

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

WASTE LICENCE
PROPOSED DECISION

Waste Licence	54-1
Register Number:	
Applicant:	Eco-Safe Systems Ltd.
Location of Facility:	Unit 1, Allied Industrial Estate, Kylemore Road, Ballyfermot, Dublin 10.

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Reasons for the 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 **Eco-Safe Systems Ltd.** to carry on the waste activities listed below at **Unit 1, Allied Industrial Estate, Kylemore Road, Ballyfermot, Dublin 10**, subject to 11 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 (including evaporation, drying and calcination).

INTERPRETATION

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.
Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Agency	Environmental Protection Agency
Agreed/Agreement	Agreed/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.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
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.
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 a system of known microbial indicators to provide an assessment of the effectiveness of the treatment process.
Condition	A 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 made to
Containment boom	A boom which can contain spillages and prevent these from entering drains or watercourses.
Daily	Consecutive 24 hour periods
Day	A period from 0000 hours to 2400 hours.
Daytime	0800 hrs to 2200 hrs.
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.
Effective residence time	The continuous duration of the treatment cycle at which both the required operational parameters of pressure and temperature are maintained.
Emission	As defined in Section 5 (1) of the Act.
Emission Limit Value	Those limits, including concentration limits and deposition levels established in Schedule G.
Environmental Pollution	As defined in Section 5 (1) of the Act.
European Waste Catalogue (EWC)	The EWC is 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.
Facility	That area or areas defined under Condition 1.2
Hazardous Waste	As defined in Section 4 (2) of the Act.
Incident	Any reference to an incident in this licence means an incident as defined in Condition 3.1.
Impulsive Noise	As defined in British Standard BS 4142, 1990. "Method for rating industrial noise affecting mixed residential and industrial areas".
Instruction	Instruction in writing
Licence	A Waste Licence issued in accordance with the Act.
Licensee	Eco-Safe Systems Ltd
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, at approximately monthly intervals.
Night-time	2200 hrs to 0800 hrs.
Non-hazardous waste	Non-Hazardous Waste is any waste which is not a hazardous waste as defined in the Act.
Quarterly	A period of three calendar months, the first period of which commences on the date of grant of this licence
Recovery	As defined in Section 4 (4) of the Act.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments
Sanitary Authority	Dublin Corporation
Specified Emissions	Those emissions listed in Schedule G of this licence.

Emissions

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
Tonal Noise	As defined in International Standards Organisation "Acoustics - description and measurement of environmental noise", Part 2, 1996.
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.
Unacceptable waste	Wastes which are not acceptable under <i>Condition 5.1</i> of this licence.
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.
Working Day	As per <i>Condition 5.3</i>

Part II: CONDITIONS

CONDITION 1 SCOPE

- 1.1. Waste activities at the facility shall be restricted to those listed and described in *Schedule A* and required by the licence.
- 1.2. Waste activities shall be restricted to the area of land outlined in red on *Drawing No. 98101/01 - Site Location Map*. Any reference in this licence to “facility” shall mean the area thus outlined in red, unless otherwise agreed with the Agency. A scaled Site Plan of the above shall be sent to the Agency prior to the commencement of commissioning tests on site and shall be uniquely referenced.
- 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 set down 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 the time-scale contained in the notice; and,
 - c) that the licensee shall carry out any other requirement specified in 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 withdrawn.

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.

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
- 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;
 - h) any occurrence with the potential for environmental pollution;
 - i) any failure of an autoclave chamber to achieve the operating parameters during a cycle, such that the employment of the procedures identified in *Condition 5.19* is considered necessary; and
 - j) any emergency.
- 3.2 The written record shall include all aspects described in *Condition 10.7(a-e)*.
- 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 **Dublin Corporation** 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 with the Agency, all documentation required to be maintained under this licence, shall be retained by the licensee.
- 3.9 Unless otherwise agreed in advance with the Agency, the licensee must give at least fourteen days notice to the Agency of the following events:
- a) the cessation of waste disposal activities at the facility for a period in excess of twenty-eight days;
 - b) the re-commencement of waste disposal activities at the facility following a period of cessation referred to at a) above.
- 3.10 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.
- 3.11 The licensee shall keep the following documents at the facility office referred to in *Condition 4.4*.
- a) the current waste licence relating to the facility;
 - b) any previous waste licence in respect of the facility;
 - c) the current EMS for the facility;
 - d) the previous year's AER for the facility;
 - e) all written procedures produced by the licensee which relate to the licensed activities.
- 3.12 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 in the load;
 - f) a description of the waste including the associated EWC codes;
 - g) the quantity of the waste, recorded in kilogrammes or tonnes;
 - 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;
 - k) the destination of outgoing waste (including a facility name and waste licence or permit number as appropriate);

- l) a signed certificate of analysis from the testing laboratory;
 - m) 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
 - n) any other information which might be required from time to time by the Agency.
- 3.13 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;
 - 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 and maintain all infrastructure referred to in this licence prior to the commencement of the licensed activities or as instructed by 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 1200 mm 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 opening;
 - 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;
 - g) where and when environmental monitoring information relating to the facility can be obtained.
- 4.3 Site Security
- 4.3.1 The site security measures as outlined in *Attachment D.1.a* shall be provided and maintained.
- 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 with the Agency.
- 4.3.3 Gates shall be locked shut when the facility is unsupervised.
- 4.4 The licensee shall provide and maintain an office on the facility, at the location shown in *Drawing No. ECOG0017 - Process Layout*, received as further information on 10th May 1999, and referred to therein as "Office Block" . The office shall be 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 Prior to the commencement of waste activities on site, and subject to Agency approval, the licensee shall provide;
 - 4.7.1 a quarantine store within the area marked as "*Waste Quarantine Area for Untreated Waste*" on *Drawing No. 98101/12 - Facilities Layout*. This store shall be bunded so that it is isolated from the rest of the red line zone as indicated in *Drawing No. 98101/10 - Facility Classification Map* subject to *Condition 5.4.3*; and
 - 4.7.2 bunding as specified in *Condition 4.8*.
- 4.8 Waste Storage
 - 4.8.1 All waste storage areas shall be rendered impervious to the materials stored therein. In addition, tank and drum 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.
 - 4.8.2 All drainage from bunded areas shall be diverted for collection and safe disposal.
 - 4.8.3 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
 - 4.8.4 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.
 - 4.8.5 All tanks and containers shall be labelled to clearly indicate their contents.
- 4.9 The licensee shall submit a proposal to the Agency, for its agreement, *at least two months prior to the commencement of waste activities on site*, to provide for the enclosure of the treated waste along the conveyor belt system which transfers the waste to the shredders and the compactor.

- 4.10 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.
- 4.11 The integrity and water tightness of all 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. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.
- 4.12 Specified Engineering Works
- 4.12.1 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.
- 4.12.2 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.
- 4.12.3 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 be required by the Agency.

Reason: *To provide for the protection of the environment.*

CONDITION 5 WASTE MANAGEMENT

- 5.1. Except where prior agreement is received from the Agency, only those wastes included in *Schedule H.1* shall be accepted at the facility.
 - 5.2. The quantity of waste to be processed in an individual cycle of an autoclave shall not exceed 0.4 tonnes, unless otherwise agreed with or instructed by the Agency.
 - 5.3. Except where prior written agreement is received from the Agency, waste shall only be accepted at the facility between the hours of 9 a.m. to 5 p.m. Monday to Friday inclusive. Any operation at the facility outside of the hours of a normal working day or on a Saturday or Sunday shall be notified to the Agency by 10.00 a.m. on the morning of the next working day. The notification shall detail the operations carried out, the reason for carrying them out and the hours during which they were carried out.
 - 5.4. The procedure for waste acceptance shall be as detailed in *Attachment E.2 and Section E of Article 16 further information received on 10th June 1999*, subject to the following;
 - 5.4.1. All vehicles delivering healthcare risk waste to the facility shall enter the *Red Line Area* detailed in *Drawing No. 98101/10 - Facility Classification Map or as amended under Condition 5.4.3*, in order to unload this waste. These vehicles shall unload all such wastes and be appropriately cleaned prior to exiting the *Red Line Area*.
 - 5.4.2. The licensee shall submit, *prior to the commencement of waste activities on site*, proposals for scanning the waste for radioactivity and procedures to be following the event that radioactivity is indicated.
 - 5.4.3. *Prior to the commencement of waste activities on site* the licensee shall extend the red line zone, as indicated in *Drawing No. 98101/10 - Facility Classification Map*, to include the area containing all process equipment, as far as the compactor, and the waste storage area for processed wastes awaiting verification of successful treatment, and forward a revised drawing indicating such to the Agency for agreement.
 - 5.4.4. Access to the red line zone shall only be through restricted access points. All persons leaving the red line zone shall undergo appropriate disinfection procedures.
 - 5.4.5. There shall be no casual public access to the facility.
- or as otherwise agreed with the Agency.
- 5.5. The licensee shall operate and maintain all plant including the autoclaves, shredders and compactor in accordance with the manufacturer's instructions.
 - 5.6. The licensee shall submit proposals to the Agency, for its agreement, *at least two months prior to the commencement of waste activities on site*, for the following;
 - (i) a sampling regime for the examination of shredded processed waste in relation to particle size; and
 - (ii) a sampling regime for retrieval of test vials and grab samples from the treated waste after the autoclave process is completed.
 - 5.7. All waste accepted at the facility shall be processed as detailed in *Attachment D.2 of the application and in pages 8-9 of Article 14 response received on 26th March 1999*,

unless where otherwise instructed by a Condition of this licence or by the Agency. Any waste deemed unsuitable for such processing and/or in contravention of this licence shall be immediately separated, stored in the designated quarantine store and at the earliest possible time removed from the facility to an appropriate 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.

- 5.8. No waste shall be stored at the facility in other than designated storage areas as illustrated on *Drawing No. 98101/12 - Facilities Layout*. In any case, no unprocessed waste, other than that stored in the sealed autoclave chambers, shall be stored at the facility for longer than 36 hours.
- 5.9. The waste processing equipment shall be cleaned at least daily and prior to any routine or emergency maintenance as specified in *Attachment K of the application*.
- 5.10. Waste shall only be accepted at the facility in bins owned and controlled by the licensee and as specified in *pages 12-14 of Article 16 further information received on 10th June 1999*. 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.
- 5.11. After each use, all bins shall be cleaned inside and out. The cleaning process shall be as specified in *Article 16 further information received on 10th June 1999*. Within *three months* of the date of grant of this licence, the licensee shall submit a report on the effectiveness of this cleaning process.
- 5.12. Subject to *Condition 7.7.6*, all spillages of healthcare waste shall be cleaned up so as to prevent spilled fluid draining to sewer.
- 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 operating temperature and pressure and the effective residence time. The programme proposed by the licensee in *pages 8-10 of Article 16 further information received on 10th June 1999* shall be adopted for the completion of commissioning tests and for the establishment of operating parameters (effective residence time, temperature and pressure) 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, including details of emissions to sewer and to atmosphere as specified in Schedule F.1 and F.4 of this licence;
 - (c) concisely interpret those results; and
 - (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 consigned to an appropriate facility.

- 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 subtilus spores at a 6 log₁₀ reduction or greater; and
 - (c) 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. 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).
- 5.14.3. 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 testing of waste samples and indicator organisms shall be carried out by the laboratory identified on *page 11 of Article 16 further information received on 10th June 1999*, unless otherwise agreed or instructed by the Agency.
- 5.16. All processed healthcare risk waste shall be wrapped in polythene as detailed on page 11 of *Article 14 response received on 26th March 1999*, and stored in fully enclosed containers in the red line zone, subject to *Condition 5.4.3*, until such time as test results from microbiological analysis carried out under *Schedule F.3 of this licence* confirm its successful treatment.
- 5.17. Should analysis of any of the samples taken for the purpose of *Conditions 5.14 and 5.16* indicate test failure, the following actions shall be taken:
- (a) the batch(es) of waste processed since the last confirmed successful treatment shall be further processed and analysed;
 - (b) the Autoclave identified with such test failures shall be taken out of the process loop and its process subjected to all of the sampling and analysis specified in Schedule F.3.2 of this licence;
 - (c) should this additional sampling and analysis indicate the continued presence of the relevant micro-organisms, the use of this chamber shall cease until written notice from the Agency agreeing to its resumption is received;
 - (d) those wastes subjected to unsuccessful treatment, and following (c), shall be re-directed to the alternate chamber for further processing; and
 - (e) a written report on the test failures shall be submitted to the Agency within three days of the availability of analytical results.
- 5.18. The licensee shall, *prior to the commencement of waste activities on site*, submit to the Agency for its agreement a procedure for the handling and reprocessing of waste in the event of test failure.

- 5.19. The licensee shall, *prior to the commencement of waste activities on site*, submit to the Agency for its agreement a procedure to deal with the emptying and cleaning out of an autoclave in the event of a failure to achieve and maintain the operating parameters, due to a machine fault, such that any necessary maintenance of the autoclave can be safely carried out.
- 5.20. During the operation of the autoclave chambers, the process shall be continuously monitored to ensure that operating parameters are being maintained within the established limits. The autoclave chambers should be set in such a manner so as to ensure that the chambers are not opened prior to having attained the required operating parameters, unless needed to be in the event of failure due to machine fault, subject to *Condition 5.19*. The following records shall be kept, for each run of the autoclave chambers:
- (a) operating cycle;
 - (b) temperature inside the autoclave throughout the cycle;
 - (c) pressure inside the autoclave throughout the cycle;
 - (d) rotating speed of the internal drum during the cycle;
 - (e) the effective residence time; and
 - (f) the times the cycle .

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.

- 5.21. 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.
- 5.22. 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 proposals for the recovery of processed healthcare risk waste to the Agency for its agreement.
- 5.23. Procedures for the collection and treatment of debris from the containment tank identified in *Drawing No. 98101/11 - Flow Diagram of Water Usage and Recirculation* shall be as detailed on *page 14 of Article 16 further information received on 10th June 1999*.
- 5.24. Procedures for the handling of used charcoal filters shall be as detailed on *page 15 of Article 16 further information received on 10th June 1999*.

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 made of all inspections and any actions taken as a result of these inspections.

- 6.2. The licensee shall ensure that all vehicles delivering and removing waste from the facility are fully enclosed and clean and shall not give rise to offensive odours or other nuisance.
- 6.3. The licensee shall ensure that all operations on site 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 site boundary.
- 6.4. *Prior to the commencement of waste activities on site* the licensee shall submit, to the Agency for its agreement, a proposal for the assessment of odours arising from the facility.
- 6.5. All loose litter accumulated within the facility and its environs shall be removed and appropriately disposed of on a daily basis.
- 6.6. 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 application.

Reason: *To provide for the control of nuisance.*

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* of this licence. 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 issued 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 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.

7.4.1.2. 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).

7.4.1.3. Emissions to atmosphere shall only be made at the following locations:

(i) Autoclave Air Emission Point (Emission Point 1 - Air Vent)

E 310420 N 232851

(ii) Boiler emission point

12 digit co-ordinates to be included in the AER.

7.4.1.4. Unless otherwise agreed with the Agency, emissions made at Emission Point 1 - Air Vent shall pass through a condenser and activated carbon filter prior to discharge to the atmosphere.

7.4.1.5. 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 Point 1 - Air Vent*.

7.4.1.6. The emission value for total VOC for *Emission Point 1 - Air Vent* shall be determined *during commissioning tests and then 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 *Emission Point 1 - Air Vent* shall be determined *during commissioning tests, then weekly for the first month of operation and monthly for the following five months of operation*.

7.4.1.7. The efficiency of the natural gas steam raising boiler at emission point shall be tested annually and the results shall be submitted as part of the AER.

7.5. There shall be no emissions from the processed healthcare risk waste compactor.

7.6. There shall be no emissions to groundwater.

7.7. Discharges to Sewer

7.7.1. No specified discharge or emission to sewer shall exceed the emission limit value set out in Schedule G: Emission Limits of this licence. There shall be no other emission to sewer of environmental significance.

7.7.2. Monitoring and analyses of each discharge or emission to the sewer shall be carried out as specified in *Schedule F: Monitoring of this licence*.

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. 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.

7.7.5. 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.

- 7.7.6. Non-trade effluent wastewater (e.g. firewater, accidental spillage) which occurs on-site shall not be discharged to the sewer without the prior authorisation of the Sanitary Authority. The Agency shall be notified of such an event.
- 7.7.7. The licensee shall provide and maintain an inspection chamber in a suitable position in connection with each pipe through which the trade effluent is being discharged. 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.
- 7.7.8. The licensee shall submit monitoring results to the Sanitary Authority on an annual basis.
- 7.7.9. The trade effluent shall be screened prior to discharge to remove solids and avoid blockages in the sewer.
- 7.7.10. The trade effluent shall not contain active viruses, pathogens and/or unsterilised body fluids.
- 7.7.11. 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 an annual basis.
- 7.7.12. In the event of accidental discharge, spillage or deposit of any diluting matter which enters or is likely to enter any waters or a sewer, the person responsible shall notify the Sanitary Authority as soon as is practicable thereafter.
- 7.7.13. The licensee shall notify the Sanitary Authority of any incident with the potential for environmental 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.
- 7.7.14. The licensee shall notify the Local Authority and the Agency as soon as is practicable, after the occurrence of any one of the following:
 - a) any incident with the potential for environmental 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
 - b) any emission which relates to a discharge to sewer which does not comply with the requirements of this licence.
- 7.7.15. Emission limits for emissions to sewer shall be interpreted as follows subject to agreed alteration by the Sanitary Authority:
 - 7.7.15.1. For Continuous Monitoring:
 - a) No flow volume shall exceed the specified limit.
 - 7.7.15.2. For Non-Continuous Monitoring:
 - a) No pH value shall deviate from the specified range.
 - 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.

7.7.16. The licensee shall provide safe and permanent access to the final effluent discharge point to the sewer.

7.7.17. 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 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 agreement for the use of alternative equipment, other than in emergency situations, shall be obtained from the Agency.

7.7.18. The effluent treatment equipment, including backup equipment, specified in this Condition shall be provided on site. All treatment/abatement, control and monitoring equipment shall be calibrated and maintained and all times when in use, in accordance with manufacturer's instructions or as otherwise agreed with the Agency.

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

CONDITION 8 RESTORATION AND AFTERCARE

8.1. Decommissioning shall be according to the scheme laid out in *Attachment G of the application*. The licensee shall update the schemes for Decommissioning and Aftercare Plan when required in writing by the Agency and submit any 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 and off-site sampling and monitoring points as required by the Agency.

9.3. Monitoring and analytical 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 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 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 all sampling and monitoring as required by this licence and who carry out the interpretation of the results of such sampling and monitoring.
- 9.6. The licensee shall provide and 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 submit proposals to the Agency for its agreement, for implementation prior to the commissioning of the autoclaves, for the following;
 - 9.7.1. A monitoring point for the sampling and monitoring of the discharge at Discharge Point 2 referred to in Schedule G.1 of this licence.
 - 9.7.2. A system for monitoring and recording the discharge volume and flow rate to foul sewer.
- 9.8. The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.
- 9.9. The licensee shall submit proposals to the Agency, for its agreement, for implementation prior to the commissioning of the autoclaves, for the monitoring of the efficiency of the activated carbon filter required under *Condition 7.4.1.4*.

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* of 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 situations 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 at an appropriate facility. A written record of the use and disposal of these items shall be maintained by the licensee.
- 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 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 Dublin Corporation shall be consulted by the licensee during this assessment.
- 10.7. Unless otherwise notified in writing by the Agency, in the case of repeat incidents, 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) provide a proposal to the Agency for its agreement within one month to:
 - (i) identify and put in place measures to avoid reoccurrence of the incident, and;
 - (ii) 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 £ 8,490 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 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 this licence to 31st December 1999. This amount shall be paid to the Agency within *one month* of 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 the licensee shall contribute such sums as determined by the Agency to defraying its costs.

11.2 Financial Provision for Closure, Restoration and Aftercare

- 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 by the licensee unless otherwise agreed 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

Annual Treatment Charge for trade effluent	£155.63
Annual monitoring costs	£600.00

Sanitary Authority charges will increase from time to time in response to increased costs in providing drainage and monitoring.

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 ^{Note 1}

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):

This activity is limited to the treatment of healthcare risk waste subject to **Condition 5** of this licence.

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 on the site should be given.

Quantity of Wastes Accepted

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

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

Objectives and Targets

Objectives and targets for improving the environmental performance of the facility shall be detailed. These should include:

- emissions
- resource use
- wastes produced.

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.

Total amount of waste being held at the facility at the time of the report.

Summary report on emissions (Certified results/data sheets to be attached as Appendices)

Summary of results and interpretations of environmental monitoring, including a location plan of all monitoring locations along with their respective 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 a timescale for those proposed for the coming year.

Schedule of Environmental Objectives and Targets for the forthcoming year.

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

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

Environmental Management Programme - Proposal & Report

Tank, drum, pipeline and bund testing and inspection report.

Reported Incidents and Complaints summaries.

Reports 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 quarantine store for rejected waste.

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

Monitoring of emissions and process healthcare risk waste.

Any other items specified by the Agency.

SCHEDULE D :Recording and Reporting to the Agency

Table D.1 Recurring Reports

Report and Contents	Reporting Frequency ^{Note 1}	Report Submission Date
1. Environmental Management System Updates - Environmental Management System - Schedule of Objectives and targets - Environmental Management Programme	Annually Annually Annually	One month after the end of each year being reported on. One month after the end of each year being reported on. One month after the end of each year being reported on.
2. Annual Environmental Report	Annually	Twelve months from the date of grant of this licence and one month after the end of each year being reported on.
3. Records of incidents	As they occur	Within five days of the incident
4. Specified Engineering Works Reports	As they arise	Prior to the works commencing
5. 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.
6. Pipe and tank integrity assessment	5 yearly	Six months from the date of grant of licence and one month after end of the year being reported on.
7. 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.
8. Monitoring of sewer discharge	Quarterly	Ten days after end of the quarter being reported on.
9. Monitoring of air emissions	Bi-annually	One month after the completion of the monitoring
10. Monitoring of processed waste and challenge tests	Quarterly	Fourteen days after the end of the quarter being reported on.
11. Noise monitoring	Annually	One month after the completion of the monitoring
12. Financial Provision as per Conditions 11.2.2 & 11.2.3	Annually	Within the first month of each year being reported on.
13. Financial Provision as per Conditions 11.2.4	As they occur	Within two weeks of the purchase, renewal or revision of the financial provision required under Condition 11.2.2

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	2.1.1	6
- Schedule of Objectives and Targets	2.2.1	6
- Environmental Management Programme	2.3.1	6
- Management Structure	2.6.1	6 + as and when any changes are proposed
- Communication Programme	2.7.1	6
2. Report on Commissioning tests	5.13	Prior to commencement of waste activities
3. Infrastructure		
- Revised Site Plan	1.2	Prior to commencement of commissioning procedures
- Proposal for quarantine store	4.7.1	Prior to commencement of waste activities
- Proposals for bunding of waste storage areas	4.7.2	Prior to commencement of waste activities
- Proposal for the enclosure of the conveyor system	4.9	Two months prior to commencement of waste activities
4. Waste Acceptance Procedures		
- Proposals for scanning waste for radioactivity and handling of waste in the event of indications of radioactivity	5.4.2	Prior to commencement of waste activities
- Revised drawing of Facility Classification Map	5.4.3	Prior to commencement of waste activities
- Proposals for sampling regimes	5.6	Two months prior to commencement of waste activities
- Report on the efficiency of bin cleaning process	5.11	3
- Procedure for the handling and reprocessing of previously processed waste	5.18	Prior to commencement of waste activities
- Procedure to empty and clean out autoclave in event that waste is not treated due machine fault	5.19	Prior to commencement of waste activities
- Report on options for the recovery of processed waste	5.22	12
5. Monitoring		
- Programme for Odour Assessment	6.4	Prior to commencement of waste activities
- Proposal for monitoring location for sewer discharge	9.7.1	Prior to commencement of commissioning procedures
- Propose and install a system for monitoring and recording the discharge volume and flow rate to foul sewer subject	9.7.2	Prior to commencement of commissioning procedures
- Proposals for monitoring the efficiency of the activated carbon filter	9.9	Prior to commencement of commissioning procedures
6. Report investigating alternative VOC abatement technologies	7.4.1.5	6
7. Contingency Arrangements		
- Emergency Response Procedure	10.1	6
- Risk assessment of fire water retention	10.6	6
8. 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

Specified Engineering Works

Development of waste storage areas.
 Installation of sumps or other drainage controls.
 Installation of bunded storage areas.
 Installation of increased waste processing capacity.
 Installation of waste processing or other equipment.
 Any other works notified by the Agency.

SCHEDULE F : Monitoring

Monitoring to be carried out as specified below.

F.1: Monitoring of Emissions to Sewer

Monitoring of emissions to sewer shall be from monitoring location as set out in Table F.1.1 and shown in *Drawing No. ECOG0017 - Process Layout*, received as further information on 10th May 1999.

Monitoring of emissions to sewer shall be from the monitoring location referred to in *Condition 9.7.1*.

Table F.1.1 Sewer Monitoring Parameters and Frequencies

Parameter	Monitoring Frequency	Sampling Method	Analysis method or technique
B.O.D.	Quarterly	Grab	Standard ^{Note 1}
C.O.D.	Quarterly	Grab	Standard ^{Note 1}
Suspended Solid	Quarterly	Grab	Standard ^{Note 1}
Sulphates (as SO ₄)	Quarterly	Grab	Standard ^{Note 1}
Temperature	Monthly	Grab	-
pH	Monthly	Grab	-
Total Coliforms / 100ml	Quarterly	Grab	Standard ^{Note 1}
Faecal Coliforms / 100ml	Quarterly	Grab	Standard ^{Note 1}
Faecal Streptococci / 100ml	Quarterly	Grab	Standard ^{Note 1}
Culturable Enteroviruses /l	Quarterly	Grab	Standard ^{Note 1}
<i>Pseudomonas aeruginosa</i> /100ml ^{Note 2}	Monthly	Grab	Standard ^{Note 1}
<i>Staphylococcus aureus</i> /100ml ^{Note 2}	Monthly	Grab	Standard ^{Note 1}

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.

Note 2: Unless agreed otherwise in writing with the Agency.

F.2: Noise

Noise monitoring locations shall be those as set out in Table F.2.1.

Table F.2.1 Noise Monitoring Locations

STATION	EASTING	NORTHING
NMP 3	310395	232 735
NMP 4	310 439	232 731
NMP 5	310 446	232 828
NMP 6	310 414	232 861

Table F.2.2 Noise Monitoring Frequency and Technique

Parameter	Monitoring Frequency	Analysis Method/Technique
L(A) _{Eq} [30 minutes]	Annual	Standard ^{Note 1}
L(A) ₁₀ [30 minutes]	Annual	Standard ^{Note 1}
L(A) ₉₀ [30 minutes]	Annual	Standard ^{Note 1}
Frequency Analysis(1/3 Octave band analysis)	Annual	Standard ^{Note 1}

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 sterilisation efficacy of the processing units.

Table F.3.1 Microbiological Monitoring Locations

STATION ^{Note 1}	Reference Number
Treated waste grab sample - Autoclave 1	Note 2
Treated waste grab sample - Autoclave 2	Note 2
Challenge Tests - Autoclave 1	-
Challenge Tests - Autoclave 2	-

Note 1: Autoclave 1 and 2 as identified in *Drawing No. ECOG0017 - Process Layout* received as further information on 10th May 1999.

Note 2: *Condition 5.6* requires sampling regimes for the above to be submitted to the Agency for agreement.

Table F.3.2 Process and Microbiological Monitoring

Parameter	Monitoring Frequency <small>Note 1</small>	Analysis Method/Technique
Visual Inspection of Processed Waste	Each batch	-
Processed Waste	Each batch <small>Note 2</small>	Test organisms to be agreed in advance with the Agency
Challenge test for spore forming organisms	Each batch <small>Note 2</small>	<u>Bacillus stearothermophilus</u> or <u>Bacillus subtilis</u> <small>Note 3</small>
Indicator strips <small>Note 4</small>	Each batch <small>Note 2</small>	To be agreed with the Agency
Verification of healthcare risk waste inactivation and disintegration being achieved.	Annually	As specified in <i>Condition 5.14</i>

Note 1: For each autoclave.

Note 2: Frequency to be reviewed after three months.

Note 3: Procedure as detailed in 4.0 Section D - "Waste Product testing for Sterilisation Efficacy" in further information received on 10th June 1999.

Note 4: Procedure as detailed on *page 15 of Article 16 further information received on 10th June 1999.*

F.4: Monitoring of emissions to air

Air monitoring locations shall be those as set out in Table F.4.1 and shown in *Drawing No. 98101/12 - Facilities Layout [Ref. E.5(b)]*, received as further information on 26th March 1999)

Table F.4.1 Air Monitoring Locations

STATION	EASTING	NORTHING
Emission Point 1 - Air Vent	310 420	232 815

Table F.4.2 Air Monitoring Parameters and Frequencies

Parameter	Monitoring Frequency	Analysis Method/Technique
Volatile Organic Compounds	bi-annually	Note 1
Indicator micro-organisms	bi-annually	Note 1

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

SCHEDULE G :Emission Limits

G.1 Emissions to Sewer

Emission point: E310423, N232905

(indicated as Discharge Point 2 in *Drawing No. ECOG0017 - Process Layout*, received as further information on 10th May 1999)

Emission to: Sewer in Kylemore Road

Volume to be emitted: Maximum in any one day: 1 m³
Maximum rate per hour: 0.25 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)
Biological Oxygen Demand	500	400	0.4
Chemical Oxygen Demand	1,500	1,200	1.2
Suspended Solids	500	400	0.4
Sulphates (as SO ₄)	1,000	1,000	1.0
pH	6 to 10	-	-
Temperature	42°C	-	-

G.2 Emissions to Air

Emission point: Emission Point 1 - Air Vent (E310420, N232815)

Table G.2 Emission limit values for emissions to air at emission point 1.

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

SCHEDULE H : Acceptability of Wastes at the facility

H.1 Wastes acceptable at the facility

The following Healthcare Risk Wastes;

1. **Sharps** (e.g. needles, scalpels, sharp broken materials)
2. **Infectious**, where infectious waste is any healthcare waste known or clinically assessed to be at risk or being contaminated with
 - (a) Any of the biological agents mentioned in Article 2(d) groups 3 and 4 or identified through the procedure set out in Article 3 of Council Directive 90/679/EEC of 26 November 1990 on the protection of workers from risks related to exposure to biological agents at work; or
 - (b) With other biological agents artificially cultivated to significantly elevated numbers

Given by the Agency on the 2nd day of September 1999

**Signed on behalf of the said Agency
on the 2nd day of September 1999:**

B. Sheehan Authorised Person