

northern ireland
water



Delivering what matters

TRADE EFFLUENT APPLICATION PACK

How to apply for consent to discharge
trade effluent to a public sewer

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1 INTRODUCTION

1.1 What is Trade Effluent?

Under the Water and Sewerage Services (Northern Ireland) Order 2006, “trade effluent” is defined as:

- (a) any liquid, either with or without particles of matter in suspension in the liquid, which is wholly or partly produced in the course of any trade or industry carried on at trade premises: and
- (b) in relation to any trade premises, means any such liquid which is so produced in the course of any trade or industry carried on at those premises; but does not include domestic sewage.

Please note:

- **Discharges of trade effluent to the public sewer may only be made with the formal legal consent of Northern Ireland Water Limited (NIW). It is the responsibility of the company or individual concerned to obtain a “Consent to Discharge Trade Effluent to the Public Sewer” under the Water and Sewerage Services (Northern Ireland) Order 2006 prior to making any discharge. Failure to do so is a criminal offence that could result in prosecution.**
- **Discharges from IPC or IPPC authorised processes, as regulated by the Northern Ireland Environment Agency, still require a trade effluent consent.**

Wastewater from trade premises carrying out the manufacture or processing of various materials, for example, metal surface treatment, food and drink manufacture, chemical processing are clearly “trade effluents”.

In addition under the Order any land or premises used or intended for use

- (a) for agricultural or horticultural or for the purposes of fish farming;
- (b) for scientific research or experiment;
- (c) for the purposes of a hospital or nursing home:

shall be deemed to be premises used for carrying on a trade or industry.

In addition, the Water and Sewerage Services (Northern Ireland) Order 2006 makes a general provision to protect the sewerage system. This applies to **all** discharges to sewer; irrespective of whether or not they are considered to be trade effluent:

“.....no person shall throw, empty or turn, or suffer to permit to be thrown or emptied or to pass, into any public sewer, or into any drain or sewer communicating with a public sewer or into any waste water treatment works –

- *any matter likely to injure the sewer, drain or works, interfere with the free flow of its contents or to affect prejudicially the treatment and disposal of its contents”.*

1.2 The Objectives of Trade Effluent Control

1. To prevent trade effluent discharges to sewer causing:
 - harm to the health and safety of personnel working within the sewerage system, or to those people living and/or working near the receiving sewer;
 - damage to the fabric of the sewerage infrastructure;
 - interference with the effective and economic treatment of the mixed sewage at the receiving waste water treatment works;
 - the products of the waste water treatment works, in the form of effluent, sludge or other residues, to have an unacceptable impact on water resources and the environment;
 - an unacceptable frequency of storm sewage discharges to watercourses.
2. To monitor trade effluent discharges to sewer in order to ensure that they comply with the relevant conditions of the discharge consent at all times.
3. To provide data on the volume and composition of the trade effluent discharges to sewer for use in the future design of sewerage systems and wastewater treatment works, and to ensure the proper management of water resources.
4. To ensure that the customer pays an appropriate charge, representative of the costs incurred for the reception, conveyance, treatment and disposal of effluent.

1.3 Consenting of Discharges

Before a trade effluent may be discharged to the public sewer system the consent of NIW must be obtained. This consent is issued under the Water and Sewerage Services (Northern Ireland) Order 2006.

No discharge of trade effluent will be permitted until a consent has been granted.

Existing customers who are already in possession of a consent to discharge trade effluent to a sewer, but who wish to apply for an amendment to their current consent due to a proposed change to the volume and/or composition of their existing effluent must apply for a review of the consent through a Direction.

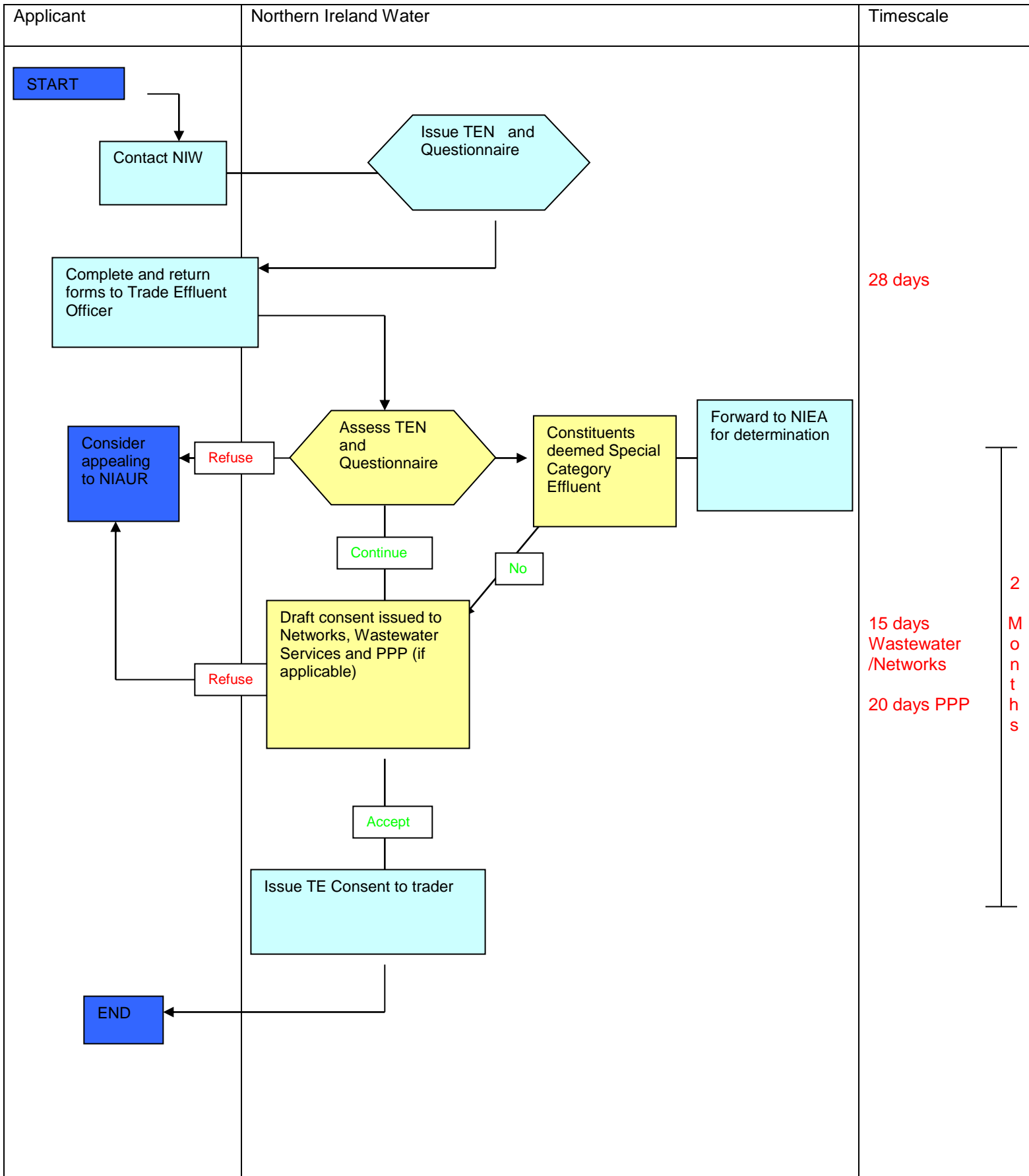
Existing customers who wish to obtain permission to discharge another proposed trade effluent stream via a different discharge point must obtain another trade effluent consent specifically for the second discharge point.

2. PROCEDURES

The following chart gives an overview of the processes which you must follow to obtain a Consent to Discharge Trade Effluent to a Public Sewer.

A detailed description of these processes is included in Section 3.

Completed forms should be returned to the area Trade Effluent Officer as listed in Appendix B3:



3. DESCRIPTION OF THE PROCESS

The process involves the completion of two forms –

1. Trade Effluent Notice (TEN)
2. Trade Effluent Questionnaire

These forms are provided in Appendix A.

The Trade Effluent Notice requires the following information:

- a) the nature, temperature and composition of the trade effluent
- b) the steps proposed to be taken for minimising the impact of the discharge on sewerage services
- c) the maximum quantity of the trade effluent which it is proposed to discharge on any one day; and
- d) the highest rate at which it is proposed to discharge the trade effluent.

The Trade Effluent Questionnaire requires details of the company, ownership of the trade premises concerned and information on the general nature of the trade effluent.

Please note, the Trade Effluent Questionnaire Form, on its own, does not constitute a formal application for consent as defined in the Water and Sewerage Services (Northern Ireland) Order 2006.

When completing these forms your attention is drawn to the following points. “The Order” refers to the Water and Sewerage Services (Northern Ireland) Order 2006.

1. Trade effluent is defined in the Order as “any liquid either with or without particles of matter in suspension, which is mostly or in part produced in the course of any trade or industry carried on at any trade premises but does not include domestic sewage”.
2. The forms, when returned, must be accompanied by a site drainage plan showing the route of all trade effluent drainage from the point of origin to the public sewer. The plan should show all foul and storm drainage on the factory site. Please identify trade effluent drains in blue.
3. A map showing the position of the premises with respect to Ordnance Survey should be supplied.
4. Under the terms of the consent given, it will be necessary to provide a safe and accessible sampling point.
5. It is necessary to be able to accurately determine the volume and rate of flow of trade effluent passing into the public sewer. This may require the installation of an appropriate measuring device, capable of recording flow rate and totalised volumes of effluent entering the foul water system.
6. There may be a requirement for the customer to carry out some self-monitoring and keep such records to an auditable standard and made available for inspection upon request.

Appendix B2 contains information on those conditions that apply to all trade effluent consents, which are absolute and not subject to variation.

3.1 Assessment

We will base our assessment on the details that you provide on the above forms. This information will also be used in the preparation of the legal Consent documents including the site drainage plans.

If insufficient information is provided, including inadequate plans, a Consent cannot be issued.

On receipt of completed forms we will determine your application, liaising as necessary with other sections of NIW. As part of our assessment, the following information is taken into account:

- the volume, nature and concentration of the likely constituents of the trade effluent will be assessed for any potential negative effects on the sewerage system and waste water treatment works. If considered acceptable, limits will be set in the consent for each constituent. Additional analytical information may be requested at this stage.
- It should be noted that if any of the constituents declared designate the water to be “Special Category Effluent”, then the Consent application will be referred to the Environment and Heritage Service (Refer to TE2 Trade Effluent Notice in Appendix A).

3.1.1 Rationalisation and/or Pre-Treatment

You may be required to undertake rationalisation and/or treatment of trade effluent sources within your premises before it is possible for us to grant permission for you to discharge to the public sewers. For example, drainage amendments may be required to combine a number of trade effluent sources into a single waste stream, or an effluent pre-treatment plant may have to be installed and maintained in order to remove or reduce certain constituents in the trade effluent.

3.1.2 Sampling Point

The Consent requires that a designated trade effluent sampling point be provided. This point must be safe and easily accessible at all times. For example, if the sampling point is accessed via a manhole cover, this must be suitable for lifting by one person.

Northern Ireland Water’s policy is to fully comply with all relevant Health and Safety legislation and have due regard for the welfare of our personnel at all times while on-site in connection with their duties and thus the above requirement is paramount in the process of granting a Consent.

3.1.3 Trade Effluent Consent

Upon receipt of your Trade Effluent Notice we must either grant or refuse Consent within two months. The applicant has a right to appeal (see below).

3.1.4 Right to Appeal

If a Consent is refused, or if you are not satisfied with the Consent conditions granted, you have a right to appeal to the Northern Ireland Authority for Utility Regulation which can be contacted as follows:

Northern Ireland Authority for Utility Regulation
Queens House
10 -14 Queen Street
Belfast
BT1 6ER

Tel No: 02890 316635

3.2 After Consent

- After receiving your Trade Effluent Consent we will take compliance samples as appropriate to monitor compliance for the relevant constituents of the effluent. The number of monitoring visits by our Trade Effluent Staff will be determined by the nature and volume of the trade effluent.
- If required, we will take additional samples in order to obtain more representative results for trade effluent billing purposes.
- We will arrange for the samples to be analysed by Northern Ireland Water's laboratory which is UKAS accredited. Our Trade Effluent Officer checks each completed Sample Analysis Report for compliance with the Consent conditions before forwarding to the customer with comments. If necessary, a letter of Breach of Consent will accompany the report, requesting information on the nature of the incident and what remedial action is to be taken in future to prevent a recurrence.
- Trader's compliance is governed by the Northern Ireland Water (NIW) Trade Effluent Control and Enforcement Policy. NIW has a duty under the Water and Sewerage Services (Northern Ireland) Order 2006 to control the discharge of trade effluents. The main purpose of this policy is to maintain compliance for treated discharges from NIW waste water treatment works, to minimise risk of pollution incidents due to a trade discharge overloading or damaging a public sewer and to protect the water environment from the discharge of harmful substances.
- Any queries about the detail of a Consent to Discharge should be raised with our Area Trade Effluent Officer (see Appendix B3).

3.2 Matters for Your Consideration

3.3.1 Responsibility of Trade Effluent Consent Holder

If a Consent is issued it will be sent to the Company Secretary at the Registered Office or, as requested, to the named owners or partners. The Trade Effluent Consent is an important legal document and must be kept safe.

3.3.2 Company Changes (Selling, Takeovers or Mergers)

Should the Company, who applied for the Trade Effluent Consent, sell their business, then the new owner must provide us with details of the new Company and its Registered Office address.

3.3.3 New Premises

The Consent applies only for the trade premises specified and cannot be taken with a Company if it relocates. A new Consent must be submitted for the new premises.

3.3.4 Existing Premises

The Consent applies only for the process as defined in that Consent. Any change of process will require a new application or a variation to an existing Consent.

If any changes are planned to the process that may affect the volume and/or nature of trade effluent discharged, it is the responsibility of the Consent holder to contact the Area Trade Effluent Officer for advice prior to the implementation of the changes, as it may be necessary to issue a “*Direction varying the conditions attaching to a Consent to discharge Trade Effluent*”.

Northern Ireland Water may review the conditions of the Consent if necessary by issuing a “*Direction varying the conditions attaching to a Consent to discharge Trade Effluent*” under the Water and Sewerage Services (Northern Ireland) Order 2006. New conditions imposed may be subject to appeal to the Northern Ireland Authority for Utility Regulation within two months from the date of issue.

3.3.5 Transfer of Consent

A consent may be transferred by the holder to a person who proposes to carry on the trade effluent discharge in place of the holder. Northern Ireland Water will issue an amended consent within 21 days of being notified of change of ownership.

4 TRADE EFFLUENT CHARGES

The amount due to Northern Ireland Water of each charging period shall be calculated by multiplying the total volume of trade effluent discharged by the occupier during that period by the charge per cubic metre derived from the application of the Mogden Formula:

$$R + V + \frac{Ot B}{Os} + \frac{St S}{Ss} = C$$

Where

- R = Reception and conveyance charge per cubic metre, as assessed from time to time by Northern Ireland Water.
- V = Volumetric and primary treatment charge per cubic metre, as assessed from time to time by Northern Ireland Water.
- Ot = Average chemical oxygen demand measured in milligrams per litre, of the trade effluent after one hour's quiescent settlement at pH 7.
- Os = Average chemical oxygen demand of settled sewage, as assessed from time to time by Northern Ireland Water.
- St = Average suspended solids in the trade effluent, measured in milligrams per litre, after adjustment to pH 7.
- Ss = Average suspended solids in crude sewage, as assessed from time to time by Northern Ireland Water.
- B = Basic charge, as assessed from time to time by Northern Ireland Water, for the biological treatment of one cubic metre of sewage with an average chemical oxygen demand
- S = Basic charge, as assessed from time to time by Northern Ireland Water, for the treatment and disposal of one cubic metre of sewage with an average weight of solids in suspension.
- C = Total charge to the discharger per cubic metre of trade effluent discharge during the period.

The **chargeable trade effluent volume** can be assessed in one of two ways:

- a flow meter that measures the volume and rate of effluent discharged to sewer.
- the incoming metered water (in cubic meters) after deduction of domestic usage and any non-return to sewer allowances (if applicable). Domestic usage is based on the number of employees and whether a canteen is available that provides cooked meals on the premises.

The **sampled strength** of trade effluent is usually taken from the average of results of samples taken for compliance monitoring during a six-month period. The parameters used are the settled COD (Chemical Oxygen Demand) (Ot) and the Total Suspended Solids (St).

APPENDIX A

Forms that you must complete and return to us

- TE1 Trade Effluent Questionnaire
- TE2 Trade Effluent Notice



NORTHERN IRELAND WATER
TRADE EFFLUENT QUESTIONNAIRE
Water and Sewerage Services (Northern Ireland) Order 2006
Article 176 – Information Regarding Trade Effluent

In accordance with the provisions of the above Order, application is made for Consent to discharge Trade Effluent from the premises named below into the sewers of Northern Ireland as follows:

1. Occupier of premises.

- (a) Full name
- (b) Registered Address
- (c) Registered Company Number

2. Address of Trade Premises

3. Contact Name and Telephone Number for enquiries

4. Name and address of person to whom accounts should be sent.

5. Nature of business.

6. Trade process from which Trade Effluent will result:

7. (i) Hours of the day between which it is desired to discharge trade effluent to the sewer:

(ii) Days on which it is desired to discharge trade effluent to the sewer:

8. Number of Employees (full time equivalent)

Average number of days worked by discharger per year:

9. Is there a canteen on the premises providing cooked meals? YES/NO

10. (i) Source of water intake (please tick source(s) which apply):

Mains River Borehole Other Please specify

(ii) Where water source is other than mains, is the supply metered? YES/NO

11. What is the estimated percentage of intake water lost in production?

(Documentary evidence may be required)

12. Date on which discharge of trade effluent to sewer first commenced/will commence:

13. Do you have the authority of NIW or its predecessors to discharge trade effluent? YES/NO

If YES, please provide details

Northern Ireland Water

TRADE EFFLUENT NOTICE

Water and Sewerage Services (Northern Ireland) Order 2006

In accordance with the Water and Sewerage Services (Northern Ireland) Order 2006 the undersigned, being the occupier of the trade premises described below, hereby applies to Northern Ireland Water for consent to discharge trade effluent described below into the sewer/sewage treatment works.

1a. Nature, composition and temperature of trade effluent to be discharged.

- (i) pH value: _____
- (ii) Chemical Oxygen Demand in mg/l: _____
If not known, Biochemical Oxygen Demand in mg/l: _____
- (iii) Suspended solids in mg/l: _____
- (iii) Maximum temperature of any such discharge (degrees Centigrade): _____

1b. The Occupier should specify below all proposed constituents of the trade effluent.

1c. The Occupier should in addition identify any specific constituent which is likely to obstruct sewers, drains or works, or prejudice the treatment or disposal of the sewage from those sewers, or cause nuisance, or is dangerous or injurious to health or is likely to cause injury to health.

2. Maximum quantity of trade effluent to be discharged on any one day (m³): _____

3. Maximum rate of flow of trade effluent to be discharged in any one hour (litres per hour): _____

4. The steps proposed to be taken in relation to the discharge for minimizing the polluting effects of the discharge and the impact of the discharge on sewerage services.

5. Special Category Effluent

Schedule 1 of Appendix 1 sets out substances, the presence of which in the effluent would classify it as a special category effluent.

Please List _____

Schedule 2 of Appendix 1 sets out those processes, the discharges from which are defined as special category effluents.

Please List _____

It should be noted that if the effluent be deemed to be a Special Category Effluent, NIW must refer the application to DOE.

6. Any other relevant information.

The applicant acknowledges and by this application warrants that sufficient information has been provided to identify, specify or otherwise particularise all matters pursuant to Section 178 of the Water and Sewerage Services Order 2006, and all matters relating to the nature and composition of trade effluent that might by reason of matters within the Applicant's own knowledge, information or belief be discharged.

Signature of Applicant

State capacity in which signing

(The Application must be signed, in the case of a Company, by a Director or Company Secretary, or for Partnerships, by a Principal)

Date of Signature

APPENDIX A

Northern Ireland Water has been required (unless it intends to refuse the application) to refer to The Department of the Environment any application to discharge special category trade effluent which:

- a) contains any of the substances listed in Schedule 1 below in a concentration greater than the background concentration or,
- b) is derived from a process in Schedule 2 below if either chloroform or asbestos is present in a concentration greater than the background concentration.

In these circumstances Consent to Discharge cannot be granted except to the extent that the Department of the Environment consents and subject to any conditions it may specify.

Please note that the substances and processes listed below and the meaning of background concentration have yet to be formally designated by the Department of the Environment. The Department of the Environment has, however, required that Northern Ireland Water operate on these designations until they are formally made.

SUBSTANCES - SCHEDULE 1

Mercury and its compounds	Dichlorvos
Cadmium and its compounds	1, 2-Dichloroethane
gamma-Hexachlorocyclohexane	Trichlorobenzene
DDT	Atrazine
Pentachlorophenol and its compounds	Simazine
Hexachlorobenzene	Tributyltin compounds
Hexachlorobutadiene	Triphenyltin compounds
Aldrin	Trifluralin
Dieldrin	Fenitrothion
Endrin	Azinphos-methyl
Carbon Tetrachloride	Malathion
Polychlorinated Biphenyls	Endosulfan

PROCESSES - SCHEDULE 2

Any process for the production of chlorinated organic chemicals

Any process for the manufacture of paper pulp

Any process for the manufacture of asbestos cement

Any process for the manufacture of asbestos paper or board

Any industrial process involving the use in any 12 month period of more than 100Kg of the product resulting from the crushing of asbestos ore.

BACKGROUND CONCENTRATION

This is defined by the Department of the Environment and in effect means the concentration of a substance present in the water supplied to, or abstracted for use, in the premises and which is present in rainfall onto the premises. If the trade process adds to that background concentration then the substance should be regarded as being present at a concentration greater than the background concentration.

APPENDIX B

Additional Information

- B1: Guidance Notes on Maintaining Trade Effluent Discharges to Public Sewers
- B2: Conditions that Apply to All Trade Effluent Consents
- B3: Contact Details for Area Trade Effluent Officers

APPENDIX B1 Guidance Notes on Maintaining Trade Effluent Discharges to Public Sewers

1. Trade Effluent Flow Meters

Installed flow meters must be calibrated on an annual basis and a copy of the calibration certificate forwarded to the Trade Effluent Officer.

Trade Effluent Staff will take check readings on a regular basis during sampling visits.

It is good practice for the customer to log readings at regular intervals so that any problems with the flow can be detected as soon as possible.

The Trade Effluent Officer should be contacted immediately if there are any problems with the flow.

The customer should maintain a record of flow meter readings for a minimum of 2 years for inspection as required.

It is also good practice for the customer to record regular incoming water meter readings particularly if this volume is used to calculate the trade effluent bill (any leaks or problems should be reported).

2. Self Monitoring

Depending on the nature of the trade effluent, particularly if a pre-treatment plant is installed, the trade effluent Consent may include a requirement for self-monitoring. This may be in the form of in-situ monitoring, for example, on-line pH meters, or on-site laboratory testing, or it may require independent laboratory testing commissioned by the customer. In each case, auditable records of the relevant parameters must be maintained for inspection by the Trade Effluent Officer as required.

3. Pollution Prevention

All trade effluent streams must discharge to the foul drainage system and not the surface water drainage system.

Private trade effluent drains should be checked on a regular basis for any leaks, or problems.

Bulk or containerised storage of chemicals on-site must be protected by an appropriate bund wall. It should be impermeable to the stored material and checked regularly for leaks.

Waste materials must be stored on-site in appropriately labelled containers, and in designated secure bunded areas.

The Trade Effluent Officer must be notified of the cleaning of vehicles and/or plant on-site, if this is not the main activity covered under the scope of the existing trade effluent Consent.

4. What to do in the Event of a Spillage On-Site

Action must be taken promptly in order to prevent or minimise any discharge to the foul drainage system. This should be covered under the site incident management procedure.

If the spilled material has entered the foul water drainage system, contact the Area Trade Effluent office immediately. Alternatively, contact Northern Ireland Water on the main sewerage call centre number:

03457 44 00 88

To permit a rapid assessment of the potential impact of the incident, the following information should be supplied at the time of the call:

- a) The address of the premises and the name and telephone of the contact person on-site.
- b) Whether the material has entered the foul drain.
- c) The chemical name and trade name of all material(s) involved. This information can be obtained from the relevant material safety data sheets (MSDS), COSHH sheets or technical data sheets. The sheets will also provide important health and safety advice and appropriate remedial measures that can be taken. This information should be made available upon request.
- d) The approximate volume involved and its physical state i.e. solid or liquid.
- e) The time of the incident, what remedial action has been undertaken and if the emergency services have been informed.

APPENDIX B2 Conditions that Apply to All Trade Effluent Consents

The following conditions apply to the discharge of trade effluent to the public foul sewer under the Water and Sewerage Services (Northern Ireland) Order 2006. These conditions are absolute and not subject to variation.

1	The temperature of the trade effluent to be discharged shall not exceed 43°C
2	<p>The trade effluent shall not include any substance herein specified of a nature, composition, or quantity likely, either alone or in combination with the contents of the sewer to:</p> <ul style="list-style-type: none"> a) injure the public sewer(s) into which it is discharged or by which it is conveyed, or b) interfere with the free flow of the contents of the public sewers, or c) injure the sewage treatment works or any machinery or equipment installed thereat, or d) interfere with any processes of treatment of sewage or trade effluent, or e) cause a nuisance or give off a vapour or harmful substance, or f) adversely affect any person
3	The effluent shall not contain a greater concentration of any substance than is permitted in the Consent issued for a particular discharge.
4	The effluent shall not at any time include calcium carbide, or products that in their pure state produce under the conditions appertaining in the sewers a flammable gas or vapour. Petroleum spirit, all other volatile petroleum products and all other flammable solvents are to be excluded from the effluent under this condition.
5	The effluent shall not contain, when quiescent, any separable oils, greases or fats, either of mineral, animal or vegetable origin, save as otherwise permitted in the Consent.

APPENDIX B3 Contact Details for Area Trade Effluent Officers

Area	Office Address	Telephone
North East	Westland House 40 Old Westland Road Belfast BT14 6TE	02890 354813 Extension: 20282 or 20283
North West	Ballymena WwTW 39 Slight Road Ballymena BT42 2JE	02890 354813 Extension: 52707 or 52716
Southern	Unit 41 Seagoe Industrial Estate Craigavon BT63 5QE	02890 354813 Extension: 31026 or 31027