

WASTE LICENCE COMPLIANCE:

CONDITION 12.2.1

ENVIRONMENTAL LIABILITIES RISK ASSESSMENT

JUNE 2005

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1 INTRODUCTION

This Environmental Liabilities Risk Assessment has been conducted in accordance with Condition 12.2.1 of Waste Licence No. 192-1 for Rilta Ltd., trading as SITA Environmental, for their Waste Recovery Facility located at Block 402 Greenogue Business Park, Rathcoole, County Dublin.

Condition 12.2.1 is reproduced herein below:

“12.2.1 The licensee shall arrange for the completion of a comprehensive and fully costed Environmental Liabilities Risk Assessment for the facility which will address liabilities arising from the carrying on of the activities to which this licence relates. A report on this assessment shall be submitted to the Agency for its agreement within six months of date of grant of this licence.”

This document assesses the risk associated with the Waste Recovery Facility and outlines the details of Insurance Cover for the facility.

1.1 Facility Outline

The hazardous waste transfer/recovery facility has been constructed on a serviced site in the Greenogue Industrial Estate and has been in operation since December 2004. There are no environmental risks or liabilities due to previous historical activities at the site. The site location is shown on Drawing No. 1102/02/301 included in Attachment 4.

The structure of the overall facility and associated infrastructure has been substantially complete and final finishing works including fitting out of the building internals is ongoing as of the date of this report.

The Facility consists of three discrete components namely:

- Drum Recovery Centre;
- Hydrocarbon Waste Treatment Centre; and,
- Hazardous Waste Transfer Station.

These components are contained within three separate industrial type buildings as shown on the Site Layout, Drawing No. 1102/02/305, Attachment 4. The facility layout provides for the following:

- Containment of each facility in order to prevent pollution to either soil or water;
- All operations take place within fully enclosed buildings, which mitigate potential noise, odour and dust impacts;
- The separate control of foul and surface waters on site;
- Sufficient road areas within the site to accommodate queuing and the free flow of vehicles on site;
- On site administration facilities for site staff; and
- Sufficient room for vehicle parking and landscaping of the site.

1.2 Potential Risk

The scope of the risk assessment includes:

- Risk associated with current activities, which comprises of the recovery of drums, the treatment of hydrocarbon waste and the transfer of hazardous wastes.
- Risk associated with current activities, collection of washwater and effluent from the facility and from the washing of vehicles. The pumping of same for treatment/ recycling off-site to the adjacent foul sewer;
Risk associated with the temporary storage of 520tonnes of hazardous waste at the site.
- Risk associated with potential emergency situations, including fire, explosion, spillage, and any other potential unscheduled emission/ incident;
- The effect of same on the environment or neighbours to the facility and adjoining land uses;
- Issues associated with possible future plant decommissioning and post closure care (site decommissioning and decontamination);
- A description of the control and mitigation features, existing and proposed to minimise the risk to the environment; and
- Recommendations for additional control and mitigation features.

1.3 Contingency Arrangements

The following contingency arrangements are provided at the facility:

1.3.1 Contingency Plans for any Emergency On-Site.

Accidents and other emergencies will be handled by calling in the relevant authorities including the Fire Service, Gardaí, or Ambulance Services. Emergency response contact numbers for all these services are prominently posted on-site. All site operatives and other relevant employees of SITA are trained in emergency response procedures and in fire prevention and control.

Site safety procedures will be adopted to protect any persons from injury on-site. Should injury occur, the site operative will be the first to administer assistance. Emergency and first-aid materials will be available in all the site buildings. Emergency and first-aid procedures are also be prominently displayed in the site buildings adjacent to the waste inspection and quarantine areas.

The primary contingency for the proposed facility relates to fire control, which is dealt with in some detail in Section 5.1 herein. An Environmental Management System (EMS) will be implemented for the site.

The Managing Director of SITA Environmental, Mr. Seamus Clancy, is also the Health and Safety Director for the company. He is based full time on site and thus acts as the Health and Safety Officer for the facility. The Health and Safety Statement for the facility has recently been prepared. The Statement has been prepared in accordance with The Safety, Health and Welfare Act 2005.

1.3.2 Contingency Plans for any Breakdowns On-Site

The regular maintenance of all plant and equipment utilised on-site is undertaken in accordance with the manufacturers guidelines. This maintenance programme helps to minimise occurrences of breakdowns on-site. In the event of any breakdown, the item of plant or equipment are promptly repaired or replaced. The facility has 2No. full time maintenance engineer is employed on site to undertake these tasks. All plant and equipment is checked on a daily basis.

1.3.3 Contingency Plans in Respect of Absentee Staff

Fully trained part time staff employed directly or on contract by SITA will be deployed to the site if necessary in the event of sickness of key personnel. With over 40 persons proposed to be on-site, staff can be deployed in order to cover for absentee staff.

1.3.4 Contingency Procedures Outside Normal Operating Hours

The site will be unattended by SITA staff during the night, Sundays and Bank Holidays. However, site personnel and other employees of SITA will be available in the event of any emergency at the site outside of normal working hours. An emergency contact number is prominently posted at the site entrances. In addition, the security firm monitoring the whole of the Business Park also monitors the SITA facility outside working hours. The security personnel have the contact details of local emergency services.

These security arrangements are in place in order to guard against unlawful trespass and vandalism. Basic routines exist whereby any cash, records and equipment are either taken off-site daily or secured in the site buildings. These procedures are in the interest of overall security.

1.3.5 Contingency Plans in the Event of Environmental Contamination

The site infrastructure encompasses a fully contained site and all operations take place within separately contained buildings, thus preventing the possibility of a significant groundwater contamination incident. In the unlikely event of the need to contain the dispersion of groundwater, extraction wells will be installed down gradient of the site.

The discharge from the surface water attenuation tanks to the Griffeen River is valved and daily discharges are monitored on a regular basis. In the unlikely event that deterioration in the surface water runoff quality being discharged is detected or if there is an external spillage on-site, a cut-off valve at the discharge from the attenuation tanks will be activated either remotely or manually and all surface water will be contained in the attenuation tanks. This system will allow for the retention of all surface water on-site until the spill event is investigated and remediated. It will also be possible to provide emergency pumping from the attenuation tanks to the foul water sewer in the event of a continued spillage.

In addition to the above and in the unlikely event of fire at the site, all firewater collected in the surface water drainage system can be contained in the attenuation tank. The firewater will only be discharged to the Griffeen River after it has been tested and it has been established that it is safe to do so. Otherwise, the firewater can be treated on-site in the Hydrocarbon Waste Treatment Facility or it can be tankered off-site for treatment, depending on the degree of contamination.

2 INSURANCE POLICY

Documentation from SITA's insurance company is provided in Attachment 2. The insurance policy will cover any public liability caused by either an accidental event or an emergency situation not intentionally caused.

2.1 Details of Cover

Employers Liability:

Limit of the indemnity – EUR €13,000,000 any one accident/ unlimited during the Period of Insurance.

Public Liability:

Limit of Indemnity – EUR €6,500,000 any one accident/ unlimited during the Period of Insurance.

Property:

Fire and Special Perils on Property, Machinery, Plant, Fixtures and Fittings

Sum Insured – EUR €6,500,000. This sum also includes for cover for Stock Debris.

Consequential Loss:

Gross Profit – EUR €4,000,000.

2.2 Summary

In relation to the insurance policy, it is evident that;

- The public liability due to a fire is considered to be medium to low because of the temporary nature of the waste on-site, the level of the on-site emergency preparedness and response, and the low environmental risk associated with any firewater arising at the facility.
- The public liability due to an explosion would be mainly structural damage, which will be covered by the proposed insurance policy.
- Due to the containment arrangements and surface water catchment system, a major spill to ground, drain, or watercourse is unlikely to occur. In the event of an emergency that may occur on site, such as fires, explosions, and major spills, the insurance will cover both public liability and on-site restoration.

3 METHODOLOGY

3.1 Risk and Risk Management

Risk can be defined as the likelihood or expected frequency of a specified adverse consequence. Applied to air/soil/water, it expresses the likelihood of contamination arising from potentially polluting sources or activities (called **hazards**). The term **environmental hazard** can be defined as “an event, or continuing process, which if realized, will lead to circumstances having the potential to degrade, directly or indirectly, the quality of the environment”. Consequently a hazard presents a risk when it is likely to affect something of value (the **target**). It is the combination of the probability of the hazard occurring and its consequences that is the basis of **risk assessment**.

In assessing the hazard rating to the environment consider:

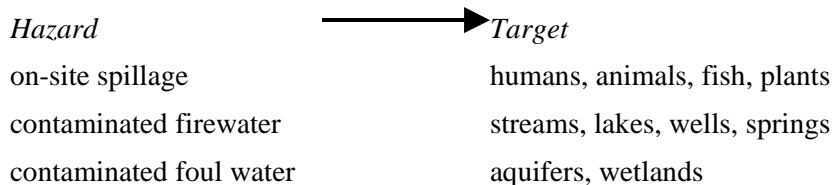
RISK = PROBABILITY OF AN EVENT x CONSEQUENTIAL DAMAGE

The conventional source-pathway-target model for environmental management can be applied to this Environmental Liabilities Risk Assessment Report.



The main potential sources of contamination or hazards at SITA Environmental are foul water from the vehicle wash, on-site spillages, contaminated firewater with the ‘ground’, and air being the pathways.

In this report, the hazards being considered are listed below, and therefore the pathway is either or both underground in geological materials or over ground in surface run-off. There are several potential targets as shown below.



The risk of contamination of groundwater depends on three elements:

- The hazard afforded by a potentially polluting activity
- The vulnerability of groundwater to contamination
- The potential consequences of a contamination event

Risk management is based on analysis of these three elements followed by a response to the risk. This Environmental Liabilities Risk Assessment includes the assessment and selection of options and the implementation of measures to prevent or minimise the probability of a contamination event and to provide for the financial consequences should it occur.

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4 SITE DEVELOPMENT AND OPERATION

The EPA licensed the SITA site to conduct waste activities in accordance with the Waste Management Act 1996 as amended:

The principal activity undertaken at the site is Class 8 of the Fourth Schedule of the Waste Management Act (1996), namely:

Class 8. Oil re-refining or other re-uses of oil

The facility operation is also covered by the following classes of activities from the Third and Fourth Schedules of the Waste Management Act, 1996:

Third Schedule

Class 7 Physico-chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcination), which results in final compounds or mixtures, which are disposed of by means of any activity, referred to in paragraphs 1. to 10. of this Schedule (including evaporation, drying and calcination).

Class 11 Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.

Class 12 Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.

Class 13 Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

Fourth Schedule

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

Class 3 Recycling or reclamation of metals and metal compounds.

Class 4 Recycling or reclamation of other inorganic materials.

Class 6 Recovery of components used for pollution abatement

Class 8. Oil re-refining or other re-uses of oil. (principal activity)

Class 13 Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced..

In addition to SITA's own waste permitted collection fleet, other permitted contractors bring waste to the Facility, which is treated on-site. Any waste transferred off-site is hauled by permitted contractors to licensed facilities.

The Waste Licence allows for the bulking and storage of hazardous waste with such items stored in the contained Hazardous Waste Transfer Station pending collection by a registered contractor. The Drum Recovery Building and the Hydrocarbon Treatment Building are also separately contained.

The water main and foul sewer service the site and the remainder of the Greenogue Business Park.

The major construction works at the facility have been completed. The site access roads and parking areas are fully covered by a bituminous surface, and the surface water drainage network feeds into the grit trap and oil interceptor prior to discharge to the adjacent stream.

The foul water network currently collects wastewater from the weighbridge, the vehicle wash bay, the offices in each of the facility buildings and the main administration building. The surface water runoff generated in the Hazardous Waste Transfer Station and Drum Recovery Facility is collected and stored in the surface water collection network in each building. Both networks are connected to the on-site foul water system. However, the buildings are isolated by a cut-off valve, which is predominately in the closed position. In the event of a fire in these buildings, the contaminated firewater will be collected via the surface water collection network and will be contained in the buildings. The firewater can be sampled and tested and, only when it is safe to do so, the cut-off valve can be opened and the firewater can be released to the foul water network.

In the Hydrocarbon Treatment Building, the surface water runoff collected by the internal surface water collection network is connected directly to the large settlement tanks. This means that it is possible to totally isolate the Hydrocarbon Treatment Building from the rest of the site. In the event of a fire, firewater can be stored in the settlement tanks. Firewater from this building will not go to the on-site foul water network.

5 RISK ASSESSMENT – CURRENT ACTIVITIES

5.1 Fire

Source

Flammable non-hazardous materials, approximately 5tonnes of timber pallets and cardboard, may be stored in each of the three buildings. Approximately 100tonnes of flammable hazardous waste comprising of solvents and other flammable liquids will be stored in the Hazardous Waste Transfer Station at any given time. These liquids will be stored in drums and Intermediate Bulk Containers (IBCs). In general the drums in the Drum Recovery Centre will be empty and therefore not contain flammable liquids, however the IBCs themselves could be flammable in the case of extreme temperatures. The recovered waste oil and hydrocarbon sludges are stored in the Hydrocarbon Waste Treatment Centre. Approximately 170tonnes of recovered waste oil and hydrocarbon sludges is stored on-site at any given time. The recovered waste oil may be a possible fire hazard.

Pathway

Fire on site will potentially give rise to smoke and fumes in the immediate vicinity of the site and downwind. It will also potentially give rise to contaminated firewater that must be contained and managed. The potential for fire to spread from one flammable storage area to another must be considered.

Receptor

The estate currently contains a mix of both light industrial and warehousing units. In 2005, approximately 1,000,000m² has been constructed.

The land surrounding the proposed development site is industrial in nature. To the south internal industrial estate roads bound the site. There is an industrial unit immediately adjacent to the east of the site and further west there are more industrial units. The property to the west of the site is presently not developed but is used as a truck park. The buildings and storage yard for John Paul Construction Ltd. are located to the north of the site. The northern boundary of the site is also adjacent to the Griffeen River. The distance of other industrial units from the facility is sufficient enough to prevent the spreading of fire.

Separate foul and surface water networks are in place at the site. The surface water runoff from the site hardstand areas is passed through a grit trap and oil separator prior to being released to the stream at the northern boundary of the site.

The foul water network collects foul water consisting primarily of wash water from each of the three separately contained waste recovery buildings, and domestic foul from the administration building, the weighbridge and the vehicle wash bay.

Mitigation Measures

All site buildings are no-smoking areas.

Fire Safety Certificates have been obtained from South Dublin County Council for all the site buildings with copies included in Attachment 1. All the buildings are covered by insurance for fire damage. The following design features for fire prevention and containment were incorporated.

- External Walls – 200mm Reinforced Concrete Walls, 300mm Block Cavity Wall or 215mm Solid Block Wall with Class 1 surface and 1hr Fire Resistance
- External PVC Coated Steel Cladding – Wall & Roof Cladding providing 1hr Fire Resistance
 - Kingspan KS1000 RW Insulated Wall & Roof Panels
 - Integrity = 136min.,
 - Insulation = 16min.,
- Steel Structural Frame – All columns on all external boundaries are encased in concrete or coated with Intumescent Fire Protection Paint to provide 1hr Fire Resistance. Rafters and eaves beams are coated with Fire Retardant Paint on all external boundaries to provide 1hr Fire Resistance.
- Fire Protection Equipment – Hose Reels conforming to I.S. EN 671: Part 1 1995 to be installed in accordance with BS 53076: Part 1 1976 Fire Extinguishing Installations and Equipment on premises.
- Oxyacetylene Tanks – All Oxyacetylene tanks/ cylinders for welding are stored within a contained area in the Hydrocarbon Waste Treatment building.

The fire detection and alarm system proposed for the facility shall be a L3 type system. The system will be designed and installed in accordance with I.S 3218: 1989 Code of practice for fire

detection and alarm system. Due to the size of the buildings, detection will be achieved through the use of either:

- Optical beam detectors provided along the length of the building at high level within the main shop floor areas of the Hydrocarbon Waste Treatment Centre and the Drum Recycling Centre;
- Or alternatively where feasible optical smoke detectors will be provided in accordance with I.S 3218:1989.

Smoke detection will be provided to the offices at ground and first floor level, to the escape stairs and the corridors serving offices at the first floor level. Manual break glass units will be provided, along with sounders and point smoke detectors.

There is no sprinkler system in the warehouse as some Class 4.3¹ material (dangerous when wet) may be stored therein.

The company has an Emergency Response Procedure (Refer to Attachment 3) to be activated in the event of fire or other emergency. A designated storage area for emergency responses, fitted with materials for containment and collection of spilled material, first aid equipment, and personal protective equipment (PPE). Also fire extinguishers and fire hoses are provided in the buildings in compliance with current health and safety legislation. The provision of this fire/smoke detection and fighting equipment reduces the risk of the spread of a fire.

In the event of a fire, the trained on-site personnel would attack the fire following the emergency procedures. The response time of the local fire brigade is 10 minutes, at which point the trained personnel fighting the fire will allow them to take over. SITA have employed a full time Health and Safety Officer who will regularly inspect all fire/smoke detection and fighting equipment.

The surface water runoff generated in the Hazardous Waste Transfer Station and Drum Recovery Facility is collected and stored in the surface water collection network in each building. Both networks are connected to the on-site foul water system. However, the buildings are isolated by a cut-off valve, which is predominately in the closed position. In the event of a fire in these

¹ * Note : UN Classes of Hazardous Materials categorise Class 4.3 material as “Substances which in contact with water are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities”

buildings, the contaminated firewater will be collected via the surface water collection network and will be contained in the buildings. The firewater can be sampled and tested and, only when it is safe to do so, the cut-off valve can be opened and the firewater can be released to the foul water network.

In the Hydrocarbon Treatment Building, the surface water runoff collected by the internal surface water collection network is connected directly to the large settlement tanks. This means that it is possible to totally isolate the Hydrocarbon Treatment Building from the rest of the site. In the event of a fire, firewater can be stored in the settlement tanks. Firewater from this building will not go to the on-site foul water network.

It is envisaged that the nature of the operation does not pose a major risk of fire although the following steps have been taken to ensure an acceptable level of fire safety:

- Training of all site operatives and employees in fire prevention and control by a fire prevention company;
- Prominent posting of emergency response contact numbers (fire service, police, ambulance and other agencies);
- The provision of on-site water supply;
- The provision of fire fighting equipment including fire extinguishers in all buildings, fire hydrants and fire hoses adjacent to all buildings;
- Fire alarm and detection system in all buildings;
- There will be no long term storage of waste on-site;
- A fire assembly point will also be posted on-site at the site entrances;
- The designation of smoking and non/smoking areas.
- A secure storage area is provided externally for the secure night-time storage of the oxy-acetylene tanks used in welding.

The site is serviced by 3No. fire hydrants on the 150mm (dia) fire water-main and which are serviced by the on site water-main. The adjoining river and water attenuation tanks could be also used by the Fire Brigade to provide a large supply of water for fire fighting.

In addition the buildings proposed for the site will be certified for fire safety.

5.1.1 Fire - Environmental Risk and Liability

The major environmental risk due to fire is the potential for contaminated firewater to enter the surface water system and then enter the stream, or to leak through a fissure in the ground or retention tank and enter the groundwater. The bituminous hardstand cover on the site, the surface water control system and other on-site controls as described minimise these risks.

Contamination of Groundwater

The potential risk of contamination of groundwater is low. In the possible event of contamination, the polluted groundwater would have to be pumped out and treated on-site at the Hydrocarbon Waste Treatment Facility. The nature of the pollutant would be mainly water with possible traces of fire-fighting foam, partially burnt residues and trace hazardous materials. The cost of treatment or disposal would depend on the nature(s) and concentration(s) of the residual material(s).

In the case of abstracted ground water containing residual hazardous material of a hydrophobic, organic nature (e.g. non-polar solvent), there are two possible options available. The contaminated groundwater can be treated on-site at the Hydrocarbon Waste Treatment Facility, or incineration of the contaminated groundwater abroad. The latter would be the most expensive option due to the low calorific value of wastewater.

The cost of treating the contaminated water in Ireland would be €115/T. The cost of incineration abroad would be approximately EUR€550/T. Transport overseas to the final disposal destination would cost an additional EUR€120/T. Thus, taking the worst-case scenario, i.e. having to send 180T (16-18 tanker-loads) of contaminated water for incineration abroad, would cost EUR€120,600.

Contamination of Soil

A level of soil remediation might also be required. There are two possible options available for soil remediation. The first option is to treat the contaminated soil in Ireland by a hazardous waste treatment company using a variety of processes, i.e. soil washing, biological treatment or thermal desorption. The second option is incineration or landfilling of the contaminated soil abroad.

The cost of treating the contaminated soil in Ireland would be €180/T. The most expensive possible option required would be incineration of the contaminated soil, at a cost of EUR€140-210/T, depending on the level and nature of the contamination. Transport overseas to the final destination would cost an additional EUR€40/T. Thus taking the worst case scenario, i.e. having

to send 600T of contaminated soil for incineration abroad would cost up to EUR€150,000, excluding the cost of excavation.

Contamination of Surface Water

Surface water contamination could possibly lead to contamination of the adjacent soil and sediment, which could incur costs as discussed above. It might also lead to damage to the local flora and fauna populations, which might require re-stocking.

In general, the principal drainage within the site is from the north towards the Griffeen River. The Griffeen River flows adjacent to the northern boundary of the site. The Griffeen River, is a tributary of the River Liffey comprises a catchment area of approximately 13 km². The origin of the Griffeen River lies ca. 2km to the south west of the proposed site. The Griffeen River flows north for ca. 500 m (to the east of the site) and then flows west flowing outside the northern boundary of the site. The Griffeen River then trends in a northerly direction and meets the River Liffey at Lucan, ca. 7.5 km north of the site.

These receiving waters are of major recreational importance, as well as being ecologically sensitive.

It is difficult to assess the impact of any polluting incident, but the mitigation procedures in terms of bunding, containment, surface water monitoring and surface water retention all reduce the risk of pollution of surface water by fire-water run-off to a negligible level.

Conclusion

Based on the maximum quantity of material that could possibly be released, the cost of such remediation is estimated not to exceed EUR€300,000.

5.2 Explosion

Source

SITA is not licensed to store Class 1 explosive materials, so there is no immediate danger of explosion of such material. The main danger of explosion would arise when a flammable atmosphere occurs, possibly due to leakage of other flammable material, giving rise to a

flammable vapour, which is then ignited. There will be no operations that could give rise to a dust explosion.

Pathway/ Receptor

Explosion could give rise to a vibration that could damage buildings, equipment and cause injury to anyone in the vicinity. It would be due to a sudden liberation of gas and heat; the gas being a potential pollutant to the atmosphere.

Mitigation measures

All electrical equipment in the Hazardous Waste Transfer Station is Ex-rated and is intrinsically safe. All electrical equipment is earthed with bonding and earthing procedures in place.

5.2.1 Explosion - Environmental Risk and Liability

Mitigation measures as described above will minimise the risk of an explosion an explosion incident

Releases to air

In the unlikely event of such an incident, the major environmental risk due to explosion is the potential release of hazardous gases/vapours to the environment. The quantity, nature, and effect of these gases depend entirely on the circumstances leading to the explosion.

Breaches of the Air Pollution Act 1987 and of the conditions of the Waste Licence would incur fines and penalties. There is also the remote possibility of damage to the health of the workers, visitors to the site, and potentially to nearby residents. It is not possible to determine ahead of time what the possible potential compensation liabilities could arise, as costs would be decided by a court of law.

SITA has public liability insurance up to a limit of EUR€6,500,000 in respect of each and every claim.

Damage to site, equipment, and buildings

The SITA Hazardous Waste Facility is covered by property insurance for EUR€6,500,000, which covers against fire and special perils on property, machinery, plant, fixtures and fittings. This

cover also includes a contingency for the cover of stock debris. The cost of restoration of all buildings and equipment on site is estimated to be EUR€5,500,000.

There could also be some damage to the site and surrounding buildings; damage to surrounding buildings is covered by public liability insurance with a limit of indemnity of EUR€6,500,000 in respect of each and every claim (see Attachment 2).

5.3 Spillage

Source

A spill may occur in a storage area or a processing area, from a leaking or damaged container or during transfer of the contents.

Pathway

The spilled material may be a liquid, solid or gas, which may give rise to surface water contamination, dangerous fumes or vapours, or react with something in the immediate surroundings.

Receptor

In the absence of the specified mitigation measures below, the spilled material could attack concrete and contaminate the groundwater. It could affect the operational personnel or give rise to a cloud of fume or vapour in the vicinity. It is possible that it might react with another materials nearby and explode, catch fire or give rise to some hazardous by-product. There is also a remote possibility that it could enter the surface water collection system.

Mitigation Measures

As part of the acceptance procedures, all waste entering the facility must be hauled by a permitted waste contractor and be accompanied by the necessary documentation, detailing the source and type of the waste.

Loads containing materials other than those permitted by the licence shall be transferred to the waste inspection area and here the non-conforming materials are segregated for storage in the waste quarantine areas.

All of the buildings are separately contained and the foul water collection system within each building can be shut-off prior to discharge. Any spillages within each building can therefore be

contained within that building and be dealt with according to the prescribed emergency procedures. Contaminated material and adsorbents will be collected and packaged for disposal by a suitably licensed facility

Any spillage on the uncontained areas of the bituminous surfaces of the access and car parking areas will be collected in the surface water drainage network. This network feeds into an underground attenuation tank, followed by a grit trap and oil interceptor. Any sediment from road cleaning operations will settle out in the attenuation tank or will be contained by the grit trap. Any light liquids (oils, fats, or greases) in the surface water will be contained in the bypass interceptor and stored for collection and disposal.

There is little possibility that spillages from any of these uncontained areas could enter the stream as discharge. A visual inspection of the surface water discharge is carried out weekly and recorded at the facility. This inspection would pick up the presence of any oil films on the water, discoloration of the soil, stones, fauna around the discharge point and the presence of rubbish or debris carried from the site. Presence of any of these parameters warrants immediate corrective action, which is also recorded at the facility.

The Underground Storage Tanks in the Hydrocarbon Treatment Facility are coated with Sika epoxy based secondary containment lining and a leak detection system has been provided adjacent to these tanks. The coating will mitigate against the spillage from the tanks and in the very unlikely event that such a spillage would occur the hydrocarbons will be detected by the leak detection system.

All waste processing operations take place indoors and each building is provided with easily retractable doors. Putrescible waste is stored on the site and any potential to cause odours is greatly reduced due to the short residence time of waste in the facility.

5.3.1 Spillage - Environmental Risk and Liability

The potential risk of contamination of groundwater/ soil is very low. In the unlikely event of simultaneous failure of all the mitigation measures, bunding, retention systems and monitoring procedures and the loss of all the contents of a tank, the maximum quantity of material that could be lost is 500L of hydraulic oil, 10,000L of diesel, 5,000L of paint, and 5,000L of kerosene, based on the maximum capacities of the various contaminants stored on-site.

Contamination of groundwater

The potential risk of contamination of groundwater is very low. In the possible event of contamination, the polluted groundwater would have to be pumped out and transported by road tanker for recycling/treatment or disposal at a suitably licensed facility. The cost of treatment or disposal would depend on the nature and concentration of the hazardous material contaminating the abstracted groundwater

In the case of abstracted groundwater containing residual hazardous material of hydrophobic, organic nature (e.g. non-polar solvent), the most expensive possible option required would be incineration of the contaminated groundwater. Due to the low calorific value of waste with such a high water content, the cost of incineration would be approximately EUR€550/T. Transport overseas to the final disposal destination would cost an additional EUR€120/T. Hence, incineration of 60T of material would EUR€40,200.

Less expensive and more environmentally favourable options for onsite remediation, local recycling, and treatment would all be explored, before incineration would be considered.

Should the abstracted groundwater contain residual hazardous material of an aqueous/polar nature the cost of treatment of the contamination would also be significantly lower.

Contamination of Soil

A level of soil remediation might also be required. The most expensive possible option required would be incineration of the contaminated soil, at a cost of EUR€140-210/T, depending on the level and nature of the contaminated soil. Transport overseas to the final disposal destination would cost an additional EUR€40/T. Thus, having to send 600T of contaminated soil for incineration abroad would cost up to EUR€150,000, excluding the cost of excavation.

Contamination of Surface Water

Surface Water contamination could possibly lead to contamination of the adjacent soil and sediment, which could incur costs as discussed above. It might also lead to damage to the local flora and fauna populations, which might require restocking. It is difficult to assess the impact of any polluting incident, but the mitigation procedures in terms of bunding, containment, surface water monitoring and surface water retention all reduce the risk of pollution of surface water to a negligible level.

Conclusion

In the unlikely event of such a pollution incident, based on the maximum quantity of material that could possibly be released, the cost of such remediation as estimated would not exceed EUR€200,000.

5.4 Possible Future Plant Decommissioning & Post Closure Aftercare

SITA Environmental propose to make the following provisions with regard to site closure and decommissioning.

Decommissioning

Disposal of hazardous material held on site

In the event of closure, an environmental liability on site would be the presence of the hazardous materials segregated from the incoming waste and stored in the waste quarantine area. This would require recycling/ disposal at a licensed facility. These materials would be handed over to another licensed waste broker who would arrange their safe transport and recycling/ disposal. The maximum quantity that may be stored on the site is 520 tonnes of hazardous waste. The maximum disposal cost including transport is EUR€670,41, so based on the maximum quantity of material that could possibly be released, the cost of such remediation is estimated not to exceed EUR€348,400.

Cleaning and decontamination of site

All areas that had contained hazardous material would need to be cleaned out thoroughly with all waste and residual waste needed to be collected in sealed containers for disposal at an appropriate facility. The floor and walls will then be washed with suitable detergents and the wash-water on the floor of the contained area will be collected and disposed with the waste and residual waste at an appropriate facility.

Aftercare Plan

The proposed Aftercare Plan for the facility is to convert the premises into a Warehouse Facility. In order to do so comprehensive decommissioning operations will have to be carried out. These will include:

- A sign will be erected at the entrance to the facility, informing people that waste is no longer accepted at the facility.
- All waste at the facility including all recovered wastes, such as recovered waste oil and drums will be dispatched from the site;
- The hydrocarbon waste settlement tank will be decommissioned and may be filled in;
- Sale by auction of decommissioned plant and equipment, which is expected to generate the value of the plant and equipment after allowing for its depreciation in the company accounts. If suitable buyers for equipment cannot be found, or the equipment is in a condition unsuitable for further use, it may be sold as scrap, so that the site is left free of all decommissioned plant, equipment and vehicles.
- All buildings and hardstand areas will be thoroughly swept to remove all loose debris and rubbish and the rubbish is to be disposed of through the proper channels.
- The 3 main waste recovery buildings will then be thoroughly cleaned using steam-cleaning equipment. The cost of steam cleaning the concrete surfaces areas and the interior of the facility buildings would be EUR€50EUR€70/hour, inclusive of machinery, labour and cleaning chemicals. This would leave the site in a condition free of contamination and available for use as a warehousing facility.
- Specialist Warehousing Contractors will be employed to modify the site and site buildings for use as a modern warehouse facility. The cost of such modifications to the composting extension and waste transfer /recycling buildings in the case of unforeseen closure is estimated not to exceed EUR€500,000.

Conclusion

The site could be adapted into a large warehousing facility/industrial unit or else sold as a going concern. Income generated from the sale of the site and equipment could be used to offset the costs of cleaning and payment of creditors. Hence no liability costs would be associated with decontamination or decommissioning of the site.

6 SUMMARY & FINANCIAL PROVISION

6.1 Summary

This Environmental Liabilities Risk Assessment report has examined current and proposed site activities personnel emergency response training, adherence to on-site procedures, and safety features on site, which will minimise the effect that accidents and emergencies will have with regard to public liability costs and on-site restoration costs.

This report indicates that the risk of environmental liability associated with the site is minimised through good management practices in terms of physical containment and emergency training awareness.

6.2 Financial Provision

In accordance with Condition 12.2.2 of the waste licence for the Integrated Waste Management Facility, a financial provision of €900,000 is provided under the current insurance cover for the facility. The property insurance cover of EUR €6,500,000 includes for fire and special perils on property, machinery, plant, fixtures and fittings. This sum also includes for cover for all stock debris, which is being proposed as a financial provision for any possible environmental liabilities. This provision cover for up to three times the cost of any potential remediation measures required in the event of an impact on the environment.

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ATTACHMENT ONE
FIRE CERTIFICATE

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CERTIFICATE

THIS IS TO CERTIFY THAT THE FIRE EXTINGUISHERS AT

RIALTA ENVIROMENTAL LIMITED,

UNIT 402 GRANTS DRIVE,

GREENOGUE INDUSTRIAL ESTATE,

RATHCOOLE.

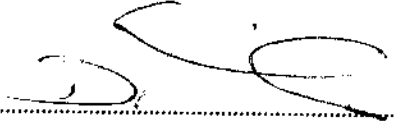
**HAVE BEEN INSPECTED AND SATISFIED THE
REQUIREMENTS OF IRISH STANDARD 291:2001**

Date of Inspection: **MAY 2008**

Company Representative: **DAVID REID GIFireE**

*The following extinguishes are not covered by this Certificate
(including any that do not bear the company service record label duty notarised)*

IRISH FIRE PROTECTION

Signed:  (for and on behalf of Irish Fire Protection Ltd.)

Unit 407G Grants Drive, Greenogue Business Park, Rathcoole, Co. Dublin.
Tel: 01 458 6106 Fax: 01 458 0283 Email: info@irishfire.ie



ATTACHMENT TWO
INSURANCE COVER

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FBD House
Bluebell, Dublin 12
Tel. (01) 409 3201
Fax. (01) 478 3108
Fax. (01) 450 7246

Corporate Insurance Brokers & Risk Management Consultants

AJA/SE

5 January 2009

To Whom It May Concern:

Re: **Combined Liability & Motor Insurance
One51 Ltd & Subsidiary Companies including Rilta Environmental Ltd/Cullen
Environmental Services Ltd/Soils Environmental Ltd/Returnbatt Ltd**

Dear Sirs

With reference to the above you should note your records that the following insurance has been arranged and a summary of cover details is as follows:-

(A) Policy No. 00699200/04/01 & 22/01 – FBD Insurance plc

Period of Cover: 12 months from 1st January 2009
Description of Business : Food, Proteins, & Oils Processing Companies; Waste Contractors, Recyclers & Ancillary Services; Hauliers; Plant Hire Contractors; Port Operators & Property Owners.

1. Employers Liability Section

Limit of Indemnity: € 13,000,000 any one occurrence inclusive of costs and expenses

2. Public/Products Liability Section

Limit of Indemnity:
-Public Liability - € 2,600,000 or Sterling equivalent any one accident/unlimited
-Products Liability - € 2,600,000 or Sterling equivalent any one period
- Accidental Pollution Liability - € 2,600,000 or Sterling equivalent any one accident

3. Motor Liability Section

Limit of Indemnity: € 2,600,000 any one accident in respect of Third Party Property Damage for Commercial Vehicles.

Extension: Indemnity to Principals Clause

Over/..



(B) Excess Public/Products/Motor Liability Policy No: F10017475A – Brit Insurance/ Lloyd's

Period & Business Description: as above

Limits of Indemnity:

- Public Liability € 23,400,000 or Sterling equivalent any one accident/unlimited in the period in excess of the underlying policy.
- Products Liability € 23,400,000 or Sterling equivalent any one period in excess of the underlying policy.
- Accidental Pollution Liability - € 23,400,000 or Sterling equivalent any one accident in excess of the underlying policy.
- Motor Liability - € 7,400,000 or Sterling equivalent any one accident in excess of the underlying policy.

The Excess Liability Policy follows the Underlying Policy in all relevant terms & conditions & has the effect of increasing the overall Liability Limits on these Sections to a total Limit of € 26 millions on Public/Products & € 10 millions on Motor in each case.

The undersigned remains at your disposal should any queries arise.

Yours faithfully

Joe Arnold

A J Arnold
Account Executive

☎ 409 3303
✉ joe.arnold@fbd.ie

ATTACHMENT THREE
EMERGENCY RESPONSE PROCEDURES






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ATTACHMENT FOUR
DRAWINGS

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Legend:

-  SITE BOUNDARY
-  INDUSTRIAL ESTATE ROAD NETWORK
-  RIVER
-  HOUSE
-  LEASED AREA

- Notes:
1. Figured Dimensions only to be taken from this drawing
 2. All Drawings to be checked by the Contractor on site
 3. Engineer to be informed of any discrepancies before any work commences
 4. All levels relate to Ordnance Survey Datum at Malin Head

suffix	revisions	date	int



Project:
**INTEGRATED WASTE MANAGEMENT FACILITY
 GREENOGUE, COUNTY DUBLIN**

Drawing Title:
SITE LOCATION

Scale 1/5000	Drawn by D.B.	Checked by D.G.	Date AUGUST 2003
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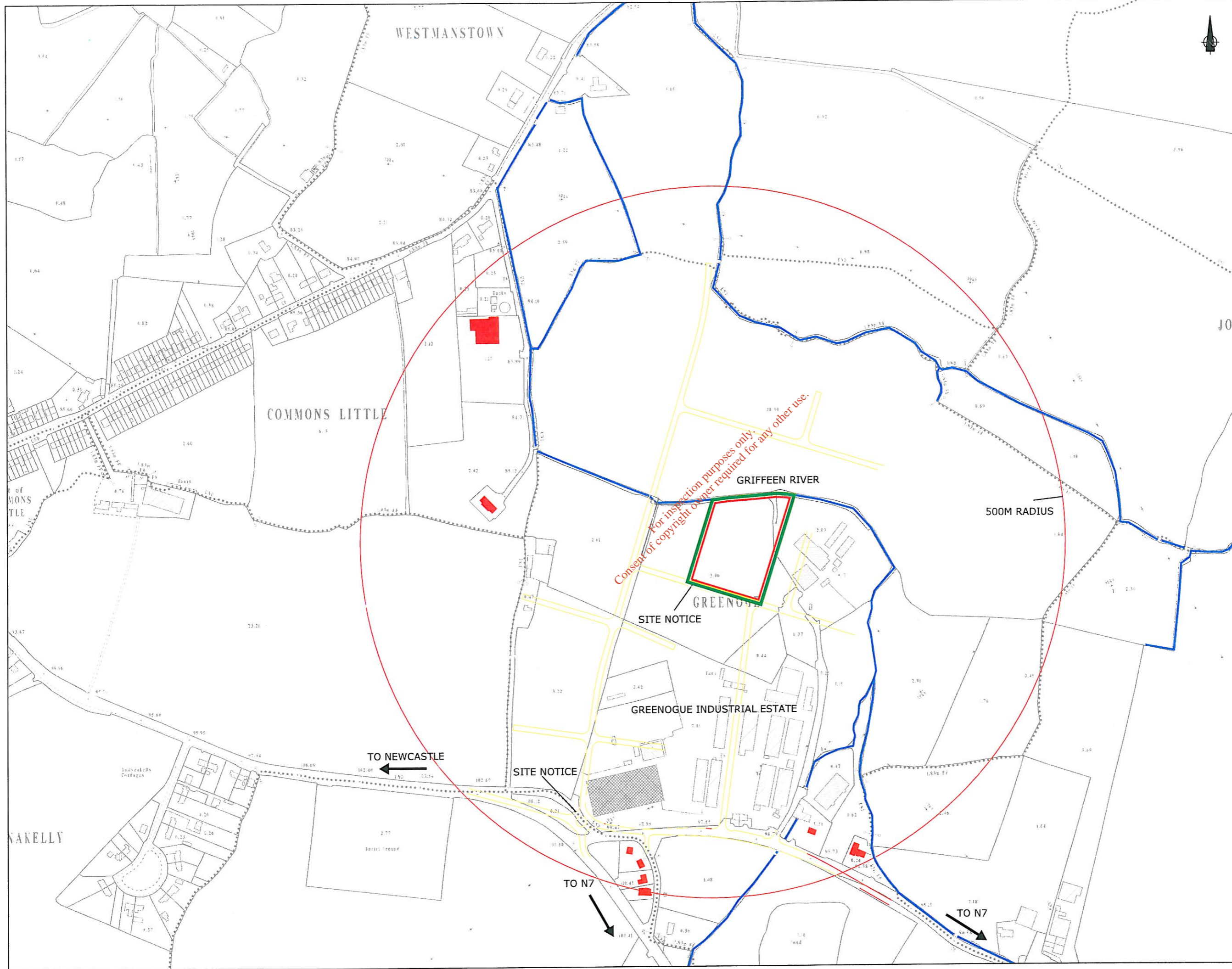
ENGINEER IN CHARGE: DAMIEN GREHAN

TES
CONSULTING ENGINEERS

UNIT 40/41
 CLONSILLA TOWN CORPORATE PARK
 CLONSILLA
 DUBLIN 15

Tel: 01 800 001
 Fax: 01 800 001
 Email: info@tes.ie

Drawing No.	1102/02/301
Rev.	



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- Notes
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 2. All Drawings to be checked by the Contractor on site
 3. Engineer to be informed of any discrepancies before any work commences
 4. All levels relate to Ordnance Survey Datum at Main Head



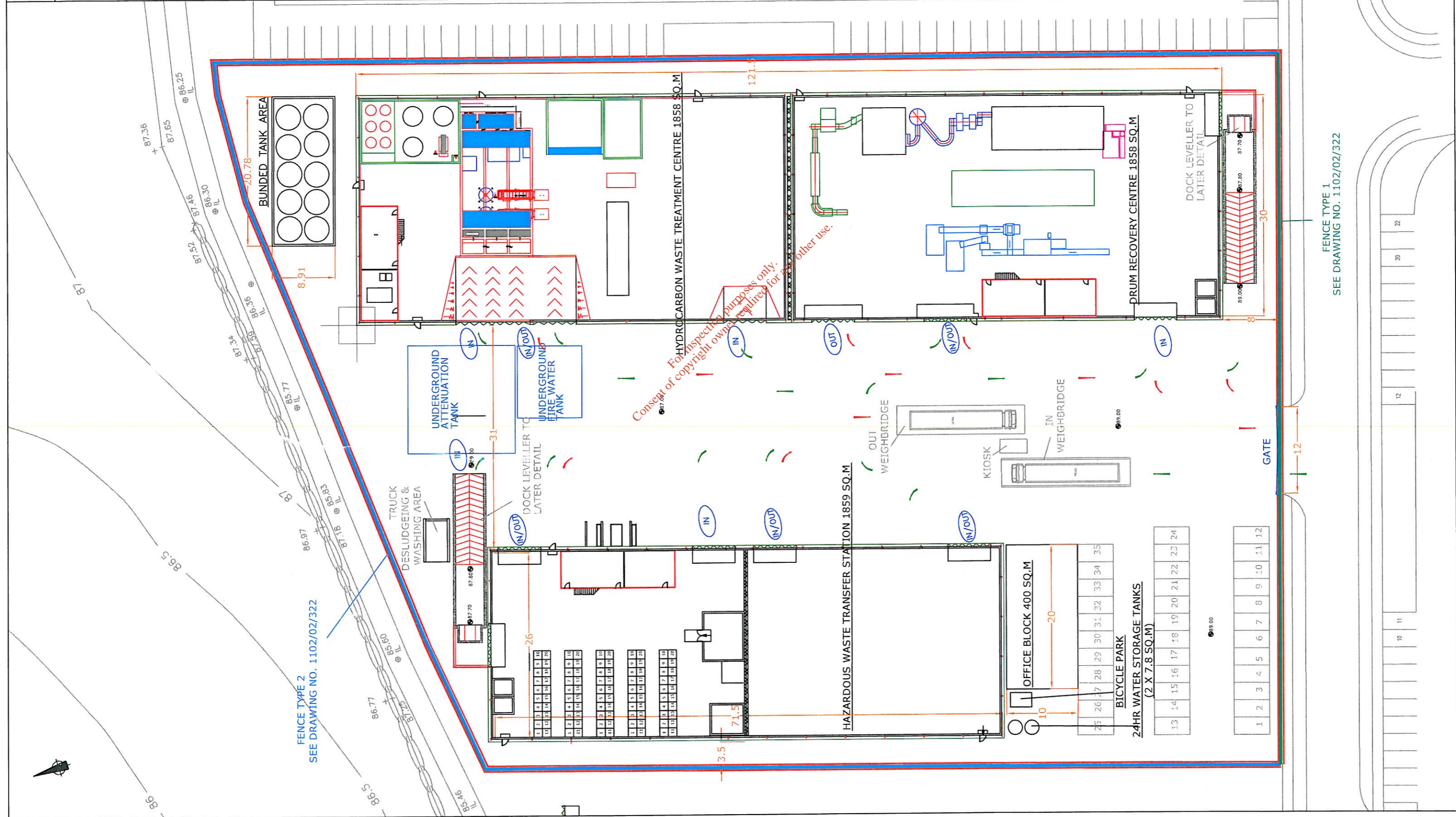
Project
INTEGRATED WASTE MANAGEMENT FACILITY GREENOGUE, CO. DUBLIN

SITE LAYOUT PLAN

Scale: 1:1500	Checked by: D.G.	Date: AUGUST 2003
Drawn by: D.B.	ENGINEER IN CHARGE: DANIEL GREHAN	

TES CONSULTING ENGINEERS
 100, WINDYBANK ROAD, WINDYBANK, DUBLIN 12, IRELAND
 TEL: 01 454 4000 FAX: 01 454 4001
 WWW.TESCONSULTINGENGINEERS.COM

Drawing No	1102/02/305
Rev.	



FENCE TYPE 1
 SEE DRAWING NO. 1102/02/322

12	20	22
10	11	
13	14	15
16	17	18
19	20	21
22	23	24
1	2	3
4	5	6
7	8	9
10	11	12