



Environmental Protection Agency  
An Ghníomhaireacht um Chaomhnú Comhshaoil

Regional Inspectorate  
McCurniskey House, Richview,  
Clonskeagh Road, Dublin 14, Ireland  
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Mr Martin Ryan,  
Senior Engineer,  
Drainage Division,  
Dublin City Council  
Civic Offices,  
Fishamble Street  
Dublin 8

02<sup>nd</sup> March 2010

Reg No: **W0054-02**

Dear Mr Ryan,

I am to advise you that the Agency has received a request from Eco-Safe Systems Limited for a technical amendment to their existing waste licence W0054-02. The facility is located at Unit 1A Allied Industrial Estate, Kylemore Road, Dublin 10.

The licensee has requested changes to their emission to sewer. I am to request your consent to the proposed discharge changes. Please complete the attached reply form including Schedule B: *Emission Limits* and Schedule C *Frequency of Monitoring*. See attached:

- Letter from the Agency to the licensee (dated 16<sup>th</sup> December 2009) requesting further information;
- Response from Eco-Safe Systems Limited (dated 15<sup>th</sup> February 2010);
- Relevant sections of Waste Licence W0054-02.

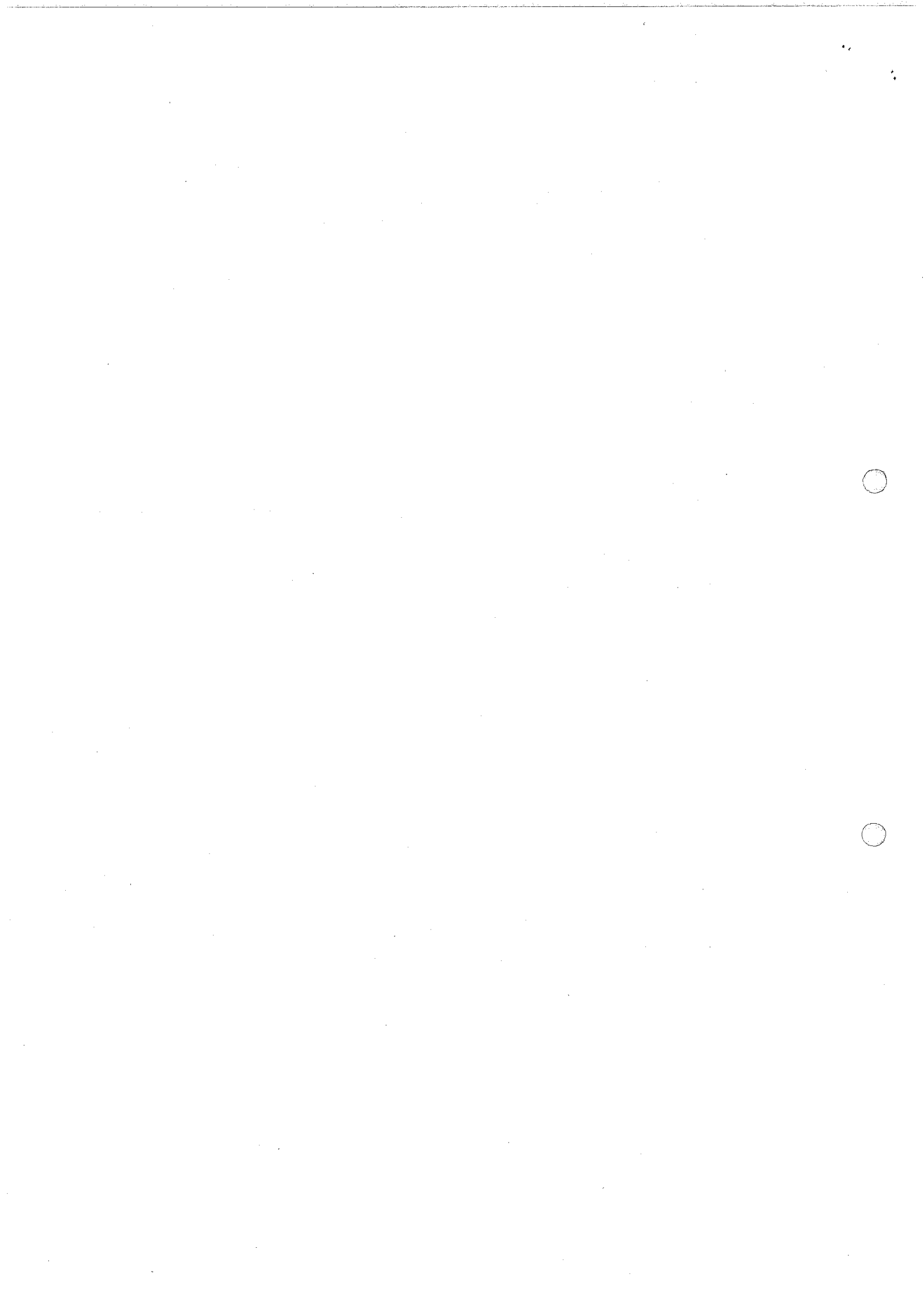
In accordance with the requirements of the Waste Management Acts and EPA Acts, your consent may be subject to such conditions as the authority considers appropriate. Your attention is drawn to paragraphs (3) and (4) of the attached copy of the relevant section of the Act.

You are requested to forward your response within **4 weeks** of the date of this letter. If you have any queries please contact Marian Doyle at 01-2680100.

Yours sincerely,

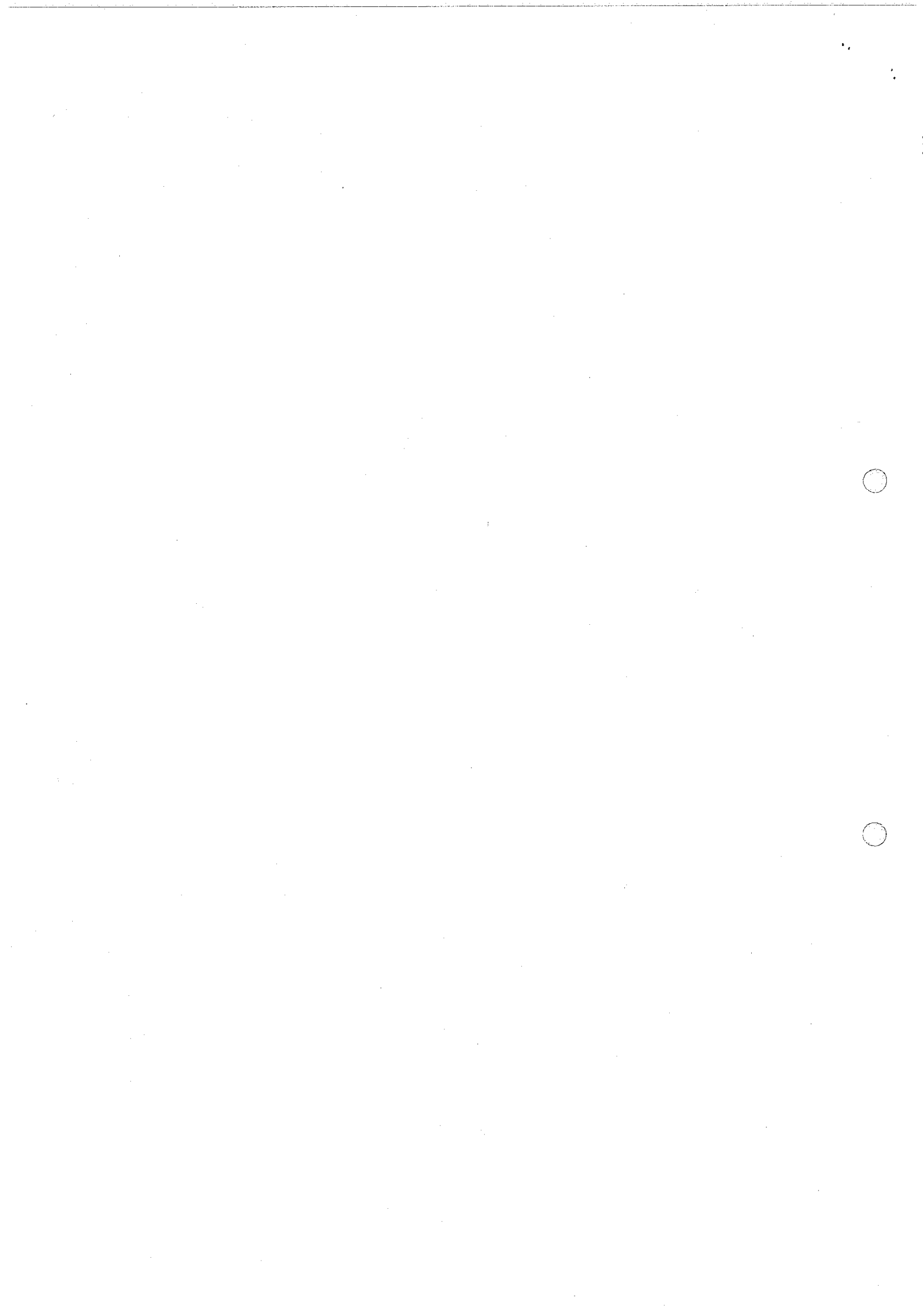
**Marian Doyle**  
**Licensing Unit**  
**Office of Climate, Licensing & Resource Use**



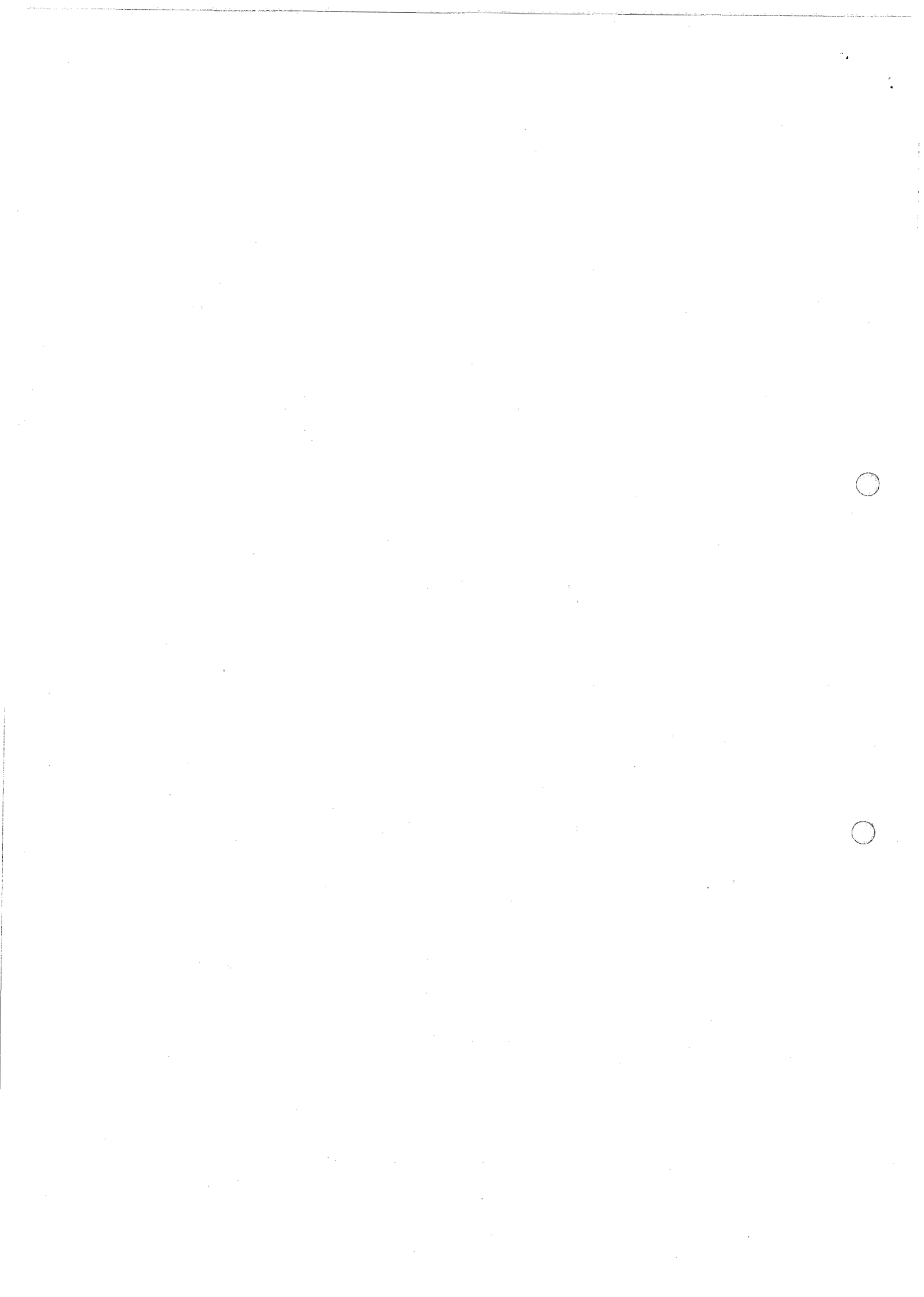


**Section 99E (3) & (4) of the Environmental Protection Agency Acts, 1992 and 2007**

- (3) Subject to subsection (4), a consent under subsection (1) may be granted subject to or without conditions and if it is granted subject to conditions the Agency shall include in the licence or revised licence concerned conditions corresponding to them or, as the Agency may think appropriate, conditions more strict than them.
- (4) The conditions that may be attached to a consent by a sanitary authority under this section are the following and no other conditions, namely conditions-
- (a) relating to-
    - (i) the nature, composition, temperature, volume, level, rate, and location of the discharge concerned and the period during which the discharge may, or may not, be made,
    - (ii) the provision, operation, maintenance and supervision of meters, gauges, manholes, inspection chambers and other apparatus and other means for monitoring the nature, extent and effect of emissions,
    - (iii) the taking and analysis of samples, the keeping of records and furnishing of information to the sanitary authority,
  - (b) providing for the payment by the licensee to the sanitary authority concerned of such amount or amounts as may be determined by the sanitary authority having regard to the expenditure incurred or to be incurred by it in monitoring, treating and disposing of discharges of trade effluent, sewage effluent and other matter to sewers in its functional area or a specified part of its functional area,
  - (c) specifying a date not later than which any conditions attached under this section shall be complied with,
  - (d) relating to, providing for or specifying such other matter as may be prescribed.







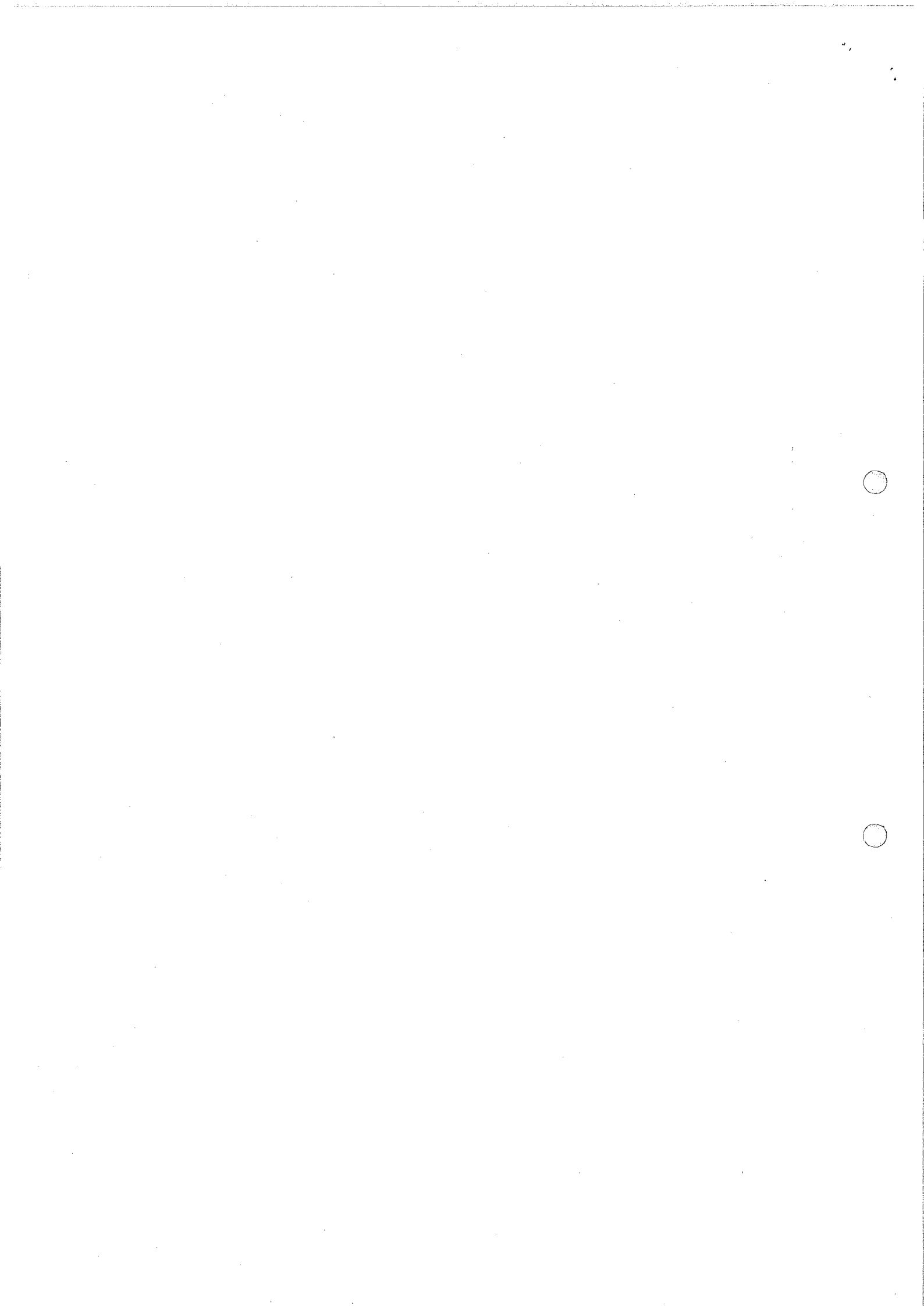
9. In the event of any incident which relates to discharges to sewer, having taken place, the licensee shall notify the Agency, Local Authority and Sanitary Authority as soon as practicable after the incident.	
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<b>ADDITIONAL GENERAL CONSENT CONDITIONS</b> in respect of discharges or emissions to sewers, in accordance with Section 52 of the Waste Management Acts, 1996 to 2008 <i>(specify, if required)</i>









## Frequency of Monitoring Process Effluent to Sewer

### Schedule C

Waste Licence application Register No. W0054-02

Emission Point Reference No: \_\_\_\_\_

Parameter <i>(delete parameters which are not applicable)</i>	Monitoring Frequency <i>(e.g. monthly, quarterly, annually)</i>	Sampling Type <i>(grab, composite)</i>
Flow to sewer		
Temperature		
pH		
BOD		
COD		
Suspended Solids		
<b>ADDITIONAL PARAMETERS</b>		
<i>(if required)</i>		

SANITARY AUTHORITY CHARGES	
Charge per cubic metre of process effluent (per s52 of the Waste Management Acts, 1996 to 2008)	
Payment Frequency	
Annual Monitoring Costs	

Signed on behalf of Dublin City Council

Date \_\_\_\_\_





Regional Inspectorate  
McCumiskey House, Richview,  
Clonskeagh Road, Dublin 14, Ireland

Cigireacht Réigiúnach, Teach Mhic Chumascaigh  
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Mr. Joe Mahon,  
Eco-Safe Systems Limited,  
Unit 1A Allied Industrial Estate,  
Kylemore Road,  
Dublin 10

16<sup>th</sup> December 2009

Reg. No. W0054-02

Dear Mr. Mahon,

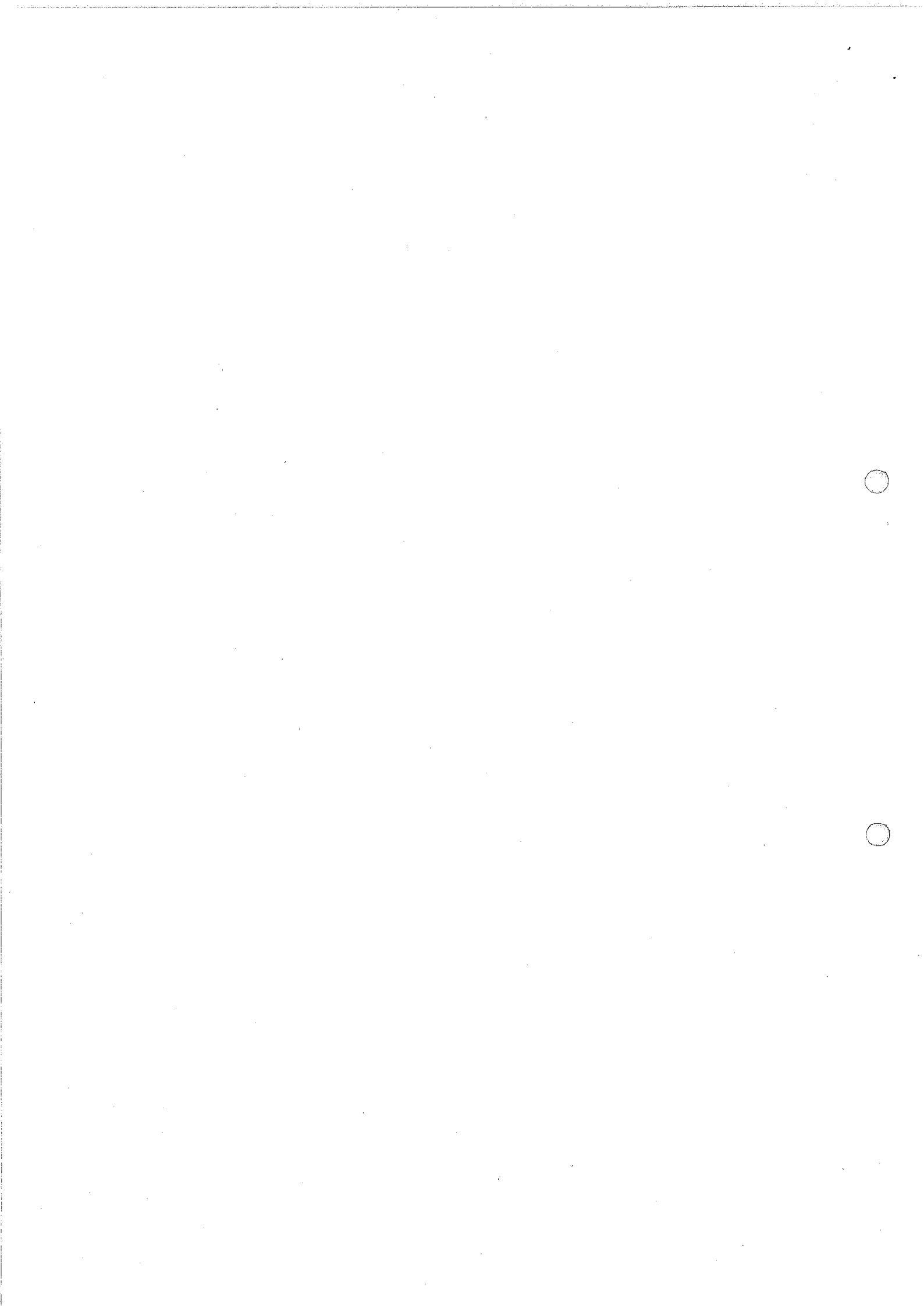
I refer to your request for a technical amendment of your Waste Licence (W0054-02), which was received by the Agency on 30<sup>th</sup> October 2009. The following additional information is considered necessary so that an assessment of the request can be completed.

1. Provide details of the sources of the emissions to sewer, with reference to the operations and processes at the facility. Provide details for existing and proposed emissions and the estimated quantities from each source.
2. Provide the rationale for the requested increase in emission limits (for concentrations and flows).
3. Provide details of flow monitoring on the sewer emission.
4. Provide a copy of the correspondence from Eco-Safe Systems Limited to Dublin City Council, which is referred to in the letter from Dublin City Council (dated 11-08-2009).

In the circumstances you should make immediate arrangements to have the required information (1 signed original, 2 hard copies, and 2 copies of all files in electronic searchable PDF format on CD-ROM) submitted to the Agency without delay. Your response to this request should be directed to Administration, Office of Climate, Licensing and Resource Use.

Yours sincerely,

Marian Doyle  
Inspector, Office of Climate,  
Licensing and Resource Use





Marian Doyle  
Inspector, Office of Climate  
Licensing & Resource Use.  
EPA McCumsiskey House, Richview,  
Clonskeagh Rd,  
D14  
15.02.10

**RE: Technical Amendment of Waste Licence W0054-02**

Marian,

Please find attached information as requested.

**Current Source of Emissions to Sewer**

- Source is from Eco-Safe Systems Rotoclave Sterilisation Process (The Rotoclave 'cooking' process causes plastics to soften and flatten, paper and other fibrous material to disintegrate into a fibrous mass, bottles and metal objects to be cleaned, and labels etc. to be removed. The process reduces the volume of the waste by ~60%. After 'cooking', the steam flow is stopped and the pressure vented via a condenser. The resulting condensed vapor is discarded to sewer)
- Emission Point Reference No: E310423 N 232905
- Monitoring is carried out in accordance with Condition 8.6 of W0054-02. This is currently being upgraded to give a total value for volume discharged to sewer on an annual basis.

**Attachments**

Annex 1 - Summary of Effluent Parameters 2007 -2009

Annex 2 - Production total 2008 & 2009

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**Eco-Safe Systems Ltd.**

Unit 1a Allied Industrial Estate, Kylemore Road, Dublin 10

Ph: +353 1 6239135 Fax: +353 1 6239136

Email: [services@srcl.com](mailto:services@srcl.com) . [www.ecosafesystems.ie](http://www.ecosafesystems.ie)

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### **Proposed Emissions to Sewer and increase in volume (Biosystems)**

(All quantities and calculation are estimates based on a US Plant)

The Machine holds approximately 3 cubic liters in both the wash and sanitise holding tanks.

A US Plant of a higher throughput than we expect will dump roughly 9,460 liters (2,500 gallons) each week to sewer – (i.e. dumps the holding tanks tanks 3 times per week).

#### **Typical Discharges - Chemistry (example):**

Discharge Tested for:	Avg Results (mg/L)
pH	N/A (6-10)
Settleable Solids	0.08
BOD	62
COD	220
TSS	51
NH3	0.61
Cadmium	0.026
Chromium	0.017

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#### **Eco-Safe Systems Ltd.**

Unit 1a Allied Industrial Estate, Kylemore Road, Dublin 10

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**Correspondence from Eco-safe Systems to DCC and EPA**

Attachments;

Annex 3 - DCC new Limits for Eco-Safe Systems Ltd 11.08.09

Annex 4 - Raising Flow rate 28.05.07

Annex 5 - Rising Limits 9.01.06

Annex 6 - EPA Approval 24.01.07

Hoping that this meets your requirements and should you require further information please do not hesitate to contact me.

Kind Regards,

A handwritten signature in black ink that reads "Joe Mahon". The signature is written in a cursive style.

Joe Mahon,  
Eco-Safe Systems Ltd

---

**Eco-Safe Systems Ltd.**

Unit 1a Allied Industrial Estate, Kylemore Road, Dublin 10

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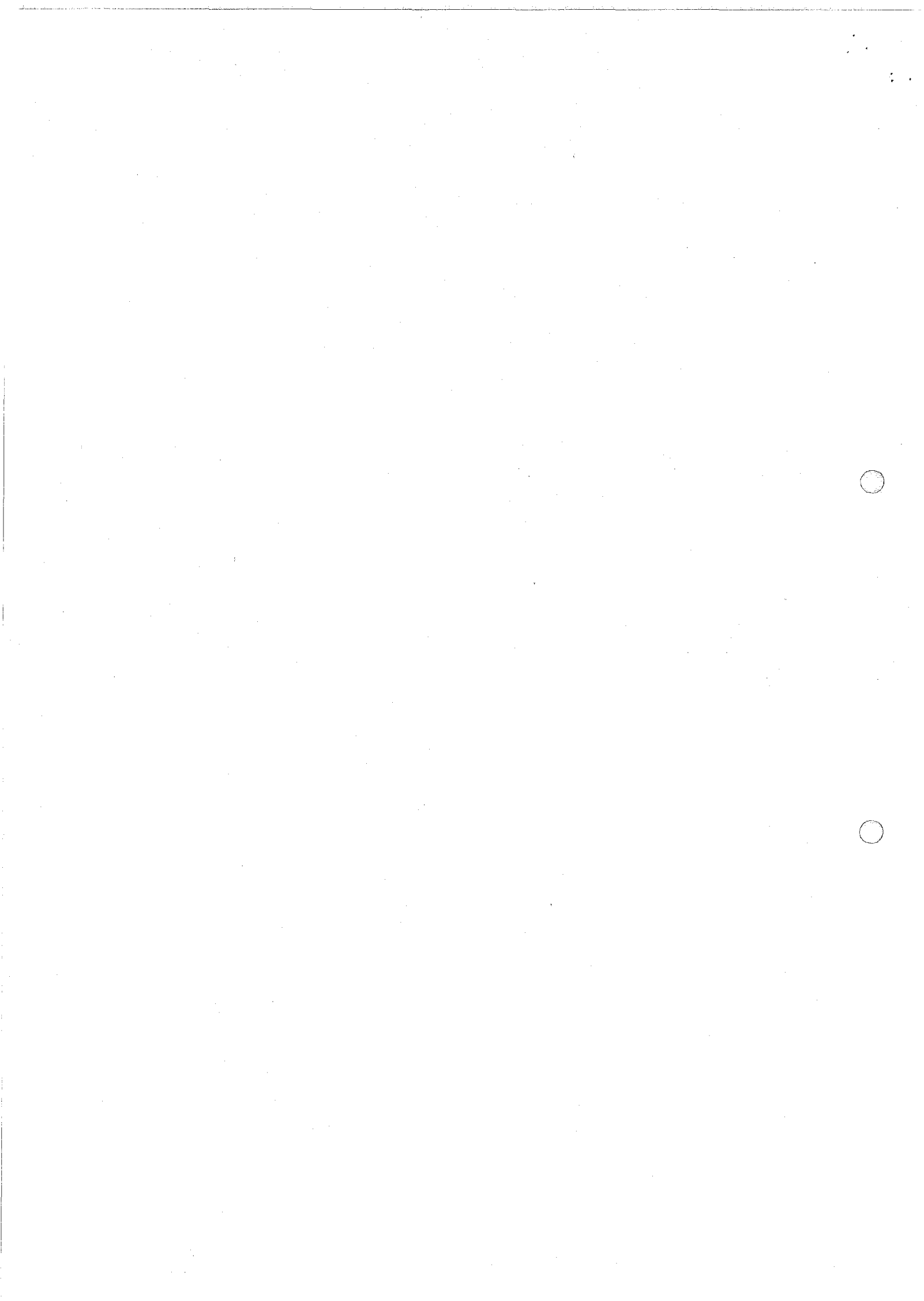
Eco-Safe Systems BOD & COD History, 2007 - 2009

Parameter	Grab Sample (mg/l) Q1			Grab Sample (mg/l) Q2			Grab Sample (mg/l) Q3			Grab Sample (mg/l) Q4		
	7	8	9	7	8	9	7	8	9	7	8	9
Year 2007	5000	1775	958	4950	2463	1563	3625	2725	968	1700	2800	1887
BOD (1000)	12530	4890	2354	11542	4313	2937	7794	5156	3044	8810	4596	4388
COD (3000)												

As is evident for Emission limits results Eco-Safe Systems is in breach of parameters as outlined in W0054-02 Schedule C1. Similar results obtained from quarterly analysis carried out in 2005 and 2006 show similar values. Based on these results Eco-Safe Systems requested that Dublin City Council increase effluent parameters and on the 16th December 2005 Dublin granted such request (Please find letter attached).

Eco-Safe Systems has up until recently believed that its limits had been increase as requested in correspondence dated the 9.01.06. In August 2009 it came to attention of Eco-safe Systems that the limits were still as per Schedule C1 of W0054-02. Eco-Safe Systems contacted Dublin City Council and requested that the approval be reissued as to reflect a more recent date. Please find attached correspondence received from Dublin City Council.

Over the last few years the quantity of material being processed in Eco-Safe Systems Ltd has been dramatically reduced however the source of the material has remained the same, hence high BOD and COD values. Eco-Safe Systems request for an increase in discharge volume is to cater for future modification within the facility, namely Biosystems.

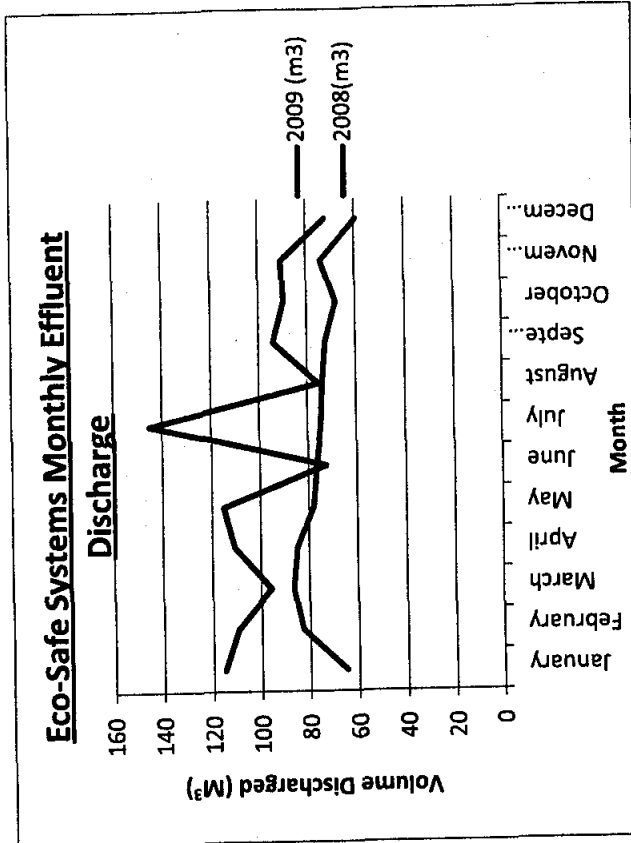
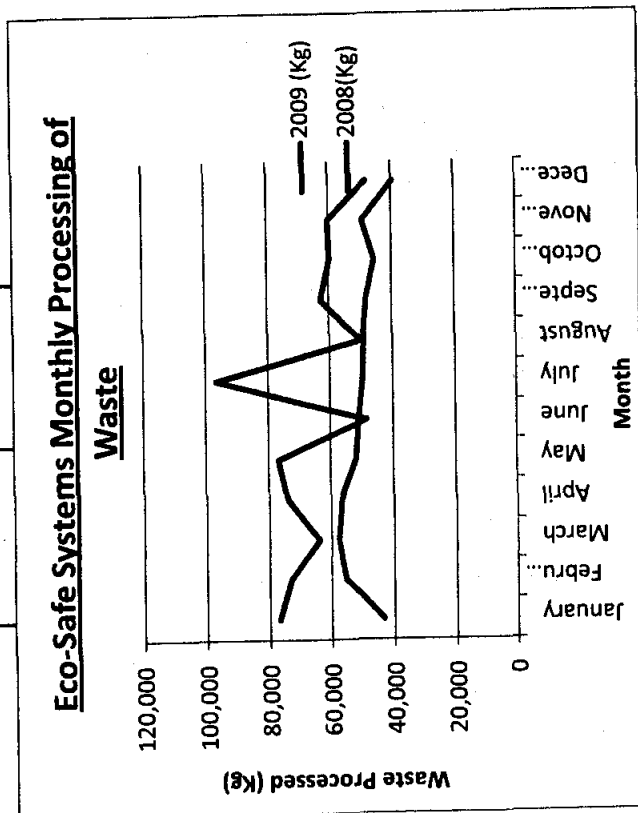


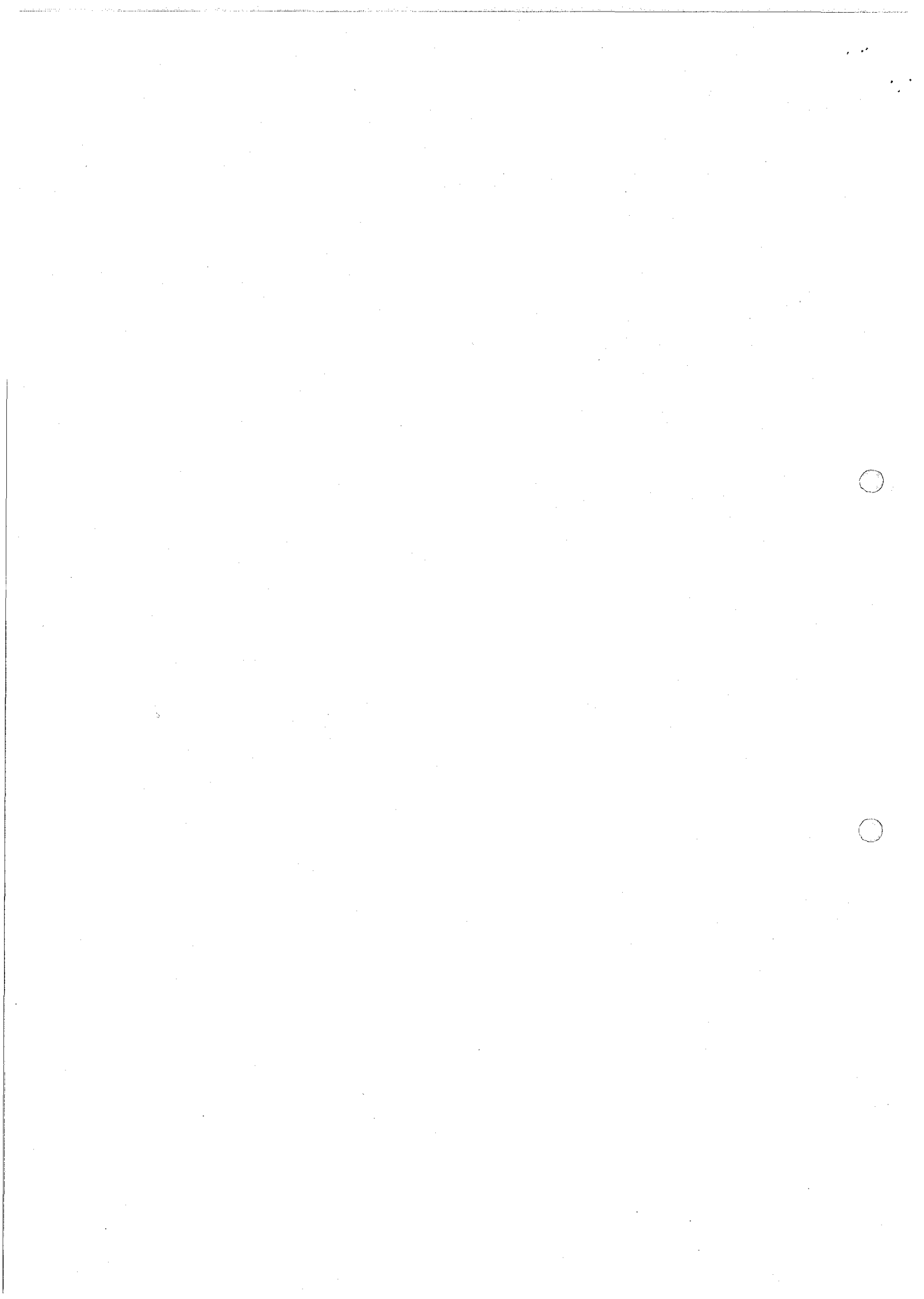
Monthly Processing of Waste		
Month	2009 (Kg)	2008(Kg)
January	43,407	76,773
February	55,469	73,053
March	57,798	63,753
April	56,772	73,880
May	52,109	76,773
June	51,229	48,451
July	49,849	96,792
August	49,424	50,172
September	48,510	62,706
October	45,572	59,729
November	49,525	60,237
December	39,745	48,175



Calculations are based on the fact that approximately ratio of weight to volume is 1:1.5. Such estimates result in the following numbers being calculated

Monthly Discharge to Sewer		
Month	2009 (m3)	2008(m3)
January	65.10975	115.1598
February	83.20365	109.5794
March	86.69715	95.6301
April	85.1577	110.8206
May	78.1635	115.1598
June	76.8432	72.67575
July	74.77365	145.1883
August	74.1366	75.2574
September	72.7647	94.05945
October	68.35785	89.59335
November	74.28735	90.35565
December	59.61705	72.2625







The loadings are based on a maximum flow rate of 25 cubic metres per day.

As the flow rate has now been increased I would request that you send monthly discharged flow readings to this office.

Yours Sincerely

  
\_\_\_\_\_  
Martin Ryan.

Senior Engineer

This matter is being dealt with by Mr. John Collins @2222090





Mr. Alan Stephens,  
O.E.E East/North East Region,  
EPA,  
McCumiskey House,  
Richview,  
Clonskeagh Rd  
Dublin 14

28.05.2007

**Ref: W0054-02 Schedule C1-Request for Amendment to Effluent ELY**

Dear Mr. Stephens,

Following internal monitoring carried out on volume of effluent emitted from Eco-Safe facility it has been noted that spikes on occasion occur which exceed our licence limit of 15m<sup>3</sup> per day. These spikes occur on days when there are additional batches processed. Eco-Safe have made a successful application to Dublin City Council Drainage Division to increase the effluent emission from 15m<sup>3</sup> to 25m<sup>3</sup> (please see correspondence attached from Dublin City Council) and wish to agree this new limit with the Agency.

I trust this is to the satisfaction of the Agency however should you require any further information please do not hesitate to contact me.

Yours truly,

  
Eilish Fitzpatrick  
Environmental Health and Safety Manager  
Eco-Safe Systems Ltd.

**Eco-Safe Systems Ltd.**

Unit 1a Allied Industrial Estate, Kilmore Road, Dublin 10

Ph: +353 1 6239135 Fax: +353 1 6239136 Email: [info@ecosafe.com](mailto:info@ecosafe.com) [www.ecosafe.com](http://www.ecosafe.com)

Directors - William Blyde (UK), Neville Graver (IRL), Frank ten Brink (USA), Shazeen Sacranie (USA)

Registered in Ireland. No. 286221, V.A.T No. 8286221U



RECEIVED 25 MAY 2007

Dublin City Council  
Comhairle Cathrach Bhaile Átha Cliath

Engineering Department  
Drainage Division  
Floor 2, Block 1  
Civic Offices  
Fishamble Street  
Dublin 8  
Tel: 353-1-2222090  
Fax: 353-1-2222300  
Website: [www.dublincity.ie](http://www.dublincity.ie)


Ms. Eilish Fitzpatrick,  
Environmental Health and Safety Manager,  
Ecosafe Systems  
Unit 1a Allied Industrial Estate,  
Kylemore Road  
Dublin 10

Date: 22nd May 2007

Dear Mr. Eilish,

Further to your query for an increase in your effluent emission from 15 to 25 cubic metres per day I wish to confirm that Drainage Division has no objection to such an increase.

Yours Sincerely

  
Martin Ryan,

Senior Engineer

This matter is being dealt with by Mr. John Collins @2222090

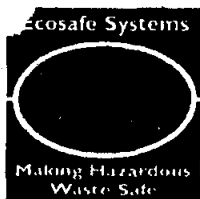
Roinn Innealltóireachta  
Rannóg Draenála  
Uirlár 2, Bloc 1  
Oifigí na Cathrach  
Sráid Sheamais an Éisc  
Baile Átha Cliath 8  
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Head Office, Civic Offices, Wood Quay, Dublin 8, Ireland  
Oifigí na Cathrach, An Ché Adhmaid, B.A.C. 8, Éire

K:\Pollution\materials\John Collins\GENERAL\iss creosote spf.doc

T. 01 672 2222 [www.dublincity.ie](http://www.dublincity.ie)

Annex 5.



Unit 1a Allied Industrial Estate,  
Kylmore Road, Dublin 10  
Telephone: (01) 623 9135  
Facsimile: (01) 623 9136

e-mail: [services@ecosafesystems.ie](mailto:services@ecosafesystems.ie)  
[www.ecosafesystems.ie](http://www.ecosafesystems.ie)

Mr. Alan Stephens,  
O.E.E East/North East Region,  
EPA,  
McCormiskey House,  
Richview,  
Clonskeagh Road,  
Dublin 14.

09-01-06

**Re: Raising of allowable discharge limits for the parameters BOD and COD**

Dear Mr. Stephens,

The licensee wish to make a technical amendment to the limits outlined in license 54.2.  
Please find attached revised limits for BOD and COD limits issued by the Dublin City Council.

Yours sincerely,

**Joe Mahon**  
**Environmental Health and Safety Assistant,**  
**Eco-Safe Systems Ltd.**

Eco-Safe Systems Limited.  
Directors: Gerard Casey, Frank Masterson B. Comm FCA, Manus Agnew ASCS, MRICS, Dr. Kevin McDonnell, Kevin McCarthy.

Registered in Ireland, Registered No. 288221, V.A.T. No. 8288221U.



**Dublin City Council**  
Comhairle Cathrach Bhaile Átha Cliath

Ms. Eilish Fitzpatrick,  
Environmental Health and Safety Manager,  
Ecosafe Systems,  
Unit 1a Allied Industrial Estate,  
Kylemore Road,  
Dublin 10

**Engineering Department**  
Drainage Division  
Floor 2, Block 1  
Civic Offices  
Fishamble Street  
Dublin 8  
Tel: 353-1-2222090  
Fax: 353-1-2222300  
Website: [www.dublincity.ie](http://www.dublincity.ie)

RECEIVED 21 DEC 2005

Date: 19<sup>th</sup> December 2005

**Re: EPA Waste Licence 54-2**

Dear Eilish,

I refer to your correspondence of 24-11-05 requesting a raising of the allowable discharge limits for the parameters Biochemical Oxygen Demand and Chemical Oxygen Demand in the consent given by Dublin City Council for EPA Waste Licence 54-2.

After consideration of your request I wish to inform you that Dublin City Council has no objection to new limits as follows

Parameter	Emission	Limit Value	
	Grab	Daily Mean	Daily Mean
	Sample	Concentration	Loading
	(mg/l)	(mg/l)	(kg/day)
<b>B.O.D.</b>	5,000	4,000	28.0
<b>C.O.D.</b>	15,000	12,000	84.0
<b>Suspended Solids</b>	500	400	2.8
<b>Sulphates(asSO4)</b>	1,000	1,000	7.0
<b>Ph</b>	6-10	6-10	
<b>Teperature</b>	42 degrees C		

**Roinn Innealtóireachta**  
Rannóg Draenála  
Urlár 2, Bloc 1  
Oifigí na Cathrach  
Sráid Sheamais an Éisc  
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Head Office, Civic Offices, Wood Quay, Dublin 8, Ireland  
Ceannofíóg, Oifigí na Cathrach, An Ché Adhmaid, B.Á.C. 8, Éire

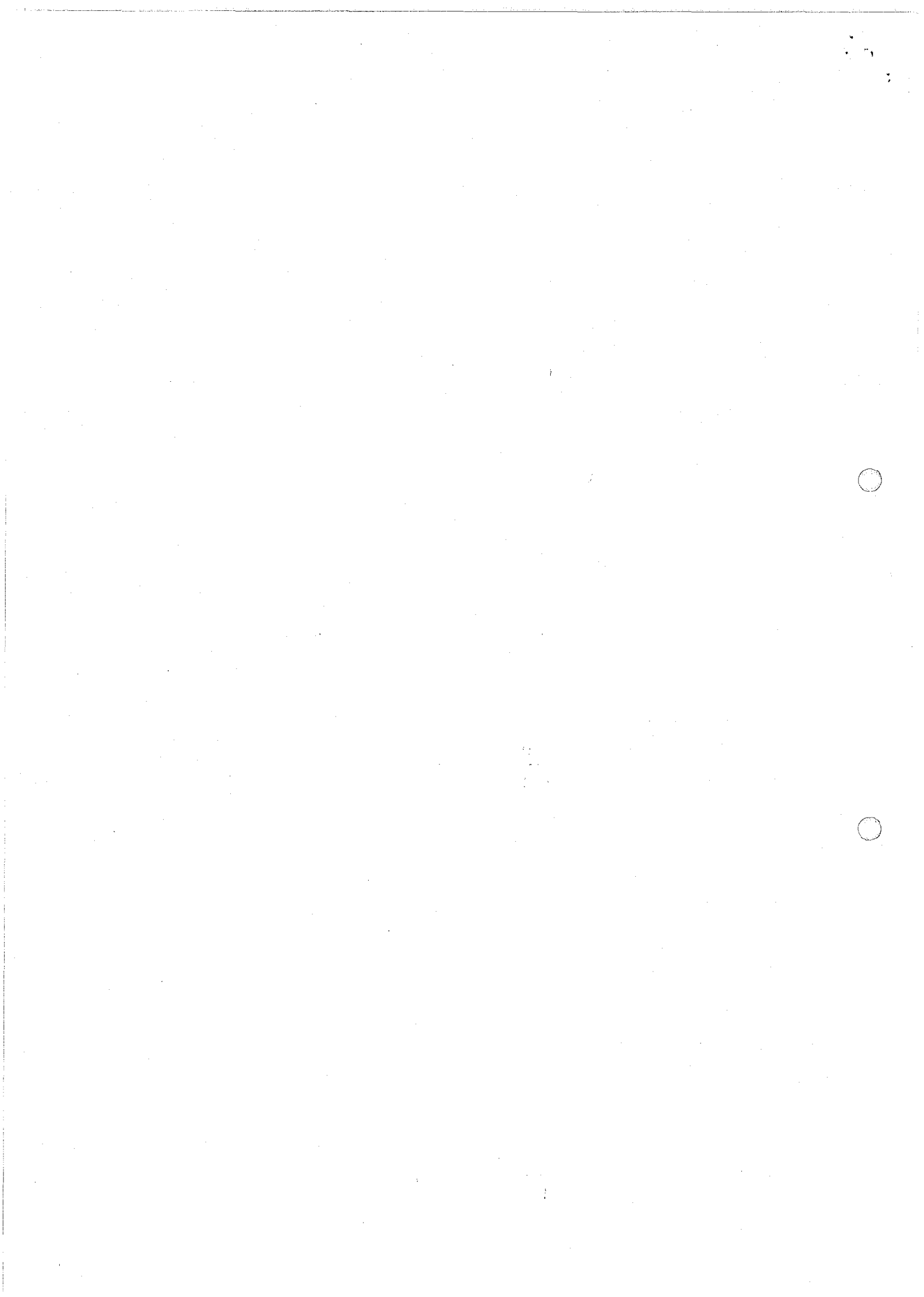
I will be writing to the E.P.A. to inform them of this. I return your cheque for €380 as there is no charge for this service.

Yours Sincerely

  
Martin Ryan,

Senior Engineer

This matter is being dealt with by Mr. John Collins @2222090





Mr John Johnston  
Managing Director  
Eco-Safe Systems Ltd  
Unit 1A  
Allied Industrial Estate  
Kylemore Road  
Dublin 10

Environmental Protection Agency  
Regional Inspectorate, McCumiskey House,  
Richview, Crossbeggs Road, Dublin 14, Ireland  
An Ghnóimseáireacht Réigiúil, Oifis Iomparáidí  
Cúigeach Réigiúil, Teach Mhóir, Chumaiscúil,  
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Web: [www.epa.ie](http://www.epa.ie)

Lo Call: 1800 33 55 99

24/01/2007

Our Ref: M54-2/Gen05AS.doc

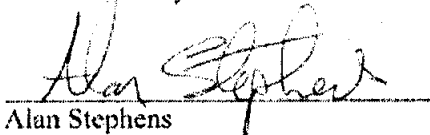
**Re. Discharges to foul sewer from Eco-Safe Systems Ltd,  
EPA Waste Licence Reg. No. 54-2**

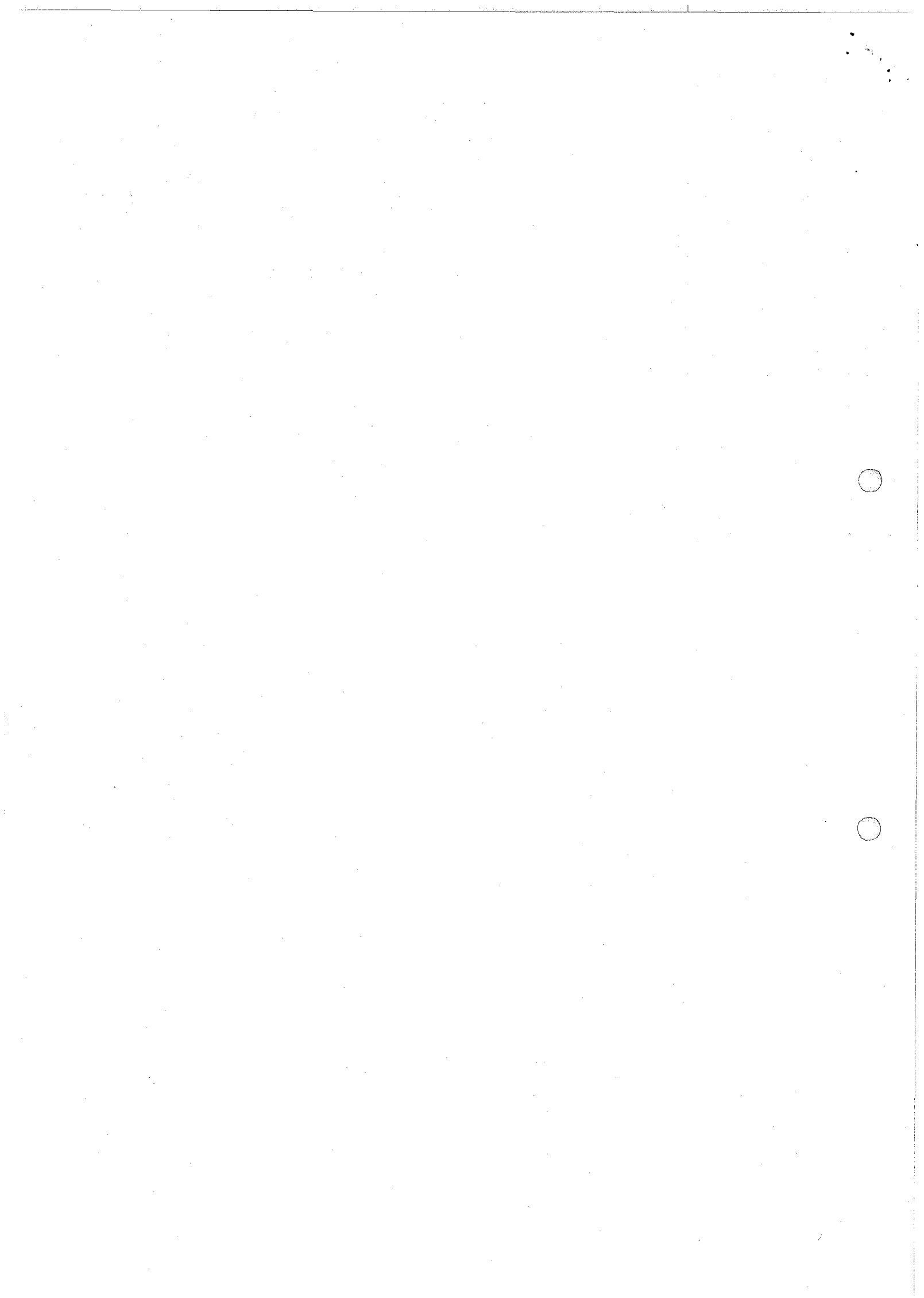
Dear Mr. Johnston

The Agency note that in correspondence from Dublin City Council (DCC) dated 21/12/2005 and received by the Agency on 03/01/06 that DCC agree to new limits for emission to foul sewer on Kylemore Road from emission point reference no. E310423 N 232905.

Please quote the above reference in future correspondence in relation to this matter.

Yours sincerely

  
Alan Stephens  
Inspector  
Office of Environmental Enforcement





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

## WASTE LICENCE

**Waste Licence**                      54-2  
**Register No:**

**Applicant:**                              Eco-Safe Systems Limited

**Location of Facility:**      Unit 1A, Allied Industrial Estate, Kylemore  
Road, Ballyfermot, Dublin 10

## **INTRODUCTION**

This introduction is not part of the licence and does not purport to be a legal interpretation of the licence.

Eco-Safe Systems Limited is currently licensed to accept and sterilise healthcare risk waste at their facility in Unit 1A, Allied Industrial Estate, Kylemore Road, Ballyfermot, Dublin 10. They have applied to review their existing licence. The acceptance and sterilisation of healthcare risk waste will continue at the facility. The revised licence allows them to operate a transfer station at their facility (primarily for hazardous waste); to sterilise additional waste types in their existing autoclave; to sterilise obsolete mechanical equipment in a new static autoclave shred tyres and to provide a confidential data destruction service. Alterations to the odour abatement equipment will be required prior to the heat treatment of certain infectious waste types.

This licensee is required to manage and operate the facility to ensure that the activities do not cause environmental pollution. The licensee is required to carry out regular environmental monitoring and submit all monitoring results, and a wide range of reports on the operation and management of the facility to the Agency.

This licence sets out in detail the conditions under which Eco-Safe Systems Limited will operate and manage the facility.

5.12.4 All processed healthcare 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. The testing laboratory to be employed during operation of the facility shall be agreed in advance with the Agency.

5.13 Maintenance

5.13.1 Maintenance of the Rotoclave, Static Autoclave, conveyors and shredders shall be in accordance with the instructions issued by the manufacturer/supplier.

5.13.2 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.

5.13.3 The licensee shall maintain and clearly label and name all sampling and monitoring locations.

**REASON:** To provide for appropriate operation of the facility to ensure protection of the environment.

## CONDITION 6 EMISSIONS

6.1. No specified emission from the facility shall exceed the emission limit values set out in *Schedule C: Emission Limits* of this licence. There shall be no other emissions of environmental significance.

6.2. The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in *significant impairment of, or significant interference with the environment beyond the facility boundary.*

6.3. Emission limits for emissions to atmosphere in this licence shall be interpreted in the following way:

6.3.1. Non-Continuous Monitoring

(i) 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.

(ii) For all other parameters, no 30 minute mean value shall exceed the emission limit value.

(iii) For flow, no hourly or daily mean value shall exceed the emission limit value.

6.4. The concentration limits for emissions to atmosphere specified in this licence shall be based on gas volumes under standard conditions of:

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

6.5. Emissions to Sewer

6.5.1. Unless otherwise agreed in advance with the Agency and the Sanitary Authority, the following shall apply for the discharge of wastewater, which shall be via the agreed sewer location on the Kylemore Road. There shall be no other discharge or emission to sewer of environmental significance.

- 6.5.2. Emission limits for emissions to sewer shall be interpreted as follows.
- (i) No pH value shall deviate from the specified range;
  - (ii) No temperature value shall exceed the emission limit value;
  - (iii) 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 1.2 times the emission limit value; and
  - (iv) For parameters other than pH, temperature and flow, no grab sample value shall exceed 1.2 times the emission limit value.
- 6.5.3. No substance shall be present in emissions to sewer in such concentrations as would constitute a danger to sewer maintenance personnel working in the sewerage system, or as would be damaging to the fabric of the sewer, or as would interfere with the biological functioning of a downstream wastewater treatment works.
- 6.5.4. 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.
- 6.5.5. Monitoring and analyses equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission or discharge.
- 6.5.6. 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.
- 6.5.7. 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.
- 6.5.8. 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.
- 6.5.9. The licensee shall submit monitoring results to the Sanitary Authority on an annual basis.
- 6.5.10. The trade effluent shall be screened prior to discharge to remove gross solids and avoid blockages in the sewer.
- 6.5.11. The trade effluent shall not contain active viruses, pathogens and/or unsterilised body fluids.
- 6.5.12. No radioactive material shall be discharged to sewer.
- 6.6. There shall be no direct emissions to groundwater.
- 6.7. There shall be no clearly audible tonal component or impulsive component in the noise emissions from the activity at the noise sensitive locations.
- 6.8. Trigger Level for Airborne micro-organisms

## SCHEDULE C : Emission Limits

### C.1 Emissions to Sewer

Emission Point Reference No: E310423 N 232905

Emission to : Foul Sewer on Kylemore Road

Volume to be emitted: 15m<sup>3</sup>/day

Parameter	Emission Limit Value		
	Grab Sample (mg/l)	Daily Mean Concentration	Daily Mean Loading (kg/day)
BOD	1,000	800	12
COD	3,000	2,400	24
Sulphates	1,000	1,000	1
Suspended Solids	500	400	0.4
pH	6-10	6-10	
Temperature	42°C		

### C.2 Noise Emissions: (Measured at any noise sensitive location).

Day dB(A) L <sub>Aeq</sub> (30 minutes)	Night dB(A) L <sub>Aeq</sub> (30 minutes)
55	45

### C.3 Emissions to Atmosphere

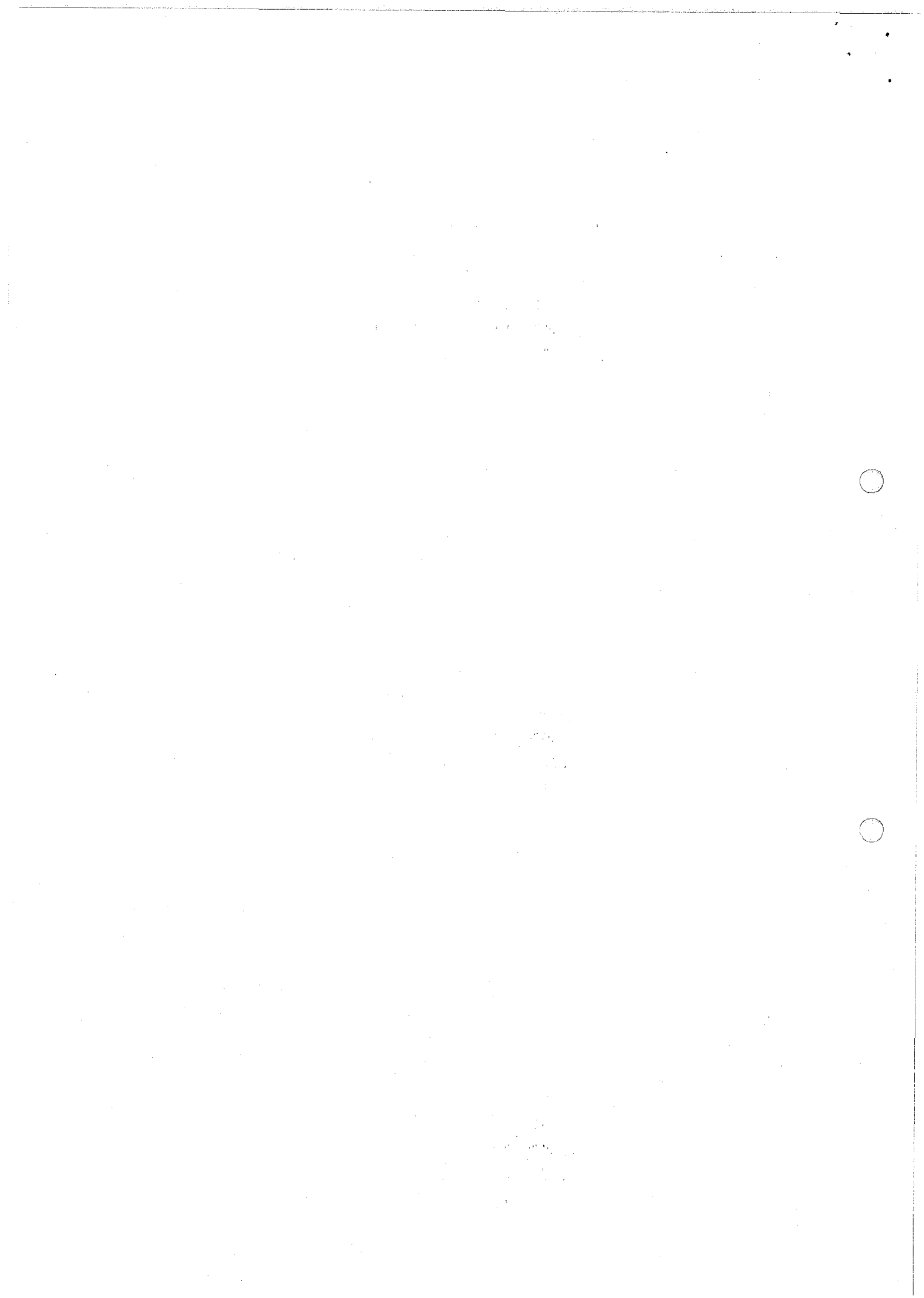
Emission Point Reference Nos.

EP1

Name of Emission Point:

Main Stack following abatement

Parameter	Emission Limit Value <sup>(Note 1)</sup>
Indicator Microorganisms	2,000 cfu/m <sup>3</sup>
Total Particulates	50mg/m <sup>3</sup>
Ammonia	50 mg/m <sup>3</sup> (at mass flows > 0.1kg/hr)
Hydrogen Sulphide and Mercaptans	5 mg/m <sup>3</sup>
Total Volatile Organic Compounds	0.1 kg/hr



## SCHEDULE D : Monitoring

Monitoring to be carried out as specified below.

### D.1 Monitoring Locations

Monitoring locations shall be those as set out in Table D.1.1.

**Table D.1.1 Monitoring Locations**

Rotoclave Temperature Stations	Noise Stations	Ambient Air Monitoring	Air Emission Point	Emissions to Sewer
Note 1	NMP 3,4,5,6	4 Boundary monitoring locations (Note 2)	EPI	FS1 <sup>Note 3</sup>

Note 1: Thermocouple locations in Rotoclave unit to be agreed with the Agency.

Note 2: Locations to be agreed with the Agency.

Note 3: Foul Sewer in Kylemore Road.

### D.2 Emissions to Sewer

**Table D.2.1 Sewer Monitoring Frequency and Techniques**

Parameter	Monitoring Frequency	Analysis Method/Technique
PH	Quarterly	Electrometry
Biological Oxygen Demand	Quarterly	Standard Methods <sup>Note 1</sup>
COD	Quarterly	Standard Methods <sup>Note 1</sup>
Sulphates	Quarterly	Standard Methods <sup>Note 1</sup>
Suspended Solids	Quarterly	Standard Methods <sup>Note 1</sup>
Volume	Quarterly	Method to be agreed with the Agency
Total coliform/100ml	Quarterly	Standard Methods <sup>Note 1</sup>
Faecal coliform/100ml	Quarterly	Standard Methods <sup>Note 1</sup>
Faecal streptococci/100ml	Quarterly	Standard Methods <sup>Note 1</sup>
Culturable Enteroviruses	Quarterly	Standard Methods <sup>Note 1</sup>

Note 1: "Standards Methods for the Examination of Water and Wastewater", (prepared and published jointly by A.P.H.A., A.W.W.A & W.E.F) 20th Ed., American Public Health Association, 1015 Fifteenth Street, Washington DC 20005, USA.

