

THAMES WATER UTILITIES LTD.

Water Industry Act 1991 Water Act 2003 Environmental Protection Act 1990 Environment Act 1995

Pollution Prevention and Control Act 1999 CONSENT TO THE DISCHARGE OF TRADE EFFLUENT

WHEREAS

 Queen Mary University of London 327 Mile End Road Tower Hamlets London E1 4NS

is/are the occupier(s)/owner(s) (hereinafter called THE APPLICANT) of the trade premises known as

Queen Mary University of London and situate at

Charterhouse Square Campus

Charterhouse Square

Barbican

London

EC1M 6BQ

(hereinafter called THE PREMISES) and by notice dated Seventh day of July, Two Thousand and Sixteen has/have made application to Thames Water Utilities Ltd. (hereinafter called THE COMPANY) to Consent to the discharge of Trade Effluent by him/her/them from THE PREMISES into the Company's public foul water and/or combined sewers.

2. NOW THEREFORE in exercise of the powers conferred upon it in that behalf as a sewerage undertaker by the Water Industry Act 1991, the Company

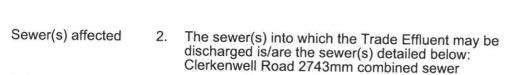
HEREBY CONSENTS to the discharge of Trade Effluent from the Premises into the sewer(s) (as hereinafter defined) subject to the following conditions:

Nature and composition

 The nature and composition of the Trade Effluent (hereinafter called THE TRADE EFFLUENT) to be discharged under this Consent is: Waste liquids arising from research and development activities

T.E.Case No: TBEC1AJ2

Page 1 of 10



Thames Water

And more particularly shown in line(s) on the annexed plan and thereon coloured red. The point(s) at or through which the Trade Effluent is to be discharged is/are shown on the said Plan and thereon marked blue.

No change shall be made in such point(s) of discharge without prior Consent in writing of the Company.

Maximum quantity to be discharged

3. The maximum quantity of the Trade Effluent which may be discharged on any one day of twenty-four hours determined from midnight to midnight shall not exceed 10.000m³.

Maximum rate of discharge

4. a) The maximum rate at which the Trade Effluent may be discharged shall not exceed 1.000m³ per hour.

b) The maximum rate at which the Trade Effluent may be discharged shall not exceed 0.278 litres per second.

Matter to be eliminated prior to discharge to the sewer(s)

- 5. (a) There shall be eliminated from the Trade Effluent before it is discharged into the sewer(s) any matter, which, either alone or in combination with any matter with which it is likely to come into contact while passing through any sewers, would injure or obstruct any such sewers or cause injury to and/or damage to the health of any person lawfully present in such sewers, pumping stations or sewage treatment works or would makespecially difficult or expensive the treatment or disposal of their contents and in particular but withoutprejudice to the generality of the foregoing words the following matters:-
 - (i) Petroleum spirit
 - (ii) Calcium carbide
 - (iii) Thiourea and thiourea derivatives
 - (iv) Non biodegradable detergents
 - (b) The Trade Effluent shall not contain substances listed in Schedule 1 of the Trade Effluents (Prescribed Processes and Substances) Regulations 1989, as amended, at a concentration greater than background concentration as defined in such regulations.
 - (c) The Trade Effluent shall not contain any of the substances listed in APPENDIX 1 at a concentration expressed in milligrams per litre greater than that stated.

SEE APPENDIX 1

Temperature

 No Trade Effluent shall be discharged which has a temperature higher than 43.3 degrees Celsius (110 degrees Fahrenheit).

Acidity or alkalinity

7. No Trade Effluent shall be discharged the pH value of which is less than 6.0 or greater than 11.0.

Condensing water

No condensing water shall be discharged.



Changes in occupier or process

The Applicant of the Premises shall forthwith give to the Company notice in writing of any changes or proposed changes in the company name, address, occupier, or processes of manufacture or the nature of the raw materials used or of any other circumstances which may alter the nature and composition or the volume of the Trade Effluent or may result in the permanent cessation of the discharge.

Commencement of Discharge

10. The commencement date of this Consent will be the date on which the Consent is signed by the Company's Senior Consultant for Wastewater Quality (or any other officer or employee duly authorised by the Company for these purposes). The Applicant must not discharge the Trade Effluent before the commencement date.

Payment

- The Applicant of the Premises shall pay to the Company for the Trade Effluent discharged into the sewer
 - (a) A sum calculated in accordance with the provisions contained in the Company's Charges Scheme together with
 - (b) The amount of any additional expenses which the Company may from time to time incur with respect to the monitoring, analysis, reception, treatment and disposal of the Trade Effluent.
 - (c) Where samples taken by Thames Water establish that the consumer is in breach of an Agreement or a Consent, the consumer shall be liable to pay the sampling and analysis charge for each sample that was necessary to take in order to establish such a breach, which shall be the charge shown in the Trade Effluent Charges Schedule.

All sums payable to the Company under this condition shall become due and payable on demand.

Entry and samples

12. The Applicant of the Premises shall permit duly authorised representatives of the Company to inspect, examine and test at all reasonable times any works and apparatus installed in connection with the Trade Effluent and to take samples of the Trade Effluent.

Inspection

13. An inspection chamber or manhole shall be provided and maintained by the Applicant of the Premises in a suitable position defined in connection with each pipe through which the Trade Effluent being discharged and such inspection chamber or manhole shall be so constructed and maintained by the Applicant as to enable duly authorised representatives of the Company to take samples at any time of the matter passing into the sewer(s) from the Premises.

Measurement and determination of discharge

- 14. (a) A notch gauge and continuous recorder or some other apparatus suitable and adequate for measuring and automatically recording the volume, nature, composition and rate of discharge of the Trade Effluent being discharged into the sewer(s) shall, if required by the Company be provided and maintained by the Applicant of the Premises to the satisfaction of the Company in connection with every pipe through which the Trade Effluent is being discharged.
 - (b) It is a requirement of this Consent that if a trade effluent meter(s) is/are installed it/they will be calibrated at least annually or more frequently if specified by the company and certificated by a suitably qualified person and/or company approved by the company.

Records

- 15. (a) Records in such a form as the Company may require shall be kept of the volume, rate of discharge, nature and composition of the Trade Effluent discharged into the sewer(s) and shall be available at all reasonable times for inspection by duly authorised representatives of the Company and copies of such records shall be sent to the Company on demand.
 - (b) If the notch gauge and continuous recorder or other apparatus aforesaid ceases to register or measure correctly then, unless otherwise agreed, the quantity of the Trade Effluent discharged into the sewer(s) during the period from the date on which the records of the volume of the Trade Effluent discharged into the sewer(s) were last accepted by the Company as being correct up to the date when the notch gauge and continuous recorder or other apparatus aforesaid again registers correctly shall, for the purpose of any payment to be made to the Company, be based on the average daily volume of the Trade Effluent discharged during the period of one month preceding the date on which the said records were last accepted as aforesaid or during the month immediately after the notch gauge and continuous recorder or other apparatus aforesaid has been corrected, whichever is the higher.
 - (c) The foregoing provisions of this condition shall be of no effect so long as there is available to the satisfaction of the Company some other method approved by the Company of sampling the Trade Effluent or of determining, measuring and recording the volume and rate of discharge and the nature and composition of the Trade Effluent discharged.

Vacation of Site

- 16. The Applicant(s) must notify the Company in writing at least 21 days in advance of the following events:
 - (a) Vacation of the Premises by the Applicant for any reason, whether permanent or temporary;
 - (b) Change of ownership or occupation of the Premises;
 - (c) The Applicants entry into liquidation whether voluntarily or compulsorily or bankruptcy, if an individual;
 - (d) The presentation of a petition for the appointment of an administrator or a receiver or manager in respect of the Applicants undertakings;
 - (e) Cessation of discharge of Trade Effluent from the Premises.



Signed:

T. MCHAUSE

Tony McHattie
Trade Effluent Manager
Duly authorised to sign on behalf of the company
Dated

day of

T. J.

2016

T.E.Case No: TBEC1AJ2

Page 5 of 10



NOTES:

- a) All communications should be sent to the following address:
 Senior Consultant Wastewater Quality
 Thames Water Utilities Ltd
 Crossness Sewage Treatment Works
 Belvedere Road
 Abbey Wood
 London
 SE2 9AQ
- b) Your attention is drawn to the right of appeal to the Director General of Water Services conferred by Section 122 of the Water Industry Act 1991 if you are aggrieved by any condition attached to this Consent.
- c) A fixed charge for all sewerage services plus a domestic sewerage charge is payable in addition to charges for Trade Effluent flows.
- d) A copy of Thames Water Utilities Ltd Charges Scheme is obtainable from the Thames Water Customer Centre.
- e) If you discharge Trade Effluent in contravention of a condition of this Consent you will be guilty of a criminal offence and may be subject to prosecution.



APPENDIX 1 - SUBSTANCES

The Trade Effluent shall not contain any of the substances listed below at a concentration expressed in milligrams per litre greater than that stated:

| Determinand Name | Consented Limit |
|---------------------------|-----------------|
| Chemical Oxygen Demand | 3000.0 |
| Suspended Solids | 2000.0 |
| Sulphate | 1800.0 |
| Settleable Solids | 1000.0 |
| Saponifiable Material | 300.0 |
| Formaldehyde | 100.0 |
| Rapidly Settleable Solids | 100.0 |
| Available Chlorine | 50.0 |
| Unsaponifiable Material | 50.0 |
| Ammoniacal Nitrogen | 35.0 |
| Total Phosphorus | 13.0 |
| Silver | 5.0 |
| Sulphide | 1.0 |

THERE ARE NO FURTHER LIMITS IN THIS APPENDIX

T.E.Case No: TBEC1AJ2

Page 7 of 10



APPENDIX 2 - DISCHARGE POINTS

THERE ARE NO MORE DISCHARGE POINTS

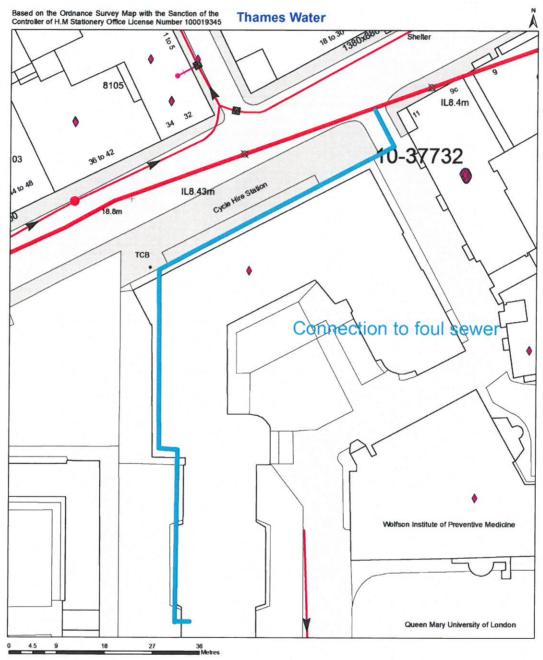
T.E.Case No: TBEC1AJ2

Page 8 of 10



APPENDIX 3 - SEWER PLAN

Site Sewer Plan



The position of any boundary or apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. No liability of any kind whatsoever is accepted by Thames Water for any error or omission.

Printed At (A4) : 1:500
Printed By : CPEZET
Print Date : 28/06/2016
Map Centered On : 531918,182126
Grid Reference : TQ3182

Thames



APPENDIX 4 - ADDITIONAL CLAUSES

NO ADDITIONAL CLAUSES AVAILABLE