions
- Washbay with silt trap and oil interceptor for trucks
- Proposed sweeping and washing of site yard and access roads
- Silt trap, oil interceptor and stormwater attenuation tank for rainfall run-off from the open yard
- Full containment of the facility with concrete slab to prevent direct discharges to groundwater

Attachment F2 Air

Please refer to Section 2.2.3.4 *Processes*, 10.3 *Survey protocol*, 10.4 *Assessment criteria* and 10.9.2.1 *Facility* of the E.I.S

Attachment F3 Surface Water

Please refer to Section 8.1.2 *Surface Water Quality* of the EIS

Attachment F4 Sewer Discharge

Please refer to Section 8.2.1 *Surface Water Receptors* of the EIS

Attachment F5 Groundwater

Please refer to Section 7.6 *Summary* of the EIS

Attachment F6 Noise

Please refer to Section 12.2 *Noise Assessment Methodology* of the EIS

Attachment F7 Meteorological Data

Please refer to Section 11.2 *General* of the EIS

Attachment G – Resource use and Energy Efficiency

Attachment G1 Raw Materials, Substances, Preparations and Energy

Please refer to Section 2.2.3.1 *Description of Principle Process or Activities* and 2.2.3.4 *Processes*

Estimates of fuel and other products used on site are as follows:

- Vehicles used for transporting waste will use external petrol stations for fuel supply.
- It is estimated that 200 L of detergent will be used at the site per annum.
- Electrical units usage on site will vary over the course of the facilities lifespan. The actual usage will become clear after the first three months of operation and will be reported to the relevant authorities at that point and in the annual environmental reports (AER) thereafter.
- Mains water is supplied by the local authority. Usage is charged at the minimum usage rate. It is proposed to meter incoming mains water in order to estimate the volume of water going to foul sewer. It is estimated that from 500 to 1,000 m³ of water will be used in the first year.

It is planned that records be maintained of the usage of energy, raw materials, water and other resources at the plant from the outset. The actual usage of these materials will therefore be clarified over the first three months of operation and confirmed over the course of one year. The use of these resources and materials will be critically reviewed as part of the EMS and energy efficiency audits and objectives and targets set for reduction in the usage of these materials on an ongoing basis.

Waste Arisings

Waste arisings from the site activities and personnel will be managed and controlled and waste prevention practiced where possible. Raw materials will be ordered in bulk and from suppliers who operate a packaging take back policy. Packaging wastes will be kept separate from other wastes and sent to an appropriate facility for recycling. Separate receptacles will be designated in the canteen for food waste and dry recyclables and in the offices for paper waste, batteries and WEEE. Computers will be used for storing files and reports electronically where possible and double sided printing for any outputs. All wastes will be presented for weekly collection by a waste contractor who holds a waste collection permit and sent to a licensed recycling/disposal facility.

Attachment G2Energy Efficiency

Energy efficiencies will be achieved by using modern plant and equipment and servicing the equipment on a scheduled basis. The structures at the site are brand new and have been designed with modern insulation materials.

Plant and equipment not in use will be shut off or throttled back to idle where possible.

The contaminated soils for export off site may be bulked up (if stored in bags or packets) at the site and sent in large containers thus reducing energy usage from multiple trips with smaller vehicles.

Temperature control systems on site will include use of thermostats and time controls to reduce excessive use of these systems.

The benefits of updating plant and equipment which are more energy efficient will be continually reviewed.

On going review of energy requirements will be carried out to reduce heating and plant fuel/energy requirements.

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Attachment H – Material Handling

Attachment H1 Waste Types and Quantities

Please refer to Section 2.2.3.1 *Description of Principle Process or Activities* in the EIS.

The proposed facility is designed for the acceptance and treatment of the following main raw materials:

- Oily water and Interceptor wastes
- Waste Oils
- Waste Acids, Alkalines, Lime Sludges, Process Waters
- Tank Bottoms, Bilge Waste and Drain Cleaning Waste
- Spent Oil Filters
- Oily Rags

Contaminated Soils will also be accepted at the facility for temporary storage prior to transfer off site to an appropriate facility. Oil filters are accepted for processing in the area adjoining the main process building and waste fuel oil intake. Oily rags will also be treated at the proposed facility. All waste intakes will be housed in the additional building to be constructed at the rear of the existing warehouse.

Attachment H2 Waste Acceptance Procedures

Please refer to Section 2.2.3.4 *Processes* of the E.I.S

Attachment H3 Waste Handling

Please refer to Section 2.2.3.2 *Scope of the Project* and 2.2.3.3 *General Operation*

Attachment I Existing Environment & Impact of the Facility**Attachment I 1 Assessment of Atmospheric Emissions**

Please refer to Section 10 *Operational Phase* of the EIS

Attachment I 2 Assessment of Impact of receiving Surface Water

Please refer to Section 8

Attachment I 3 Assessment of Impact of Sewage Discharge

Please refer to Section 8

There is an existing foul sewer drainage system at the site connected to the main foul sewer servicing the industrial estate. This provides an outlet for the effluent from existing washroom facilities at the site. The site has just recently been constructed and there are currently no occupants at the site and therefore no discharges to the foul sewer

Attachment I 4 Assessment of Impact of Ground/Groundwater Emissions

Please refer to Section 7. The facility is new and unoccupied. There are currently no discharges or emissions to ground or groundwater.

Attachment I 5 Ground and/or Groundwater Contamination

There is no known ground and/or groundwater contamination, historical or current on or under the site.

The proposed facility will be fully contained with a concrete slab and there will be no direct discharges to groundwater.

Attachment I 6 Noise Impact

Please refer to Sections 12 of the EIS

Attachment I 7 Assessment of Ecological Impacts & Mitigation Measures

Please refer to Section 9 of the EIS