Annex 4

« Water Pollution Control Ordinance » (Chapter 358)

presented by Ir Laurence LAU

Environmental Protection Department
Discharges Subject to Control

- All kinds of wastewater, whether discharged into communal sewers, storm drains, river courses or water bodies, are subject to control except:
  
  - discharges of **domestic sewage** into sewers
  - discharges of **unpolluted water** into storm drains / water bodies
Recreational Club Wastewater Discharge

Main Types of Discharges:

- From Fitness Centre – bathing waters
- From Restaurants – utensils washing & food preparation
- From Swimming Pools – backwash of filters, annual cleaning
Control Mechanism – Discharge Licence

Who can be the Applicant:

- The person who makes or authorizes the discharge
- The owner or occupier of the premises

水污染管制條例指南
A Guide to the Water Pollution Control Ordinance
Application for Discharge Licence

Checklist:

• A duly completed application form (Form A)
• Copy of Business Registration Certificate or Certificate of Incorporation
• Water bills or estimated water consumption
• Drainage Layout Plan

Form A (EPD 117)
Licence Application Procedures

Procedures:
1. Applicant to submit application
2. EPD to assess application & determine flow rate and discharge determinants
3. EPD to request for outstanding information as necessary
4. EPD to make pre-licensing visit, if necessary
5. Applicant to make a public notification if the discharge is made into the waters of Hong Kong
6. Applicant to settle Demand Note issued
7. EPD to issue licence after payment has been made
Time for Issuing WPCO licence

• 95% within 14 days upon payment
• For application requiring public notification, not earlier than 40 days after the public notification has been made, subject to no objection received.
The fees for licence application are as follows:

<table>
<thead>
<tr>
<th>Type of Discharge</th>
<th>New</th>
<th>Renew</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A discharge from industrial, institutional or commercial premises:-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) where the flow rate does not exceed 10 cubic metres per day</td>
<td>$1,290</td>
<td>$650</td>
</tr>
<tr>
<td>(ii) where the flow rate exceed 10 cubic metres per day but does not exceed 30 cubic metres per day</td>
<td>$1,300</td>
<td>$650</td>
</tr>
<tr>
<td>(iii) where the flow rate exceed 30 cubic metres per day</td>
<td>$1,300</td>
<td>$650</td>
</tr>
<tr>
<td>2. A discharge from a domestic sewage treatment plant:-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$2,650</td>
<td>$1,150</td>
</tr>
<tr>
<td>3. A discharge from industrial, institution or commercial premises of domestic sewage only, in unsewered areas</td>
<td></td>
<td>$125</td>
</tr>
<tr>
<td>4. Effluent from domestic premises in unsewered areas</td>
<td></td>
<td>$125</td>
</tr>
</tbody>
</table>
Determination of Discharge Standards

Technical Memorandum:

- The Technical Memorandum (TM) – Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters

Prohibited Substances:

- Some substances are prohibited to be discharged into sewers and waters of Hong Kong e.g. petroleum oil or tar, flammable and toxic solvents etc.

Radioactive Substances:

- Not to be discharged into any water bodies or drain
Licence Conditions

- Discharge / Sampling point
- Discharge standards
- Self monitoring requirement, as required
Standards for Effluent Discharge (Example)

<table>
<thead>
<tr>
<th>Discharge point</th>
<th>Public Sewer</th>
<th>Storm Drain*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow rate (m$^3$/day)</td>
<td>&gt;100&amp;$\leq$200</td>
<td>&gt;1000&amp;$\leq$1500</td>
</tr>
<tr>
<td>Suspended solids (mg/L)</td>
<td>900</td>
<td>30</td>
</tr>
<tr>
<td>BOD (mg/L)</td>
<td>900</td>
<td>20</td>
</tr>
<tr>
<td>COD (mg/L)</td>
<td>2200</td>
<td>80</td>
</tr>
<tr>
<td>O&amp;G (mg/L)</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>Surfactants (total) (mg/L)</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td>Total Residual Chlorine (mg/L)</td>
<td>---</td>
<td>1</td>
</tr>
</tbody>
</table>

* The standards for effluent vary with the rate of effluent flow and water quality objectives of receiving water bodies.
Sample of Licence (1)
## PART B 乙部：SPECIFIC CONDITIONS 特別條件

### B1. Limitations on Discharge 拋放限制

The quantity and composition of any discharge from the premises shall not exceed the limits stated in the table below. All figures are upper limits unless otherwise indicated. All units are expressed as concentration in milligrams per litre unless otherwise stated.

<table>
<thead>
<tr>
<th>Determinand</th>
<th>Limit</th>
<th>Stream 1</th>
<th>Stream 2</th>
<th>Stream 3</th>
<th>Stream 4</th>
<th>Stream 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Rate (m³/day) 流量（立方米/日）</td>
<td>147</td>
<td>1</td>
<td>3</td>
<td>1,141</td>
<td>470</td>
<td></td>
</tr>
<tr>
<td>Suspended Solids 漁浮固體</td>
<td>900</td>
<td>1,200</td>
<td>1,200</td>
<td>30</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Biochemical Oxygen Demand (5 days, 20°C) 生化需氧量（5天, 20°C）</td>
<td>900</td>
<td>1,200</td>
<td>1,200</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Chemical Oxygen Demand 化學需氧量</td>
<td>2,200</td>
<td>3,000</td>
<td>3,000</td>
<td>80</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Oil &amp; Grease 油脂</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Surfactants (total) 表面活性劑（總量）</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Total Residual Chlorine 總餘氯</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

### B2. Self-monitoring and Reporting 自行監測及報告

☐ The Licensee shall perform self-monitoring as and when required by the Authority.

☐ The Licensee shall sample the discharge at the Sampling Point(s) and, at his own expense carry out analyses in accordance with the sample type and measurement frequency specified for each determination named below:

<table>
<thead>
<tr>
<th>Determinand</th>
<th>Unit</th>
<th>Sample Type</th>
<th>Frequency/Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Stream (1) &amp; (3) Biochemical Oxygen Demand (5 days, 20°C) 生化需氧量（5天, 20°C）</td>
<td>mg/L</td>
<td>Grab</td>
<td>Bi-monthly every month once</td>
</tr>
<tr>
<td>Oil &amp; Grease 油脂</td>
<td>mg/L</td>
<td>Grab</td>
<td>Bi-monthly every month once</td>
</tr>
<tr>
<td>For Stream (1) &amp; (3) Total Residual Chlorine 總餘氯</td>
<td>mg/L</td>
<td>Grab</td>
<td>Each discharge every month once</td>
</tr>
</tbody>
</table>

Results of these monitoring shall be summarized in a report on a Monthly/Bi-monthly/Quarterly basis and shall be submitted to the Authority.

所有監測結果須以月報方式，每1個月/2個月/3個月*作出報告，並須呈交監督當局。
The Discharge

C.1.1 The discharge shall not contain polychlorinated biphenyls (PCB), polyaromatic hydrocarbon (PAH), fumigant, pesticide or toxicant, chlorinated hydrocarbons, flammable or toxic solvents, calcium carbide; any substance likely to damage the sewer or to interfere with any of the treatment processes, or to be harmful to the health and safety of any personnel engaged in the operation or maintenance of a sewerage system; waste liable to form scum or deposits in any part of the drainage or sewerage system, or the waters of Hong Kong; waste liable to form discoloration in any parts of the waters of Hong Kong; sludge, floatable substances or solids larger than 10 mm; and sludge or solid refuse of any kind.

C.1.2 No discharge shall bypass the wastewater treatment facilities, the Sampling Point(s) or the Discharge Point(s) unless it is unavoidable to prevent loss of life, personal injury or severe property damage or no feasible alternative exists.

C.1.3 Dilution of the discharge to achieve compliance with the limits contained in this licence is prohibited.

C.2. Flow Measurement

The Licensee shall determine the flow rate of the discharge by installing, operating and maintaining a continuous flow measuring device with an accuracy certified by its manufacturer to be within plus or minus 3 percent of the actual flow, and calibrating the flow measuring device regularly according to manufacturer’s recommendations. If no such device is installed, the Licensee shall determine the flow rate through using calculation methods agreed by the Authority, by making reference to the amount of water used in the premises being served by mains supplied by the Authority, less consumption due to leaks, other losses and the following activity.

C.3. Treatment

C.3.1 The Licensee shall provide necessary wastewater treatment facilities, and shall engage personnel with adequate qualification and experience to properly operate and maintain all wastewater treatment facilities at all times. Standby equipment shall be provided to guard against failure of major treatment equipment.

C.3.2 In the event of loss of efficiency of operation, or failure of all or part of the wastewater treatment facility, the Licensee shall take all reasonable steps to the extent necessary to maintain compliance with this licence. Such steps shall remain until operation of the wastewater treatment facility is restored or an alternative method of treatment is provided.

C.3.3 If the wastewater treatment facilities are not properly operated and maintained to the satisfaction of the Authority, the Licensee shall take immediate and effective remedial actions as required by the Authority.

C.4. Disposal

Sludges, screenings, solids, oil and grease, filter backwash, or other pollutants removed in the course of treatment shall be disposed of in a proper manner.
Sample of Licence (4)

C5. Monitoring 監測

C5.1 The Licensee shall provide and maintain suitable facility such as an inspection chamber, manual sampling valve at each Sampling Point to enable duly authorized officer(s) of the Authority to take samples of the discharge at any time from the premises.

C5.2 For self-monitoring, "grab samples" shall be taken during the period when the determined to be analyzed for is likely to be present in its maximum concentration. "Composite samples" shall include samples taken over daily duration of the discharge.

C5.3 For self-monitoring, grab samples shall be analyzed in accordance with the most updated analytical methods used by the Government Chemist.

C6. Records and Reporting 紀錄及報告

C6.1 The Licensee shall keep the following records in the premises for inspection by duly authorized officer(s) of the Authority:

(i) records of flow rates, nature and composition of the discharge;
(ii) updated records of all monitoring information, including all laboratory analytical results relating to samples taken, all original chart recordings for continuous flow and pH monitoring; and
(iii) records of all desludging and degreasing operations, and records of corresponding disposal operations.

Copies of all such records shall be submitted to the Authority upon request.

C6.2 The Licensee shall notify and explain to the Authority within 24 hours upon the occurrence of an accidental discharge or any emergency bypass or an overflow of untreated effluent or an operation upset which places the discharge in a temporary state of non-compliance with this Licence. The Licensee shall within 7 days following the incident, submit to the Authority a detailed report in writing on the cause and duration of the non-compliance and steps taken or to be taken to reduce, eliminate, or prevent recurrence of such non-compliance. Reporting in accordance with this Condition does not relieve the Licensee of any obligations imposed by this licence.

C7. Operation Manual 操作手冊

The Licensee shall prepare an operation manual which shall include, as a minimum, operating procedures, inspection programme and repair and maintenance programme for the wastewater treatment facilities. The operation manual shall be kept at the aforesaid wastewater treatment facilities and a copy of the manual shall be submitted to the Authority upon request.

C8. Notification of Change 更改通知

The Licensee shall notify the Authority in writing within 14 days of any changes or proposed changes in the processes of manufacture or the nature of the raw materials used or of any other circumstances which may alter the nature and composition of the discharge or may result in the permanent cessation of the discharge.
Sample of Licence (5)
Examples of Wastewater Treatment for Recreational Club
Role of EPD

- Licence processing
- Proactive compliance check
- Complaint investigation
- Enforcement action:
  - inspections and initiate legal actions
- Education / Communication
  - meetings, workshops, and seminars
Role of Recreational Club Management

✓ Understand the wastewater characteristics
✓ Apply discharge licence before making discharges
✓ Comply with the licence terms and conditions
✓ Minimise wastewater flows and loads
✓ Design and construct proper treatment facilities
✓ Operate the facilities by trained and experienced personnel
✓ Conduct regular repair and maintenance
Q & A
Licence Application – Public Notification (1)

Purpose:

• To inform the public of the discharge
• Any person may object to the granting of the approval on the ground that the discharge would tend to inhibit the attainment or maintenance of the relevant water quality objectives

Who is required to give notification?

• For any application making a discharge into the waters of Hong Kong (other than discharge into communal sewer and drains)
Licence Application – Public Notification (2)

Exceptions for Public Notification:

• To discharge domestic sewage from a separate household

• For the renewal application, consumes 10 cubic metres or less of water a day and the rate of flow of the discharge is not greater than that.
Frequently Asked Questions

1) Can the licence be transferred?
   • In general, the new owner or operator should apply for a new licence. EPD may consider any request for licence transfer on a case by case basis.

2) Under what circumstance should applicants apply for variation of licence?
   • When there are changes that may affect the licence conditions like the location of discharge points or sampling point, flow rate or treatment.
Frequently Asked Questions

3) What is the best timing to make a renewal application?

• 2 to 4 months before the expiry date.

Note

• s.8(2) of WPC(General) Regulation states that “Every application for renewal of a licence shall be made not earlier than 4 months and not later than 2 months before the date of expiry of the licence.”
• A licence which is the subject of an application for renewal made in accordance with Regulation 8 shall continue in force until the Authority either grants or refuses the application (s.9 of WPC(General) Regulation refers)

4) What is the time require to process the renewal application with public notification made?

• Not earlier than 30 days after the public notification has been made, subject to no objection received.