OFFICE OF LICENSING & GUIDANCE

INSPECTORS REPORT ON A LICENCE APPLICATION

To:	DIRECTORS
From:	Niamh O' Donoghue **- LICENSING UNIT**
Date:	16th December 2005
RE:	Application for a Waste Licence Review from Atlas Environmental Ireland (Formerly Gleneden Trading Ltd) Licence Register 145-2

Application Details	
Type of facility:	Hazardous Waste Transfer Station
Classes of Activity (**P** = principa activity):	3rd Schedule: 7, 11, 12, 13 4th Schedule: 13 **(P)**
Quantity of waste managed per annum:	7,000t
Classes of Waste:	Hazardous, Commercial and Healthcare Waste.
Location of facility:	Unit 9, Raffeen Industrial Estate, Raffeen, Monkstown, Co. Cork
Licence application received:	17th November 2004
Third Party submissions:	None
EIS Required:	No
Article 14 Notices sent:	14th January 2005, 6th October 2005
Article 14 compliance date:	27th November 2005
Site Inspection:	14th March 2005

Facility

This facility was originally licensed to Gleneden Trading Ltd in February 2002 to operate a healthcare waste treatment facility. It was licensed to accept 1,600 tonnes per annum (tpa) of waste arising from healthcare activities in the former Southern Health Board Region. To date no healthcare waste has been treated at the facility and in the short term the SHB is not expected to use the facility. During the review process an application was received for the transfer of the waste licence 145-1 from Gleneden to Atlas Environmental Ireland. It was considered more appropriate that the

transfer of ownership be done as part of the application process. Atlas Environmental Ltd. will now fully manage and operate the facility.

This review was initiated to increase the quantity and broaden the scope of licensed activities to include the acceptance, temporary storage and onward shipment off-site of other hazardous waste types. It is intended that all plant and equipment associated with the treatment of healthcare waste would be decommissioned, dismantled and placed in off-site storage. However, retention in the licence of conditions necessary to allow the treatment of healthcare waste is sought lest the market again become more favourable.

Atlas Environmental Ltd is a subsidiary of DCC PLC Group. DCC is a value added sales & marketing and support services group focused on the energy, IT, healthcare, food, beverage and environmental markets. DCC currently manages the Atlas Environmental hazardous waste management facility in Portlaoise (Ref No. 184-1), SES in Shannon (Ref No. 41-1) and has recently acquired Envirotech in Co. Cork.

The proposed waste quantity in the application is 7,000tpa divided between waste streams indicated in the table below:

Waste Type	**Quantity (tpa)**	**Waste Type**	**Quantity (tpa)**
Waste oil	4000	Clinical healthcare waste	1,600
Oil filters	500	Other (photographic waste, cooking oil, ELV components, non-liquid hazardous/contaminated waste)	600
Batteries	240		
Fluorescent light bulbs	10		
Contaminated soils	50		

Hours of operation at the facility are not limited in the RD as the facility is located in an Industrial zone. Normal hours of operation are 0700 to 2100 Monday to Saturday inclusive. Possible work outside these hours could result from emergency response services to customers and the acceptance of waste oils from ships, which would be dependant on docking times.

Operational Description & Infrastructure

Non-waste activities

Atlas proposes to extend the existing building in order to facilitate the relocation of their sister company Envirotech. Envirotech are engaged in the warehousing of wastewater treatment chemicals and associated blending activities. At the redeveloped site the waste and non-waste activities will be kept physically distinct from one another though the entire site falls within the licensable site boundary and is owned by the one company. Infrastructure associated with the non-waste activities will consist of four bunded storage tanks, three bunded blending tanks, a warehouse area and associated laboratory.

Healthcare waste

The licensee, as stated, intends to suspend operation of the heat disinfection unit for the treatment of healthcare waste and all components of the existing plant have been

decommissioned, dismantled and placed in offsite storage. As stated the company wishes to retain permission to treat healthcare waste on site however the treatment unit originally licensed would be replaced by a smaller more compact unit. The principle of operation of the new plant would be similar to that in the existing licence; however; the new system uses steam instead of hot oil to provide the indirect heat to the waste. The process involves the tipping of waste to be processed into a funnel where with a hydraulic vertical press it is fed into a shredder and onto a sieve designed to ensure the waste is reduced to approximately 25x25mm. Waste is directly transferred to a screw conveyer and discharged into a buffer tank with an agitator. From the buffer tank a screw conveyer via an airlock feeds waste to the sterilizer. Once full the sterilizer is heated (min.121^{o}C) by means of vapour generated in a vapour unit and the material is continually agitated. After the expiration of the required sterilisation period (approximately 15mins) the relaxation phase is initiated. The sterilised waste will be held in the unit prior to landfill disposal pending results of microbiological and physical testing as per the existing licence. Due to the installation of a new plant type from that originally licensed the commissioning requirements in the RD are as per the original licence.

The system will be completely enclosed. Extraction is carried out at three points: (i) the input hopper, (ii) surrounding housing and (iii) the discharge conveyor. The extracted air is passed through a two chambers three-stage filter system. The first chamber contains four ceramic rolls where extracted vapour is condensed. Condensed material is collected in a floor tub, which is fed back to the sterilisation unit buffer tank thus reducing odour. The second chamber contains three activated carbon filters and one zeolite (metasorb) filter reducing odour and other potential pollutants. The RD in addition to setting monitoring and emission limits values also requires a test programme to fully establish operational controls.

There is no change in allowable duty and standby capacity for healthcare waste from the original licence. Due to the proposal to have healthcare and non-healthcare waste on site and in accordance with WHO guidelines and those of the EA additional infrastructure storage requirements for healthcare waste have been added to the RD, these are the requirement to have storage and quarantine areas reserved for healthcare waste only, the storage must be well lit and ventilated, be secure, sited on an impermeable surface with a closed drainage system, kept locked when not in use, clearly marked with warning signs and provided with washing facilities for employees. Storage time on site shall not be greater than 36 hours at room temperature and up to 70 hours under refrigeration and/or negative air pressure. The RD requires healthcare waste stored under refrigeration is to be brought to room temperature prior to treatment to ensure waste is brought to a sufficient temperature to guarantee inactivation of any pathogenic organisms present.

Operational controls and microbiological challenge tests are in line with the existing licence. Using the classification based on Department of Health and Children's (DOH&C) *Segregation Packaging and Storage Guidelines for Healthcare Risk Waste April 2004,* categories of waste applied for to be treated are; Category A types 1.1 (General), 1.2 (microbiological cultures), 2 (Biological – anatomical waste), and 3 (Sharps). The RD recommends limitations on the types of waste accepted in accordance with the above publication and the existing licence.

Transfer station

The facility proposed will consist of a transfer station with three individually bunded storage bays (4.5m by 9.5m), a bunded tanker parking area, three bunded oil bulk tanks ($54m^3$) and an office area. The entrance to each bay will be ramped.

Unit operations to be conducted at the facility are as follows:

- Tanker inspection
- Bulking up of road tankers
- Hazardous chemical storage
- Storage prior to dispatch

All tankers arriving on site will be sent to the bunded inspection area, documentation checked and recorded. A visual inspection will take place.

Waste oil will be bulked up onsite, all loading and unloading will take place within a bunded area. A dead man system, which requires an operator to keep a transfer switch depressed during the transfer process, will be in operation. Once sufficient quantities are in place the waste oil will be transferred for further process to the Atlas Environmental facility in Portlaoise.

Only properly labelled and pre-authorised chemical hazardous waste will be accepted at the facility. Incoming waste will be inspected to ensure no leaks/damage to the consignment. Most waste will be pre-packed and sealed requiring proper storage prior to onward shipment. Every drum, IBC and container will be given an individual barcode attached to the container and relevant information recorded.

The majority of wastes accepted at the facility will only require storage prior to dispatch off site. Waste will be segregated according to its hazard class and the rules of segregation and stored in one of the appropriate storage bays or tanks. Once quantities of various wastes have been accumulated to a manageable quantity they will be shipped off-site to an appropriate facility for recovery/disposal. It is envisaged that 25 tonnes on average will be delivered to the facility on a daily basis. There is capacity for 13.5 days acceptance of waste if no waste was removed from the site. Condition 3.9 in the RD sets a requirement for the setting of duty and standby capacities.

Use of Resources

The principal resources used at the facility will be electricity, water and natural gas. Electricity will only be used during operating hours and all offices will be insulated. Water will be mains supply and metered. The RD requires energy efficiency programmes and audits.

Emissions

4.1 Air

There will be one emission point to air at the facility, originating from the healthcare treatment process (EP1). Emission limit values are set for VOC's, particulates, odour and indicator microorganisms to certify to no nuisance is generated and waste is adequately treated respectively.

There will be no point source emissions to atmosphere from the new activities proposed. Fugitive emissions will arise from waste oil vapours arising from repacking activities or transferring oils from delivery trucks to bulk tanks. Fugitive emissions from other waste types will be controlled through the storage of all wastes inside the facility in sealed drums, IBCs or other specialised containers. Fugitive emission identification and reduction is required in the RD. Minor emissions will also arise from laboratory fume hoods.

4.2 Emissions to Sewer

There will be no emissions to sewer from the facility; domestic effluent generated will be diverted to an on-site wastewater treatment system and percolation area. The RD requires this system to be accordance with Agency guidelines.

All drainage resulting from leakages, spill clean-ups or general housekeeping will be contained within on site bunds, which will be diverted for collection and safe disposal.

4.3 Storm Waters

There will be no discharges to surface water from the facility. In accordance with planning permission clean yard and roof water at the existing facility are diverted to a percolation area located at the southeastern boundary of the site. The new warehouse and hardstanding areas are to discharge to a new soakway. The RD requires installation of a silt and oil trap on the new soakway system.

A firewater risk assessment report was submitted as part of the application in accordance with Agency's guidelines. All potential sources (licensable and non-licensable) of firewater contamination were included in the assessment. It concluded that sufficient capacity exists to contain potentially contaminated firewater. The RD requires firewater facilities at the site to be in accordance with Agency guidelines.

4.5 Ground/groundwater:

There will be no emissions to ground from the facility. Due to the proposal to expand activities at the facility to include the processing of hazardous waste oils the establishment of the on site groundwater quality is necessary and the RD requires a hydrogeological survey of the site within twelve months of the date of grant of the licence.

4.6 Wastes Generated:

The waste transfer activities on site will not result in waste generation. All solid waste generated on site will be restricted to office and canteen waste. It is estimated that this will generate approximately 1.8tonnes per annum, 85% of this will be paper and cardboard which will be recycled in conjunction with waste activities on site.

4.7 Noise:

The only significant sources of noise emissions on site will be as a result of heavy vehicle traffic carrying consignments onto and off-site. All waste activities will take place indoors. The facility is located adjacent to the N28 national road. It is estimated that traffic movements to and from the proposed site will not exceed 20 vehicles per day. A noise survey conducted as part of the original application determined the pre-existing background noise at the nearest noise sensitive location at

52 dB(A) Leq, the dominant noise at this location was traffic on the N28. The RD sets noise limits at noise sensitive locations in accordance with Agency guidelines and requires annual monitoring.

4.8 Nuisance:

The types of waste activities proposed should not generate nuisances apart from dust as a result of vehicle movement and possible odour and dust due to healthcare waste treatment. The access road is bituminous tarmacadam and the RD requires the road network be kept free of debris and all waste vehicles must be fully enclosed. The RD further requires that prior to the commencement of healthcare waste treatment at the facility an odour management system is in place and adequate measures are provided for the control of dust.

Cultural Heritage, Habitats & Protected Species

The facility is an existing site located within an industrial estate. The change in activities resulting from the review will not impact in any designated sites.

Compliance Record

As stated no healthcare waste has been treated at the facility to date. There has been no enforcement action to date and no complaints recorded.

Fit & Proper Person Assessment

Atlas Environmental Ireland can be considered fit and proper persons for the purposes of the Act.

Submissions

There were no submissions made in relation to this review application.

Charges

The facility was not set any charges in 2005 as it had not operated. The RD recommends a charge of €12873.

Recommendation

I have considered all the documentation submitted in relation to this application and recommend that the Agency grant a licence subject to the conditions set out in the attached RD and for the reasons as drafted.

Signed

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Niamh O' Donoghue
Office of Licensing and Guidance

Procedural Note

In the event that no objections are received to the Proposed Decision on the application, a licence will be granted in accordance with Section 43(1) of the Waste Management Acts 1996 to 2005.