



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

WASTE LICENCE
PROPOSED DECISION

Waste Licence
Register Number: 55-1

Applicant: Sterile Technologies Ireland
Limited

Location of Facility: Unit 430, Beech Road, Western
Industrial Estate, Naas Road,
Dublin 12

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Reasons for the Proposed Decision

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

In reaching this decision the Agency has considered the application and supporting documentation received from the applicant, all submissions received from other parties and the report of its inspector.

Part I - Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Act, 1996, the Environmental Protection Agency (the Agency) proposes, under Section 40(1) of the said Act to grant this Waste Licence to Sterile Technologies Ireland Limited, Unit 430, Beech Road, Western Industrial Estate, Naas Road, Dublin 12 to carry on the waste activities listed below at Unit 430, Beech Road, Western Industrial Estate, Naas Road, Dublin 12 subject to 11 No. Conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed waste disposal activities, in accordance with the Third Schedule of the Waste Management Act, 1996

Class 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.

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.

INTERPRETATION

4 log₁₀ reduction	A four decade reduction or a 0.0001 survival probability in a microbial population; i.e. a 99.99% reduction.
6 log₁₀ reduction	A six decade reduction or a 0.000001 survival probability in a microbial population; i.e. a 99.9999% reduction.
Act	The Waste Management Act, 1996 (No. 10 of 1996).
Adequate lighting	20 lux measured at ground level.
AER	Annual Environmental Report
Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Agency	Environmental Protection Agency
Agreement	Agreement in writing.
Annually	All or part of a period of twelve consecutive months.
Application	The application by the licensee for this waste licence, including any other material submitted to the Agency in writing by the licensee between the date of the application and the date of grant of this licence.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of the waste licence application.
BATNEEC	Best Available Technology Not Entailing Excessive Cost as defined in section 5(2) of the Act.
Bi-annually	All or part of a period of six consecutive months.
Bin	Wheeled cart for the containment of healthcare risk waste the specification of which is set out by the JWMB. See <i>JWMB</i> .
Bund	A structure to provide containment for any loss of liquid from a storage tank and associated pipework. The Agency's Landfill Design Manual (draft) sets forth design criteria.
Challenge test	The introduction into the system of known microbiological indicators to provide an assessment of the effectiveness of the disinfection process.
Condition	Condition of this licence. In any case where this licence refers to a numbered condition, the reference shall be taken to mean the condition and any sub-condition therein which the context of the reference requires that reference is to be made to
Containment boom	A boom which can contain a spillage and prevent it from entering drains or watercourses.
Daily	Consecutive 24 hour periods

Day	A period from 0000 hours to 2400 hours
Daytime	0800 hours to 2200 hours
Documentation	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
Emission	As defined in Section 5 (1) of the Act.
Emission limit value	Those limits, including concentration limits or deposition limits, contained in Schedule G.
EMP	Environmental Management Plan
Environmental pollution	As defined in Section 5 (1) of the Act.
European Waste Catalogue (EWC)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 94/3/EC and any subsequent amendment published in the Official Journal of the European Community.
EWC	See <i>European Waste Catalogue</i>
Facility	That area or areas defined under Condition 1.2 of this licence.
Hazardous waste	As defined in Section 4 (2) of the Act.
Healthcare risk waste	As defined by the JWMB in "Specification for the transportation, treatment and disposal of clinical/healthcare risk waste throughout the island of Ireland" prepared on behalf of the Department of Health and Social Services, Northern Ireland, the Central Supplies Agency, Northern Ireland and Department of Health, Dublin.
IBC	Intermediate bulk container
Incident	Any reference to an incident in this licence means an incident as defined in Condition 3.1
JWMB	Joint Waste Management Board - the contracting authority for the transportation, treatment and disposal of clinical/healthcare risk waste throughout the island of Ireland. Reference to the JWMB specification is to the specification for the abovementioned contract (See <i>Healthcare risk waste</i>).
Licence	A Waste Licence issued in accordance with the Act.
Licensee	Sterile Technologies Ireland Ltd.
Local authority	South Dublin County Council
Main processing	"STI Chem-Clav 2000 Series" as described in Attachment D.2.8 of

unit	the waste licence application.
Maintain	Keep in a fit state, including such regular inspection, servicing and repair as may be necessary to adequately perform its function.
Monthly	At least 12 times per year, once during each calendar month.
Night-time	2200 hours to 0800 hours
Recovery	As defined in Section 4 (4) of the Act.
Residence time	The average length of time it takes for a particle of waste to travel the length of the main processing unit.
Sanitary authority	South Dublin County Council
Specified emissions	Those emissions listed in Schedule G of this licence.
Specified engineering works	Those engineering works listed in Schedule E of this licence.
Submit	Unless the context of this licence indicates otherwise, submit to the Agency in writing for agreement
Trade Effluent	As defined in the Local Government (Water Pollution) Act, 1977
Trigger level	A parameter value which when achieved or exceeded requires certain actions to be taken.
Waste	As defined in Section 4 (1) of the Act.
Waste disposal activity	Includes the activities referred to in Section 4 of the Act and listed in the Third Schedule thereto.
Waste recovery activity	Includes the activities referred to in Section 4 of the Act and listed in the Fourth Schedule thereto.
Weekly	During all weeks of plant operation, and in the case of emissions, when emissions are taking place; with no more than one measurement in any one week.

Part II - CONDITIONS

Condition 1 SCOPE

- 1.1. The waste activities authorised by this licence are listed and described in *Schedule A: Waste Activities*. Waste activities at the facility shall be restricted to those listed in Schedule A and any restrictions set down therein.
- 1.2. Waste activities shall be restricted to the area of land outlined in red on the Site Plan, drawing no. Fig. B.2 (F5) of the application. Any reference in this licence to “facility” shall mean the area thus outlined in red.
- 1.3. Every plan, programme or proposal submitted to the Agency for agreement pursuant to any condition of this licence shall include a proposed timescale for its implementation. The Agency may modify or alter any such plan, programme or proposal in so far as it considers such modification or alteration to be necessary. Every plan, programme or proposal shall be carried out within the timescale fixed by the Agency but shall not be undertaken without the agreement of the Agency.
- 1.4. This licence is for the purposes of waste licensing under the Waste Management Act, 1996 only, and nothing in this licence shall be construed as negating the licensee’s statutory obligations or requirements under any other enactments or regulations.
- 1.5. Where the Agency considers that a non-compliance with the Conditions of this licence has occurred, it may serve a notice on the licensee specifying:
 - (a) that only those wastes as specified, if any, in the notice are to be accepted at the facility after the date specified in the notice;
 - (b) that the licensee shall undertake the works stipulated in the notice, and/or otherwise comply with the requirements of the notice as set down therein, within any time-scale contained in the notice; and
 - (c) that the licensee shall carry out any other requirement specified on the notice.

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

Reason: To clarify the scope of this licence.

Condition 2 MANAGEMENT OF THE ACTIVITY

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

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- 2.1.2 The EMS shall include as a minimum those elements specified in the Conditions 2.2 to 2.8 below:
- 2.2. Schedule of Environmental Objectives and Targets
- 2.2.1 The licensee shall, within six months from the date of grant of this licence, submit to the Agency for its agreement a Schedule of Objectives and Targets. The objectives should be specific and the targets measurable.
- 2.2.2 The Schedule shall address a five year period as a minimum and shall be reviewed and submitted annually to the Agency for its agreement.
- 2.3. Environmental Management Programme
- 2.3.1 The licensee shall, within six months from the date of grant of this licence, submit to the Agency for its agreement an Environmental Management Programme (EMP). The EMP shall include a time-scale for achieving the Schedule of Objectives and Targets and shall comply with any other guidance issued by the Agency.
- 2.3.2 The EMP shall include, as a minimum, the information specified in Schedule B: Content of the Environmental Management Programme. The EMP shall be reviewed and submitted to the Agency for its agreement annually.
- 2.4. Corrective Action
- 2.4.1 Prior to the acceptance of any waste at the facility, the licensee shall establish and maintain written Corrective Action Procedures to ensure that corrective action is taken should specified requirements to this licence not be fulfilled.
- 2.5. Awareness and Training
- 2.5.1 Prior to the acceptance of any waste at the facility, the licensee shall establish and maintain Awareness and Training Procedures for identifying training needs and for providing appropriate training, for personnel whose work is related to the licensed facility. Written records of training shall be maintained.
- 2.6. Management Structure
- 2.6.1 Within six months from the date of grant of this licence, the licensee shall submit written details of the management structure of the facility for the agreement of the Agency. Any proposed changes in the management structure shall be submitted in writing to the Agency for its agreement. Written details of the management structure shall include the following information:
- (a) the names of all persons who are to provide the management and supervision of the waste activities authorised by the licence;
 - (b) a named contact person for communications with the Sanitary Authority
 - (c) details of the responsibilities for each individual named under a) above;
 - (d) details of the relevant experience, competence and qualifications held by each of the persons nominated under a) above; and

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- (e) contingency arrangements for the absences of the named persons from the facility.

2.7. Communications

- 2.7.1 Within six months from the date of grant of this licence, the licensee shall submit for agreement to the Agency a Communications Programme to ensure that members of the public can obtain information concerning the environmental performance of the facility at all reasonable times.

2.8. Annual Environmental Report

- 2.8.1 The licensee shall submit to the Agency for its agreement, within twelve months from the date of grant of this licence, and within one month of the end of the year thereafter, an Annual Environmental Report (AER).

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

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

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

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

Condition 3 NOTIFICATION AND RECORD KEEPING

- 3.1. The licensee shall make written records of the following incidents:

- (a) any emission which results in the contravention of any relevant standard, including any standard for an environmental medium, or any relevant emission limit value, prescribed under any relevant enactment;
- (b) any emission which does not comply with the requirements of this licence;
- (c) any trigger level specified in this licence or in the EMS which is attained or exceeded;
- (d) any test failures of waste samples taken;
- (e) any malfunction of any environmental control system;
- (f) any indication that contamination has, or may have, taken place;
- (g) the cessation of waste activities at the facility for a period in excess of 28 days, and their recommencement;

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- (h) any occurrence with the potential for environmental pollution; and
 - (i) any emergency.
 - 3.2. The written record of an incident as specified in Condition 3.1 shall include all aspects described in Condition 10.7.
 - 3.3. Unless otherwise instructed in writing by the Agency, the licensee shall:
 - (a) notify the Agency by telephone, and by facsimile if available, as soon as practicable and in any case not later than 10.00 am the following working day after the occurrence of any incident; and
 - (b) submit the written record required by this condition to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident.
 - 3.4. Should any further actions be taken after the date of written notification, as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.
 - 3.5. Unless otherwise agreed by the Agency, all documentation submitted to the Agency shall:
 - (a) be sent to the Agency's headquarters;
 - (b) comprise one original and three copies;
 - (c) be formatted in accordance with any written instruction or guidance issued by the Agency;
 - (d) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;
 - (e) be submitted in accordance to the relevant reporting frequencies specified by this licence;
 - (f) be certified as accurate and representative by the licensee; and
 - (g) in the case of results of any environmental monitoring, be accompanied by a written interpretation setting out their significance.
 - 3.6. Copies of all environmental monitoring data obtained by the licensee which relates to the facility shall be forwarded to the Agency at the frequencies set out in Schedule D to this licence.
 - 3.7. In the event of any incident which relates to discharges to surface water, the licensee shall notify South Dublin County Council and the Eastern Regional Fisheries Board as soon as practicable by telephone and in writing (by facsimile if available) and in any case not later than 10:00am on the following working day after such an incident.
 - 3.8. Unless otherwise agreed in writing with the Agency, all documentation required to be maintained under this licence, shall be retained by the licensee.

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- 3.9. The licensee shall provide additional copies of any documentation referred to in this licence to the Agency upon written request, within the time specified in writing by the Agency.
- 3.10. The licensee shall keep the following documents at the office referred to in Condition 4.4:
- (a) the current waste licence relating to the facility;
 - (b) the current Environmental Management System for the facility;
 - (c) the previous year's Annual Environmental Report for the facility; and
 - (d) all written procedures produced by the licensee which relate to the licensed activities.
- 3.11. The licensee shall maintain a written record for each load of waste arriving at or leaving the facility. The licensee shall record the following:
- (a) the time and date of arrival or departure;
 - (b) the name of the carrier;
 - (c) the vehicle registration number;
 - (d) for incoming loads, the name of the producers and collectors of the waste as appropriate;
 - (e) the identification of each bin or other container contained in the load;
 - (f) a description of the waste load including the associated EWC codes;
 - (g) the quantity of waste, recorded in kilogrammes;
 - (h) the name of the person checking the load;
 - (i) where incoming or outgoing loads or parts thereof are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed;
 - (j) a consignment note number (including transfrontier shipment notification and movement/tracking form numbers, as appropriate);
 - (k) the destination of outgoing waste (including a facility name and waste licence or permit number as appropriate);
 - (l) written confirmation that consigned waste has reached its destination and/or has been subjected to the recovery or disposal process for which it was destined, as appropriate; and
 - (m) any other information which might be required from time to time by the Agency.
- 3.12. The licensee shall maintain a written record of all complaints of an environmental nature relating to the operation of the activity. Each such record shall give details of the following:
- (a) date and time of the complaint;

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- (b) the name of the complainant;
 - (c) details of the nature of the complaint;
 - (d) actions taken on foot of the complaint and the results of such actions; and
 - (e) the response made to each complainant.

Reason: To provide for the notification of incidents, to update information on the activity and to provide for the keeping of records.

Condition 4 SITE INFRASTRUCTURE

- 4.1. The licensee shall establish all infrastructure referred to in this licence prior to the commencement of the licensed activities or as agreed in advance with the Agency.
- 4.2. Site Notice Board
 - 4.2.1 The licensee shall provide and maintain a notice board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the identification board shall be 1200mm by 750 mm.
 - 4.2.2 The board shall clearly show:
 - (a) the name and telephone number of the facility;
 - (b) the normal hours of operation;
 - (c) the name, address and telephone number of the licence holder;
 - (d) an emergency out of hours contact telephone number;
 - (e) the name, address and telephone number of the operator of the facility;
 - (f) the waste licence reference number; and
 - (g) where and when environmental monitoring information relating to the facility can be obtained.
- 4.3. Site Security
 - 4.3.1 Security fencing and gates shall be installed and maintained as described in Attachment D.1a of the application.
 - 4.3.2 The licensee shall remedy any defect in the gates and/or fencing as follows:
 - (a) a temporary repair shall be made by the end of the working day; and,
 - (b) a repair to the standard of the original gates and/or fencing shall be undertaken within three working days or as otherwise agreed in writing with the Agency.
 - 4.3.3 Gates shall be kept locked shut when the facility is unsupervised.

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- 4.4. The licensee shall provide and maintain an office on the facility. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.
- 4.5. The licensee shall provide and maintain a working telephone and facsimile machine in the office specified in Condition 4.4 above.
- 4.6. The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
- 4.7. Bunding
- 4.7.1 All waste and chemical storage areas shall be rendered impervious to the materials stored therein. In addition, tank, drum and IBC storage areas shall, as a minimum be bunded, either locally or remotely, to a volume not less than the greater of the following:
- (a) 110% of the capacity of the largest tank or drum within the bunded area
 - (b) 25% of the total volume of substance which could be stored within the bunded area.
- 4.7.2 All drainage from bunded areas shall be diverted for collection and safe disposal.
- 4.7.3 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 4.7.4 The integrity and water tightness of all the bunds, tanks and containers and their resistance to penetration by water or other materials stored therein shall be tested and demonstrated by the licensee and shall be reported to the Agency within six months from the date of grant of this licence. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion as part of the AER. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.
- 4.7.5 All tanks and containers shall be labelled to clearly indicate their contents.
- 4.8. The integrity and water tightness of all underground pipes and tanks and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee and shall be reported to the Agency within six months from the date of grant of this licence. This testing shall be carried out by the licensee at least once every five years thereafter and reported to the Agency on each occasion as part of the AER. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.
- 4.9. All foul sewer gullies, drainage grids and manhole covers shall be painted with red squares. All surface water discharge gullies, drainage grids and manhole covers shall be painted with blue triangles. These colour codes shall be maintained so as to be visible at all times.
- 4.10. Specified Engineering Works
- 4.10.1 The licensee shall submit written proposals for all Specified Engineering Works, as defined in *Schedule E: Specified Engineering Works*, to the Agency for its agreement prior to any such works being carried out. No such works shall be carried out without the prior agreement of the Agency.

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- 4.10.2 All specified engineering works shall be supervised by a competent person(s) agreed in advance by the Agency and that person, or persons, shall be present at all times during which relevant works are being undertaken.
- 4.10.3 Following the completion of all specified engineering works, the licensee shall submit to the Agency updated site drawings of the facility and any other information as may required by the Agency.

Reason: To provide for the protection of the environment

Condition 5 WASTE ACCEPTANCE AND HANDLING

- 5.1. The facility may be operated as a transfer station only until such time as operation of the facility as a hazardous waste disposal facility, as licensed under Class 7 of the Third Schedule, commences and subject to the following sub-conditions. Such commencement shall be notified to Agency twenty-four hours in advance.
- 5.1.1 Except where prior agreement is received from the Agency, only the waste types described in Table E.1.2 of the correspondence dated 16 October 1998 shall be accepted at the facility.
- 5.1.2 The quantity of waste to be accepted at the facility shall not exceed 7,000 tonnes per annum unless otherwise agreed in advance with the Agency.
- 5.1.3 No waste shall be stored at the facility in other than the scheme illustrated on drawing no. Fig D1(a). (F1). In any case, no waste shall be stored at the facility for longer than 3 months.
- 5.1.4 Waste shall only be stored indoors in such a manner as will not cause environmental pollution. All containers shall be readily identifiable as to their contents and any associated hazards.
- 5.2. Except where prior agreement is received from the Agency, the following waste types only, as described in items 1, 2, 4 and 9 respectively of Attachment E.1.2 of the application, shall be accepted at the facility:
- (a) waste whose collection, recovery and disposal is subject to special requirements in view of the prevention of infection, namely:
- used sharp instruments (item 1);
 - potentially infectious healthcare waste (item 2); and
 - autoclaved laboratory waste (item 4).
- (b) potentially offensive material which is not assessed as infectious (item 9).
- 5.3. The quantity of waste to be accepted at the facility shall not exceed 7,500 tonnes per annum unless otherwise agreed in advance with the Agency. Waste shall be processed at a maximum rate of one tonne per hour.
- 5.4. Waste may be accepted and processed at the facility on a 24 hour basis, Monday to Saturday inclusive. Any operation on a Sunday shall be notified to the Agency by 10.00am on the morning of the next working day. The notification shall detail the reasons for operating on Sunday and the hours during which the work was carried out.

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- 5.5. The procedure for waste acceptance shall be as submitted as Attachment E.2 of the application or as otherwise agreed with the Agency.
- 5.6. All waste accepted at the facility shall be processed as detailed in the application. Any waste deemed unsuitable for such processing and/or in contravention of this licence shall be immediately separated, stored in the designated quarantine store (illustrated on drawing no. Fig D1 (F2)) and at the earliest possible time removed from the facility. The quarantine store shall be kept locked at all times except during movement of waste into or out of the store. Waste shall be stored under appropriate conditions in the quarantine store to avoid putrefaction, odour generation, the attraction of vermin and any other nuisance or objectionable condition. The use of the quarantine store shall be reported in the AER or otherwise as requested by the Agency.
- 5.7. No waste shall be stored at the facility in other than designated storage areas as illustrated on drawings no. Fig D1 (F2) and Fig D1 (F3). In any case, no unprocessed waste, other than that stored in the quarantine store, shall be stored at the facility for longer than 36 hours.
- 5.8. No unprocessed or partially processed waste shall be left in the main processing unit for longer than 24 hours.
- 5.9. Waste shall only be accepted at the facility in bins owned and controlled by the licensee. Each bin accepted at the facility shall be uniquely identifiable by visual and electronic means. Each bin shall be electronically tracked such that its location, whether at or away from the facility, may be determined at all times.
- 5.10. After each use, all bins shall be cleaned inside and out. The cleaning process shall be verified monthly as detailed in Procedure MP 4 of the Operation and Maintenance Manual submitted as part of the licence application and dated February 1999.
- 5.11. All containers accepted at the facility shall be whole and sound. Any leaking or otherwise ruptured containers shall immediately be overdrummed or the contents transferred to a sound container in a manner which will not adversely affect the environment. Within two months of the date of grant of this licence, a procedure for undertaking this activity shall be submitted to the Agency for its agreement.
- 5.12. Subject to Condition 7.7.7, all spillages of healthcare waste shall be cleaned up so as to prevent spilled fluid draining to sewer and in any case so as not to adversely affect the environment.
- 5.13. Commissioning tests
- 5.13.1 The licensee shall carry out commissioning tests to prove the efficacy of the process and to determine its operating parameters with respect to residence time and operating temperature. The programme proposed by the licensee in correspondence dated 3 March 1999 shall be adopted for the completion of commissioning tests and for the establishment of operating parameters (residence time and temperature) unless otherwise agreed in advance with the Agency.
- 5.13.2 A report on the commissioning tests shall be submitted to the Agency. The report shall:
- (a) describe the programme as carried out;
 - (b) provide *all* analytical results obtained;
 - (c) concisely interpret those results; and

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- (d) detail the parameter settings by which the process will be operated.
- 5.13.3 Other than for commissioning, healthcare risk waste shall not be processed at the facility until the Agency has confirmed its satisfaction, in writing, with the commissioning tests as reported upon. All healthcare risk waste processed during commissioning shall be exported for disposal.
- 5.14. Process efficacy
- 5.14.1 The process shall be operated so as to achieve microbiological inactivation and disintegration of healthcare risk waste as follows:
- (a) inactivation of vegetative bacteria, fungi, lipophilic/hydrophilic viruses, parasites and mycobacteria at a 6 log₁₀ reduction or greater;
 - (b) inactivation of Bacillus stearothermophilus spores or Bacillus subtilis spores at a 6 log₁₀ reduction or greater;
 - (c) the disinfection of contaminated sharps - to be determined as per Procedure MP 7 of the Operation and Maintenance Manual submitted as part of the licence application and dated February 1999 or as otherwise agreed with the Agency; and
 - (d) the disintegration of waste. Sharps shall be destroyed such that particles no larger in any dimension than 15mm exist after shredding. For other wastes no particle of a dimension exceeding 25mm shall remain after shredding.
- 5.14.2 Microbiological inactivation of healthcare risk waste shall be proved in the absence of applied sodium hypochlorite solution.
- 5.14.3 The process efficacy shall be proved within two months of commissioning tests commencing and a report shall be submitted to the Agency within five days of all analytical results being obtained. The report shall at least satisfy Condition 5.13.2 (a), (b) and (c).
- 5.14.4 The process efficacy shall subsequently be proved within twelve months from the date of grant of the licence and annually thereafter. Such annual or other efficacy testing programmes shall be submitted to the Agency for its agreement and subsequently reported upon as part of the AER. The report shall at least satisfy Condition 5.13.2 (a), (b), (c) and (d).
- 5.15. All processed healthcare risk waste shall be held at the facility in fully enclosed containers until such time as test results from daily microbiological analysis carried out under *Schedule F.3* confirm its successful treatment.
- 5.16. Should analysis of any of the samples taken for the purpose of Conditions 5.14 and 5.15 indicate test failure, the following actions shall be taken:
- (a) the batch of processed waste being held shall be further processed and analysed;
 - (b) all of the sampling and analysis specified in *Schedule F.3* shall be carried out daily for the next four consecutive working days;
 - (c) should this additional sampling and analysis indicate the continued presence of the relevant micro-organisms, the acceptance and

processing of healthcare risk waste shall cease until written notice from the Agency agreeing to its resumption is received;

- (d) a written report on the test failures shall be submitted to the Agency within three days of the availability of analytical results.
- 5.17. The licensee shall, not later than two months from the date of grant of this licence, submit to the Agency for its agreement a procedure for the handling and reprocessing of waste in the event of test failure.
- 5.18. During operation of the process, the process shall be continuously monitored to ensure that operating parameters are being maintained within the established limits. Continuous records shall be kept of the following parameters:
- (a) waste exit temperature from the processing unit;
 - (b) ambient temperature inside each of the lower and upper sections of the processing unit;
 - (c) the rotating speed of the conveying screw;
 - (d) the input and output temperature at the steam jacket; and
 - (e) the residence time of waste inside the processing unit.

The records shall be held on site for a minimum period of four weeks and made available for inspection by the Agency or other party at all reasonable times. The waste temperature and the residence time calculation shall be mechanically verified monthly, or at a frequency to be agreed with the Agency, and reported as part of the AER.

- 5.19. All waste, including processed healthcare risk waste, removed off site for recovery or disposal shall only be conveyed by an authorised contractor, as agreed with the Agency, and shall be transported from the facility in a manner which will not adversely affect the environment.
- 5.20. The ultimate recovery or disposal facility for processed healthcare risk waste shall be agreed in advance with the Agency. The licensee shall, within twelve months from the date of grant of this licence, submit a report identifying options for the recovery of processed healthcare risk waste to the Agency for its agreement.
- 5.21. All processed healthcare risk waste removed off site shall be accompanied by a consignment note and shall be certified by a technically competent person from the testing laboratory that the waste has been processed (microbiologically tested) in accordance with this licence.

Reason: To provide for the acceptance and management of wastes authorised under this waste licence

Condition 6 ENVIRONMENTAL NUISANCES

- 6.1. The licensee shall, at a minimum of one week intervals, inspect the facility and its immediate surrounds for nuisances caused by vermin and odours. Written records shall be maintained of all inspections and any actions taken as a result of these inspections.
- 6.2. The licensee shall ensure that all vehicles delivering waste to or removing waste from the facility are fully enclosed and clean and shall not give rise to offensive odours or other nuisance.

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- 6.3. The licensee shall ensure that the activities shall be carried out in a manner such that odours do not result in significant impairment of, or significant interference with, amenities or the environment beyond the facility boundary.
 - 6.4. The licensee shall ensure that vermin do not give rise to nuisance at the facility or the immediate environment of the facility. Vermin control measures shall be as set out in Attachment F.9 of the waste licence application.
 - 6.5. All loose litter accumulated within the facility and its environs shall be removed and appropriately disposed of on a daily basis.

Reason: To provide for the control of nuisances.

Condition 7 EMISSIONS AND ENVIRONMENTAL IMPACTS

- 7.1. No specified emission from the facility shall exceed the emission limit values set out in *Schedule G: Emission Limits*. There shall be no other emissions of environmental significance.
- 7.2. All treatment, abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions supplied by the manufacturer/supplier or installer. Written records of the calibrations and maintenance shall be made and kept by the licensee.
- 7.3. The licensee shall ensure that the activities shall be carried out in a manner such that noise does not result in significant impairment of, or significant interference with, amenities or the environment beyond the facility boundary. There shall be no clearly audible tonal or impulsive component in the noise emissions from the facility at the facility boundary.
- 7.4. Emissions to atmosphere
 - 7.4.1 Emission limit values to atmosphere in this licence shall be interpreted in the following way:
 - 7.4.1.1 For non-continuous monitoring:
 - (a) For any parameter where, due to sampling/analytical limitations, a 30 minute sample is inappropriate, a suitable sampling period should be employed and the value obtained therein shall not exceed the emission limit value.
 - (b) For all other parameters, no 30 minute mean value shall exceed the emission limit value.
 - (c) For flow, no hourly or daily mean shall exceed the relevant limit value.
 - 7.4.2 The concentration limits for emission to atmosphere specified in this licence shall be based on gas volumes under standard conditions of:

Temperature 273K, pressure 101.3kPa (no correction for oxygen or water content).

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- 7.4.3 Emissions to atmosphere shall only be made at the following locations as illustrated on drawing no. 'Fig. D.1 (F1)': A1, A2, A3, A4 and A5.
- 7.4.4 Except as otherwise agreed with the Agency, emissions made at emission point A1 shall be passed through a condenser and an activated carbon filter prior to discharge to the atmosphere.
- 7.4.5 Except as otherwise agreed with the Agency, emissions made at emission point A2 shall be passed through a high efficiency particulate air (HEPA) filter prior to discharge to the atmosphere.
- 7.4.6 The licensee shall, within six months from the date of grant of this licence, submit, as part of the EMP, a report investigating alternative VOC abatement technologies for use at emission points A1 and A2.
- 7.4.7 The emission values for total VOC for each of the emission points A1 and A2 shall be determined monthly for the first six months of operation. The component parts of the VOC emissions shall be characterised annually. The emission values for indicator micro-organisms for each of the emission points A1 and A2 shall be determined weekly for the first month of operation and monthly for the following five months of operation.
- 7.4.8 The efficiency of the electric steam raising boiler and of the natural gas boilers at emission points A3 and A4 shall be tested annually.
- 7.5. There shall be no emissions from the processed healthcare risk waste compactors.
- 7.6. There shall be no direct emissions to groundwater.
- 7.7. Emissions to sewer shall be subject to the following conditions:
- 7.7.1 No specified discharge or emission to sewer shall exceed the emission limit value set out in the schedule to this licence, entitled *Schedule G: Emission Limits*. There shall be no other emission to sewer of environmental significance. In particular, there shall be no discharge or emission to foul or surface water sewers of any waste classified under the Waste Management Act, 1996.
- 7.7.2 Monitoring and analyses of each discharge or emission to the sewer shall be carried out as specified in the Schedule to this licence entitled *Schedule F: Monitoring*.
- 7.7.3 Monitoring and analytical equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission or discharge.
- 7.7.4 No substance shall be present in such concentrations as would constitute a danger to sewer maintenance personnel working in the sewerage system or would damage the fabric of the sewer, or as would interfere with the biological functioning of a downstream waste water treatment works.
- 7.7.5 The licensee shall permit authorised persons of the Agency and the Sanitary Authority to inspect, examine and test, at all reasonable times, any works and apparatus installed in connection with the discharge or emission and to take samples of the discharge or emission.
- 7.7.6 The licensee shall ensure that the discharge shall not contain dissolved methane, petroleum spirits or organic solvents (including chlorinated organic solvents) at concentrations which would give rise to flammable or explosive vapours in the sewer.

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- 7.7.7 Non-trade effluent wastewater (e.g. fire water, accidental spillage) which occurs on site shall not be discharged to the foul or surface water sewer without the prior authorisation of the Sanitary Authority. The Agency shall be notified of such an event.
- 7.7.8 The licensee shall provide and maintain an inspection chamber in a suitable position in connection with each pipe through which a discharge or emission is being made. Each such inspection chamber or manhole shall be constructed and maintained by the licensee so as to permit the taking of samples of the discharge or emission.
- 7.7.9 The licensee shall submit monitoring results to the Sanitary Authority on an annual basis.
- 7.7.10 The trade effluent shall be screened prior to discharge to remove gross solids and avoid blockages in the sewer.
- 7.7.11 The trade effluent shall not contain active viruses, pathogens and/or unsterilised body fluids.
- 7.7.12 Results of the microbiological screening programme specified in *Schedule F.1: Monitoring of emissions to sewer* of this licence shall be reported to the Sanitary Authority on a quarterly basis.
- 7.7.13 The licensee shall notify the Local Authority and the Agency as soon as is practicable after the occurrence of any one of the following:
- (i) any incident with the potential for contamination of surface water or groundwater, or posing a threat to land, or a Sanitary Authority sewer or personnel working in connection with a sewer, or requiring an emergency response by the Local Authority
 - (ii) any emission which relates to a discharge to sewer which does not comply with the requirements of this licence.
- 7.7.14 Emission limits for emissions to sewer shall be interpreted as follows:
- (i) For continuous monitoring:
 - (a) No flow value shall exceed the specified limit.
 - (ii) For non-continuous monitoring:
 - (a) No pH value shall deviate from the specified rate.
 - (b) No temperature value shall exceed the emission limit value.
 - (c) For parameters other than pH, temperature and flow, eight out of ten consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling, shall not exceed the emission limit value. No individual result similarly calculated shall exceed 1.2 times the emission limit value.
 - (d) For parameters other than pH, temperature and flow, no grab sample value shall exceed 1.2 times the emission limit value

7.7.15 The licensee shall provide safe and permanent access to the effluent as discharged to the sewer at the following locations:

(a) at a trade effluent monitoring location marked TEM, the location of which is to be agreed with the Agency.

(b) at the foul sewer discharge point marked FW1, the location of which is to be agreed with the Agency.

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

Reason: To control emissions from the facility and provide for the protection of the environment

Condition 8 DECOMMISSIONING AND AFTERCARE

8.1. A Decommissioning and Aftercare Plan for the facility shall be as submitted to the Agency as Attachment G of the application. The licensee shall update this plan when required in writing by the Agency and submit proposed amendments to the Agency for its agreement.

Reason: To provide for decommissioning of the facility and aftercare of the site on which the facility is located.

Condition 9 ENVIRONMENTAL MONITORING

9.1. The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule F: Monitoring* and as specified in the Conditions of this licence.

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

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

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

9.5. Unless otherwise agreed in writing with the Agency, a written record shall be kept of the names, qualifications and a summary of relevant experience of all persons who carry out any sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring.

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- 9.6. The licensee shall maintain all sampling and monitoring points so that they may be used for the representative sampling and monitoring of emissions from the facility.
- 9.7. The licensee shall, not later than three months from the date of grant of this licence, submit to the Agency for its agreement proposals to investigate the extent, if any, of groundwater contamination at the facility.

Reason: To ensure compliance with the requirements of other conditions of this licence by provision of a satisfactory system of measurement and monitoring of emissions

Condition 10 CONTINGENCY ARRANGEMENTS

- 10.1. The licensee shall, within six months from the date of grant of this licence, submit a written Emergency Response Procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situation which may originate on the facility and shall include provision for minimising the effects of any emergency on the environment.
- 10.2. Contingency arrangements for the facility shall be as detailed in Attachment K of the application.
- 10.3. The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used the absorbent material shall be disposed of in an appropriate manner.
- 10.4. All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects.
- 10.5. No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency. Immediate action shall be taken to extinguish it and the appropriate authorities notified.
- 10.6. The licensee shall carry out a risk assessment to determine the requirements at the facility for fire fighting and fire water retention facilities and, within six months from the date of grant of this licence, submit a report, including recommendations, on the risk assessment to the Agency for its agreement. This assessment shall include an examination of the existing arrangements for storage of fire water. The Chief Fire Officer of South Dublin County Council shall be consulted by the licensee during this assessment.
- 10.7. In the event that any monitoring, sampling or observations indicate that an incident has, or may have, taken place, the licensee shall immediately:
- (a) identify the date, time and place of the incident;
 - (b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission;
 - (c) isolate the source of the emission;
 - (d) evaluate the environmental pollution, if any, caused by the incident;
 - (e) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
 - (f) identify and put in place measures to avoid recurrence of the incident; and

-
- (g) identify and put in place any other appropriate remedial action.

Reason: To provide for the protection of the environment.

Condition 11 CHARGES AND FINANCIAL PROVISIONS

11.1. Agency charges

- 11.1.1 The licensee shall pay to the Agency an annual contribution of £8,255.00 or such sum as the Agency from time to time determines, towards the cost of monitoring the activity or otherwise in performing any functions in relation to the activity, as the Agency considers necessary for the performance of its functions under the Waste Management Act, 1996. The licensee shall in 2000 and subsequent years, not later than January 31 of each year, pay to the Agency this amount updated in accordance with changes in the Consumer Price Index from the date of the grant of the licence to the renewal date. The updated amount shall be notified to the licensee by the Agency. For 1999, the licensee shall pay a pro rata amount from the date of grant of this licence to 31st December 1999. This amount shall be paid to the Agency within one month from the date of grant of this licence.
- 11.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased due to an incident occurring on or adjacent to the facility and associated with the facility, the licensee shall contribute such sums as determined by the Agency to defraying its costs.

11.2. Environmental Liabilities

- 11.2.1 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 agreement within six months of date of grant of this licence.
- 11.2.2 Within six months of the date of grant of this licence, the licensee shall make a Proposal for Financial Provision to the Agency for its agreement to cover any liabilities incurred by the licensee in carrying on the activities to which this licence relates. Such provision shall be maintained unless otherwise agreed in writing by the Agency.
- 11.2.3 The amount of financial provision, held under Condition 11.2.2 shall be reviewed and revised as necessary, but at least annually. Any proposal for such a revision shall be submitted to the Agency for its agreement.
- 11.2.4 The licensee shall within two weeks of purchase, renewal or revision of the financial provision required under Condition 11.2.2, forward to the Agency written proof of such indemnity.

11.3. Sanitary authority charges

- 11.3.1 Sanitary authority charges as follows shall be paid to South Dublin County Council. Charges are subject to price variation in the future as may be ordered by South Dublin County Council.

Charge per cubic metre of trade effluent	£0.28
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Payment frequency	quarterly
Annual monitoring costs	£1,500.00

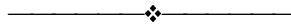
Reason: To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.

SCHEDULE A Waste Activities

Activities authorised by the licence shall be restricted to those described below.

WASTE MANAGEMENT ACT, 1996: THIRD SCHEDULE <i>Note 1</i>	
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: This activity is limited to the processing of healthcare risk waste using the “STI Chem-Clav 2000 Series” processing unit as described in the application.
Class 12	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule: This activity is limited to the repackaging of unprocessed or processed healthcare risk waste.
Class 13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced: This activity is limited to the storage of unprocessed or processed healthcare risk waste.

Note 1: Any reference to an activity Class is to be taken as being from the Third Schedule of the Waste Management Act, 1996, unless otherwise stated.



SCHEDULE B Content of the Environmental Management Programme

Environmental Management Programme

Details of Operator

Name and Address of operator and site. Included should be contact names in respect of persons with managerial responsibility for site operations, including the facility manager. Relevant telephone numbers should also be given. All relevant drawings should be included in the EMP.

Types of Waste Accepted

A detailed description of the types of waste that can be accepted at the facility.

Quantity of Wastes Accepted

Details should be given on the annual quantity of waste taken into the facility.

Engineering Details

Details of all significant site engineering works should be included. Where applicable the information should cover:

- fencing, gates and other security
- site access roads and secondary site roads
- offices, fuel stores etc.
- site infrastructure etc.

Operational Matters

These should include:

- description of the operations
- measures for the control of environmental nuisances
- measures for the control of emissions
- site opening and operating times
- access control
- waste acceptance procedures
- procedures for dealing with unacceptable wastes
- equipment to be utilised
- site personnel, including qualifications, duties and responsibilities
- monitoring and maintenance procedures
- trigger levels for emissions
- operational and safety rules (including safety statement)
- emergency procedures
- investigation of alternative volatile organic carbon abatement technologies

Objectives and Targets

Timescale for achieving the objectives and targets listed in the Schedule of Objectives and Targets

Designation of Responsibility for Achieving Targets and Objectives

Other items specified by the Agency

◆

SCHEDULE C Content of the Annual Environmental Report

Annual Environmental Report Content

Reporting Period.

Waste activities carried out at the facility.

Quantity and composition of waste received, disposed of and recovered during the reporting period and each previous year.

Summary report on emissions.

Summary of results and interpretations of environmental monitoring, including plans of all monitoring locations including 12 digit grid references.

Resource and energy consumption summary.

Proposed development of the site and timescale of such development.

Report on development works undertaken during the reporting period and those proposed during the coming year.

Estimated annual and cumulative quantity of indirect emissions to groundwater.

Schedule of Environmental Objectives and Targets for the forthcoming year.

Report on the progress towards achievement of the Environmental Objectives and Targets contained in the previous year's report.

Full title and written summary of any procedures developed by the licensee in the year which relates to the facility operation.

Environmental Management Programme - Report and Proposal.

Environmental Objectives and Targets for the Forthcoming Year - Report and Proposal.

Full title and a written summary of any procedures developed by the licensee in the year which relates to the operation of the facility.

Tank, pipeline and bund testing and inspection report.

Reported incidents and complaints summary.

Report on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.

Boiler efficiency test results.

Use of the quarantine store for rejected waste.

Process efficacy - microbiological inactivation and disintegration of healthcare risk waste.

Monitoring of emissions and processed healthcare risk waste.

Any other items specified by the Agency.

SCHEDULE D Recording and Reporting to the Agency

Table D.1 Recurring Reports

Report	Reporting Frequency (Note 1)	Report Submission Date
Environmental Management System Updates	Annually	One month after the end of the year reported on.
Annual Environment Report (AER)	Annually	Twelve months from the date of grant of licence and one month after the end of each year thereafter.
Record of Incidents	As they occur	Within five days of the incident.
Specified Engineering Works reports	As they arise	Prior to the works commencing.
Bund, tank and container integrity assessment	3 yearly	Six months from the date of grant of licence and one month after end of the year being reported on.
Underground pipe and tank integrity assessment	5 yearly	Eighteen months from the date of grant of licence and one month after end of the year being reported on.
Microbiological inactivation and destruction of waste	Annually	Two months from the date of grant of licence and one month after the end of each year thereafter.
Monitoring of sewer discharge	Quarterly	14 days after end of the period being reported on.
Monitoring of air emissions	Quarterly	14 days after end of the period being reported on.
Monitoring of processed waste and challenge tests	Quarterly	14 days after end of the period being reported on.
Noise Monitoring	Annually	One month after end of the year being reported on.

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



Table D.2 Once-off Reports

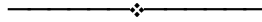
Report and Contents	Condition Number	Report Submission Date (Number of months within which to submit, from date of granting of licence, unless otherwise specified)
1. Environmental Management System		
EMS proposals	2.1	6
Schedule of Environmental Objectives and Targets	2.2	6
Environmental Management Programme	2.3	6
Management Structure	2.6	6
Communications Programme	2.7	6
2. Report on commissioning tests	5.13	Prior to operation commencing
3. Waste handling		
Procedure for the handling of waste from leaking or otherwise ruptured containers	5.11	2
Procedure for the handling and reprocessing of previously processed waste	5.17	2
Report on options for the recovery of processed waste	5.20	12
4. Proposal for the investigation of the extent of groundwater contamination	9.7	3
5. Contingency arrangements		
Emergency Response Procedure	10.1	6
Risk Assessment, Fire Fighting and Fire-water retention study	10.6	6
6. Financial capacity		
Report on Environmental Liabilities Risk Assessment	11.2.1	6
Proposal for Financial Provision	11.2.2	6



SCHEDULE E Specified Engineering Works

Table E.1 Specified Engineering Works

Specified Engineering Works
Any works notified in writing by the Agency.



SCHEDULE F Monitoring

All monitoring frequencies and programmes listed in this Schedule are subject to alteration under Condition 9 or as a result of an incident. All monitoring point reference numbers are as per drawing no. J(F1) submitted with Attachment J of the waste licence application.

F.1: Monitoring of emissions to sewer

Sewer monitoring point reference number: **TEM**

Table F.1.1 Sewer discharge monitoring location

STATION	REF. NUMBER	EASTING	NORTHING
Trade effluent monitoring location	TEM	See Note 1	

Note 1: The location of the trade effluent monitoring point shall be agreed with the Agency prior to commissioning of the processing facility.

Table F.1.2 Sewer discharge monitoring frequency and sampling methods

Parameter	Monitoring frequency	Sampling method	Analysis method or technique
Flow to sewer	Monthly	-	-
Temperature	Continuous	on-line	-
pH	Continuous	on-line	-
BOD ₅	Monthly	24-hour composite	Standard ^{note 1}
COD	Monthly	24-hour composite	"
Suspended solids	Monthly	24-hour composite	"
Fats, oil and grease	Monthly	24-hour composite	"
Detergents as methylene blue active substances (MBAS)	Monthly	24-hour composite	"
Total coliform/100ml	Monthly	grab	"
Faecal coliform/100ml	Monthly	grab	"
Faecal streptococci/100ml	Monthly	grab	"
<u>Pseudomonas aeruginosa</u> /100ml	Monthly	grab	"
<u>Staphylococcus aureus</u> /100ml	Monthly	grab	"
Culturable enteroviruses/l	Monthly	grab	"

Note 1: All analyses shall be carried out by a competent laboratory using standard and internationally acceptable techniques. The testing laboratory and the testing technique shall be agreed in writing with the Agency in advance.

F.2: Monitoring of noise

Noise Monitoring Point Reference Numbers: **B1, B2.**

Table F.2.1 Noise monitoring locations

STATION	REF. NUMBER	EASTING	NORTHING
Noise monitoring location 1	B1	309162	231352
Noise monitoring location 2	B2	309174	231431

Table F.2.2 Noise monitoring

Parameter	Monitoring frequency	Analysis method or technique
L(A)_{EQ} [30 minutes]	Annually	Standard ^{Note 1}
L(A)₁₀ [30 minutes]	“	“
L(A)₉₀ [30 minutes]	“	“
Frequency analysis (1/3 octave band analysis)	“	“

Note 1: International Standards Organisation. ISO 1996. Acoustics - Description and Measurement of Environmental Noise. Parts 1, 2 and 3.

F.3: Monitoring of processed waste and disinfection efficacy of the processing unit

Waste Monitoring Point Reference Numbers: **TWG** and **challenge tests**

Table F.3.1 Microbiological monitoring locations

STATION	REF. NUMBER	EASTING	NORTHING
Treated waste grab sample	TWG	to be agreed with the Agency	
Challenge tests	-	-	-

Table F.3.2 Process and microbiological monitoring

Parameter	Monitoring frequency	Analysis method or technique
Processed waste - visual inspection	daily	-
Processed waste	each batch - minimum daily	<u>Staphylococcus aureus</u> , <u>Pseudomonas aeruginosa</u> and <u>Streptococcus faecalis</u> See note 1
Challenge test for spore forming organisms	each batch - minimum daily	<u>Bacillus stearothermophilus</u> or <u>Bacillus subtilis</u> See note 2
Verification of healthcare risk waste inactivation and disintegration being achieved	annually	As specified in Condition 5.14.

Note 1: Procedure MP 2 as detailed in Attachment 3.3 of the application entitled *Sterile Technologies Ireland Limited, Operation and Maintenance Manual, February 1999*, or other procedure as shall be agreed with the Agency, shall be used.

Note 2: Procedure MP 5 as detailed in Attachment 3.3 of the application entitled *Sterile Technologies Ireland Limited, Operation and Maintenance Manual, February 1999*, or other procedure as shall be agreed with the Agency, shall be used.

F.4: Monitoring of emissions to air

Air Monitoring Point Reference Numbers: **A1, A2 and A5**

Table F.4.1 Air monitoring locations

STATION	REF. NUMBER	EASTING	NORTHING
Steam exhaust	A1	309170	231396
HEPA exhaust	A2	309171	231396
Bin washer exhaust	A5	309182	231387

Table F.4.2 Air monitoring

Parameter	Sampling location and monitoring frequency			Analysis method or technique
	HEPA exhaust (A1)	Steam exhaust (A2)	Bin washer exhaust (A5)	
Total volatile organic compounds (VOC)	bi-annually	bi-annually	-	Note 1
Indicator micro-organisms	bi-annually	bi-annually	bi-annually	Note 2

Note 1: Sampling and analysis method to be agreed with the Agency.

Note 2: Procedure MP 3 as detailed in Attachment 3.3 of the application entitled *Sterile Technologies Ireland Limited, Operation and Maintenance Manual, February 1999*, or other procedure as shall be agreed with the Agency, shall be used.



SCHEDULE G Emission Limits

G.1 Emissions to Sewer

Emission point: TEM

Volume to be emitted:

Maximum in any one day: 8 m³

Table G.1 Emission limit values for emissions to sewer

Parameter	Emission limit value		
	Grab sample (mg/l)	Daily mean concentration (mg/l)	Daily mean loading (kg/day)
BOD ₅	1,000	800	6.4
COD	3,000	2,400	19.2
Suspended solids	500	400	3.2
Detergents as methylene blue active substances (MBAS)	100	100	0.8
Fats, oil and grease	100	100	0.8
pH	6-10	-	-
Temperature	42°C	-	-

G.2 Emissions to Air

Emission point:	A1	A2
Volume to be emitted:		
Maximum in any one day:	8,000 m ³	11,200 m ³
Maximum per hour:	500 m ³	700 m ³

Table G.2 Emission limit values for emissions to air at emission points A1 and A2

Parameter	Emission limit value
Total volatile organic compounds (VOC)	0.1 kg/hour
Indicator micro-organisms	2,000 cfu/m ³ (see note)

Note: cfu = colony forming units



Signed on behalf of the said Agency: _____

_____ on the 28th day of July 1999

B. Sheehan Authorised Person