

Our Ref: C005690

Date: 26th November 2007

Grainne Oglesby,
Licensing Unit,
Office of Climate, Licensing and Resource Use,
Environmental Protection Agency,
Headquarters,
P.O. Box 3000,
Johnstown Castle Estate,
County Wexford.

**Re: Article 14 Requirements for Waste Licence Application
W0237-01 for Ormonde Organics Ltd**

Dear Grainne,

Further to a request for information dated 1st October 2007, in relation to Article 12 &13 compliance requirements for the above referenced application, please find enclosed the requested information. A copy of the revised Non Technical Summary is included in Appendix 1.

ARTICLE 12 AND 13 COMPLIANCE REQUIREMENTS

1. Provide details of the maximum quantity of contaminated soils proposed to be stored on site. Identify on a suitably scaled map the location proposed for the storage of this waste. Include details of the slope and drainage within this area of the site.

As detailed in the EIS prepared by White Young Green Environmental (Ireland) Ltd (WYG) in July 2007, it is proposed to store no more than 100 tonnes of contaminated soils at the site at any one time. As a result of the planning condition imposed by South Dublin County Council, all contaminated soils will now be stored in skips indoors rather than outdoor as had originally been proposed. Figure 1 shows the location of the storage area for contaminated soils within the process building.

Condition 4 of SDCCs decision (attached in Appendix 2) to grant planning permission states that

4. (a) "All waste handling activities shall be carried out indoors"

(b) "There shall be no outdoor storage of materials. The outdoor storage of soils is not permitted"

The slope and drainage within the area of the building designated for soil storage will be no different to that provided at the rest of the building. As contaminated soils will be stored in covered skips no

spillages are foreseen. Whilst the moisture content of contaminated soils will vary to some extent, it is highly unlikely that there would be any spillages other than occasional small quantities of dry matter perhaps during loading or unloading which will be cleaned up directly. In addition as the building has been designed for full containment for collection of firewater, any unlikely spillages within the building will be fully contained.

2. Provide details of the contaminants and the predicted range of these contaminants within each of the wastes brought on site for treatment. Provide details on the sources of these wastes.

Appendix 3 of this document contains analytical results for some of the typical waste liquids which are expected at the development. The analysis provided includes analysis of waste oils from the USEPA on typical waste engine oils and industrial oils. Also attached is analysis of an acid waste water (dilute HCL) from a current Ormonde Organics client in the Munster region operating a pickling process.

It is anticipated that the source of wastes will vary widely depending on future contracts to be agreed by Ormonde Organics. Current clients include the pharmaceutical industry, manufacturing and the chemical industry and it is expected that the portfolio of clients will expand post establishment of the facility.

3. Provide details of the maximum contaminant concentrations within the waste oils following on-site treatment. Compare these concentrations with relevant recovered oil product specifications.

The maximum suspended solids content in the recovered oil will be less than 250 ppm. At this stage in the development of the facility it is not possible to determine more precisely the make up of the suspended solids as it depends entirely on the constituents in the oil entering the recovery process. As detailed above the waste source and thus the incoming range of contaminants are expected to vary widely. The recovered oil will only be sold for further refining with the prior approval of the EPA.

4. Provide a description of the proposed process for the on site treatment of oily rags and identify the resulting wastes.

Oily rags will be accepted at the facility in fully enclosed containers. The rags will firstly be cleaned in a water based washing system with the aid of a mild caustic and surfactant detergent. The rags will then be dried as necessary. The resultant wash water will be passed through the Dissolved Air Flotation (DAF) unit which will remove the hydrocarbon content before discharge of the remaining waters to the sewer.

Treated rags will then be suitable for disposal to landfill as a waste, under;

EWC code 15 02 03 Absorbents, filter materials, wiping cloths, protective clothing other than those mentioned in 15 02 02 (the hazardous equivalent).

5. In relation to the atmospheric dispersion modelling report submitted with the EIS;

(i) Confirm that the atmospheric dispersion model is based on the maximum concentrations and flow rates.

The atmospheric dispersion model is based upon the maximum concentrations and flow rates for the proposed facility provided to WYG by the project engineers Treatment Systems Limited.

(ii) Provide a printout of the input files and output data for the atmospheric dispersion model. Electronic copies of the input and output files and a copy of the meteorological data used should also be submitted.

Please find enclosed 9 CD roms with the requested input and output files as well as meteorological data. It is respectfully submitted that the printout requested by the agency would be too voluminous for submission. Should it be expressly required Ormonde Organics would be happy to reimburse the Agency's costs for printing the required documents.

6. Describe the proposed arrangement and controls for the manual and automatic shut off valves on the foul and surface water drainage lines. Provide details of the contaminant concentrations that will activate automatic shut-off.

As detailed in the EIS, online monitoring systems will be provided to monitor the effluent discharges from the proposed facility. On line pH and temperature monitoring systems will be provided to monitor the foul sewer discharges.

If the pH of the effluent deviates beyond the limits 6 – 9 or the temperature rises above 50 degrees C, the isolation stop valves from the DAF and / or the pH Correction Unit will close automatically (PLC Control). Simultaneously the relevant dump valves, upstream process adjustments and / or alarms will be activated. Unsuitable effluents will then be diverted to the emergency buffer tank for further assessment prior to their reprocessing. A manual control valve will also be provided on the foul water line to act as a back up in the event of a failure with the process control system.

Surface water drainage from all hardstanding areas at the facility have been designed to drain to the surface water collection system and attenuation control via a silt trap and interceptor. Storm water is then discharged to the local storm drain at a rate not exceeding 2 litres per second. As all waste handling activities are carried out indoors, buildings are fully contained and tanks are all appropriately bunded, spills are unlikely to occur onto hardstanding surfaces. Nevertheless in the unlikely event of a contaminant spillage e.g. chemical or hydrocarbons, a simple manually controlled valved system will prevent discharge to the storm sewer. A second control valve will be provided at the storm water discharge monitoring manhole and can also be closed off manually in the event of an incident. All contaminated waters retained by the drainage system will subsequently be either processed on site or pending analytical confirmation be removed off site for treatment by an approved contractor to an approved treatment facility.

7. Describe and identify on a suitably scaled map the pipe work between the on site tanks and processes. This should include all pipework between the delivery tanks, processing area equipment, waste tanks, treated oil tanks, buffer tanks, buffer tank, effluent discharge point etc

Please find enclosed Drawing OS1916/T1 which details the pipe work between tanks and processes as requested. Also re attached is the process flow which should be viewed in conjunction with the plan.

8. Provide details of the proposed boiler for the site. Complete tables E.1(ii) and Table E.1(iii) in relation to the boiler and boiler emissions.

As detailed in Section 2 of the EIS the proposed Falton boiler system consists of a dual fuel (gas-oil) boiler with a nominal burner rating of 400Kw. Please find enclosed tables E.1(ii) and E.1(iii) which detail the particulars relating to the boiler and boiler emissions.

9. Complete tables F.2 to F.8 as appropriate, provide a 12-Figure grid reference for all monitoring points and identify the monitoring points on a suitably scaled map.

Please find attached tables F.2 to F.4 and Figure 2 showing the locations of monitoring points at the proposed facility. A tabular version of the monitoring points in standard format is included in Appendix 4.

10. Complete Table G.1 for the process related raw materials, intermediates, products etc used or generated on the site.

Please find attached Table G.1.

11. Complete tables H.1(i) and H.1(ii) for all waste arisings.

Please find attached Table H.1 (i) and H.1 (ii).

12. Identify the proposed recovery/disposal route(s) for oils following treatment at the facility.

It is proposed that the clean oil produced by the process will be sent for further processing at Thompsons Recycled Oils, Dromore, Co Down.

13. Identify the proposed recovery/disposal route(s) for the waste sludges generated on site.

At present, it is proposed to dispose of the waste sludges generated on site through a broker. Indaver Ireland, 4 Haddington Terrace, Dun Laoghaire, Co Dublin have provisionally agreed to accept the material and arrange for its disposal. It is proposed by Ormonde Organics that alternative disposal solutions will be sought for waste sludges in the interim period between now and commencement of operations.

14. Describe the measures to be taken under abnormal operating conditions, including start up, shutdown, malfunctions, and momentary stoppages and by-pass of abatement systems.

The primary processing operations at the proposed facility, as detailed elsewhere in the Waste Licence Application and the associated EIS, comprise the following,

- Waste Oils Processing
- Oil Mixes Processing,
- Acid Alkaline Waste Processing,

The mains utility processes at the site are;

- Post Process Storage,
- Vapour and Odour Control System and
- Process Water Management System.

In the unlikely event that a breakdown or malfunction occurs in one or more of the primary processing units, waste on site for the effected process will be stored until the equipment can be repaired and returned to normal operation. Unaffected processes will continue operation. Incoming wastes will continue to be accepted at the discretion of the facility manager or deputy. This will be directly dependent on the remaining storage capacity in the balancing tanks. In the event that storage capacity is met or at any stage prior to that at the discretion of the facility manager, intending clients will be informed and asked to either, hold wastes at source until the problem can be resolved or make alternative arrangements.

In the event of a malfunction with one of the utility processes, the facility manager will make an assessment of the situation depending on which element of the utilities process has failed and all facility

processes will be stopped as necessary. The high level of buffering allowed for in the process tanks eg the balancing tanks have over 24hrs storage capacity, thereby start up, shut downs, malfunctions and momentary stoppages will not cause any problems. The process it self will be started up and shut down on a daily basis and therefore there are no special procedures in these instances.

Tank overflow abatement / bunding is provided to such an extent that the risk of escape from them is extremely unlikely. Furthermore, floor slopes surrounding the tanks will be directed towards the reception sumps. There is also a bunded emergency recovery tank to contain off spec flow from the process. All overflows will be recovered back into the balancing tanks for reprocessing.

The process will be manned at all times during operations. In all abnormal situations the offending process will be stopped immediately. In the event of spillages or a fire, facility management will follow the standard operating procedures which will be set out in the Emergency Response Procedure for the facility. A full Emergency Response Procedure will be prepared prior to operation and submitted to the Agency for Approval.

15. Describe the contingency arrangements for the provision of backup and spares in the case of breakdown of critical equipment required for the proposed treatment processes.

As detailed above, should a piece of equipment relating to one of the primary unit processes malfunction, unaffected processes will continue and waste will continue to be accepted at the facility at the discretion of the facility manager until storage capacity is reached. The high level of buffering provided by the balancing tanks and post process storage should ensure that sufficient time will be available for maintenance staff to return the equipment to use.

In the event that the problem with the equipment cannot be repaired in the short term, process plant and equipment will be procured from reputable suppliers with a commitment to providing service, backup and spares as necessary. Any wastes which cannot be treated within the short term or stored for longer periods will be disposed of at an appropriately licensed facility. Plant maintenance documentation and training will be provided by the equipment suppliers. It is envisaged that the normal maintenance requirements will be sourced locally on call.

If you wish to discuss this matter further please give myself or Seamus Phelan a call to discuss.

Yours sincerely,

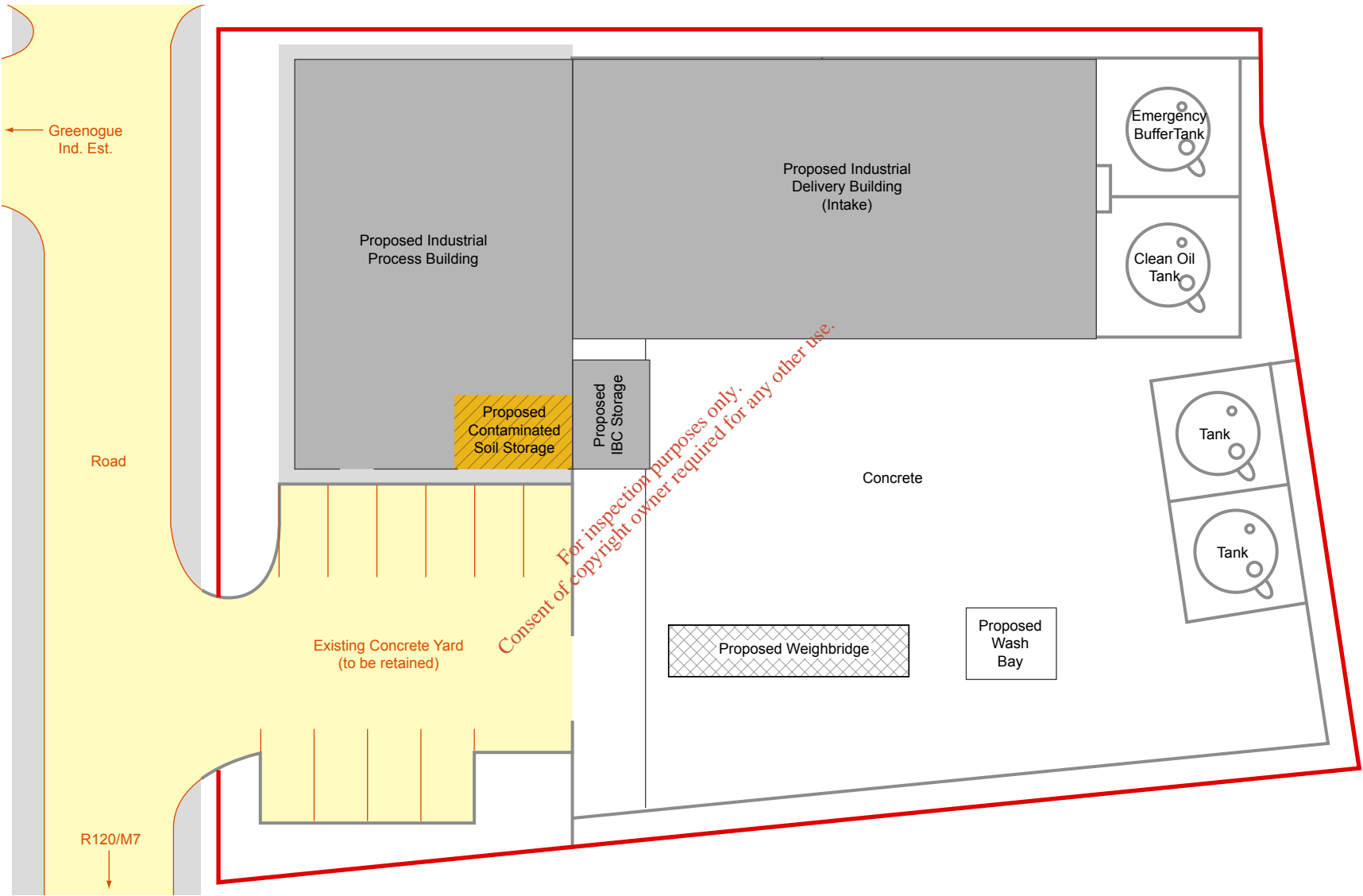
David McDermott
Principal Environmental Scientist

Donal Marron
Regional Director

On behalf of Ormonde Organics Cc: Seamus Phelan

LEGEND

— Site Boundary (Fence)

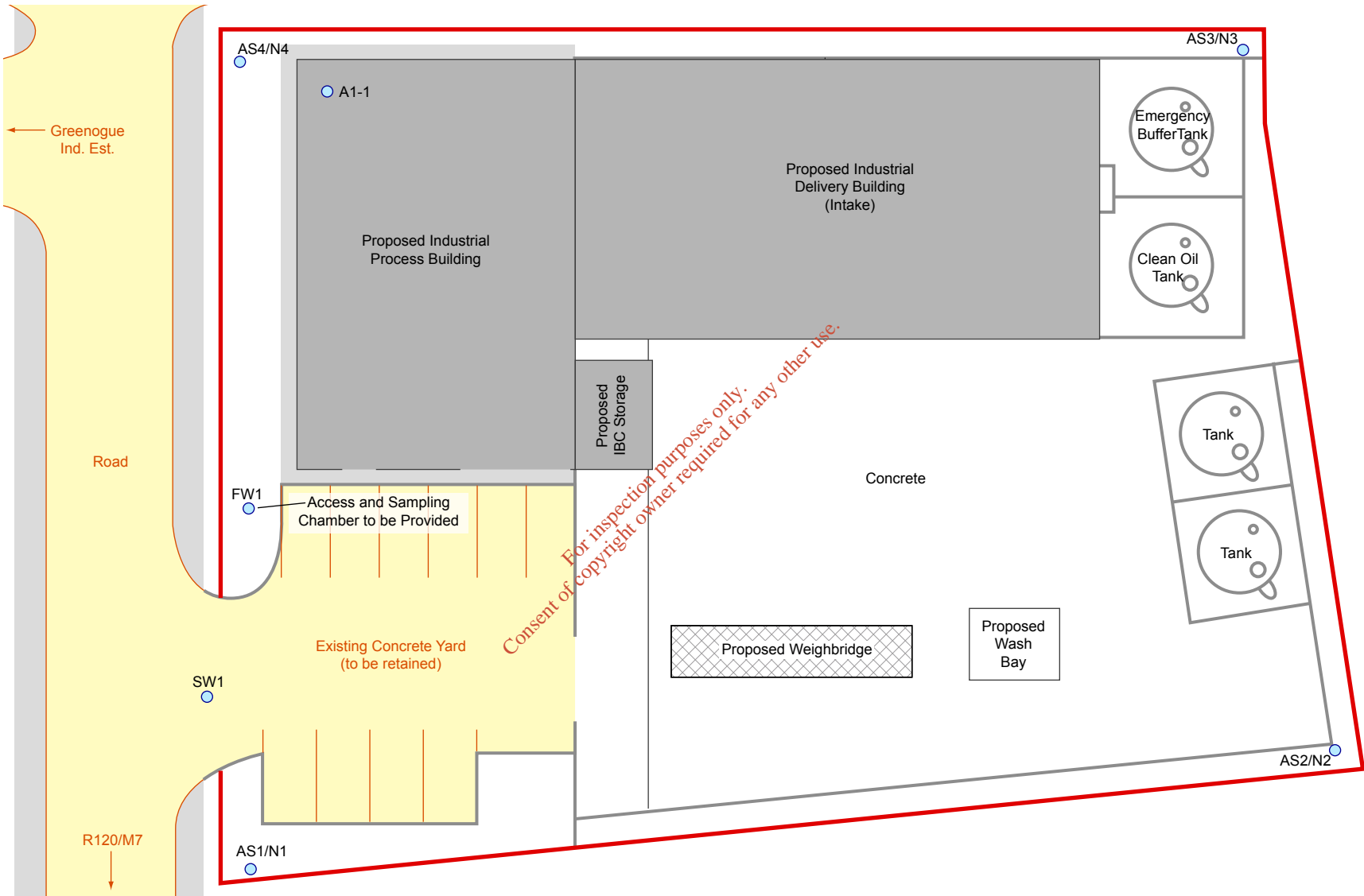


NOTE: Drawing is for diagrammatic purposes only. No measurements to be taken.
SCALE: 1:200 @ A1

Ormonde Organics Location of Contaminated Soil Storage			
Figure No. 1	Job No. CE05690	Date. Nov. 2007	
Finalised By - DMcD			

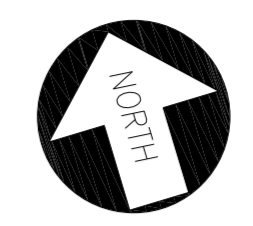
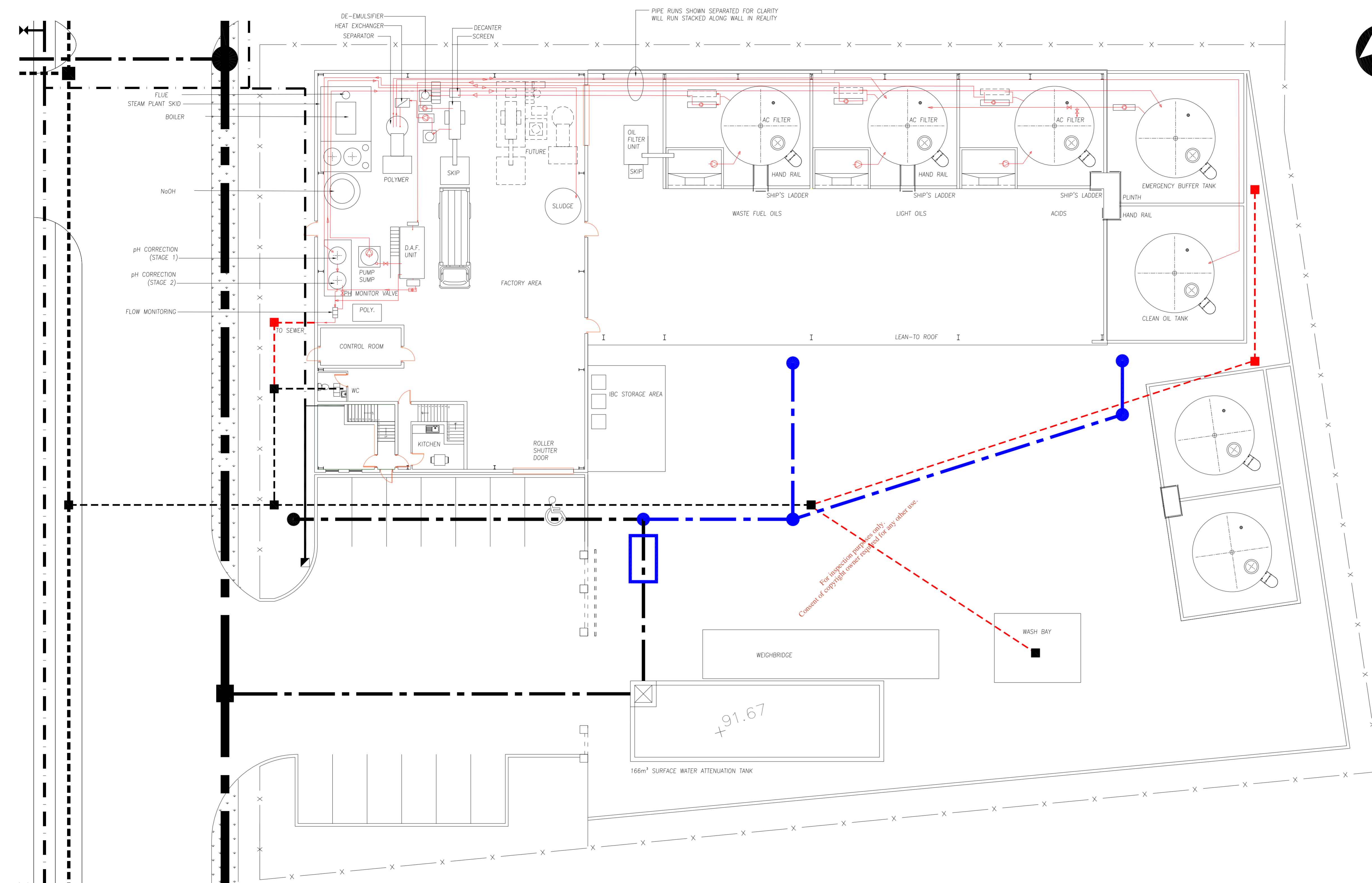
LEGEND

— Site Boundary (Fence)



NOTE: Drawing is for diagrammatic purposes only. No measurements to be taken.
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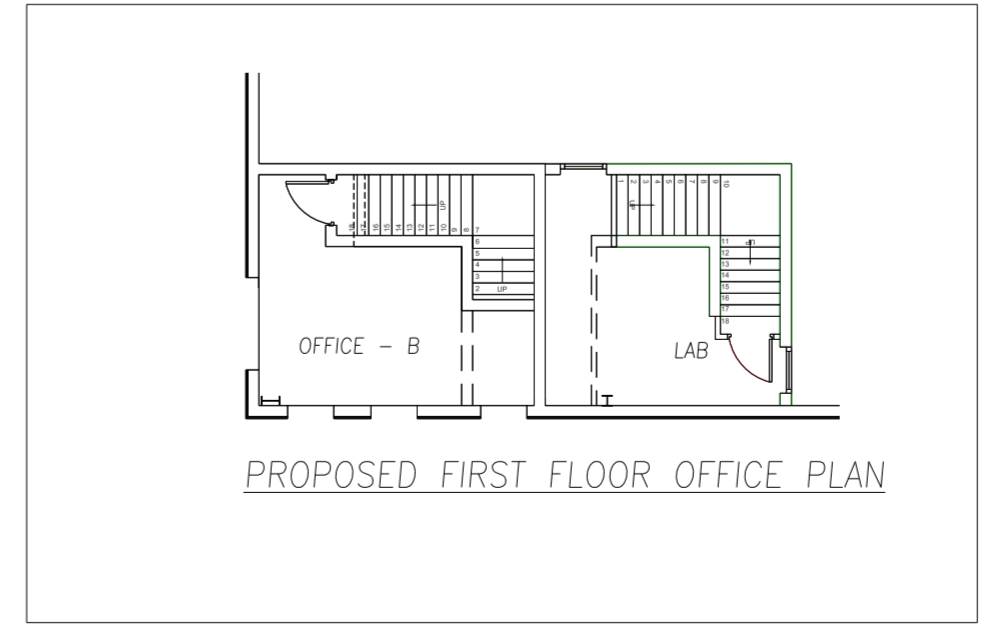
Ormonde Organics Existing Site Layout			
Figure No. 2	Job No. CE05690	Date. June 2007	
	Finalised By - NM		



LEGEND	
	PROPOSED SITE STORM DRAIN
	PROPOSED SITE FOUL DRAIN
	EXISTING SITE WATERMAIN
	EXISTING PUBLIC STORM DRAIN
	EXISTING PUBLIC FOUL SEWER
	EXISTING PUBLIC WATERMAIN
	EXISTING GAS MAINS
	EXISTING STOPCOCK (WATERMAIN)
	EXISTING HYDRANT(WATERMAIN)

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PROPOSED PROCESS AND DELIVERY FLOOR PLANS



PROPOSED FIRST FLOOR OFFICE PLAN

D	OCT'07	CKG	PIPE RUNS INDICATED	
C	JUN'07	CKG	MINOR MODIFICATIONS	
B	JUN'07	CKG	PLINTHS ADDED - ODOUR UNIT REMOVED	
A	MAY'07	CKG	MINOR MODIFICATIONS	
			MINOR MODIFICATIONS	
Rev.	Date	By	Description	Chkd.
REVISION DETAILS				
TREATMENT SYSTEMS WATER WASTEWATER DESIGN AND ENGINEERING Canices Court, Dean St., Kilkenny, Ireland (056) 7763932 (056) 7763933				
Client: ORMOND ORGANICS				
Title: FACTORY FLOOR EXTENSION PROPOSED PIPING AND SEWER LAYOUT				
Scale: 1:200	Drawn: CKG	Checked:	Date: MAY'07	Drawing No: 1916T1
			File Name: OS1916/T1	Revision: D

INTRODUCTION

This is the revised Non Technical Summary (NTS) of the Environmental Impact Statement (EIS) submitted to the EPA in November 2007 as part of a waste licence application for a proposed Waste Recovery & Recycling Facility at Unit 643 Greenogue Industrial Estate, Rathcoole Co Dublin. The facility is being developed by Ormonde Organics Limited (OOL).

The EIS has been prepared to accompany an application to South Dublin County Council (SDCC) for planning permission and the Environmental Protection Agency (EPA) for a waste licence.

The facility has been designed to process 45,000 tonnes of (mainly hazardous) hydrocarbon contaminated waste liquids including oily water, interceptor waste, waste oils, tank bottoms, bilge waste, drain cleaning waste, coolants, cutting fluids, fuel oils etc. Acids, alkalines, lime sludge leachate, process wash waters and solid wastes including filters, oily rags, lime sludge and batteries will also be processed. The facility will also be used for the short term storage of contaminated soils in quantities of 50-100 tons at any one time to a maximum of 1,000 tonnes per annum pending transfer to licensed treatment or disposal facilities.

The site presently comprises a warehouse and hard standing yards located in industrial surroundings. The existing building has never been used for its previously permitted logistical use. It is proposed that the hazardous waste recovery and recycling facility will process 10,000 tonnes of wastes per annum initially, rising to 45,000 tonnes after three to five years. It is proposed that acceptance of contaminated

soils will remain constant from year 1 at 1,000 tonnes per annum.

The proposed facility will be the only facility of its kind in Dublin which will process acids, alkalines, spent oil filters and recovers waste oils to a reusable standard. This proposal represents a higher level of treatment than that currently provided at the recycling and recovery providers in the Greater Dublin Region.

The EIS outlines the scale and scope of the proposed development and describes the existing environment at the development site. The potential impacts resulting from the proposed facility are identified together with the proposed mitigation measures, which will prevent or reduce the identified potential impacts.

LOCATION AND SETTING

The development site (See Figure 1) is located in Greenogue Industrial Estate approximately 2km north of Rathcoole and 2km east of Newcastle in West Co Dublin.

The site measures approximately 0.41 hectares (ha), and its immediate environs are primarily industrial although Greenogue Industrial Estate is set within a diminishingly agricultural setting between Rathcoole and Newcastle villages. The general topography in the immediate vicinity of the site is low-lying and generally flat at an elevation of approximately 90-100m O.D. The landscape rises sharply to the south of Rathcoole reaching local peaks in the order of 180-200m.

The subject site was granted planning permission in March 2006 (Reg. Ref. SD06A/0035), for a warehouse building and associated yard for the purposes of storage and

transhipment of goods. However, although the permitted building has been constructed, the premises have not been used for the permitted purpose.

DESCRIPTION OF THE PROPOSED DEVELOPMENT

The facility will use state of the art technology to treat a variety of liquid wastes, oily rags and oil filters to recover oils for reuse or further reprocessing.

The nature of the proposed activity requires an increase to the size of the existing building on site, which currently consists of approximately 479 sq m of warehouse floor space and 52 sq m of ancillary / office space. The increase is to primarily be in the form of two proposed extensions, as well as some additional ancillary floor space in the existing building.

The larger of these two extensions to the existing warehouse will measure some 36 m long, 18.9 m wide by 9.55 m high (650 sq m), into which deliveries of unprocessed waste (into 3 no. underground sumps) are to be made (prior to pumping into 3 no. above-ground storage tanks, also contained within this building).

The second, smaller, extension is approximately 5.4 m long, 7.5 m wide by 8.4 m high (36 sq m), and is to be used for the short term storage of unprocessed waste in bulk containers and empty containers prior to removal off site. Both the proposed extensions are to match the existing building in external finish.

The additional ancillary floor space in the existing building will be in the form of a laboratory at first floor level (14 sq m). Internal modifications consisting of the provision of a

kitchen (9 sq m), changing and wash room (13 sq m) and control room (15 sq m) at ground floor level will also be undertaken. The primary use of this building will be for the processing of the waste.

Four bunded external storage tanks are proposed. These will measure approximately 4.4 m high with a 5.5 m circumference. A weighbridge and wash bay will also be installed.

The layout of the proposed development is shown on Figure 2.

The current access will be retained in its current form to provide access to the site from the link road off the R120 which is under construction.

The proposed facility will be constructed on the existing topography and the proposed concreting of the rear yard will be such as to meet the current ground level and maintain the existing run off.

The highest structure on site will be the flue from the boiler in the north western corner of the site at a height of 0.5m above the height of the main processing building. Additional buildings will be no higher than the existing building 9.55m high to the eaves.

The facility has been designed for operation from 08.00 to 18.00 hours Monday to Friday and half day 08.00-13.00 hours Saturdays. The proposed facility will provide direct employment for approximately 4-6 people during its operation with additional numbers employed indirectly.

Wastes accepted at the facility will be subject to prior analytical confirmation, so no special provision is required for reject materials arriving at the facility. An emergency buffer tank is available on site if this situation arose.

The facility will have three fully enclosed segregated intake units for Waste Oils, Oil Mixes and Acids/Alkaline and Process Wastes. Any contaminated soils accepted at the facility will be temporarily stored in covered skips/packages within the main processing building to await collection for disposal/treatment.

Wastes are delivered directly from vehicles and containers to the appropriate reception sump. Oils from engine filters are separately extracted in a filter handling sump after crushing of the filter with a standard filter crusher assembly with heating and oil removal facilities; this oil passes into the waste oil intake sump and is transferred forward for processing. Crushed filters are retained in a skip for bulking and periodic removal off-site.

Waste oils are initially passed via a fine screen to a de-emulsifier tank with temperature controlled steam heating. Steam is supplied by a dual fuel (gas-oil) boiler with nominal burner rating of 400 kW (640 kg/h) @ 10 Bar. Oil temperature is then increased to 80°C - 90°C resulting in emulsion breaking and separation. The liquid then passes forward in a two-phase decanter solids separation system followed by a polishing D-type mechanical clarifier unit to maximise water / oil separation. Both separation stages are complete with in-line polymer addition. Separated solids from the decanter are conveyed to a cake skip and separated solids from the clarifier are transferred to the oil mixes balancing tank for processing on this waste circuit. The clean separated oils are pumped to a clean oil holding tank for periodic tanker removal and further distilling / re-use off-site.

For oil mixes, three primary processes namely polymer addition, flocculation and Dissolved Air Flotation (DAF) are proposed for the removal of

organics, solid and oils/fats/greases down to concentrations acceptable for disposal of residual waste waters to sewer in combination with the pre-treated acid wastewaters. The wastewater is clarified using dissolved air (at 5 bar pressure) and, on emission, the solids / scum is lifted to the surface and mechanically removed. The unit is fully roofed. Float sludge is taken to a sludge holding tank for periodic passage forward to dewatering by decanter and removal of solids off site in conjunction with the waste oil solids cake. Effluent overflows from a DAF system via an outfall sewer to a monitoring / sampling chamber upstream of the mains sewer inlet at this monitoring point flow, pH and temperature are monitored in-line and samples are taken for laboratory analysis. A valved connection is provided to a recycle pump sump, which will facilitate the recycling of unacceptable effluent to the emergency buffer tank for further processing.

Acid wastes are delivered to an intake sump and balancing tank in the same fashion as the oil streams. The tank is equipped with forward pumping via a twin-walled rising main to treatment. The pH will be corrected using Caustic Soda (NaOH) on modulating pH control in a two-stage series flow system. This will ensure that pH will be corrected to a nominal value of 7.0 but all times within the limiting range 6 - 9 for sewer discharge. In the event of unacceptable quality the effluent will be automatically diverted into the dump – recycle pump sump for recycle to the emergency buffer tank. The system will be fully automated and emergency / alarm conditions will be designed during the hazop study.

ALTERNATIVES

The proposed development is considered industrial by nature and should be sited in an industrial estate. OOL's proposed facility will serve commerce and industry in the Dublin metropolitan area and south east Leinster. Its location in an industrial estate on the edge of the city is ideally positioned for this purpose.

On this premise, West Dublin was identified as the most suitable location for the site by OOL, and several other sites were considered including sites at Ballycoolin, Blanchardstown and in particular in Greenogue Business Park. No appropriate site could be found at Ballycoolin. The proposed site chosen was the last available site at Greenogue Industrial Estate.

Sites were also considered in Freshford in Co Kilkenny and at Newtownmountkennedy in Co Wicklow. The developers chose not to proceed with the site at Freshford for this use as they are currently in the early stages of developing another facility at this location. The site at Newtownmounkennedy was deemed unsuitable due to its proximity to the coast and rural location.

The location of recycling markets is varied and dynamic and siting a waste management centre based on markets alone is not feasible.

Four other facilities of a similar nature to the facility now proposed (insofar as they all deal with some aspect of waste treatment or recycling) have previously been granted planning permission in Greenogue Industrial Estate. These facilities include an Integrated Waste Management Facility, a Waste Transfer and Recycling Facility for Non Hazardous

Wastes, a Timber Recycling Facility and a Waste Transfer Station for Hazardous and Non Hazardous Wastes.

Vehicles which will transport the residual wastes generated by the facility either to the respective facilities in Ireland or for export can access the proposed facility at Greenogue via the M7 and the M50.

On this basis of the foregoing it was decided to proceed with the proposed development on the Greenogue site.

EXISTING ENVIRONMENT, POTENTIAL IMPACTS, MITIGATION MEASURES AND LIKELY SIGNIFICANT EFFECTS

The existing warehouse has to date been unused since its grant of planning permission and construction in 2006.

The proposed development has the potential to impact on the receiving environment. However, by designing the facility in accordance with the relevant health and safety regulations and by operating the facility under a Licence to be issued by the EPA, the potential for impacting on the environment is greatly reduced.

Human Beings

The site is located in the townland of Newcastle in South County Dublin. The population of South County Dublin according to the 2006 census is 246,935. This is an increase of 3.4 % on the 2002 census figure. The increase in population of the districts around the proposed facility at Greenogue to include are just under half the average increase for the South Dublin Region while the whole Dublin City and County region shows an increase in population for 2006 of 5.7%.

Potential impacts on the surrounding communities include; Health and safety of project operatives or nearby sensitive receptors, impacts from waste generation, storage and disposal, emissions to atmosphere, noise and water as well as potential economic impacts.

Assessments of these potential impacts have been undertaken as part of Chapters 4-15 of the EIS. The facility will operate under the control of an EPA Waste Licence and is not considered to represent a risk of generating a major accident involving dangerous substances, as outlined under the Seveso and Control of Major Accident and Hazards (COMAH). No harmful emissions will be permitted under the Waste Licence.

It is not anticipated that there will be any impact on the local economy. The proposed facility will employ up to 4-6 people directly and further numbers indirectly during both construction and operational phases. This will constitute a direct, positive impact.

Landscape

The general topography in the immediate vicinity of the site is low-lying and generally flat at an elevation of approximately 90-100m O.D. The landscape rises sharply to the south of Rathcoole reaching local peaks in the order of 180-200m. Peaks of close to 400m are located within 5-6km.

The visibility assessment found that although there are a number of long distance views of the southern façade of the existing building from the R120 there are no views of the site from the north and west due to surrounding industrial buildings. The eastern and southern façades of the building are visible to some residents living along the R120 close to the exclusion zone

around Casement Aerodrome although many of these dwellings are already screened by mature trees on their own property. At present construction works are underway on the latest extension to the industrial estate along the new link road from Greenogue to the R120 and it is anticipated that the views of the proposed Ormonde facility will be almost entirely obscured in the near future.

During construction, impacts will be at their most significant and intense. This is primarily due to the additional of the new buildings and the general presence of large-scale site machinery. This will have a significant although relatively short-term impact.

Once construction is complete, the perceived impacts will reduce and the mitigation measures will progressively integrate into this location as they establish with time.

Overall, it is expected that there will be no great change to the visibility of the site as a whole and in the context of the rest of the industrial estate and therefore potential impacts on the general landscape character are expected to be low. New buildings will be finished with side walls and roofs sympathetic to the environment in terms of texture and colour.

Soils /Geology

The proposed development site is situated on the edge of the structural domain of the Dublin Basin, which comprises of Carboniferous rocks comprising limestones with occasional interbeds of shale. Mapping of the bedrock geology by the Geological Survey of Ireland (1995) shows that the Calp limestone underlies the site in the Greenogue Industrial Estate.

The overburden at the development is reported to be composed of glacial tills or related till derived luvisols and gleysols. Ground investigations undertaken by WYG near to the site have proven this till to comprise predominantly of clay though is usually either silty or sandy clay. Previous excavations in the vicinity of the site have shown that the overburden is less than 4m in thickness.

The redevelopment of the site and concreting of the currently hardcore covered yard to the rear will result in an overall improvement in the level of protection to the soils at the site.

The potential impacts during the construction phase of the proposed facility would include spillages and leaks of potentially polluting substances.

Mitigation measures recommended during construction include:

- All domestic effluent generated on site during construction will be discharged to the existing foul sewer. Where modifications are occurring to the foul water line, portaloes will be provided.
- All oils, chemicals, paints, fuels or other potentially polluting substances used during the construction phase will be stored in designated storage areas with containment measures.

Mitigation measures recommended during the operational phase include;

- All potentially polluting substances will be stored in secured designated areas with containment measures

- All fuels will be stored in appropriately bunded areas
- The integrity and enclosed nature of the proposed waste intakes and process area will ensure the containment of any potential spillages or leaks

Hydrogeology

The site is underlain by rocks of the Calp Formation. These rocks predominantly consist of basinal units of fine grained argillaceous limestone and shales and are generally considered unproductive. High yielding wells do occur in the Calp but it is interpreted that where this is the case it is primarily due to the presence of substantial faults, fractures or fissures.

Site investigation records from developments elsewhere in the Greenogue area have indicated between 1.5 and 3.3m of tills with limestone clasts which would indicate a potential vulnerability rating of extreme.

However the proposed facility has been designed for full containment of run off or spillages. All surfaces will be concreted and all run off/potential spillages directed to foul and storm drains via silt traps, interceptors and attenuation as appropriate. Therefore there is little or no potential for contamination of the underlying aquifer from the proposed development.

Surface Water

The site is situated in the River Griffeen/Liffey catchments, which would suggest that the predominant regional groundwater flow direction in the area is towards the east. On a local scale a tributary of the Griffeen River, the River Griffin

flows towards the north of Greenogue industrial estate.

The potential impacts of the development on the surface water environment are limited as the surface water bodies in the immediate environs of the site are culverted.

The proposed surface water drainage system on site has been designed to deal with any precipitation falling on site, even during flood events. Surface water runoff from all hard standing areas at the facility will be directed to the surface water collection system, through a silt separator and class 1 klargester petrol interceptor and then discharged via storm water attenuation to the main storm sewer along the western boundary of the site.

Roof drainage from buildings will also be drained via silt trap and interceptor prior to the 166m³ storm water attenuation tank, and into the storm water drainage system. The storm water attenuation tank has been conservatively designed to handle all storm events up to a 100 year flood event. Flow from the attenuation tank will be restricted to 2 litres per sec.

Potential impacts as a result of the proposed development could include run-off from bare earth surfaces during construction phase as well as spillages/leaks from the process creating hydrocarbon or other contaminated waters. Fire fighting water runoff also has the potential to impact in the event of a fire.

The following mitigation measures will be implemented at the site during the construction phase:

- All surface run-off from the site will be drained to the existing surface water drainage network via silt trap interceptor and attenuation

- All oils/fuels or other hazardous substances stored on site will be stored in bunds
- Sewage or effluent from site uses will be directed to the existing foul water drainage system. Where modifications are occurring to the foul drainage system portals will be provided.

The following mitigation measures will be implemented during the operation phase:

- Surface water run-off from all hard standing areas including roofs will be collected into the surface water drainage system and attenuated. A storm water attenuation lagoon with a capacity 166m³ and a restricted outflow of 2 litres/second
- All oils or other hazardous substances will be stored in tanks located in bunds.
- An emergency response procedure will be implemented in the unlikely event of a large scale leakage or spillage on site. This will include immediate containment procedures, contacting relevant authorities and employing specialist consultants to remediate the spill
- Unloading and processing of the wastes will be undertaken internally under a roofed area.
- Any firewater generated by a fire event will be contained within the bunding built into site buildings or by the low kerbing around the site perimeter. Once any potential fire has been dealt with firewater can be pumped to temporary storage or directly to tankers for disposal.

Ecology

The proposed site is not covered by any ecological designation and no protected species

were recorded at the site. A review of the National Parks and Wildlife Service database (www.heritagedata.ie), revealed that six Natural Heritage Areas (NHAs), one Special Protection Area (SPA) and one Scientific Area of Conservation (SAC) are found within a 10km radius of the Greenogue site but not within 4.5km. Based on the results of the desktop study prepared for the EIS, the site at Greenogue is of extremely low ecological value

As the proposed development will be undertaken within an area which has previously been developed the potential impact on the local flora and fauna is low although may result in general disturbance and loss of habitat to common species

The following mitigation measures are recommended:

- Construction should follow best practice and water pollution control measures such as Masters-Williams *et al.* (2001).
- Only uncontaminated surface water should be discharged, as the adjacent lands form the catchment of the salmonid Griffin River system.
- All effluents, grey water and truck washes should discharge to foul sewer.
- Excavation and removal of soil for construction or landscape works should use best practice and systems should be put in place to prevent silt or other debris entering drainage ditches.
- Mitigation measures will be put in place to reduce the movement of dust associated with the site works to adjacent habitats.
- All surface waters from the site and access road is to be restricted to pre-development rates and should be channelled through adequately sized petrol/oil interceptors and be subject to attenuation prior to discharge.
- All waste oil, empty oil containers and other hazardous wastes are disposed of in conjunction with the requirements of the Waste Management Act 1996.
- Native trees and shrub species should be incorporated into any landscape plan following species identified on site during the baseline survey.

Air

An extensive ambient air quality baseline assessment was conducted at the site. Air emissions from the proposed plant have the potential to interact with both human beings and ecological habitats. However, emissions are predicted to comply with all standards and guidelines and therefore will have no adverse impact on either human beings or habitats. There is a potential risk of negative impact on human beings and habitats from dust generation during the construction phase. However, the implementation of a stringent and comprehensive mitigation measures will ensure that any impact will be minimised.

All emissions from the operational phase of the development were assessed using air dispersion modelling techniques. The results for all parameters modelled were below air quality standards and relevant criteria.

The primary sources of emissions from the site are from the on site boiler and air extraction systems from buildings. Minor sources included fugitive emissions from the waste intake balancing tanks.

Stringent mitigation measures will minimise these emissions and avoid any impact on the receiving environment including.

- Implementation of a regular and documented maintenance and inspection programme for all plant equipment
- On-site good house keeping and raw material handling practices will be stringently controlled through agreed protocols
- Preparation of an odour management plan to ensure odour emissions are minimized
- Regular internal and external odour patrols
- Scrubbing units (charcoal or other appropriate abatement) will be installed on all 3 balancing tanks to remove odorous or organic emissions
- The process will be fully contained, well ventilated and each intake tank will be sealed
- All buildings will be completely enclosed with high speed roller shutter doors to prevent fugitive releases to atmosphere
- Air will be extracted at a rate of 4 air changes per day
- If required, following delivery vehicles will be washed in the wash bay to remove any residual waste material

Climate

The climate of the area was assessed using the meteorological measurements collected by the National Meteorological Service from the nearby station at Casement Aerodrome. This noted that the annual average wind speed in this area is 5.66 m/s and the annual average rate of precipitation in this area is 711.4mm over the period from 1968- 1996. Air temperatures ranged from a mean daily minimum of 4.9 in

January to a mean daily maximum of 15.2°C in July.

The main potential impacts on climate during construction will arise from site traffic entering and leaving the site and machinery in use on-site. However, levels of these gases will be extremely low and therefore the impact on climate will not be significant. Mitigation measures will be implemented to ensure emissions are minimised. There will be no ozone depleting substances used or emitted during the construction or operational phase of the project.

Impacts from the operational phase will arise from emissions of CO₂, SO₂ and NO_x from the boiler running on gas or fuel oil and traffic. To minimise their impacts the following mitigation measures will be implemented;

- Emissions of CO₂, NO_x, SO₂ from the boiler emission point will be controlled by regulatory emission limits
- Advanced technology and process abatement will ensure emissions of CO₂, NO_x, SO₂ are minimised and monitored
- All personnel entering/leaving the proposed facility will be advised of the site speed limits and requested to comply.

Noise

A comprehensive quantitative assessment of the potential noise impacts resulting from the construction and operation of the proposed development has shown that no adverse impacts resulting will occur as a result of the proposed development. Mitigation measures recommended during the construction phase include;

- Working hours during site development and construction will be restricted as outlined in previous sections.
 - Where practicable the use of quiet working methods will be selected and the most suitable plant will be selected for each activity, having due regard to the need for noise control.
 - All contractors will employ the best practicable means to minimise noise emissions and will be obliged to comply with the general recommendations of BS 5228, 1997. To this end all contractors will use "noise reduced" plant and/or will modify their construction methods so that noisy plant is unnecessary.
 - Where possible, position potentially noisy plant or operations as far as possible from a NSR to minimise the transmission of sound. Similarly, where practicable, all machines and/or noisy equipment will be positioned so that the quietest side faces the NSR.
 - All mechanical plant used on site will be fitted with effective exhaust silencers and will be maintained in good working order. Where practicable, machines will be operated at low speeds and will be shut down when not in use.
 - Where practicable the number of machines in simultaneous operation will be minimised.
 - Plant and machinery used on-site will comply with the EC (Construction Plant and Equipment) Permissible, Noise Levels Regulations
 - Machines in intermittent use shall be shut down in the intervening period between works or throttled down to a minimum
 - Where particular 'noisy' work is expected to occur, these will be scheduled between the hours of 8.00 – 18.00. Enclosures to usually noisy activities will be provided where these works cannot be scheduled for the hours 8.00 – 18.00
 - It is also recommended that periodic noise monitoring be undertaken during the initial construction phase to determine levels at noise sensitive receptors, in particular during 'noisy' activities. If the community noise exposure levels are exceeded further mitigation measures will be employed including temporary enclosures or screens around particularly 'noisy' plant.
 - Cognisance will also be taken from the 'Environmental good practice site guide' 2005 compiled by CIRIA and the UK Environment Agency. This guide provides useful and practical information regarding the control of noise emissions at construction sites
- Mitigation measures recommended during the operational phase include;
- The interior plant layout and design, where possible will be constructed to minimise noise output from plant machinery. The walls of the production building will be acoustically cladded with Tegral Insulated Panels to reduce noise levels
 - Machines in intermittent use shall be shut down in the intervening period between works or throttled down to a minimum
 - A regular maintenance programme will be implemented for all plant items to ensure they are operating effectively

- All vehicle engines will be switched off when not in use.

Traffic

The site is located to the north of the R120 which links Greenogue Industrial Estate with the N/M7. The N/M7 is a major route composed of both motorway and national primary route elements from Dublin to the Mid-lands and the south-west of the country including Limerick, Kilkenny, and Cork. Greenogue Industrial Estate presently exits on to a roundabout junction with the R120 which terminates at its interchange with the N7. A road network consisting of regional roads and lower class roads expands between the N7 and the N4 in the locality surrounding the proposed site.

The existing traffic environment on the R120 and at the site access noted the following:

The traffic flows on the R120 illustrated that its busiest times correlate with the typical commuter morning and evening peak periods. Traffic in the morning peak predominantly travels in a southeast direction towards the N7 and Rathcoole. This pattern is reversed in the evening. The annual average daily traffic for the R120 was extrapolated based upon existing data to approximately 14,404.

It is considered that the total level of traffic generated by the proposed development <0.27% of the projected AADT is low in the context of the traffic using the local road network.

A new link road is presently being constructed directly to the south of the access to OOLs proposed facility. This will provide easy access for vehicles using the site to the R120 and N/M7. Based upon the traffic assessment presented in the EIS, there will be no

requirement for any works to the existing access or upgrades to the local road network to accommodate the proposed development.

Cultural Heritage

There are no known archaeological sites of interest on or in the immediate vicinity of the site. There are records of several archaeological sites within 1-2.5km of the site including Enclosures, Ring Forts, Burial sites, Field systems and a village site at Rathcoole.

The proposed development area will be contained within the existing site boundaries and will not include any significant ground disturbance or visual impact outside of the existing footprint.

Material Assets

The material assets assessment found that the site is currently serviced by existing electrical and public water main supply and has drainage systems on site for disposing of surface water run off and foul water effluent.

As part of the proposed development it is intended to upgrade the drainage system to accommodate the proposed process. Waste management on-site will be conducted in accordance with best practice to encourage waste minimisation and recycling on site. Non renewable construction materials will be sourced locally and all imported material that will be used on site will be from approved sources.

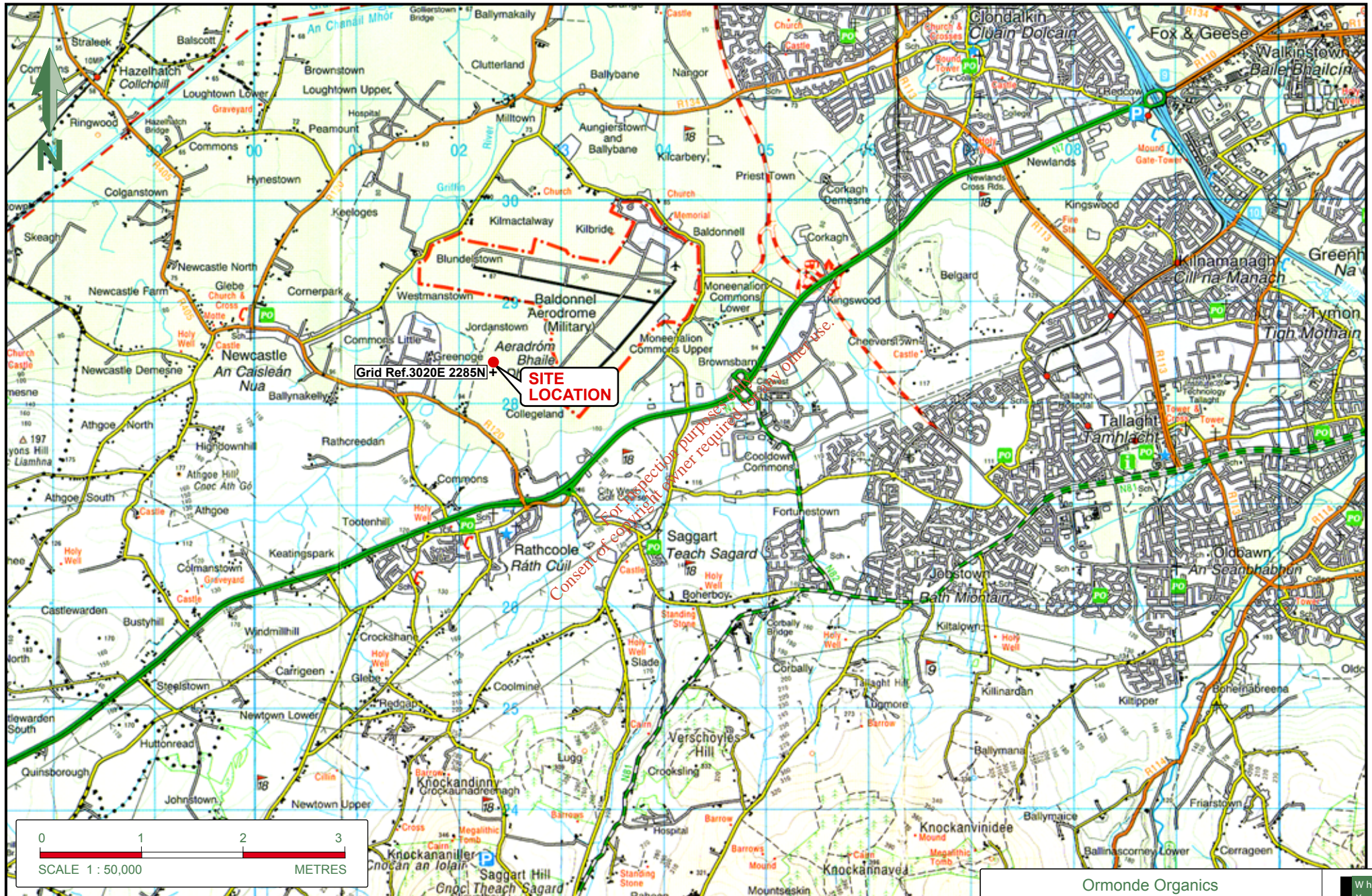
Overall it was concluded that there will be no significant negative impact on material assets.

CONCLUSION

The EIS concludes that provided the facility is operated in line with the mitigation measures

outlined in the respective sections of the EIS and under the control of an EPA licence, there will be no significant effect on the environment arising out of the proposed development of the Waste Recovery and Recycling Facility at Greenogue.

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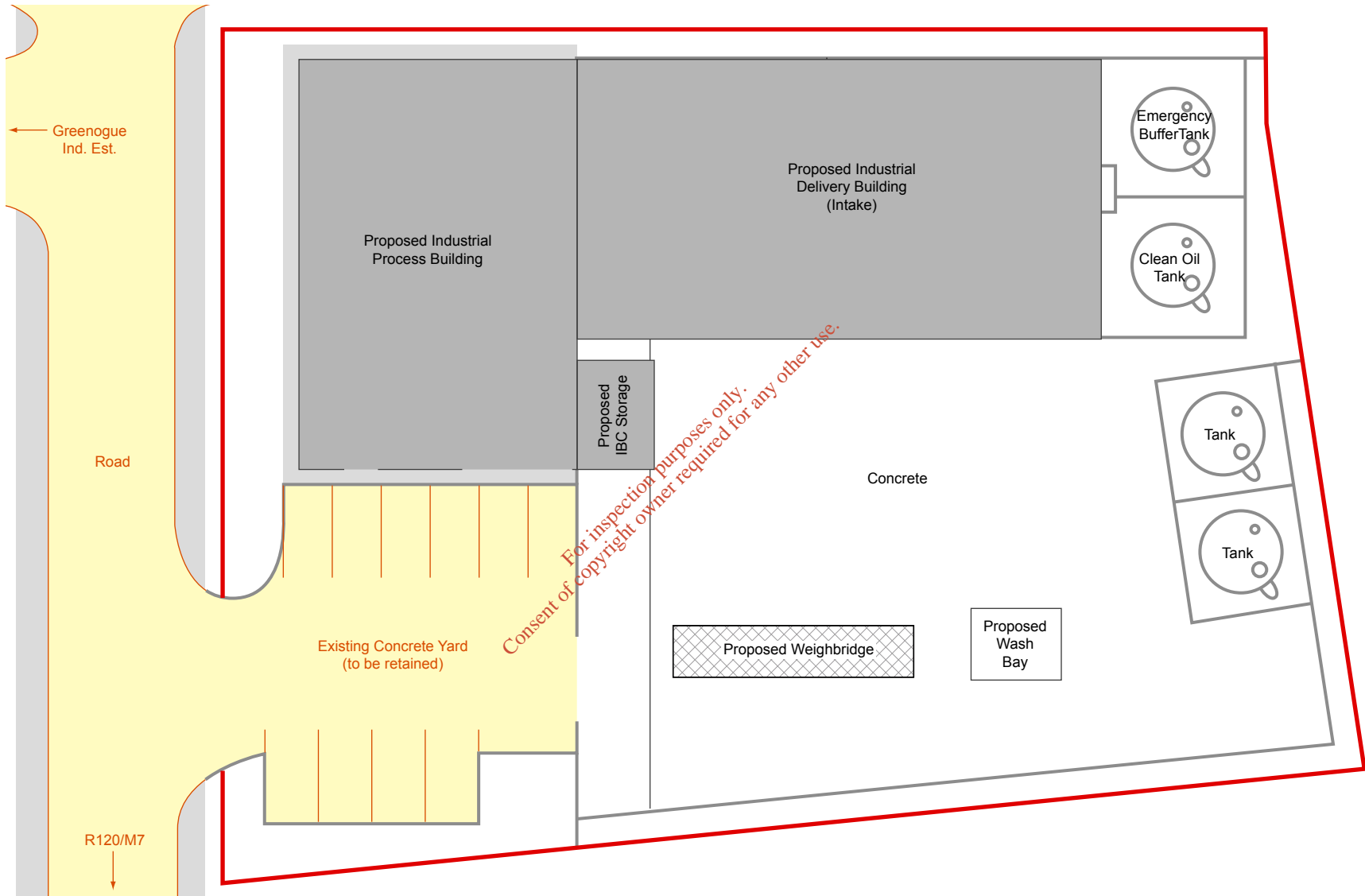


Ormonde Organics Site Location Map			
Figure No. B.2.2	Job No. CE05690	Date. June 2007	
Finalised By - NM			

NOTE: OSI Licence No. EN0004906

LEGEND

— Site Boundary (Fence)



Ormonde Organics Proposed Site Layout (NTS)			
Figure No. 2	Job No. CE05690	Date. June 2007	
			Finalised By - NM

NOTE: Drawing is for diagrammatic purposes only. No measurements to be taken.

ATTACHMENT A
NON-TECHNICAL SUMMARY

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Attachment A.1 - Non Technical Summary

As required by Article 12 (1) (u) of the Waste Management (licensing) Regulations, 2004 a non technical summary is provided below which contains information on the matters listed in articles 12(1) (a) to (t) of the regulations.

A.1 Nature of the Facility

This section relates to Article 12(1) (a to e)

This is the revised Non Technical Summary (NTS) of the Waste Licence Application for a proposed Waste Recovery & Recycling Facility at Unit 643 Greenogue Industrial Estate, Rathcoole Co Dublin (Grid Reference 3023E 2284N). The facility is being developed by Ormonde Organics Limited (OOL), Ballinalacken, Attanagh, Co. Kilkenny (Tel: 056 883 0300, Fax: 056 883 0310). The proposed facility is located in the functional area of South Dublin County Council who is also the relevant sanitary authority for the area.

The facility has been designed to process 45,000 tonnes of (mainly hazardous) hydrocarbon contaminated waste liquids including oily water, interceptor waste, waste oils, tank bottoms, bilge waste, drain cleaning waste, coolants, cutting fluids, fuel oils etc. Acids, alkalines, lime sludge leachate, process wash waters and solid wastes including filters, oily rags, lime sludge and batteries will also be processed. The facility will also be used for the short term storage of contaminated soils in quantities of 50-100 tons at any one time to a maximum of 1,000 tonnes per annum pending transfer to licensed treatment or disposal facilities.

The site presently comprises a warehouse with offices and hard standing yards located in industrial surroundings. The existing building has never been used for its previously permitted logistical use. A planning application and EIS have been submitted to the Planning Department of South Dublin County Council for the redevelopment of the existing site at Unit 643. It is proposed that the hazardous waste recovery and recycling facility will process 11,000 tonnes of wastes per annum initially, rising to 46,000 tonnes after three years. It is proposed that acceptance of contaminated soils will remain constant from year 1 at 1,000 tonnes per annum.

The proposed facility will be the only facility of its kind in Dublin which will process acids, alkalines, spent oil filters and recovers waste oils to a reusable standard. This proposal represents a higher level of treatment than that currently provided at the recycling and recovery providers in the Greater Dublin Region.

The development site (See Figure 1) is located in Greenogue Industrial Estate approximately 2km north of Rathcoole and 2km east of Newcastle in West Co Dublin.

The site measures approximately 0.41 hectares (ha) and its immediate environs are primarily industrial although Greenogue Industrial Estate is set within an agricultural setting between Rathcoole and Newcastle villages. The general topography in the immediate vicinity of the site is low-lying and generally flat at an elevation of approximately 90-100m O.D. The landscape rises sharply to the south of Rathcoole reaching local peaks in the order of 180-200m.

The subject site was granted planning permission in March 2006 (Reg. Ref. SD06A/0035), for a warehouse building and associated yard for the purposes of storage and transshipment of goods. However, although the building has been constructed, the premises have not been used for the permitted purpose.

The facility design, operation and management is fully described in Section 2 of the Main Text of the EIS that accompanies this Waste Licence Application, and on Figures and Drawings that are enclosed in Volume II of the EIS. Any correspondence in relation to this application should be addressed to Mr. Seamus Phelan, Ormonde Waste Ltd, Ballinalacken, Attanagh, Via Portlaoise, Co. Kilkenny.

A.2 Classes of Activity

This section relates to Article 12(1)(f)

In accordance with the Third and Fourth Schedules of the Waste Management Act, 1996 (WMA, 1996) the following classes of activity will be carried out on the site:

The principal activity carried out at the site, as specified in the Fourth Schedule to the Waste Management Act, 1996, is as follows:

"8. *Oil re-refining or other re-uses of oil.*"

Other activities carried out at the site, as specified in the Fourth Schedule to the Waste Management Act, 1996, are as follows:

"2. *Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes)*"

"3. *Recycling or reclamation of metals and metal compounds.*"

"4. *Recycling or reclamation of other inorganic materials.*"

"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.*"

The activities carried out at the site, as specified in the Third Schedule to the Waste Management Act, 1996, are as follows:

- "7. *Physico-chemical 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 5 or paragraphs 8 to 10 of this Schedule (including evaporation, drying and calcination).*"
- "11. *Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.*"
- "12. *Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.*"
- "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.*"

A.3 Quantity and Nature of the Waste to be Disposed

This section relates to Article 12(1)(g)

It is proposed that the maximum amount of waste processed at the facility will be 46,000 tonnes of waste per year. It is expected that this tonnage will be reached within 3 years of commencing operations at the facility. It is expected that approximately 11,000 tpa will be accepted in year 1, 29,000 tpa in year 2 and 46,000tpa in year 3.

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.

The European Waste Catalogue codes for the wastes to be treated at the facility are given in Table A.1 below. The specific codes are given and are derived from the general chapter codes as follows 13 (Oil wastes and wastes of liquid fuels), 16 (Wastes not otherwise specified in the list), 17 (C&D Wastes) and 19 (Wastes from waste management facilities).

Table A.1: Waste categories

EWG Code	Waste Classification	Description of Waste	Method of Recovery or Disposal
13 00 00, 05 01 05, 05 01 06	Oil wastes and liquids of liquid fuels	Waste hydraulic oils, emulsions, bilge oils, oily water and interceptor wastes	Decanting ,
16 07 08	Wastes containing oil	waste oily rags, waste oil filters	
16 01 07	Oil filters	Oil filters	polymer addition, flocculation and Dissolved Air Flotation (DAF)
17 05 03, 17 05 05, 17 05 07, 19 13 01, 19 13 03, 19 13 05	Contaminated soils	Contaminated soils	Storage prior to disposal
16 01 14, 16 01 15	Anti-freeze fluids	Coolant	polymer addition, flocculation and Dissolved Air Flotation (DAF)
16 10 00	Aqueous liquid wastes destined for off-site treatment	Acid/ Process waste	polymer addition, flocculation and Dissolved Air Flotation (DAF)
03 03 09, 04 01 02,	Lime wastes	Lime sludges	Polymer addition, flocculation and Dissolved Air Flotation (DAF),
05 01 04	Acid alkaline sludges	Waste acids / alkalines	Polymer addition, flocculation and Dissolved Air Flotation (DAF),

A.4 Raw and Ancillary Materials, Substances, Preparations used on the Site

This section relates to Article 12(1)(h)

The main raw materials used on site are diesel, mains water and electricity. Minor amounts of engine oil and hydraulic oil are used in the day-to-day operation of the facility. Some industrial detergents will be used for cleaning purposes. It is difficult to provide the quantities of these raw materials and substances that will be used in advance of the process. However, it is planned to maintain detailed records of their usage and provide exact figures to the regulatory authorities after three months and annually thereafter.

A.5 Plant Operating Procedures

This section relates to Article 12(1)(i)

The facility has been designed for operation from 08.00 to 18.00 hours Monday to Friday and half day 08.00-14.00 hours Saturdays. The proposed facility will provide direct employment for approximately 4-6 people during its operation with additional numbers employed indirectly.

Plant proposed at the facility include;

The main processing areas will comprise the following:

- **Factory (Process) Building**
 - Waste Oil Process Line
 - Oil Mixes Process Line
 - Acid Alkaline Process Line
 - Utilities
- **Tank Farm**
- **Industrial Storage Building**
- **Weighbridge**

The nature of the proposed activity requires an increase to the size of the existing building on site, which currently consists of approximately 479 sq m of warehouse floor space and 52 sq m of ancillary / office space. The increase is to primarily be in the form of two proposed extensions, as well as some additional ancillary floor space in the existing building.

The larger of these two extensions to the existing warehouse will measure some 36 m long, 18.9 m wide by 9.55 m high (650 sq m) into which deliveries of unprocessed waste (into 3 no. underground sumps) are to be made (prior to pumping into 3 no. above-ground storage tanks (tank farm), also contained within this building).

The second, smaller, extension is approximately 5.4 m long, 7.5 m wide by 8.4 m high (36 sq m), and is to be used for the short term storage of unprocessed waste in bulk containers and empty containers prior to removal off site. Both the proposed extensions are to match the existing building in external finish.

The additional ancillary floor space in the existing building will be in the form of a laboratory at first floor level (14 sq m). Internal modifications consisting of the provision of a kitchen (9 sq m), changing and wash room (13 sq m) and control room (15 sq m) at ground floor level will also be undertaken. The primary use of this building will be for the processing of the waste.

Four bunded storage tanks are proposed. These will measure approximately 4.4 m high with a 5.5 m circumference. A weighbridge and wash bay will also be installed. The layout of the proposed development is shown on Figure 2.

The current access will be retained in its current form to provide access to the site from the link road off the R120 which is under construction.

The proposed facility will be constructed on the existing site and the proposed concreting of the rear yard will be such as to meet the current ground level and maintain the existing run off.

The highest structure on site will be the flue from the boiler in the north western corner of the site at a height of 0.5m above the height of the main processing building. Additional buildings will be no higher than the existing building 9.55m high to the eaves.

The facility has been designed for operation from 08.00 to 18.00 hours Monday to Friday and half day 08.00-14.00 hours Saturdays. The proposed facility will provide direct employment for approximately 4-6 people during its operation with additional numbers employed indirectly.

Wastes accepted at the facility will be subject to prior analytical confirmation, so no special provision is required for reject materials arriving at the facility. An emergency buffer tank is available on site if this situation arose.

The facility will have three fully enclosed segregated intake units for Waste Oils, Oil Mixes and Acids/Alkaline and Process Wastes. Any contaminated soils accepted at the facility will be temporarily stored in covered skips within the main process building to await collection for disposal/treatment.

Wastes are delivered directly from vehicles and containers to the appropriate reception sump. Oils from engine filters are separately extracted in a filter handling sump after crushing of the filter with a standard filter crusher assembly with heating and oil removal facilities; this oil passes into the waste oil intake sump and is transferred forward for processing. Crushed filters are retained in a skip for bulking and periodic removal off-site.

Waste oils are initially passed via a fine screen to a de-emulsifier tank with temperature controlled steam heating. Steam is supplied by a dual fuel (gas-oil) boiler with nominal burner rating of 400 kW (640 kg/h) @ 10 Bar. Oil temperature is then increased to 80°C - 90°C resulting in emulsion breaking and separation. The liquid then passes forward in a two-phase decanter solids separation system followed by a polishing D-type mechanical clarifier unit to maximise water / oil separation. Both separation stages are complete with in-line polymer addition. Separated solids from the decanter are conveyed to a cake skip and separated solids from the clarifier are transferred to the oil mixes balancing tank for processing on this waste circuit. The clean separated oils are pumped to a clean oil holding tank for periodic tanker removal and further distilling / re-use off-site.

For oil mixes, three primary processes namely polymer addition, flocculation and Dissolved Air Flotation (DAF) are proposed for the removal of organics, solid and oils/fats/greases down to concentrations acceptable for disposal of residual waste waters to sewer in combination with the pre-treated acid wastewaters. The wastewater is clarified using dissolved air (at 5 bar pressure) and, on emission, the solids / scum is lifted to the surface and mechanically removed. The unit is fully roofed. Float sludge is taken to a sludge holding tank for periodic passage forward to dewatering by decanter and removal of

solids off site in conjunction with the waste oil solids cake. Effluent overflows from the DAF system via an outfall sewer to a monitoring / sampling chamber upstream of the mains sewer inlet. At this monitoring point flow, pH and temperature are monitored in-line and samples are taken for laboratory analysis. A valved connection is provided to a recycle pump sump, which will facilitate the recycling of unacceptable effluent to the emergency buffer tank for further processing.

Acid wastes are delivered to an intake sump and balancing tank in the same fashion as the oil streams. The tank is equipped with forward pumping via a twin-walled rising main to treatment. The pH will be corrected using Caustic Soda (NaOH) on modulating pH control in a two-stage series flow system. This will ensure that pH will be corrected to a nominal value of 7.0 but all times within the limiting range 6 - 9 for sewer discharge. In the event of unacceptable quality the effluent will be automatically diverted into the dump – recycle pump sump for recycle to the emergency buffer tank. The system will be fully automated and emergency / alarm conditions will be designed during the hazop study.

A.6 Information related to Section 40(4) (a) to (g) of the Act

This section relates to Article 12(1) (j)

A.6.1 Compliance with Emissions

Dust

There are no National or EU standards for dust deposition. By law the plant will be required to be in compliance with Air Pollution Act, 1987. The dust levels measured at the site were below the EPA recommendation of 350 mg/m²/day.

Odours

All emissions from the operational phase of the development were assessed using air dispersion modelling techniques. The results for all parameters modelled were below air quality standards and relevant criteria.

The primary sources of emissions from the site are from the on site boiler and air extraction systems from buildings. Minor sources included fugitive emissions from the waste intake balancing tanks. It is not anticipated that there will be any adverse impacts from odours at the facility.

There are no National or EU standards for odour emissions. In the event of receiving complaints from neighbouring premises with regard to odours, details will be taken on a complaint form and appropriate remedial action will be taken to reduce odour emissions and this action will have regard to the principles of BAT.

Noise

There are no legal limits currently in place for noise emissions from industry. The EPA have set day-time and nighttime guideline limits of LAeq of 55 dB(A) and 45 dB(A) respectively at sensitive locations at other waste management facilities that have been licensed. A comprehensive quantitative assessment of the potential noise impacts resulting from the construction and operation of the proposed development was conducted as part of the Environmental Impact Assessment. This assessment has shown that no adverse impacts will occur as a result of the proposed development.

Water

The risk to the groundwater posed by the activities at the site is considered insignificant and no groundwater monitoring is proposed.

The potential impacts of the development on the surface water environment are limited as the surface water bodies in the environs of the site are culverted.

The proposed surface water drainage system on site has been designed to deal with any precipitation falling on site, even during flood events. Surface water runoff from all hard standing areas at the facility will be directed to the surface water collection system, through a silt trap and class 1 klargester petrol interceptor and then discharged via a storm water attenuation tank to the main storm water sewer along the western boundary of the site.

Roof drainage from buildings will also be drained via silt trap and interceptor prior to the 166m³ storm water attenuation tank, and into the storm water drainage system. The storm water attenuation tank has been conservatively designed to handle all storm events up to a 100 year flood event. Flow from the attenuation tank will be restricted to 2 litres per sec.

Potential impacts as a result of the proposed development could include run-off from bare earth surfaces during construction phase as well as spillages/leaks from the process creating hydrocarbon or other contaminated waters. Fire fighting water runoff also has the potential to impact in the event of a fire. Mitigation measures are proposed to deal with these eventualities.

A.6.2 Environmental Pollution

The design and operating practices that ensures that environmental pollution is avoided are listed below.

Risk to Waters is avoided by:

- All surface run-off from the site will be drained to the existing surface water drainage network via silt trap interceptor and attenuation
- All oils/fuels or other hazardous substances stored on site will be stored in bunds

- Sewage or effluent from site uses will be directed to the existing foul water drainage system. Where modifications are occurring to the foul drainage system (e.g. during construction phase) portaloos will be provided.
- Surface water run-off from all hard standing areas including roofs will be collected into the surface water drainage system and attenuated. A storm water attenuation lagoon with a capacity 166m³ and a restricted outflow of 2 litres/second
- All fuel oils or other hazardous substances will be stored in tanks located in bunds.
- An emergency response procedure will be implemented in the unlikely event of a large scale leakage or spillage on site. This will include immediate containment procedures, contacting relevant authorities and employing specialist consultants to remediate the spill
- Unloading and processing of the wastes will be undertaken internally under a roofed area.
- Any firewater generated by a fire event will be contained within the bunding built into site buildings or by the low kerbing around the site perimeter. Once any potential fire has been dealt with firewater can be pumped to temporary storage or directly to tankers for disposal.
- The site is covered with a concrete slab and therefore there will be no direct discharges to groundwater.

Risk to the Atmosphere is avoided by:

- Implementation of a regular and documented maintenance and inspection programme for all plant equipment
- On-site good house keeping and raw material handling practices will be stringently controlled through agreed protocols
- Preparation of an odour management plan to ensure odour emissions are minimized
- Regular internal and external odour patrols
- Scrubbing units (charcoal or other appropriate abatement) will be installed on all 3 balancing tanks to remove odorous or organic emissions
- The process will be fully contained, well ventilated and each intake tank will be sealed
- All buildings will be completely enclosed with high speed roller shutter doors to prevent fugitive releases to atmosphere
- Air will be extracted at a rate of 4 air changes per day
- If required following delivery, vehicles will be washed in the wash bay to remove any residual waste material

Risk to Land, Soil, Plants or Animals is avoided by:

- All effluents, grey water and truck washes will discharge to foul sewer.
- All waste oil, empty oil containers and other hazardous wastes are disposed of in conjunction with the requirements of the Waste Management Act 1996.
- Risk to land and soil beneath the site is avoided by the same controls that avoid risk to Waters as described above.
- Risk to plants and animals are avoided by location of the development removed from areas of special ecological importance. The flora and fauna in the vicinity of the site are not considered sensitive to the site activities.

Nuisance through Noise, Odours or Litter is avoided by:

- All wastes will be handled inside a contained building and all vehicles carrying wastes to the site will be covered.
- Daily litter patrols will be carried out at the site.

These pollution control measures will also have the effect of reducing the nuisance of dust emissions from the site.

Adverse effects on the country side or places of interest are avoided by:

- Operating the site with adequate environmental controls.
- The facility is located in an industrial estate at a remove from the countryside and any places of interest.

The activity concerned does not entail the landfill of waste.

A.6.3 - Best Available Technology

With respect to Ormonde Organics Ltd (OOL), the principle of employing BAT will be applied in respect to emissions as follows.

OOL will employ modern management practices and commit financial resources in order to control all nuisance emissions and ensure protection of the environment.

The company intend to purchase and install state of the art recovery plant and equipment at the newly constructed facility. The equipment will include a fully enclosed systems from unloading the tankers with waste liquids, right through processing to final export of recovered wastes or treated effluent disposal.

Abatement systems will include the design of the overall buildings, structures and plant, carbon filters on the reception tanks, an air handling system for the processing building, rapid action open/close doors, silt traps, oil interceptors, stormwater attenuation tank, bunded tanks among others.

Specialist consultants will be retained as required to monitor potential nuisances and emissions and all relevant environmental media as may be set out by the EPA. The consultants will inform the company on a regular basis of improvements in pollution abatement or other relevant technology. The costs of the facility and adhering to the modern management practices will be paid for out of OOI's annual revenues.

The proposed recovery activity is consistent with the policies, aspirations and objectives of the Waste Management Plan for the Dublin region.

A.6.4 Fit and Proper Person

The applicants are fit and proper persons to hold and operate a waste licence. As stated in Section L.2, no employee of Ormonde Organics Ltd. has been convicted of an offence under the Waste Management Act 1996 or other prescribed acts under this section.

As outlined in Section L.2, the management team at Ormonde Organics Ltd. have abundant experience in this area. The general managers will be responsible for environmental aspects of the operation and compliance with the waste licence. They will be assisted by an environmental technician.

A.6.5 Financial Provision

Financial commitments may be required to cover decommissioning, aftercare management and environmental pollution. The Company's sound financial position and its ability to cover the cost of environmental issues at the site are outlined in Section L.2.

A.6.6 Energy Usage

Energy will be used efficiently at the facility. It is proposed to carry out an energy audit after the site is fully operational and this will help in controlling energy usage at the site.

A.6.7 Noise Emissions

Noise emissions from the facility will comply with all noise regulations under section 106 of the Act of 1992.

A.7 Emissions

This section relates to Article 12(1)(k)

The potential emissions from the facility are divided into emissions to air, groundwater, surface water and noise emissions.

Emissions to Air

The main potential emissions from the operation of the facility are odours from the main process building and oxides of nitrogen, nitrogen dioxide and carbon dioxide from the boiler. See Section 10 of the EIS for further details and mitigation measures.

Emissions to Groundwater

There are no foreseen emissions to ground water from the operation of the facility. See Section 7.6 of the EIS for further details.

Emissions to Surface Water

The proposed storm water drainage system on site will be designed to deal with any precipitation falling on site, even during flood events. Surface water runoff from all hardstanding areas at the facility will be directed to the surface water collection system, through a silt trap and class 1 klargester petrol interceptor and then discharged via storm water attenuation to the main storm sewer along the western boundary of the site.

Roof drainage from buildings will also be drained via silt trap and interceptor prior to the 166m³ storm water attenuation tank, and into the storm water drainage system. The storm water attenuation tank has been conservatively designed to handle all storm events up a 100 year flood event. Flow from the attenuation tank will be restricted to 2 litres per sec. See Section 8 of the EIS for further details.

Foul water from the staff facilities at the site (washrooms, canteen) will be discharged to the main foul sewer servicing the industrial estate. Treated effluents from the main processing streams will be monitored with in line pH and temperature control prior to discharge to the main foul sewer.

Noise Emissions

The production process will be the main noise contributing source from the internal area of the process. Other contributors will include boilers, pumps and noise generated from the production process itself. These sources are in enclosed buildings and their doors will be opened only to permit access and deliveries. There are also rapid roller shutter doors which close immediately after any lorries exit the building. As such, there will be little potential to give rise to any significant noise impact at noise sensitive receptors.

A.8 Assessment of the Effects of Emissions on the Environment

This section relates to Article 12(1)(l)

The EIS describes the potential impacts, mitigation measures and likely significant effects on the environment from the site activities including activity related emissions. This concludes that the proposed development at the site will not impact significantly on the environment. The main reasons for there being little or no impact from the development include the following (briefly): The relatively small scale of activity; the location of the activity (i.e. in an industrial estate and not close to any large residential or other environmentally sensitive area; site containment i.e. all activities on site will be carried out inside a completely contained building thus significantly reducing potential impacts on visual amenity, noise, dust, water quality etc.; the many mitigation measures included in the design to reduce emissions and potential impacts on the environment and many more. The proposed development has been designed and engineered with many mitigation measures in place to eliminate or reduce potential impacts on the environment and this is reflected in the conclusions of the EIS. It is considered that given these circumstances and in particular the location (industrial area removed from residential areas) and design of the facility that there will be no significant impact on the environment. Abatement equipment and mitigation measures are outlined in earlier sections of this non technical summary (A.6 and A.7 above).

A.9 Monitoring and Sampling Points

This section relates to Article 12(1)(m)

The proposed monitoring programme is as follows:

Air Quality (Boiler Emissions)	-annually
Dust	-three times a year (twice in summer and once in winter)
Noise	-annually
Surface Water Discharge	-quarterly
Foul Water Discharge	-quarterly and continuous for relevant control parameters.

It is suggested that the monitoring locations will be designated by the EPA in the waste licence should it be granted.

A.10 Site Generated Wastes

This section relates to Article 12(1) (n)

Wastes generated by the activity itself will be minimised. The company will prevent the generation of wastes by ordering supplies in bulk to reduce packaging, by not over-ordering and using take back schemes where applicable. The facility itself will provide separate receptacles for the segregation of any wastes produced on site. All residual wastes that cannot be recycled will be disposed of at licensed landfill sites.

A.11 Off-site Treatment or Disposal of Wastes

This section relates to Article 12(1) (o)

Wastes treated at the facility will consist in the main of oily waters, acid/alkaline process waters, oil filters, and oily rags. These will be processed to produce oils for further refining and metals for metal recycling. The acid alkaline process waters will be pH adjusted. The process will generate wastes and effluent. The wastes will be exported off site for treatment and/or disposal at appropriately licensed facilities. The treated effluent will be discharged to the foul sewer under conditions to be stipulated in the waste licence if granted. Contaminated soils will be periodically stored to a maximum of 100 tonnes at any one time at the facility in covered skips. These will be transported to suitably licensed facilities for treatment and/or disposal.

A.12 Emergency Procedures to prevent Unexpected Emissions

This section relates to Article 12(1)(p)

An emergency response procedure (ERP) has been formulated for the facility and this will be followed in the unlikely event of any unexpected spills, leaks or emissions. The ERP details the procedures to be followed and includes shutting down the emission point if possible, provision and utilisation of oil spill kits, containing the emission, notification of management and relevant bodies and remediation of spills/leaks should they occur among others. In addition, shut off valves will be installed on both the storm drainage system and the foul water system so that all liquid emissions can be isolated and controlled on site.

A.13 Closure, Restoration and Aftercare of the Site**This section relates to article 12(l)(q)**

Operations at the facility are ongoing with an open ended life span and to date a closure plan has not been developed. In the event of the closure of the facility a detailed closure plan will be developed with the agreement of the Agency. The plan will include for the removal of all waste materials, raw materials, products and effluents, emptying and cleaning of all plant, equipment, the building floors and yards, removal and dismantling of all plant and equipment (if not sold on to a prospective buyer) and the carrying out of a detailed monitoring programme to certify that all emissions from the plant have ceased.

A.14 In the case of an application for the Landfilling of waste**This section relates to article 12(l)(r)**

This application does not relate to the landfilling of waste

A.15 Control of Major Accident Hazards Involving Dangerous Substances Regulations**This section relates to article 12(l)(s)**

The European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2000 (S.I. No. 476 of 2000) do not apply to this activity.

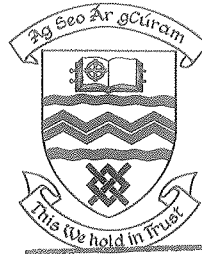
A.16 Activities giving rise to an emission to an aquifer of List I or List II substances**This section relates to article 12(l) (t)**

The site is designed as a fully contained site with concrete base, lower concrete walls in the building and all activities will be carried out inside the building. In addition, all storage and treatment processes are in bunded tanks and fully enclosed pipe/treatment systems. The activity will not give rise to the emission of any contaminants including List I and List II substances and there will be no direct or indirect discharges to an aquifer.

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On-line: www.southdublin.ie



Tom Phillips & Associates Ltd.

Rec'd: 11 OCT 2007

Action:

Project:

Tom Phillips & Associates
The Chancery
3-10 Chancery Lane
Dublin 8.

NOTIFICATION TO GRANT PERMISSION
PLANNING & DEVELOPMENT ACT, 2000 AND PLANNING REGULATIONS
THEREUNDER

Final Grant Order No.:	2295	Date of Final Grant:	10-Oct-2007
Decision Order No.:	1973	Date of Decision:	29-Aug-2007
Register Reference:	SD07A/0528	Date:	05-Jul-2007

Applicant:

Development:

Ormonde Organics Limited

Amend a previously permitted scheme (SD06A/0035) on this site of approx. 0.41 ha. (the original permission permits a warehouse building [530sqm] with yard for the purposes of storage/transhipment of goods associated with the warehouse use). Development now proposed consists of a waste recycling and recovery facility for the processing of up to 45,000 tonnes of waste per annum, consisting of three waste streams namely: Hydrocarbon Contaminated Waste (including interceptor waste, oily water, waste oil, coolants, cutting fluids, fuel oils and tank bottoms); Process/Industrial Wastes (including drain cleaning waste, acid/alkaline waste, neutralized waste, lime sludge leachate, process wash waters and bilge waste) and oil-contaminated solid materials (including spent oil filters and oily rags). It is also proposed that the facility be used for the short term storage of contaminated soils in skips and bulk bags at quantities not exceeding 1,000 tonnes per annum. The proposed development also consists of the completion of the concreting and bunding of the existing yards (which are partially already concreted and bunded) for purposes associated with the Waste Recycling and Recovering Facility; the provision of 4 no. external bunded storage tanks; internal alterations to provide for a kitchen (9sqm), changing and wash room (13sqm) and control room (15sqm) at ground floor level and the addition of a laboratory at first floor level (14sqm) in the existing building giving a total floor area of 565sqm (including stair cores and circulation space)

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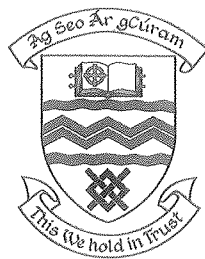
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which is now to be used primarily for the processing and treatment of waste; 2 no. separate extensions to the east of the existing building, the first being approx. 36m long, 18.9m wide by 9.55m high (650sqm), into which deliveries of unprocessed waste (into 3 no. underground sumps) are to be made (prior to pumping into 3 no. above-ground storage tanks), and the second extension being approx. 5.4m long, 7.5m wide by 8.4m high (36sqm), to be used for the short term storage of unprocessed waste in bulk containers and empty containers prior to removal off site. Both the proposed extensions are to match the existing building in external finish. The development also includes the provision of 1 no. weighbridge; 1 no. wash bay; 11 no. car parking spaces; modifications to the existing surface and foul drainage; landscaping; the demolition of 7.25m of existing rendered block wall for the purposes of widening an internal entrance within the site, and all other necessary site development and excavation works above and below ground. The application relates to development which comprises and is for the purposes of an activity requiring a waste license in accordance with the Waste Management Act, 1996. An Environmental Impact Statement (EIS) will be submitted to the planning Authority with the application.

Location: Site 643, Greenogue Industrial Estate, Rathcoole, Co. Dublin

Time extension(s) up to and including

Additional Information Requested/Received 13-Jul-2007, / 20-Jul-2007, 17-Jul-2007

A Permission has been granted for the development described above, subject to the following (19) conditions.

Conditions and Reasons:

1. The development shall be carried out in its entirety in accordance with the plans, particulars and specifications lodged with the application, save as may be required by the other conditions attached hereto.

REASON: To ensure that the development shall be in accordance with the permission, and that effective control be maintained.

2. The proposed waste recycling and recovery facility shall operate in full accordance with the

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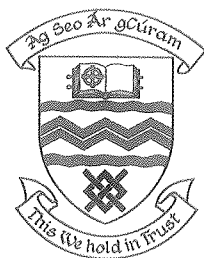
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requirements of the EPA licence.

REASON: In order to comply with the requirements of the Environmental Protection Agency.

3. All mitigation measures detailed in the Environmental Impact Statement to protect the surrounding environment shall be implemented in full and strictly adhered to in the proposed development.

REASON: To prevent the pollution of water courses and in the interests of proper planning and sustainable development

4. (a) All waste handling activities shall be carried on indoors.
(b) There shall be no outdoor storage of materials. The outdoor storage of contaminated soils is not permitted.
(c) No more than 45,000 tonnes of waste per annum shall be processed without prior grant of permission from the Planning Authority or An Bord Pleanála on appeal.
(d) The quantity of materials listed under the SEVESO II Directive (European Council Directive 96/82/EC and as amended by 2003/105/EC) that are stored on site must not exceed the threshold levels at which the Directive would become applicable.

REASON: In the interests of pollution control and visual amenity.

5. a) The water supply and drainage infrastructure, including the disposal of surface water, shall comply with the technical requirements of the Planning Authority.
b) There shall be full and complete separation of foul and surface water systems.
c) Prior to the commencement of development foul water drainage and surface water drainage details and all water drawings shall be agreed with the Planning Authority and South Dublin County Council Area Engineer, Deansrath Depot (Ph 01-4138500).
d) All drainage works for this development shall comply with the Greater Dublin Regional Code of Practice for Drainage Works which can be viewed/downloaded from <http://environment.southdublin.ie> (click-publications then specifications).

REASON: In the interests of public health and in order to ensure adequate drainage provision.

6. a) There shall be no discharge of trade effluent to sewer without a licence under Section 16 of the Water Pollution Acts 1977 - 1990 from the Environmental Services Department of South Dublin County Council
b) A suitable flow recorder on the foul sewer outfall from the site together with a rain gauge shall be installed and maintained. Prior to the commencement of development, details of this shall be submitted for written agreement of the Planning Authority.
c) All wastewater from kitchens shall be routed via an appropriate grease trap or grease removal system before being discharged to the public sewer. Full details of this system shall be submitted for the approval of the Planning Authority prior to the commencement of development.

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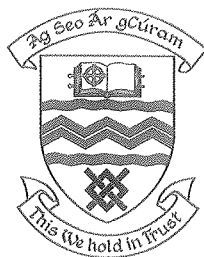
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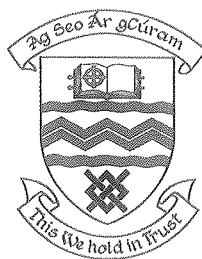
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- d) A Class II petrol/oil separator shall be fitted on the foul drainage system before discharge to public foul sewer
REASON: In the interests of public health and in order to ensure adequate drainage provision.
7. a) All surface water runoff from premises, including truck parking shall be routed via silt trap and oil/petrol/diesel full retention separators to prevent accidental spillages of oils, greases, solvents or other contaminated matter entering the surface water drainage system.
b) The site shall be designed and maintained so as to minimise the contamination of surface water run-off.
c) The process building shall be constructed with bund walls to allow for full containment of accidental spillage of oil and other polluting liquids.
d) The above-ground storage tanks shall be contained within approved bunds capable of containing at least 110% of the volume of the largest drum/tank within the bund.
e) Prior to commencement of the development, details of flow control mechanisms and a cross-section of the storm water storage area showing details of both inlets and outlets shall be submitted for written agreement of the Planning Authority. Details shall also indicate how surface water attenuation facilities shall be kept free from siltation and cleaned.
REASON: In the interests of public health and in order to ensure adequate drainage provision.
8. The water mains supplying the development shall be a minimum 150mm diameter. A revised water mains layout showing compliance with this requirement shall be submitted prior to commencement of development.
Reason: in the interests of proper planning and development
9. Finished floor levels shall be at least 500mm above highest known flood levels.
REASON: In the interests of public health and in the interest of the proper planning and sustainable development of the area.
10. Prior to commencement of development the developer of these lands shall ascertain the technical requirements of the Environmental Health Officer.
REASON: In the interests of public health.
11. The development shall be operated so that there shall be no emission of malodours, fumes, gas, dust or other deleterious materials, no industrial effluent and no noise vibration or electrical interference generated on site such as would give reasonable cause for annoyance to any resident or public place in the vicinity of the site.
REASON: In the interests of public health and proper planning and sustainable development.
12. During the operation of waste transfer facility, Best Practicable Means shall be employed to minimise air blown dust being emitted from the site. This shall include covering of vehicles delivering material with dust potential with tarpaulin or similar to restrict the escape of dust,

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and any other precautions necessary to prevent dust nuisances.

REASON: To contain dust arising from the site in the interests of public health, to prevent the pollution of the Griffeen River and to prevent nuisance being caused to occupiers of buildings in the vicinity.

13. (a) Clearly audible and impulsive tones at noise sensitive locations during evening and night shall be avoided irrespective of the noise level.

(b) Noise due to the normal operation of the proposed development, expressed as Laeq over 1 hour at the façade of a noise sensitive location, shall not exceed the daytime background level by more than 10dB(A).

REASON: In the interests of public health and proper planning and sustainable development.

14. External lighting system shall be designed to minimise potential light pollution from glare and light spillage.

REASON: in the interests of road safety and visual amenity.

15. Sheltered and secure cycle parking facilities shall be provided within the curtilage of the site.

REASON: To promote sustainable forms of transport.

16. No advertising sign(s) or structure(s) shall be erected except those, which are exempted development, without the prior approval of the Planning Authority or An Bord Pleanala on appeal.

REASON: In the interest of the proper planning and development of the area.

17. (a) Suitable facilities for vehicle cleansing and wheel washing shall be provided on site prior to commencement of proposed development.

(b) Adequate on-site car parking facilities shall be made available for site workers during the course of construction.

REASON: In the interest of the amenity, safety and maintenance of adjoining roads and footpaths.

18. All necessary measures shall be taken by the contractor to prevent the spillage or deposit of clay, rubble or other debris on adjoining roads during the course of the works.

REASON: To protect the amenities of the area.

19. The developer shall pay the sum of €59,186.52 (fifty nine thousand one hundred and eight six euro and fifty two cent) (updated to the appropriate rate at the date of commencement of development in accordance with changes in the Tender Price Index) to South Dublin County Council as a contribution towards expenditure in respect of public infrastructure and facilities benefiting development in the area of the planning authority and that is provided, or that it is intended will be provided, by or on behalf of the County Council as provided for in the Contribution Scheme for the County made by the Council. This contribution to be paid before

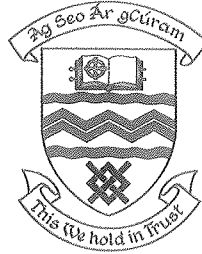
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the commencement of development on the site.

REASON: The provision of such facilities will facilitate the proposed development. It is considered reasonable that the payment of a contribution be required, in respect of public infrastructure and facilities benefiting development in the area of the planning authority and that is provided, or that is intended will be provided, by or on behalf of the Local Authority.

Note 1: The applicant is advised that under the provisions of Section 34 (13) of the Planning and Development Act 2000 a person shall not be entitled solely by reason of a permission to carry out any development.

- (1) All buildings must be designed and constructed in accordance with the Building Regulations 1997.
- (2) Building Control Regulations require a Commencement Notice. A copy of the Commencement Notice is attached.
- (3) A Fire Safety Certificate must be obtained from the Building Control Authority, where applicable.
- (4) Free Standing Walls must be designed and constructed in accordance with IS 325: Code of Practice for use of Masonry Part 1 : Structural use of reinforced Masonry. The Owner must also ensure that the construction of all walls is supervised by a competent person.

Signed on behalf of South Dublin County Council.

.....*Maria Dolan*..... 10-Oct-2007

for SENIOR EXECUTIVE OFFICER.

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PROPERTIES	Used Engine oil Range	
	Low	High
Physical Properties %		
Bot. Sed. & water%	0	22
Water %	0.2	33.8
Fuel dilution %	0.4	9.7
Flash point F	175	
Carbon residues	1.82	4.43
Ash	0.03	3.78
Chemical Properties ppm		
Chlorine	1,700	4,700
Bromine	1,000	3,000
Nitrogen	530	1,770
Sulfur	2,100	6,500
Barium	10	2,000
Calcium	700	3,000
Magnesium	10	1,108
Sodium	16	300
Phosphorus	500	2,000
Zinc	300	3,000
Aluminium	10	800
Chromium	8	50
Copper	5	348
Iron	50	2,000
Potassium	5	79
Manganese	5	10
Nickel	3	30
Lead	800	11,200
Silicon	10	875
Tin	5	112
Cadmium	--	4

PROPERTIES	Industrial Oils	
	Low	High
Physical Properties %		
Viscosity, SUS (at 100F)	143	330
API Gravity (at 60F)	25.7	26.2
Specific Gravity	0.9002	0.8972
Water, vol %	0.1	4.6
Bottom sediment & H2O	--	--
Flashpoint, F	315	--
Carbon Residues, wt%	--	--
Ash, Sulfated, wt%	3.2	5.9
Benzene insoluble, wt%	--	--
Gasoline dilution, vol%	--	--
Heating value, Btu/lb	17,268	18,008
Chemical Properties ppm		
Fatty oils, wt%	0	60
Chlorine, wt %	<0.1	0.83
Sulfur, wt%	0.54	1.03
Zinc, ppm	--	--

Source: US Environmental Protection Agency

Sent: 19 November 2007 22:03
Subject: Test Analysis for Dilute HCL

TEST	TEST DESCRIPTION	TEST RESULT	UNIT	METHOD
029	Zinc	764	Mg/l	Ft0171
053	Lead	3	Mg/l	Ft0531
054	Chromium	114	Mg/l	Ft0531
055	Cadmium	<1	MG/L	Ft0531
148	Nickel	112	Mg/l	Atomic Absorption
052	Iron	10.65	g/100mls	Ft0521
D19	Mercury	<0.01	Mg/kg	Subcontracted

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Monitoring Locations

PT_CD	PT_TYPE	EASTING	NORTHING	VERIFIED	POLLUTANT
A1-1	Monitoring	302380.0	228348.0	NO	NOX SO2 CO
A1-2	Monitoring	TBC	TBC	NO	ODOUR
AS1	Monitoring	302364.0	228300.0	YES	DUST
AS2	Monitoring	302382.0	228351.0	YES	DUST
AS3	Monitoring	302438.0	228337.0	YES	DUST
AS4	Monitoring	302431.0	228291.0	YES	DUST
AN1	Monitoring	302364.0	228300.0	YES	NOISE
AN2	Monitoring	302382.0	228351.0	YES	NOISE
AN3	Monitoring	302438.0	228337.0	YES	NOISE
AN4	Monitoring	302431.0	228291.0	YES	NOISE
ANSR2	Monitoring	TBC	TBC	NO	NOISE
SW1 (SW Runoff discharge	Sampling	TBC	TBC	NO	SW QUALITY
FW1	Sampling	TBC	TBC	NO	FW QUALITY

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TABLE E.1(ii) MAIN EMISSIONS TO ATMOSPHERE (1 Page for each emission point)

Emission Point Ref. N ^o :	BOILER NO1
Source of Emission:	BOILER
Location :	MAIN PROCESS BUILDING
Grid Ref. (12 digit, 6E,6N):	302380, 228348
Vent Details Diameter:	0.3M
Height above Ground(m):	10.05M
Date of commencement:	Dependent on Licensing and Construction (~2009)

Characteristics of Emission :

(i) Volume to be emitted:			
Average/day	30,240 m ³ /d	Maximum/day	30,240 m ³ /d
Maximum rate/hour	1260 m ³ /h	Min efflux velocity	4.9 m.sec ⁻¹
(ii) Other factors			
Temperature	°C(max)	°C(min)	300°C(avg)
For Combustion Sources:			
Volume terms expressed as : <input type="checkbox"/> wet. <input type="checkbox"/> dry. _____% O ₂			

(iii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included*):

Periods of Emission (avg)	<u>60</u> min/hr <u>12</u> hr/day 365day/yr Operation during working hours only.
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TABLE E.1(iii): MAIN EMISSIONS TO ATMOSPHERE

- **Chemical characteristics of the emission** (1 table per emission point)

Emission Point Reference Number: **BOILER NO 1**

Parameter	Prior to treatment ⁽¹⁾				Brief description of treatment	As discharged ⁽¹⁾					
	mg/Nm ³		kg/h			mg/Nm ³		kg/h.		kg/year	
	Avg	Max	Avg	Max		Avg	Max	Avg	Max	Avg	Max
<u>CARBON MONOXIDE</u>					<u>OIL</u>		<u>2.116</u>		<u>0.022</u>		<u>190.7</u>
					<u>GAS</u>		<u>2.822</u>		<u>0.029</u>		<u>254.3</u>
<u>OXIDES OF NITROGEN</u>					<u>OIL</u>		<u>15.05</u>		<u>0.155</u>		<u>1356</u>
					<u>GAS</u>		<u>9.268</u>		<u>0.095</u>		<u>835</u>
<u>NOX AS NO2</u>											
<u>SULPHUR DIOXIDE</u>					<u>OIL</u>		<u>21</u>		<u>0.216</u>		<u>1892</u>

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1. Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0°C,101.3kPa). Wet/dry should be the same as given in Table E.1(ii) unless clearly stated otherwise.

TABLE F.2:EMISSIONS MONITORING AND SAMPLING POINTS
- (1 table per media)

Emission Point Reference No(s). BOILER A1-1

Parameter	Monitoring frequency	Accessibility of Sampling Points
OXIDES OF NITROGEN	BIANNUAL	SUITABLE ACCESS WILL BE PROVIDED
NITROGEN DIOXIDE	BIANNUAL	
CARBON MONOXIDE	BIANNUAL	
OTHER PARAMETERS AS DEEMED NECESSARY	BIANNUAL	

TABLE F.3: EMISSIONS MONITORING AND SAMPLING POINTS
- (1 table per media)

Emission Point Reference No(s). SW1

Parameter	Monitoring frequency	Accessibility of Sampling Points
SURFACE WATER QUALITY	QUARTERLY	ACCESS GOOD. TELESCOPIC SAMPLER REQUIRED FOR SAMPLING

TABLE F.4: EMISSIONS MONITORING AND SAMPLING POINTS
- (1 table per media)

Emission Point Reference No(s). FW1

Parameter	Monitoring frequency	Accessibility of Sampling Points
FOUL WATER QUALITY	QUARTERLY & IN LINE MONITORING	ACCESS & SAMPLING CHAMBER TO BE PROVIDED

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**TABLE Ff: Fugitive ENVIRONMENT MONITORING AND SAMPLING LOCATIONS
(1 table per media)**

Monitoring Point Reference No : A1-2 MAIN PROCESS EMISSION POINT

Parameter	Monitoring frequency	Accessibility of Sampling point
ODOUR	ANNUALLY	ACCESS GOOD

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**TABLE Ff: Fugitive ENVIRONMENT MONITORING AND SAMPLING LOCATIONS
(1 table per media)**

Monitoring Point Reference No : AS-1 TO AS-4 as per EIS

Parameter	Monitoring frequency	Accessibility of Sampling point
DUST DEPOSITION	3 TIMES PER YEAR	ACCESS GOOD

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TABLE Ff: Fugitive ENVIRONMENT MONITORING AND SAMPLING LOCATIONS
(1 table per media)

Monitoring Point Reference No : AN1 TO AN4 and ANSR 2 as per EIS

Parameter	Monitoring frequency	Accessibility of Sampling point
NOISE	ANNUAL	ACCESS GOOD

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Table G.1 Details of Process related Raw Materials, Intermediates, Products, etc., used or generated on the site

Ref. N ^o or Code	Material/ Substance ⁽¹⁾	CAS Number	Danger ⁽²⁾ Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R ⁽³⁾ - Phrase	S ⁽³⁾ - Phrase
	Incoming Waste Oil	-	-	Up to 100m3 at any one time	Up to 18,000m3	Waste Oil Process		-
	Incoming Oil Mixes (Washwaters)	-	-	Up to 100m3 at any one time	Up to 20,000m3	Oil Mixes Process	-	-
	Incoming Acid/Alkaline Wastes	-	-	Up to 100m3 at any one time	Up to 9,000m3	Acid Alkaline Process	-	-
	Polymer	-	-	No more than 2m3 at any one time	TBC			
	Sodium Hydroxide	1310-73-2	-	No more than 20m3 at any one time	TBC	Acid Alkaline Process	R35	S26, S37, S39, S45
	Fuel Oil	8008-20-6	-	TBC	TBC	Boiler (Gas boiler optional)	R22	N/a
	Detergents			Minor Quantities	TBC	Cleaning Products and process		
	Laboratory Chemicals			Minor Quantities	TBC	Waste Acceptance Testing etc		

Notes: 1. In cases where a material comprises a number of distinct and available dangerous substances, please give details for each component substance.

2. c.f. Article 2(2) of SI N^o 77/94

3. c.f. Schedules 2 and 3 of SI N^o 77/94

TABLE H.1(i): WASTE - Hazardous Waste Recovery/Disposal

Waste material	EWC Code	Main source ¹	Quantity		On-site Recovery/Disposal (Method & Location)	Off-site Recovery, reuse or recycling (Method, Location & Undertaker)	Off-site Disposal (Method, Location & Undertaker)
			Tonnes / month	m ³ / month			
1. Waste Sludges		Waste Oil Process	Up to 240 tonnes per month				Indaver Ireland
2. Waste Oil Filters (post process-cleaned)		Waste Oil Process	TBC				Metal Recyclers e.g Hammond Lane to be confirmed

¹ A reference should be made to the main activity/process for each waste.

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TABLE H.1 (ii) WASTE - Other Waste Recovery/Disposal

Waste material	EWC Code	Main source ¹	Quantity		On-site recovery/disposal ² (Method & Location)	Off-site Recovery, reuse or recycling (Method, Location & Undertaker)	Off-site Disposal (Method, Location & Undertaker)
			Tonnes / month	m ³ / month			
Waste rags (post process-cleaned)	15 02 03	Waste from Oily Rag cleaning Process	Up to 30% reduction in volume relative to waste acceptance	TBC	N/A	N/A	Transport to Licensed Landfill for disposal
Domestic Waste	20 01 08	General Site Activities	TBC (domestic waste generation by 5- 10 people)	TBC	N/A	N/A	Transport to Licensed Facility for Segregation, Recovery and Disposal. Contractor to be appointed.

1 A reference should be made to the main activity/ process for each waste.

2 The method of disposal or recovery should be clearly described and referenced to Attachment H.1

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