

**Contingency Plan for
Incidents Possibly Encountered in
Sewage Treatment Facilities having a Potential
of Generating an Environmental Nuisance**

**Sewage Treatment Divisions One & Two
Drainage Services Department**

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Contingency Plan for Incidents Possibly Encountered in
Sewage Treatment Facilities having a Potential of
Generating an Environmental Nuisance

(1) Introduction

The contingency plan is drawn up to provide guidelines to all plant staff at various sewage treatment facilities in dealing with different types of incidents, which have a potential of generating an environmental nuisance and possibly polluting the streamcourses, harbour or beach water. Flowcharts, lists of emergency equipment, lists of contact persons and telephone numbers and notification forms are shown in the Appendices to assist plant staff to respond promptly in handling the incidents. They should also refer to the contingency plan specifically written for the affected plant to address local situations, if any. Reference should also be made to the EPD's latest editions of "Beach Pollution Response Plan" and "Reporting Criteria and Procedures of Sewage Bypass Incidents to EPD".

(2) Objective

The Contingency plan has the following objectives: -

- (a) To avoid and, if not possible, to minimize environmental impact to the surrounding area and water;
- (b) to notify EPD on incidents of polluting the environment according to the requirements of the discharge licence and the Water Pollution Control Ordinance;
- (c) to co-ordinate and provide essential information to other relevant Government Departments to facilitate planning and decision making;
- (d) to enable DSD to respond promptly to the public enquiries and media and to provide accurate information on incidents that may have environmental impacts on surrounding areas or waters;
- (e) to seek assistance from the relevant works agents and authorities for emergency and repair services;

- (f) to minimize damages to the affected plant; and
- (g) to ensure that emergency procedures required are organised and implemented in an orderly manner.

(3) Type of Sewage Treatment Facilities

There are over 220 sewage treatment facilities in the Territory. A complete list is given in Appendix I. Brief descriptions of the typical sewage treatment facilities are given below: -

(a) Sewage Pumping Stations

Sewage pumping stations are built to convey sewage to a place of higher level. The sewage pumps used for the delivery of sewage include centrifugal pumps, submersible pumps and screw pumps, depending on the rate of flow and the geographical location of the pumping station. Usually, the sewage is pumped to the downstream screening plants or treatment works for treatment.

Apart from the sewage pumping stations, there are also a number of Dry Weather Flow Interceptor Pumping Stations installed in the Territory. The function of these pumping stations is, under dry weather condition, to intercept and pump the streamwater/stormwater contaminated to a certain extent by sewage, to sewage treatment works in order to avoid direct discharge into watercourses.

An overflow/bypass pipe is usually provided in the inlet chamber of a pumping station to allow bypass of sewage direct into the watercourses under emergency conditions to avoid flooding in the upstream areas.

Although operation of a sewage pumping station does not require an EPD licence, the Water Pollution Control Ordinance (WPCO) does not normally allow any sewage overflow/leakage into storm drain/waters of Hong Kong unless under emergency conditions.

(b) Preliminary Treatment Works (Screening Plants)

The purpose of preliminary treatment is to remove the large solids and grits from the sewage. The treatment process is usually carried out in a screening plant. On entry to a screening plant, the sewage is first lifted up by sewage pumps from the inlet chamber to pass through a series of coarse screens, grit removal device and

fine screens before it is discharged to the sea through a long submarine outfall. A bypass is located either in the inlet chamber or in the outfall chamber to allow discharge of sewage to the seashore under emergency conditions. For some preliminary treatment works, bypass devices are provided at both locations and sewage is bypassed after treatment as far as possible in emergency cases.

“Flow” and “Size of the Solids” in the effluent are the two determinands under control in the EPD’s discharge licence for a typical preliminary treatment works. Normally 3 x DWF is taken as the maximum flowrate to the Works.

(c) Primary Treatment Works

In primary treatment works, the sewage after preliminary treatment is further treated to remove the floating and settleable solids remaining in the sewage. This process is carried out in a primary sedimentation tank. Sewage passes through the tank with a retention time long enough to allow sedimentation of portion of suspended solids and separation of floating matters. The sedimentation process can be enhanced through proper dosing of chemical (e.g. ferric chloride in Stonecutters Island Sewage Treatment Works).

A bypass is normally provided in the inlet chamber for direct discharge to the seashore in case of a pump failure or power interruption.

In an EPD’s discharge licence for a primary treatment works, both maximum and percentile standards for BOD and TSS are specified together with the maximum flowrate to the works (i.e. 3 x DWF).

(d) Small Secondary Treatment Works with DWF less than 6,000 m³/day

Small secondary treatment plants are designed to treat the sewage produced from small communities. The types of plants include rotating biological contactors, oxidation ditches, trickling filters and small activated sludge plants. The types of equipment installed in the plants vary according to the method of treatment adopted. Full treatment of sewage, starting from preliminary treatment to secondary treatment, is basically provided in these plants although some plants may not be fitted with degritting./disinfection facilities. Normally, the treated sewage is discharged to the receiving watercourses (e.g. sea, stream) through an outfall or a short pipe.

Sewage can be bypassed to the receiving watercourses in the inlet chamber in emergency cases.

In an EPD's discharge licence for small/large secondary treatment works, both maximum and percentile standards for BOD and TSS are specified together with the maximum flowrate to the works (i.e. 3 x DWF). If there are denitrification facilities, both maximum and percentile standards for ammonia-nitrogen, nitrate-nitrogen or Total N are also specified. Similarly for a plant fitted with disinfection facilities, effluent standards for E. coli and Total Residual Chlorine, when appropriate, are also specified.

(e) Large Secondary Treatment Works with DWF more than 6,000m³/day

There are six major secondary treatment works in the Territory, namely Sha Tin, Tai Po, Shek Wu Hui, Yuen Long, Sai Kung and Stanley Sewage Treatment Works. The type of treatment process employed in these works is the activated sludge process.

In a major secondary treatment works, the sewage is treated to remove the organic pollutants remaining in the settled sewage after the preliminary and primary treatment processes. The settled sewage enters an aeration tank in which low-pressure compressed air is fed continuously to provide oxygen for the growth of microorganisms. The organic pollutants in the sewage are purified by the action of the microorganisms and clear effluent is produced after the final settling of solids in a clarifier. The effluent is then discharged through a submarine outfall or a short length of pipe into receiving watercourses. Part of the settled activated sludge is returned to the aeration tank for reuse and the surplus activated sludge is separated for sludge treatment and dewatering before final disposal at the landfills.

In case of an emergency or a breakdown of plant equipment, the sewage can be bypassed to the receiving water in the inlet chamber or at the end of primary treatment.

(4) Activation of Contingency Plan

- 4.1 The types of incidents, which are considered to be vulnerable to giving rise to a possible environment nuisance, are given below together with some, but not exhaustive, contributing causes: -

(a) Power Failure

Mains failure leading to total blackout in part or whole of the plant area; interruption of power supplies to part of the plant equipment due to failure in the supply switchgears and equipment lightning attack or malpractice by the operators etc.

(b) Fire Breakout

Setting furniture/equipment on fire through negligence; overheating of equipment; improper handling of inflammable materials etc.

(c) Abnormal Influent

Abnormal discharge into sewers (which immediately affects the normal operation of the treatment process).

(d) Sewage Overflow/Leakage/Bypass

Excessive inflow due to infiltration of seawater and stormwater particularly in rainy season; burst of pipes or rising mains inside or outside the plant area; treatment unit failure due to inadequate standby units; pipe relining; construction of new connections.

(If a planned sewage bypass is required for the purpose of maintenance or minor modification work in an existing sewage treatment plant, the concerned SE/CE should refer to EPD's latest edition of the "Reporting Criteria and Procedures of Sewage Bypass Incidents to EPD" and submit, giving at least 14-working days' advance notice, to the relevant Local Control Office of EPD a method statement with all known details i.e. time, duration, location of discharge point, cause of bypass, pollution strength of the sewage, estimated flow of bypass, temporary mitigation measures to be taken etc. EPD would, within seven working days, provide comments on DSD's proposed method statement. During the duration of sewage bypass, the Plant Staff shall record down all the required data. On completion of the bypass work, EPD shall be informed accordingly).

(e) Leakage from Submarine Outfall

Careless contractors working in the outfall area; cracks and leaking joints developed in outfalls due to ageing and/or differential settlement; inspection manhole covers dislocated.

(f) Non-compliance with EPD's Discharge Standards

Plant overloaded in terms of sewage quantity and/or quality; illegal discharge of toxic wastes from the industrial sector.

- 4.2 Abnormalities may be detected through patrol inspection, notification given by outside source, closed circuit television monitoring (CCTV) system, alarm signals sent from the defective equipment to the central control centre via a telemetry system (e.g. auto-dialling, supervisory control and data acquisition (SCADA), monitoring and control system) and analysis of samples. Upon detection of any abnormality, the shift-in-charge should investigate and effect promptly all the required short-term remedial work and emergency procedures according to Paragraph 6 and the respective flowcharts and standard checklist to mitigate/avoid sewage discharge as detailed in Appendix II. He should inform his supervisors and, where appropriate, call for emergency assistance from the relevant parties. On understanding the site situation and depending on the extent of the environmental implication, CE or SE should inform the DSD management and EPD according to Appendix III and the EPD's latest edition of the "Reporting Criteria and Procedures of Sewage Bypass Incidents to EPD" where appropriate. A list of "Emergency Telephone Directory" is attached at Appendix IV.

5. Participation

- 5.1 The Sewage Treatment Divisions 1 and 2 will play a key role as the overall manager in dealing with the incidents commencing from early detection of the incidents, notification to the concerned parties, arrangement of the appropriate mitigation/ remedial measures until the restoration of plant back to working condition. DSD Headquarters, AD, TS2 and SEPO/DSD should be kept well informed of the development.
- 5.2 Requests can be made within DSD to SE/BCM, the relevant Operations and Maintenance Division, Projects Division, Emergency and Storm Damage Organisation (ESDO) or other works departments, if their assistance is required for the investigation and repair of the civil works involved (e.g. burst pipes and

damaged submarine outfalls), provision of temporary measure to stop or minimise the environmental nuisance (e.g. provision of plants for emergency pumping, tankering, sucking and water jetting) or monitoring of the upstream flow conditions. (e.g. in case of inflammable or explosive substances entering sewage treatment facilities.)

- 5.3 Where tankers and emergency plants/equipment are required, contact with the appropriate parties (i.e. ST1/ST2 depots, term contractors, FEHD etc.) should be initiated for early mobilisation.
- 5.4 In the case of mains power failure, the relevant power company should immediately be contacted for investigation and early restoration of power supply.
- 5.5 In the case of a fire breakout, the Fire Services Department should immediately be called upon for fire fighting.
- 5.6 If there is a potential of polluting the beach water, EPD, LCSD and HAD should immediately be informed verbally followed by fax message issued as soon as possible on the same day according to Appendix III(a). Joint investigation with EPD to assess the impact to the environment has to be carried out according to EPD's Beach Pollution Response Plan. Upon receipt of EPD's assessment, LCSD would make decision whether or not to close the concerned beach for use by the public. The relevant District Officer of HAD should interact with the District Board members and the Community.
- 5.7 If the incident generates an environmental nuisance other than polluting beach water, EPD should be informed first verbally and subsequently as soon as possible within 24 hours via a fax message according to the steps listed in Appendix III(c). Joint investigation should then be carried out with EPD as soon as possible. Mitigation measures should be worked out to reduce environmental impact.

6. Emergency Actions by DSD

6.1 Actions by Sewage Treatment Divisions 1 & 2

- 6.1.1 Flowcharts illustrating emergency procedures in dealing with power supply failure, fire breakout, abnormal influent, sewage overflow/leakage/bypass, damage of submarine outfall and non-compliance with EPD's discharge standards are shown in Appendices II(a), II(b), II(c), II(d), II(e), and II(f) respectively.

6.1.2 The concerned Sewage Treatment Division is actively involved in all cases and actions normally taken, where appropriate, are shown below : -

- (a) to detect signs of abnormalities;
- (b) to investigate and assess the pollution impact;
- (c) where necessary, to arrange delivery of emergency equipment and tankers with reference to Appendix V;
- (d) to consider various options according to Appendix II(h) and to implement measures to mitigate pollution effect and restore plant to normal conditions as far as possible;
- (e) to make reference to EPD's latest edition of the "Reporting Criteria and Procedures of Sewage Bypass Incidents to EPD" and to notify DSD Headquarters, the relevant Government departments (EPD, LCSD, HAD) and parties, where appropriate, if there is a potential to pollute the environment and particularly the beach water;
- (f) to notify SE/BCM, the relevant O&M Division, ESDO and/or the appropriate organizations for emergency and repair works in DSD-owned sewage treatment facilities (i.e. civil works, pipe burst, power failure, fire etc.) which are beyond the Division's capability. List of relevant DSD Maintenance Contracts providing emergency civil repair work is shown in Appendix V(e).
- (g) to notify the Client Department, Architectural Services Department and/or the appropriate organizations for emergency and repair works in non-DSD-owned but DSD-operated sewage treatment facilities which are beyond the Division's responsibility;
- (h) to report immediately to FSD and to inform the DSD Direct Labour Force or Supervising Duty Officer of ESDO if the influent is suspected to contain a large amount of inflammable or explosive substances;
- (i) where appropriate, CE to work out lines to take with DSD Headquarters, TS2, other DSD Divisions, Chief Information Officer/ Secretariat Press Office (Works) and representatives of the concerned

Bureau(s) and Government departments, before attending a press conference to be arranged by LCSD/EPD/DSD;

- (j) SE/Sr. Chemist/CE to prepare an incident report to DSD Headquarters;
- (k) where appropriate, CE to prepare promptly a detailed report to EPD within seven days after the incident on the cause, duration of discharge, nature and estimated quantity of the discharge, steps taken or to be taken to reduce, eliminate or prevent recurrence; and
- (l) to plan and implement long-term measures to improve the plant reliability.

6.2 Actions by Building and Civil Maintenance Team, Operations and Maintenance Divisions/ESDO/Projects Divisions on Damaged Civil Works in DSD-owned Sewage Treatment Facilities

Upon notification by the CTO/SCE/Engineer/SE of the concerned Sewage Treatment Division, SE/BCM, the relevant O&M Division, Projects Division or ESDO should act as follows :-

- (a) To arrange site inspection to investigate the extent of damage and the required repair on the affected civil works;
- (b) where appropriate, to contact other Government Works Departments and agents if the repair works require their assistance or approval;
- (c) to order emergency repair work by mobilizing the maintenance/construction contractor after the details of the damage are known;
- (d) to hand back the repaired treatment unit back to the concerned Sewage Treatment Division for operation; and
- (e) to prepare a report on the repair/modification works.

6.3 Actions by the Emergency and Storm Damage Organisation (ESDO)

Upon notification by CTO/SCE/Engineer/SE of the concerned Sewage Treatment Division on the possible illegal discharge of a large amount of inflammable or

Division on the possible illegal discharge of a large amount of inflammable or explosive substances, the Supervising Duty Officer should act according to Part 2 - Appendix 2 of the ESDO Handbook.

6.4 Actions by the Technical Secretary 2 (TS2)

Upon notification by AD/CE/SE, the TS2 should act as follows : -

- (a) If time is available, TS2 to pay a site visit to get first hand information of the incident;
- (b) to liaise with the relevant officers (e.g. DD of DS, AD, CE, SEPO/DSD, the Chief Information Officer/Secretariat Press Office (Works), representatives of the other concerned Bureau(s) and Government Departments) for an urgent meeting to work out lines to take, and where appropriate, to prepare questions and answers, media enquires and press release etc. and
- (c) to accompany CE to attend a press conference, if any.

6.5 Action by the Senior Environmental Protection Officer/DSD HQ (SEPO/DSD)

Upon notification by SE/CE, the SEPO/DSD should assist in liaison work with EPD, where necessary, (as direct liaison on emergency case with EPD is normally made by SE/CE of the concerned Sewage Treatment Division) and provide advice to the appropriate ST Division.

7. Reporting Criteria of Sewage Bypass Incidents to EPD

Before taking the need of sewage bypass, all steps, as outlined in the Standard Checklist for Considering Various Options to Mitigate/Avoid Sewage Discharge Prior to Bypass for the Purpose of Maintenance or Minor Modifications in Existing Sewage Treatment Facilities [Appendix II(h)], should be carefully considered. All planned sewage bypasses should be reported to EPD. For emergency sewage bypasses, the following 3-tier reporting criteria should be strictly followed: -

- (i) In case of sewage bypass/overflow due to prolonged and very heavy rainfall (e.g. during black rainstorm warning) - no need to report if the sewage treatment facilities are not major.

(ii) Other than the situation in (i) above, all bypasses to sensitive waters (e.g. gazetted beaches and sites of special scientific interest) shall be reported; and

(iii) Other than the situation in (ii) above, bypasses should ONLY be reported under the following conditions : -

- bypass incidents occurred in sewage facilities lasting for one hour or more

- bypass incidents occurred in main drain lasting for 12 hours more

For further details, reference should be made to the EPD's latest edition of "Reporting Criteria and Procedures of Sewage Bypass Incidents to EPD".

8. Deactivation of Contingency Plan

The Contingency Plan will be deactivated when the concerned plant is brought back to normal working condition and the potential of generating an environmental nuisance is eliminated. The concerned Chief Engineer of the Sewage Treatment Division should verify that deactivation is in order and inform DSD Headquarters and the relevant parties accordingly.

污水處理設施內常見而
影響環境事件的緊急應變計劃

渠務署

污水處理部 1 及 2

二零零四年五月

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污水處理設施內常見而 影響環境事件的緊急應變計劃

(1) 序言

本緊急應變計劃的制訂旨在為各式污水處理設施的廠房員工提供應付各種事故的指引，而這些事故均有可能影響環境及令河道、海港或泳灘的水質受到污染。為協助廠房員工對處理緊急事故作出迅速的反應，本計劃附錄了各種應變行動圖表、緊急設備項目表、聯絡人員名單和電話號碼表及污染事件通知書等以供參考。員工亦須參閱專為個別廠房而編寫的緊急應變計劃。另須參閱環保署最近期發出的「泳灘污染應變計劃」及「向環保署呈報污水繞流事件的準則和程序」等指引。

(2) 計劃的目的

本緊急應變計劃有以下幾個目的：

- (a) 避免令周圍地區和水域的環境受到影響，如不能避免，也要令影響減到最低；
- (b) 發生污染環境事件時，按排放牌照和水污染管制條例的規定通知環保署；
- (c) 聯絡和提供資料給有關的政府部門，以便策劃和作出決定；
- (d) 使渠務署對公眾及傳媒的查詢作出迅速的回應和就可能影響周圍地區或水域環境的事件提供準確資料；
- (e) 能迅速向有關工程代理商或管理當局尋求緊急支援和維修服務；
- (f) 減低事件對受影響廠房所造成的損害；及
- (g) 確保所需的緊急程序有條理地組織和實行。

(3) 污水處理設施的類別

本港境內有超過 220 所污水處理設施。完整的設施名錄刊載於附錄 I 內。以下是典型污水處理設施的簡單描述：

(a) 污水泵房

建造污水泵房的目的是將污水運送至地理位置較高的地方。用來傳送污水的污水泵的類型會視乎流量和泵房的地理位置而定，其中包括離心泵、潛水泵和螺旋泵等。通常污水都會被泵到下游的隔濾廠或污水處理廠進行處理。

除污水泵房外，本港境內還有一些旱流截流泵房。這些泵房的功用是在旱天的情況下，把被污染的河水/雨水截流和泵到污水處理廠，以免直接排出水道。

在泵房的入水口通常都設有一條溢流/繞流管，以方便在緊急情況下將污水繞流出水道，避免上游地區受到水浸。

雖然污水泵房的操作不須向環保署申請牌照，但水污染管制條例是不容許污水溢流/洩漏出本港的雨水渠/水域，除非在緊急情況下則屬例外。

(b) 預先處理廠（隔濾廠）

預先處理廠的目的是將較大固體和砂礫從污水中清除。過程通常是以隔濾廠進行。污水進入隔濾廠後，首先會被污水泵將水位提升及經過一系列的粗隔篩、除砂和幼隔篩等設備，然後再經一條長的深海排放管排出海港。繞流管一般設在廠房入水口或排放管出水井的位置，以便在緊急情況下將污水排出海岸。在一些預先處理廠內，這兩個位置都設有繞流裝置，而在緊急的情況下，污水都盡可能經過處理後才繞流出海。

對一所典型的預先處理廠而言，“流量”和“固體的大小”是環保署排

放牌照內須受控制的兩個決定因子，通常進入廠內的最高流量為旱流量的 3 倍。

(c) 初級處理廠

經過預先處理的污水在初級處理廠內會作進一步處理，以清除剩餘在污水內的漂浮物質和可沉降固體。這個程序在初級沉澱池內進行。污水在沉澱池時，會有足夠的逗留時間供部份懸浮固體沉澱和將漂浮物質分離。沉澱過程可透過適當地加入化學物（例如三氯化鐵）來加強效率。廠房的入水口通常都裝有一條繞流管，方便水泵發生故障或停電時將水直接排出海岸。

在環保署發給初級處理廠的排放牌照內，生化需氧量、總懸浮固體的上限和百分比這兩個標準均有所規定，而進入廠內的最高流量(即旱流量 x 3)也有所限制。

(d) 旱流量少於每天 6,000 立方米的小型二級處理廠

小型二級污水處理廠是為處理小社區產生的污水而設計。處理廠的類型包括生物轉盤、迴旋氧化槽、滴濾池和小型活性污泥處理廠。安裝於廠內的設施會視乎所採用的處理方法而定。雖然有些處理廠沒有安裝除砂或消毒的設施，但基本上這些處理廠都提供由預先處理到二級處理的全面處理程序。經處理的污水通常經由一條排放管或短喉排出受納水域(例如海港、河流)。

在緊急情況下，污水可從入水口位置繞流排出受納水域。

在環保署發給小型/大型二級處理廠的排放牌照內，生化需氧量、總懸浮固體的上限和百分比標準，以至進入廠內的最高流量（即旱流量 x 3）等都有指定的限制。如廠內附有脫硝設施，氨氮、硝酸鹽或總氮含量的

上限和百分比標準也有所規定。同樣地，如廠內附有消毒設施，放流水內大腸桿菌和總餘氯含量標準亦受限制。

(e) 旱天流量多於每天 6,000 立方米的大型二級處理廠

本港境內共有六所大型的二級處理廠，它們分別是沙田、大埔、石湖墟、元朗、西貢及赤柱污水處理廠，所採用的處理程序都是活性污泥程序。

在大型的二級處理廠內，經過預先和初級處理的污水會繼續進行處理，以清除剩餘在已沉澱污水內的有機污染物。經沉澱後的污水集合流入一個曝氣池，低壓的壓縮空氣不斷地輸入池內，提供氧氣給微生物作生長之用。污水裏的有機污染物在微生物的作用下被淨化，固體在澄清池內作最後沈澱後便產生清澈的放流水。放流水經一條深海排放管或短喉排出受納水域。部份經沉澱後的活性污泥再被回流入曝氣池循環再用，而過剩活性污泥則在經過污泥處理及脫水後運往堆填區棄置。

在緊急情況下或廠房設備發生故障時，污水可從入水口位置或在初級處理完成後繞流排出受納水域。

(4) 緊急應變計劃的啓動程序

4.1 下文列出幾種容易令環境受影響的事件及導致該事件發生的部份原因：

(a) 電力中斷

電力供應出現故障而導致部份或全部廠房停電；或由於供電的電掣發生故障、廠房設備受電擊或操作員操作不當而引致部份廠房停電等。

(b) 火警

由於疏忽而引致傢具/設備著火；設備過熱；或對易燃物品處理不當等。

(c) 進流水水質不正常

不正常的污水排入污水渠（會即時影響處理過程的正常運作）。

(d) 污水溢流/洩漏/繞流

由於海水及雨水的滲入而導致入水量過多(尤其於雨季時)；在廠房內外的喉管或升水幹管爆裂；因後備設施不足而令處理設備發生故障；重鋪管道或建造新接駁口等。

（如在現有的污水處理廠內進行維修或小型的改良工程時需要預先計劃將污水繞流，有關的高級工程師/總工程師須參考環保署最新版的「向環保署報告污水繞流事件的準則和程序」，在最少 14 個工作天前向環保署有關的污染管制辦事處遞交一份闡述繞流方法的文件，列出所有已知的詳情，例如施工時間、持續期、排放點的位置、繞流原因、污水的污染程度、繞流的估計流量、所採用的臨時紓緩方法等。環保署則於 7 個工作天內就本署的建議書提供意見。在污水繞流期間，廠房員工須記錄一切所需數據。當繞流工作完成後，須按程序將情況通知環保署）。

(e) 深海排放管洩漏污水

在排放管範圍的承建商不小心工作；由於老化或不平均沉降而導致排放管破裂和接駁口漏水；或沙井蓋移位。

(f) 水質不符合環保署排放標準

廠房污水的流量或質量超出負荷；或工廠非法排放毒性廢水。

- 4.2 異常狀況可透過巡視、外界通知、閉路電視監察系統、自動撥號警報系統、監控及數據收集系統（SCADA）、或樣本分析而察覺得到。當察覺到任何異常狀況時，當值主管須作出調查及依照附錄 II 所述按第 6 段和相關的行動圖表及核對表立即採取即時補救行動和緊急措施，以紓緩/避免污水流出。除此，他亦應通知上司及於必要時向有關單位尋求緊急援助。當了解現場情況後，總工程師或高級工程師須視乎事件對環境的影響程度而於必要時按照附錄 III 和環保署最新版的「向環保署報告污水繞流事件的準則和程序」，將情況通知本署管理層和環保署。一份「緊急電話號碼表」夾附於附錄 IV 供聯絡時用。

5. 參與行動

- 5.1 由緊急事件的開始至廠房恢復正常狀況為止，包括開始察覺到事件的發生、通知有關單位、安排適當的紓緩/糾正行動等，污水處理部 1 及 2 都擔當著總管理人的角色。他們須將事件的進展通知本署總部、助理署長、技術秘書 2 和高級環境保護主任/渠務署等。
- 5.2 如需尋求協助調查和維修涉及土木工程的事項（例如喉管爆裂和深海排放管損毀）、提供臨時方法以停止或減少環境受到影響（例如提供裝置作緊急水泵、運載、吸吮和清洗）或監察上游水流狀況（例如當易燃或爆炸性物品流入污水處理廠設施）時，可在渠務署內部向高級工程師/廠房及土木維修組、有關的操作及維修部、工程部、緊急事故及暴風雨應變組織(ESDO)或其他工務部門提出要求。

- 5.2 當需要使用缸槽車和緊急裝置時，應與適當的單位聯絡（即污水處理部 1/污水處理部 2 各廠房、定期合約承辦商、食物環境衛生署等），以便及早作出調配安排。
- 5.3 當總電發生故障時，須立即聯絡有關的電力公司，以便作出調查和及早恢復電力供應。
- 5.4 當發生火警時，須立即通知消防處以便作出滅火行動。
- 5.5 如泳灘的水質有可能受到污染時，須按照附錄 III(a)立即以口頭通知環保署、康樂及文化事務署和民政事務總署，再於同日盡快發出傳真文件作為後補。須按環保署的「泳灘污染緊急應變計劃」與環保署展開聯合調查，以評估對泳灘的影響。在收到環保署的評估後，康樂及文化事務署會決定是否需要封閉有關的泳灘，停止給公眾使用。民政事務總署有關地區的民政事務專員亦會與區議員和市民保持聯絡。
- 5.6 如事件影響環境但不會污染泳灘水質時，須按照附錄 III(c)所列出的步驟先以口頭通知環保署，再在 24 小時內盡快以傳真文件作為後補。隨後須盡快與環保署展開聯合調查和找出減低影響環境的方法。

6. 渠務署的緊急行動

6.1 污水處理部 1 及 2 的行動

- 6.1.1 處理電力供應中斷、火警、進流水水質不正常、污水溢流/洩漏/繞流、深海排放管損壞和水質不符合環保署排放標準事件的緊急程序行動表分別載於附錄 II(a)、II(b)、II(c)、II(d)、II(e)和 II(f)。
- 6.1.2 有關的污水處理部會在所有事件中積極參與行動，及在需要時採取以下適當行動：

- (a) 偵測有否出現異常狀況的各種跡象；
- (b) 調查及評估污染所造成的影響；
- (c) 於必要時參照附錄 V 安排運送緊急設備及派出缸槽車；
- (d) 按附錄 II(h)考慮各種方案和採取方法去紓緩污染及盡快將廠房回復正常；
- (e) 如事件有可能污染環境，尤其是泳灘水質時，參照環保署最新版的「向環保署呈報污水繞流事件的準則和程序」於適當時通知渠務署總部、各有關政府部門（環保署、康樂及文化事務署、民政事務總署）及其他團體。
- (f) 如工作是超出污水處理部範圍以外的（如土木工程、喉管爆裂、電力中斷、火警等），通知高級工程師/廠房及土木維修組、有關的操作及保養部、緊急事故及暴風雨應變組織（ESDO）及/或適當單位。有關本署土木工程緊急維修合約的資料夾附於附錄 V(e)。
- (g) 在一些非渠務署擁有但由渠務署操作的污水處理設施，如維修工作是污水處理部範圍以外的，通知顧客部門、建築署或適當單位跟進。
- (h) 如懷疑進流水含有大量易燃或爆炸性物品時，立即通知消防處和渠務署直屬員工隊或緊急事故及暴風雨應變組織（ESDO）的當值主管。
- (i) 在出席由康樂及文化事務署/環保署/渠務署安排的新聞發佈會之前，總工程師須與渠務署總部、技術秘書 2、渠務署有關各部、工務局新聞及公共關係組的總新聞主任及有關各局和政府部門的代表商討對策。
- (j) 高級工程師/高級化驗師/總工程師須向渠務署總部提交一份事件的報告。
- (k) 總工程師於適當時須在事件發生後七天內盡快向環保署提交一份詳細報告，闡明污水排出的原因和持續時間、污水的性質和估計的排出量及已進行或將會進行以減少或防止事件重演的步驟等資料。

(l) 計劃及執行提高廠房可靠性的長遠措施。

6.2 廠房及土木維修組、操作及保養部/緊急事故及暴風雨應變組織/工程部為修補渠務署擁有的污水處理廠內損毀的土木設施而採取的行動

當接獲有關污水處理部的總技術主任/工程師/高級工程師通知時，高級工程師/廠房及土木維修組、有關的操作及保養部、工程部或緊急事故及暴風雨應變組織應按下列各點採取行動：

- (a) 安排現場視察以便查探受影響土木設施的損壞程度和所需的修理工作；
- (b) 如修理工作需其他政府工務部門及代理協助或批准，與他們聯絡；
- (c) 在了解損壞的詳情後，促請保養/建築承建商作出緊急維修；
- (d) 將修理好的處理設施交回有關的污水處理部操作；及
- (e) 撰寫一份關於修理/改良工程的報告。

6.3 緊急事故及暴風雨應變組織（ESDO）須採取的行動

當接獲有關污水處理部的總技術主任/工程師/高級工程師通知可能有大量易燃或爆炸性物品非法排放時，當值主管須按該組織的手冊第二段----- 附錄 2 採取行動。

6.4 技術秘書 2(TS2)須採取的行動

當接獲助理署長/總工程師/高級工程師的通知時，技術秘書 2 須按下列各點採取行動：

- (a) 如時間許可，技術秘書 2 須前往現場搜集事件的第一手資料；
- (b) 聯絡有關官員（例如渠務署副署長、助理署長、總工程師、高級環境保護主任/渠務署、工務局新聞及公共關係組的總新聞主任及其他有關各局和政府部門的代表）舉行緊急會議商討對策，及於

適當時準備問題與答案、應付傳媒的查詢和預備新聞的發放等；
及

(c) 如須舉行新聞發佈會時，陪同總工程師出席會議。

6.5 高級環境保護主任/渠務署 (SEPO/DSD) 須採取的行動

當接獲高級工程師/總工程師的通知時，高級環境保護主任/渠務署於適當時須協助聯絡環保署（通常在緊急的情況下，有關污水處理部的高級工程師/總工程師辦理會直接與環保署聯絡），及向污水處理部提供意見。

7. 向環保署呈報污水繞流事件的準則

在需要進行污水繞流前，須小心考慮附錄 II(h)「在現有污水處理設內為進行維修或小型改良工程而將污水繞流之前須考慮選擇各種方法去紓緩/避免污水滲出的核對

表」內列出的一切步驟。所有事先計劃的污水繞流都應向環保署呈報。在緊急的污水繞流情況下，須切實遵守下列的三階段呈報準則：

- (i) 由於持續性大雨（例如當黑色暴雨警告發出時）而引致的污水繞流 ---- 如污水處理設施並非大型的則不須呈報。
- (ii) 除上述 (i) 的情況外，所有繞流至敏感水域（例如憲報公佈的泳灘和有特別科學價值的地點）均須呈報；及
- (iii) 除上述 (ii) 的情況外，只有在下列情況進行的繞流才須呈報：
 - 在污水設施內持續 1 小時或以上的繞流
 - 在污水幹管內持續 12 小時或以上的繞流

如需進一步資料，請參閱環保署最新版的「向環保署呈報污水繞流事件的準則和程序」。

8. 緊急應變計劃的結束程序

當有關廠房恢復正常操作或影響環境的可能性已被消除後，緊急應變計劃便可宣告結束。有關污水處理部的總工程師須證實可結束行動及將情況通知渠務署總部和有關部門/單位。

**Names and Locations of Sewage
Treatment Facilities Operated and Maintained
by Drainage Services Department**

(A) Sewage Pumping Stations

<u>Item</u>	<u>Name</u>	<u>Capacity (m³/day)</u>	<u>Location</u>	<u>Division</u>
1	Ah Kung Kok SPS	226	Ah Kung Kok Street (near Shatin Fisherman New Village), Shatin, N.T.	ST1
2	Anchor Street SPS	90,720	Anchor Street, Tai Kok Tsui, Kowloon	ST2
3	Ap Lei Chau Main Street SPS	12,096	Ap Lei Chau Main Street, Ap Lei Chau, H.K.	ST2
4	Ap Lei Chau West SPS	6,912	Lee Nam Road, Ap Lei Chau, H.K.	ST2
5	Cheung Sha Wan SPS	456,863	Fat Cheung Street, Cheung Sha Wan, Kowloon	ST2
6	Chinese University SPS	2,200	Ma Liu Shui, Shatin	ST1
7	Chung Hom Bay SPS	30	Chung Hom Kok Beach, Stanley, H.K.	ST2
8	Chung Hom Kok DWFI PC No.7	259	Chung Hom Kok Road, Chung Hom Kok	ST2
9	Chung Hom Kok Road SPS	868	Chung Hom Kok, Stanley, H.K.	ST2
10	Chung Mun Road SPS	4,146	Chung Mun Road, Tung Chung, Lantau Island	ST2
11	Chung Yan Road SPS	22,464	Chung Yan Road, Tung Chung, Lantau Island	ST2
12	Clear Water Bay Second 2nd Beach SPS	140	Clear Water Bay, 2nd Beach, Sai Kung, N.T.	ST1
13	Container Terminal 9 SPS No.1	1,382	R1A, New Tsing Yi Road (South), Tsing Yi	ST2
14	Container Terminal 9 SPS No.2	950	R4, SETY Port Road, Tsing Yi	ST2
15	Deep Water Bay DWFI PC No. 3	432	Island Road, Deep Water Bay, H.K.	ST2

16	Deep Water Bay SPS		2,500	Island Road, Deep Water Bay, H.K.	ST2
17	Fanling Road D3 SPS		17,620	30 So Kwun Po Road, Fanling, N.T.	ST1
18	Fanling SPS		32,250	Yip Cheong Street, Fanling, N.T.	ST1
19	Golf Club SPS		1,950	Golf Club Parking, Island Road, Deep Water Bay, HK	ST2
20	Ha Mei San Tsuen SPS		864	Tin Tsz Road, Ha Mei San Tsuen, Tin Shui Wai, Yuen Long, N.T.	ST1
21	Ha Tsuen SPS		410,400	Ping Ha Road, 70 Ha Tsuen, Yuen Long, N.T.	ST1
22	Hairpin Beach SPS		84	Hairpin Beach, H.K.	ST2
23	Heung Fan Liu SPS		103	Heung Fan Liu, Tai Wai, Shatin, N.T.	ST1
24	Ho Pong Street SPS		34,560	Tuen Mun New Town, Ho Pong Street, Tuen Mun, N.T.	ST1
25	Hoi Fai Road PCWA SPS		461	Hoi Fai Road, Yau Ma Tei, Kowloon	ST2
26	Hong Kong Station Central SPS		7,690	Man Fai Street, Central	ST2
27	Hung Hom Bay SPS		103,680	Ching Shan Street, Hung Hom, Kowloon	ST2
28	Hung Shui Kiu LFI Works		241,920	Hung Shui Kiu Channel (near Ha Tsuen SPS)	ST1
29	Kwun Tong Intermediate SPS		264,902	Kei Yip Street, Kwun Tong, Kowloon	ST2
30	Kai Tak No. 1 DWFI PS		11,405	Olympic Avenue, Kowloon City, Kowloon	ST2
31	Kai Tak No. 2 DWFI PS		12,096	Yuk Kwan Street, San Po Kong, Kowloon	ST2
32	Kai Tak No. 4 DWFI PS		12,442	Wang Kwong Road, Kowloon Bay, Kowloon	ST2
33	Kam Tin Inflatable Dam & Low Flow P/S		650,000	Kam Tin Road, Ko Po Wai, Yuen Long, N.T.	ST1
34	Kau Wa Keng DWFI PS		1,152	Lai King Hill Road, Kwai Chung, Kowloon	ST2
35	Kowloon Bay DWFI PC		7,776	Kai Tak Refugee Camp, Kwun Tong Road, Kowloon	ST2
36	Kowloon East DWFI PS		9,800	120 Ma Tau Kok Road, Sung Wong Toi, Kowloon	ST2
37	Kwai Chung Industrial Wastewater PS		414,720	Kwai Wo Street, Kwai Chung, N.T.	ST1
38	Kwun Tong PS		95,904	Wai Yip Street near Laguna City, Kwun Tong, Kowloon	ST2
39	Long Ping SPS		43,000	Fung Chi Road, Long Ping Estates, Yuen Long, N.T.	ST1

40	Lung Kwu Sheung Tan Outfall Chamber	N.A.	Lung Kwu Tan Village, Lung Kwu Sheung Tan, Tuen Mun, N.T.	ST1
41	Ma Hang SPS	690	34 Cape Road, Ma Hang, Stanley, H.K.	ST2
42	Ma On Shan Area 108 SPS	5,510	Area 108, Ma On Shan, N.T.	ST1
43	Ma On Shan SPS	44,928	Hang On Estate, Ma On Shan, N.T.	ST1
44	Middle Bay SPC No. 4	864	Middle Bay Beach, H.K.	ST2
45	Middle Bay SPS	690	Middle Bay Beach, H.K.	ST2
46	Mui Wo SPS	1,600	Ngan Kwong Wan Road, Lantau Island	ST2
47	Nam She Tong SPS	691	Hak Pai Road, Nam She Tong, Cheung Chau	ST2
48	NENT Leachate PS No. PS1	1,200	NENT Landfill, Leachate Treatment Works, Sha Tau Kok, N.T.	ST1
49	NENT Leachate PS No. PS2	2,200	Lin Na Hang Road (near Ta Kwu Ling, Plice Station), Ta Kwu Ling, Fanling, N.T.	ST1
50	NENT Leachate PS No. PS3	2,200	Man Kam To Road (near Lo Wu Police Station), Sha Ling Kau Lat Hang Village, Lo Wu, N.T.	ST1
51	NENT Village SPS No. PVS1	560	Ta Kwu Ling Rural Centre, Ping Che Road, Ta Kwu Ling, N.T.	ST1
52	NENT Village SPS No. PVS2	1,000	Ping Che Road, Guard Tin, Ta Kwu Ling, N.T.	ST1
53	NENT Village SPS No. PVS3	1,000	Ping Che Road near Kan Tau Wai, Tong Fong Tsuen, Ta Kwu Ling, N.T.	ST1
54	Ngan Ying Road SPS	3,715	Ngan Ying Road (near Clear Water Bay Road), Sai Kung, N.T.	ST1
55	Ngau Tau Kok DWFI PS	3,456	Block 4, Lower Ngau Tau Kok, Estate, Ngau Tau Kok, Kowloon	ST2
56	North West Kowloon SPS	406,080	SCISTW, Ngong Shung Road, Ngong Shuen Chau, Kowloon	ST2
57	Pak Kok SPS	200,000	Lung Mun Road, Butterfly Beach, Castle Peak, Tuen Mun, N.T.	ST1
58	Pak She SPS	14,688	2, Ping Chong Road, Cheung Chau	ST2
59	Pak Shek Kok SPS No. 3	20,000	Inside Science Park, Pak Shek Kok, Shatin, N.T.	ST1
60	Peng Chau Temporary SPS	450	Fu Peng Street, Peng Chau	ST2
61	Pik Sha Road SPS	864	Pik Sha Road, Sai Kung, N.T.	ST1
62	Pillar Point Outfall PS	246,000	Inside Pillar Point STW, Lung Mun Road, Mong Hau Shek, Castle Peak, Tuen Mun, N.T.	ST1

63	Ping Yeung Village SPS	40	Ping Yeung Village, NENT	ST1
64	Repulse Bay DWFI/PC No. 1	864	Beach Road, Repulse Bay, H.K.	ST2
65	Repulse Bay DWFI/PC No. 2	1,987	Beach Road, Repulse Bay, H.K.	ST2
66	Repulse Bay Main SPS	6,912	51 Seaview Promenade, Repulse Bay, H.K.	ST2
67	Sai Kung SPS No. 1	2,160	Pak Kong Road, Sai Kung, N.T.	ST1
68	Sai Kung SPS No. 2	6,480	Fuk Man Road, Sai Kung, N.T.	ST1
69	Sai Kung SPS No. 3	7,130	Tui Min Hoi Village, Sai Kung, N.T.	ST1
70	Sam Ka Tsuen DWFI/PC	211	Shung Shun Street, Lei Yue Mun Path, Yau Tong, Kowloon	ST2
71	Sam Mun Tsai New Village SPS No. 1	1,296	Sam Mun Tsai Road, Sam Mun Tsai New Village, Tai Po, N.T.	ST1
72	Sam Mun Tsai New Village SPS No. 2	1,296	Sam Mun Tsai Road, Sam Mun Tsai New Village, Tai Po, N.T.	ST1
73	Sam Mun Tsai New Village SPS No. 3	648	Sam Mun Tsai Road, Sam Mun Tsai New Village, Tai Po, N.T.	ST1
74	Sam Shing SPS	22,000	Castle Peak Road, Castle Peak Beach, Tuen Mun, N.T.	ST1
75	San Po Kong SPC	17,280	Prince Edward Road East, Near Sze Mei Street, San Po Kong, Kowloon	ST2
76	Sapphire Path Intermediate SPS	864	Pik Sha Road, Sai Kung, N.T.	ST1
77	Sha Tau Kok Main SPS	2,590	Shun Lung Street, Sha Tau Kok, N.T.	ST1
78	Sha Tau Kok Subsidiary SPS	690	Sun Lau Street, Sha Tau Kok, N.T.	ST1
79	Sha Tsui Detention Centre SPC No. 1	240	Sha Tsui Detention Centre, Lantau Island	ST2
80	Sha Tsui Detention Centre SPC No. 2	738	Sha Tsui Detention Centre, Lantau Island	ST2
81	Sha Tsui Detention Centre SPC No. 3	858	Sha Tsui Detention Centre, Lantau Island	ST2
82	Sha Tsui Detention Centre SPC No. 4	240	Sha Tsui Detention Centre, Lantau Island	ST2
83	Shatin Main SPS	207,360	23 Yuen Wo Road, Shatin, N.T.	ST1
84	Shek O Beach SPS (PS10)	432	Shek O Beach, Shek O, HK	ST2
85	Shek O Road DWFI/PS	1,296	Shek O Road, Shek O, HK	ST2
86	Shek Wu Hui DWFI	N.A.	River Indus, Shek Wu Hui Sewage Treatment Works	ST1

87	Sheung Shui Area 3 SPS		1,000	Area 3, Po Wan Road, Shek Wu Hui, Sheung Shui, N.T.	ST1
88	Sheung Shui Area 4B SPS		6,048	Area 4B, Po Wan Road, Shek Wu Hui, Sheung Shui, N.T.	ST1
89	Shui Wai Vacuum SPS		1,036	Shui Wai Tsuen, Tai Po, N.T.	ST1
90	Shum Wan Road SPS		4,320	Shum Wan Road, Aberdeen, H.K.	ST2
91	Silver Cape Road SPS		7,344	Silver Cape Road, Clear Water Bay, Sai Kung, N.T.	ST1
92	Silver Star Path SPS		5,270	Silver Star Path, Sai Kung, N.T.	ST1
93	Siu Hong Road LFI Works		N.A.	Siu Hong Rd. LFI, Siu Hong Rd. Tuen Mun	ST1
94	Siu Ho Wan Portion "J" SPS		374	Sham Fung Road, Siu Ho Wan, Lantau Island	ST2
95	Siu Lek Yuen SPS		423	Kwong Sin St., Siu Lek Yuen, N.T.	ST1
96	So Kwun Wat SPS		22,000	Castle Peak Road, So Kwun Wat, Tuen Mun, N.T.	ST1
97	South Bay Road SPS		1,720	1 South Bay Road, Repulse Bay, H.K.	ST2
98	St. Stephen's Beach SPS		120	St. Stephen's Beach, Stanley, H.K.	ST2
99	Stanley Main Beach DWFI PC		430	Stanley Main Beach, Stanley, H.K.	ST2
100	Stanley Main Beach SPS		865	Stanley Main Beach Beach, Stanley, H.K.	ST2
101	Stanley Main SPS		9,680	1A Stanley Main Street, Stanley, H.K.	ST2
102	Stanley Main Street SPS		3,160	Stanley Main Street, Stanley, H.K.	ST2
103	Stonecutters Island PCWA PS		678	Ngong Wan Road, Ngong Shuen Chau, Kwai Chung, N.T.	ST2
104	Stonecutters Island Main PS		1,562,000	SCISTW, Ngong Shung Road, Ngong Shuen Chau, Kwoloon	ST2
105	Tai Hom Chuen DWFI PC		1,296	J/O Choi Hung Road & Po Kong Village Road, Kowloon	ST2
106	Tai Koo Shing SPS		19,872	Near Poyang Mansion, Tai Koo Shing, H.K.	ST2
107	Tai O No. 1 SPS		6,220	Opposite to Wing On St., Tai O, Lantau Island	ST2
108	Tai O No. 2 SPS		10,195	Po Chue Tam, Tai O, Lantau Island	ST2
109	Tai O No. 5 SPS		378	Shek Tsai Po Street, Tai O, Lantau Island	ST2
110	Tai O No. 6 SPS		148	Shek Tsai Po Street, Tai O, Lantau Island	ST2

111	Tai Po Area 31 SPS	108	Ting Kok Road, Ha Hang Village, N.T.	ST1
112	Tai Po Kau SPS	3,456	Yuen Chau Tsai, Ha Wong Yi Au Village, Tai Po, N.T.	ST1
113	Tai Po Tau SPS	311	Tai Po Tau, Tai Po Road, Tai Po, N.T.	ST1
114	Tai Shek Hau SPS	5,702	Tai Shek Hau, Cheung Chau	ST2
115	Tai Tam SPS	3,662	37 Tai Tam Road, Stanley, H.K.	ST2
116	Tai Tau Leng SPS	21,773	Tai Tau Leng Village DD 91 Lot 1512A, Sheung Shui, N.T.	ST1
117	Tai Wai DWF 1 (Tai Wai SPS)	648	Tai Wai Playground, Tai Wai	ST1
118	Tai Wai SPS (Vacuum)	287	Shing Ho Road, Shatin, N.T.	ST1
119	Tai Wan SPS	20 l/s	Tai Wan, near Tai Mong Tsai Road, Sai Kung, N.T.	ST1
120	Tai Yuen SPS - Package III	25,000	Tai Yuen Estate, Tai Po, N.T.	ST1
121	Tai Yuen SPS - Package IV	45,000	Tai Yuen Estate, Tai Po, N.T.	ST1
122	Tam Kok Shan SPS	3,240	Tam Kok Shan Road, near Cheung On Estate, Tsing Yi, Kowloon	ST1
123	Terminal 8 SPP 01	622	Container Port Road South, Kwai Chung, N. T.	ST2
124	Terminal 8 SPP 02	622	Container Port Road South, Kwai Chung, N. T.	ST2
125	Terminal 8 SPP 03	622	Container Port Road South, Kwai Chung, N. T.	ST2
126	Terminal 8 SPP 07	622	Container Port Road South, Kwai Chung, N. T.	ST2
127	Tin Sam SPS	1,814	Ting Kok Road and Fung Yuen Road (near Fung Yuen Village), Tai Po, N.T.	ST1
128	Tin Shui Wai Area 14 SPS	129,600	Tin Chuk Street, Tin Shui Wai, Yuen Long, N.T.	ST1
129	Tin Shui Wai DWFI (x 18 Nos.)	N.A.	Tin Shui Wai	ST1
130	Tin Shui Wai Inflatable Dam	N.A.	Tin Shui Estate, Tin Shui Wai, Yuen Long, N.T.	ST1
131	Tin Shui Wai Tin Wah Road (Area 101) SPS	130,637	Tin Wah Road, Tin Shui Wai, Yuen Long, N.T.	ST1
132	Ting Kok Road No. 5 SPS	7,000	Ting Kok Rd., Tai Po, N.T.	ST1
133	Ting Kok Road No. 6 SPS	7,000	Ting Kok Rd., Yim Tin Tsai, Tai Po, N.T.	ST1
134	To Shek SPS	360	To Shek Village, Shatin, N.T.	ST1

135	Tseung Kwan O PS		211,248	Shek Kok Road, Tseung Kwan O, N.T.	ST2
136	Tsing Yi SPS		30,240	Roundabout of Tsing Yi Rural Committee Road, Tsing Yi	ST1
137	Tsuen Wan By-Pass SPS		2,822	Yuen Tun Circuit, Hoi Tak Street, Tsuen Wan, N.T.	ST1
138	Tsuen Wan Complex SPS		3,456	Hoi Kwan Road, Tsuen Wan Transport Complex, Tsuen Wan, N.T.	ST1
139	Tsuen Wan SPS		451,872	32, Wing Shun Street, Tsuen Wan, N.T.	ST1
140	Tsung Pak Long SPS		19,872	Tsung Pak Long Village, Sheung Shui, N.T.	ST1
141	Tuen Mun Area 51 (Siu Hong Road) SPS		72,500	Siu Hong Road, Tuen Mun New Town, Tuen Mun, N.T.	ST1
142	Tuen Mun Hing Ping Road SPS		5,184	Hing Ping Road, Tuen Mun, N.T.	ST1
143	Tuen Mun Lung Mun Road (Area 38) SPS		37,000	Tuen Mun Area 38 SPS, Lung Mun Road, Tuen Mun, N.T.	ST1
144	Tuen Mun Rd Low Flow PS		3,456	Pentecostal Church of H.K. Sheltered Workshop, 201 Castle Peak, Tuen Mun, N.T.	ST1
145	Tuen Mun Siu Hong Road low Flow Interceptor		34,560	Siu Hong Road, Tuen Mun, N.T.	ST1
146	Tung Chung (HV) SPS		52,992	Cheung Tung Road, Tung Chung, Lantau Island	ST2
147	Tung Tau SPS (Owned by CSD)		4,838	Wong Ma Kok Road, Stanley, H.K.	ST2
148	Tung Wan Beach SPS		1,728	Tung Wan Beach, Cheung Chau	ST2
149	Turtle Cove SPS		28	Turtle Cove Beach, Red Hill, Stanley, H.K.	ST2
150	Wan Chai West SPS		16,070	Fenwick Pier Street, Wan Chai, H.K.	ST2
151	Wan Hoi Street SPS		1,901	Tai Wan Shan Park, Wan Hoi Street, Hung Hom, Kowloon	ST2
152	Waterboat Dock SPS		57,888	Yuet Lun Street, Lai Chi Kok, Kowloon	ST2
153	West Kowloon No.1 SPS		72,576	Sham Wong Road, Sham Shui Po	ST2
154	West Kowloon No.2 SPS		15,552	Ngong Shung Road, Ngong Shuen Chau, Kowloon	ST2
155	Whampoa Garden SPS		12,182	Tak Hong Street, Bamboo Mansions, Whampoa Garden, Kowloon	ST2
156	Wo Liu Hang SPS No. 1		16	Wo Liu Hang Village (near KCR Station), Shatin, N.T.	ST1
157	Wo Liu Hang SPS No. 2		28	Wo Liu Hang Village, Shatin, N.T.	ST1
158	Wu Kai Sha New Village SPS		510	Wu Kai Sha Village, Ma On Shan, Shatin, N.T.	ST1

159	Yau Tong SPS	43,200	J/O, Tung Yuen Street and Ko Fai Rd., Yau Tong, Kowloon	ST2
160	Ying Pun Ha SPS	1,814	Ying Pun Ha Tsuen, Tai Po, N.T.	ST1
161	Yin Tse Lane SPS	518	Yin Tse Lane, Tai Po, N.T.	ST1
162	Yuen Long Area 16 (Kau Hui) SPS	18,403	Hong Yip Street, Chung Hau Tsuen, Yuen Long, N.T.	ST1
163	Yuen Long Nullah Low Flow PS & Inflatable Dam	360,000	Hong Yip Street, Chung Hau Tsuen, Yuen Long, N.T.	ST1
164	Yuen Long Ping Shun St. SPS	72,000	No. 10 Ping Shun Street, Yuen Long, N.T.	ST1

(B) Preliminary Treatment Works (Screening Plants)

<u>Item</u>	<u>Name</u>	<u>Capacity</u> (m ³ /day)	<u>Location</u>	<u>Division</u>
1	Aberdeen SSP	54,690	17 Tin Wan Praya Road, Aberdeen, H.K.	ST2
2	Ap Lei Chau SSP	34,560	50 Lee Nam Road, Ap Lei Chau, H.K.	ST2
3	Central SSP	109,728	West Fire Services Street, Sheung Wan, Central, H.K.	ST2
4	Chai Wan PTW	40,608	Sun Yip Street, Chai Wan, H.K.	ST2
5	Cheung Sha Wan SSP	115,200	Cheung Sha Wan, Kowloon	ST2
6	Kwai Chung PTW	275,616	Kwai Chung Road, Kwai Chung, N.T.	ST2
7	Kwun Tong PTW	306,720	1, Wing Yip Street, Kwun Tong, Kowloon	ST2
8	North Point SSP	118,355	1 Man Hong Street, North Point, H.K.	ST2
9	North West Kowloon PTW	456,863	Ngong Shung Road, Ngong Shuen Chau, Kowloon	ST2
10	Pillar Point STW	246,000	Lung Mun Road, Mong Hau Shek, Castle Peak, Tuen Mun, N.T.	ST1
11	San Wai STW	410,400	Tin Ha Road, Ha Tsuen, Yuen Long, N.T.	ST1
12	Sham Shui Po No. 1 SSP	91,008	Yen Chau Street, Sham Shui Po, Kowloon	ST2

13	Sham Shui Po No. 2 SSP	259,200	Yen Chau Street, Sham Shui Po, Kowloon	ST2
14	Shau Kei Wan PTW	28,512	11, Tam Kung Temple Rd., Shau Kei Wan, H.K.	ST2
15	Shek O STW	1,100	Shek O Village, Shek O, H.K.	ST2
17	Tin Shui Wai Amenity Water Screening Plant	138,240	Tin Shui Tsuen, Tin Shui Wai, Yuen Long, N.T.	ST1
18	To Kwa Wan PTW	244,512	Sung Ping Street, To Kwa Wan, Kowloon	ST2
19	Tseung Kwan O (Junk Bay) PTW	122,688	Shek Kok Road, Tseung Kwan O, Kowloon	ST2
20	Tsing Yi PTW	83,808	Cheung Fai Road, Tsing Yi, Kowloon	ST2
21	Wah Fu SSP	15,725	15 Waterfall Bay Road, Shum Wan Road, H.K.	ST2
22	Wan Chai East SSP	65,664	Hung Hing Street, Wan Chai, H.K.	ST2
23	Wan Chai West SSP	48,384	Lung King Street, Wan Chai, H.K.	ST2
24	Sandy Bay SSP	8,899	6 Sha Wan Drive, Pok Fu Lam	ST2
25	Siu Ho Wan STP	64,620	Cheung Tung Road, Siu Ho Wan, Lantau Island	ST2

(C) Primary Treatment Works

<u>Item</u>	<u>Name</u>	<u>Capacity</u> (m ³ /day)	<u>Location</u>	<u>Division</u>
1	Cheung Chau STW	4,000	1 Pak Kok Tsui Road, Cheung Chau	ST2
2	Cyberport STW	11,000	Cyberport, Kong Sin Wan, Pok Fu Lam Road, H.K.	ST2
3	Stonecutters Island STW	1,725,000	Ngong Shung Road, Ngong Shuen Chau, Kowloon	ST2
4	Tai O Imhoff Tank	1,220	Kau San Tei, Tai O, Lantau Island	ST2

(D) Small Secondary Treatment Works

<u>Item</u>	<u>Name</u>	<u>Capacity</u> (m ³ /day)	<u>Location</u>	<u>Division</u>
1	Clear Water Bay Second Beach RBC STP	140	Clear Water Bay 2nd Beach, Sai Kung, N.T.	ST1
2	Hei Ling Chau Addition Treatment Centre STP	100	Hei Ling Chau Addition Treatment Centre, Hei Ling Chau	ST2
3	Hei Ling Chau RBC STP	761	Lai Sun Correctional Institute, Hei Ling Chau	ST2
4	Hei Ling Chau Oxidation Ditch STP	900	Inside Hei Ling Chau Refugee Camp, Hei Ling Chau	ST2
5	Hei Ling Chau RBC STP	177	Beside CSD Staff Qtr., Hei Ling Chau	ST2
6	Hung Shing Ye Beach STP	170	Hung Shing Ye Beach, Lamma Island	ST2
7	Kam Tin Market STP	75	Kam Tin Market, Kam Tin, N.T.	ST1
8	Kwu Tung Market STP	250	Kwu Tung Market, Kwu Tung, Sheung Shui, N.T.	ST1
9	Lido Beach STP	215	Inside Lido Beach, Ting Kau, Tsuen Wan, N.T.	ST1
10	Lo Wu Police HQ STP	121	Lo Wu Police Hqs, Man Kam Road, Lo Wu, N.T.	ST1
11	Lok Ma Chau Border Police HQs STP	26	Lok Ma Chau Operation Base, Lok Ma Chau, N.T.	ST1
12	Ma Po Ping RBC STP	563	Tong Fuk Centre, Ma Po Ping Road, Lantau Island	ST2
13	Man Kam To Food Control Office STP	60	Man Kam To Road, Man Kam To, N.T.	ST1
14	Man Kam To Control Point STP	27	Man Kam To Road, Lo Wu	ST1
15	Mui Wo STW	1,190	Mui Wo Ferry Pier Road, Lantau Island	ST2
16	O Pui Shan Boys' Home STP	50	Cheung Hang Road, Lai Chi Kok, Kowloon	ST2
17	Peng Chau RBC STP	450	Tai Lee Island, Peng Chau	ST2
18	Pik UK Correctional Services Dept. Quarters RBC STP	210	Razor Hill Road, Sai Kung, N.T.	ST1
19	Pik UK Correctional Services Dept. Pik Uk Prison SBR	250	No. 397, Clear Water Bay Road, Sai kung, N.T.	ST1
20	Pik UK Correctional Services Dept. Pik Uk Correctional Institute SBR	200	No. 397, Clear Water Bay Road, Sai kung, N.T.	ST1

21	Razor Hill Combine Hostel & Sheltered Workshop Trickling Filter	26	Razor Hill Road, Sai Kung, N.T.	ST1
22	Sha Tau Kok STW	1,660	Area 10, Sha Tau Kok Road, Sha Tau Kok, N.T.	ST1
23	Sha Tsui Detention Centre STP	183	Sha Tsui Detention Centre, Shek Pik, Lantau Island	ST2
24	Sham Tseng Fire Station STP	8	Inside Sham Tseng Fire Station, 32 Sham Tseng Section, Castle Peak Road, N.T.	ST1
25	Sham Tseng Village STP	338	Sham Tseng Village, Sham Tseng, N.T.	ST1
26	Shek Pik RBC STP	790	Shek Pik Reservoir Road, Adjacent to Shek Pik Prison, Shek Pik, Lantau Island	ST2
27	Shuen Wan Pre-treatment Works (landfill)	42,103	No. 7, Dai Kwai Street, Tai Po Industrial Estate, Tai Po, N.T.	ST1
28	Siu Ho Wan STW	63,158	Cheung Tung Road, Siu Ho Wan, Lantau Island	ST2
29	Siu Lam Hospital Extension RBC Plant	68	Siu Lam Hospital, 16.5 Miles, Castle Peak Road, N.T.	ST1
30	Siu Lam Psychiatric Centre Chlorination Plant	188	Correctional Services Department, 16.5 Miles, Castle Peak Road, Siu Lam, N.T.	ST1
31	South Bay Trickling Filter	10	South Bay Road, Repulse Bay, HK.	ST2
32	Tai Lam Chung Marine Police HQ RBC	17	Marine Police West Division Base, Tai Lam Chung, Tuen Mun, N.T.	ST1
33	Tai Po Area 57 RBC	483	Tung Tsg Road, Tai Po, N.T.	ST1
34	Yuen Tun Village STP	173	Yuen Tun Village, Tsing Lung Tau, N.T.	ST1

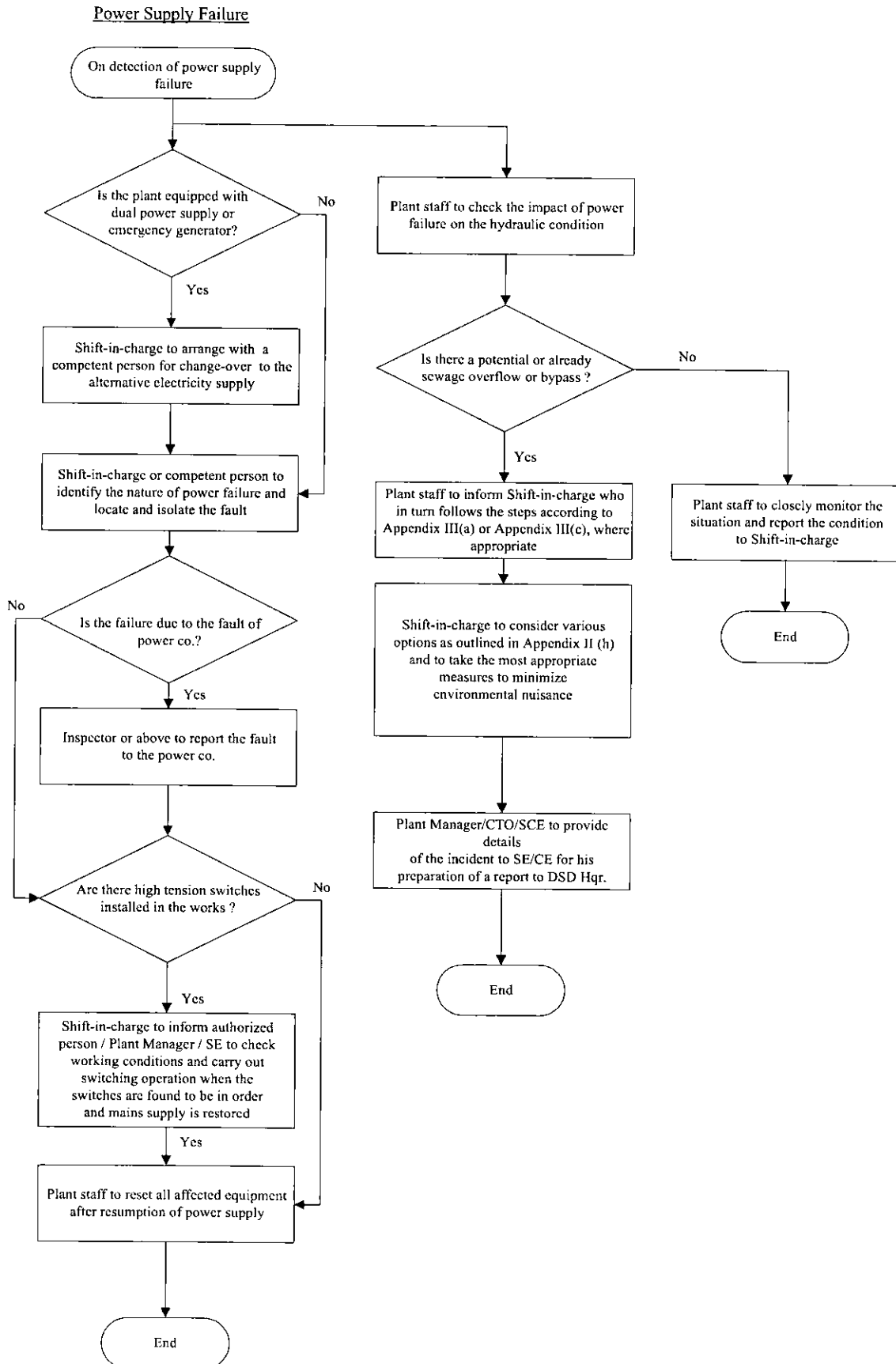
(E) Large Secondary Treatment Works

<u>Item</u>	<u>Name</u>	<u>Capacity</u> (m ³ /day)	<u>Location</u>	<u>Division</u>
1	Sai Kung STW	8,000	Tui Min Hoi, Wah Fuk Street, Sai Kung, N.T.	ST1
2	Shatin STW	150,000	Shui Chong Street, Shatin, N.T.	ST1
3	Shek Wu Hui STW	80,000	San Wan Road, Shek Wu Hui, Sheung Shui, N.T.	ST1
4	Stanley STW	11,600	Wong Ma Kok Road, Stanley, H.K.	ST2
5	Tai Po STW	94,000	No. 7, Dai Kwai Street, Tai Po Industrial Estate, Tai Po, N.T.	ST1
6	Yuen Long STW	70,000	Wang Lok St., Yuen Long Industrial Estate, Yuen Long, N.T.	ST1

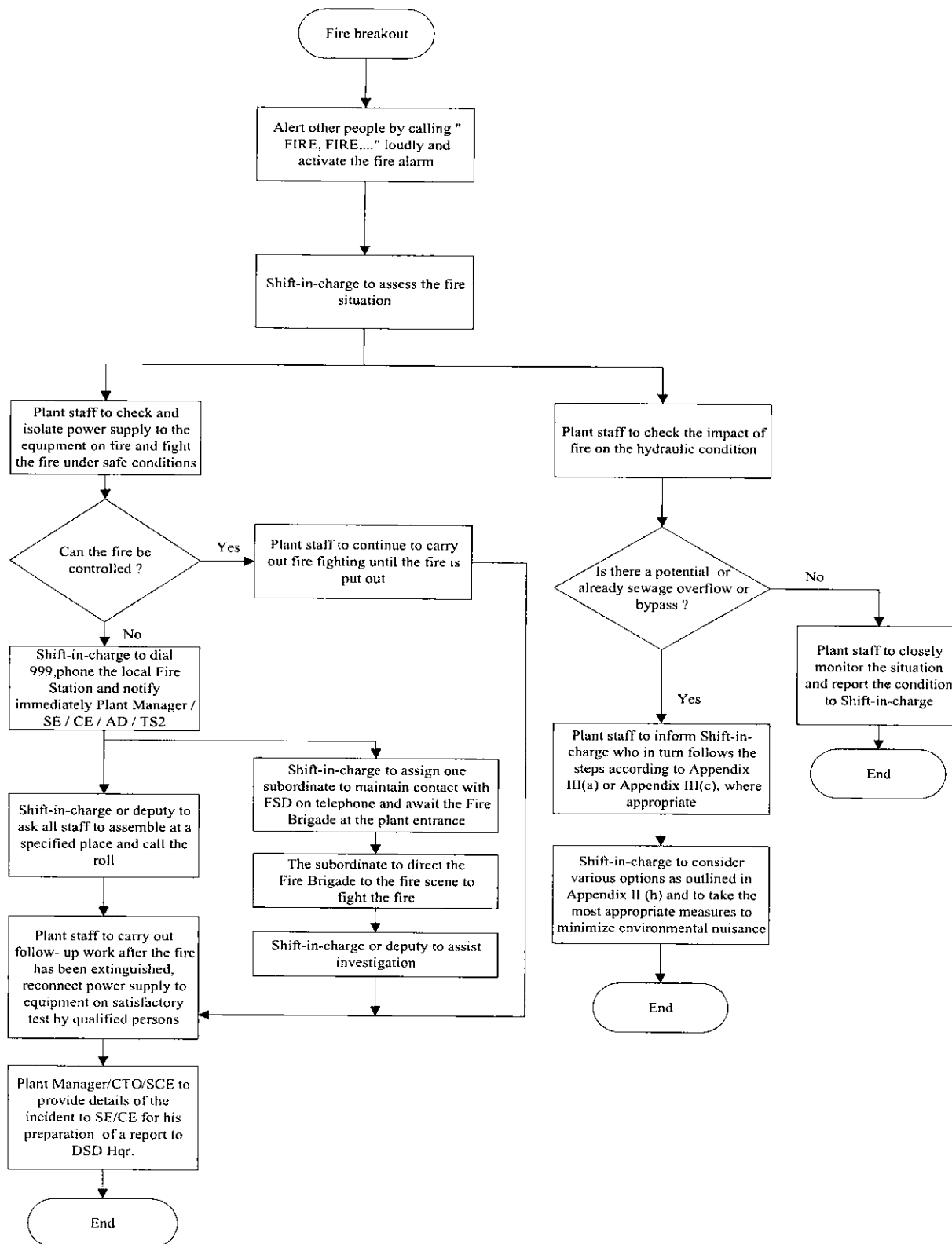
Note : N.A. : not available

Legend

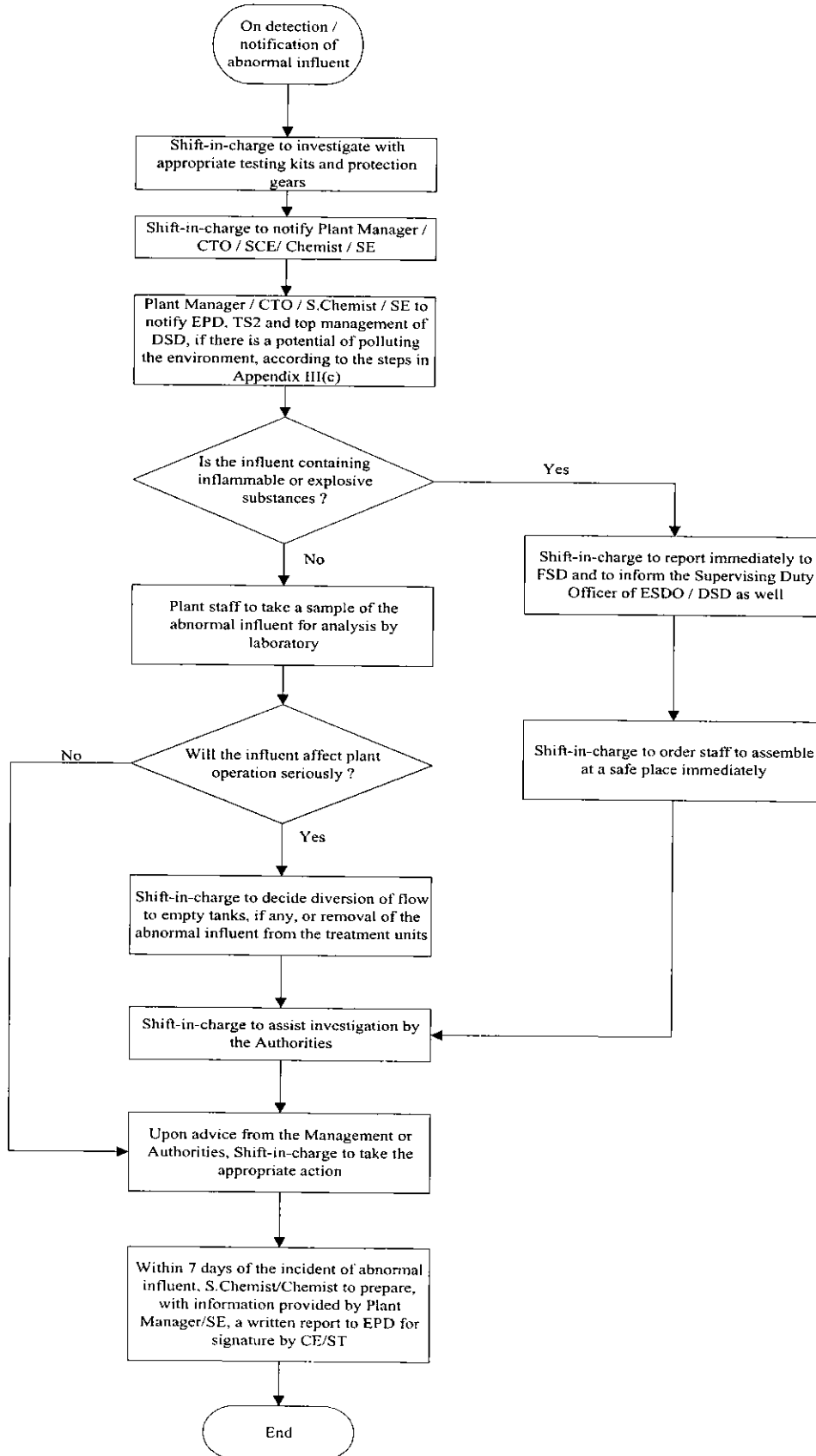
SSP	Sewage Screening Plant	RBC	Rotating Biological Contactor
SPS	Sewage Pumping Station	DWFI	Dry Weather Flow Interceptor
P/S, PS	Pumping Station	SPP	Sewage Pump Pit
SPC	Sewage Pumping Chamber	STP	Sewage Treatment Plant
PC	Pumping Chamber	STW	Sewage Treatment Works
PTW	Preliminary Treatment Works		



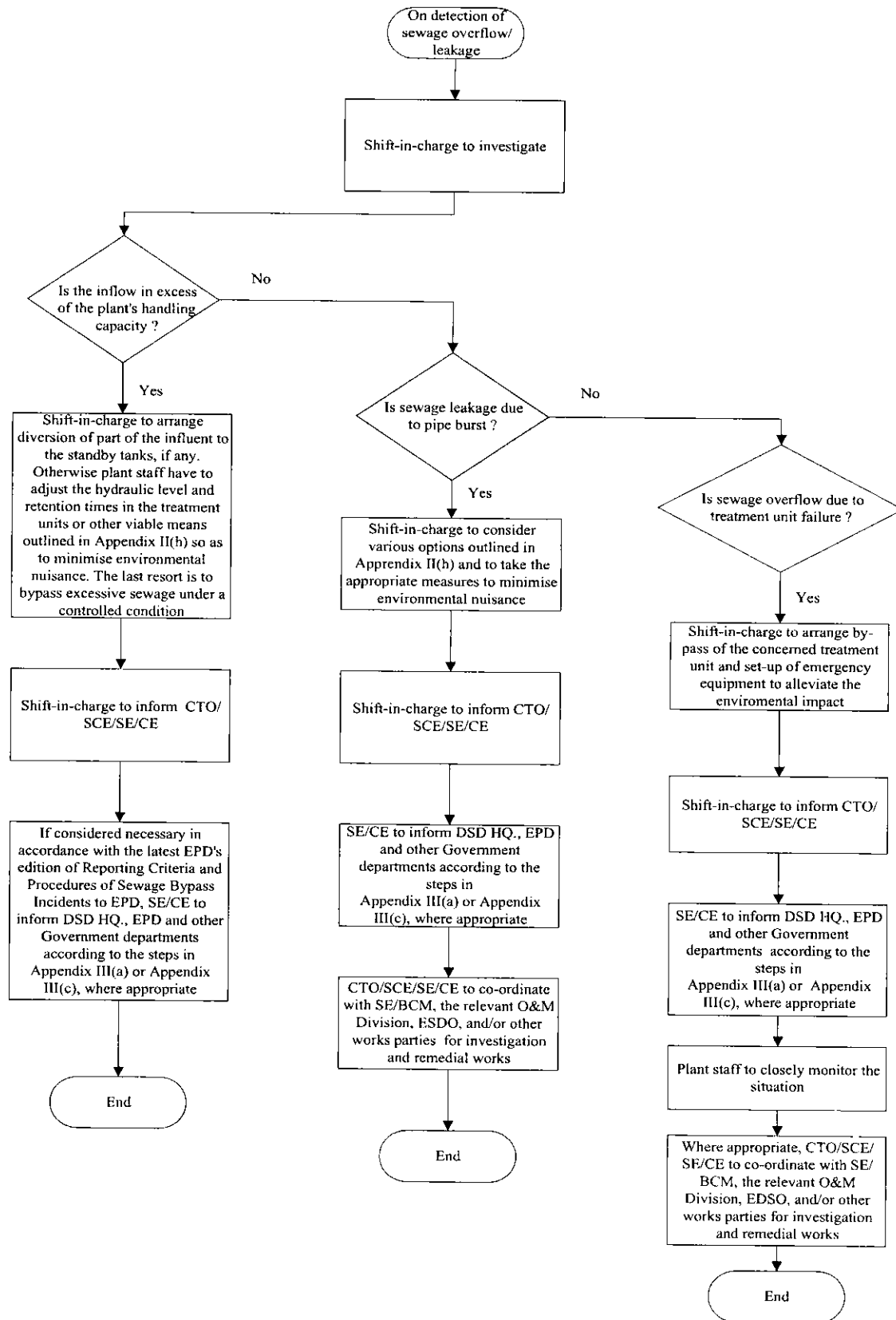
Fire Breakout



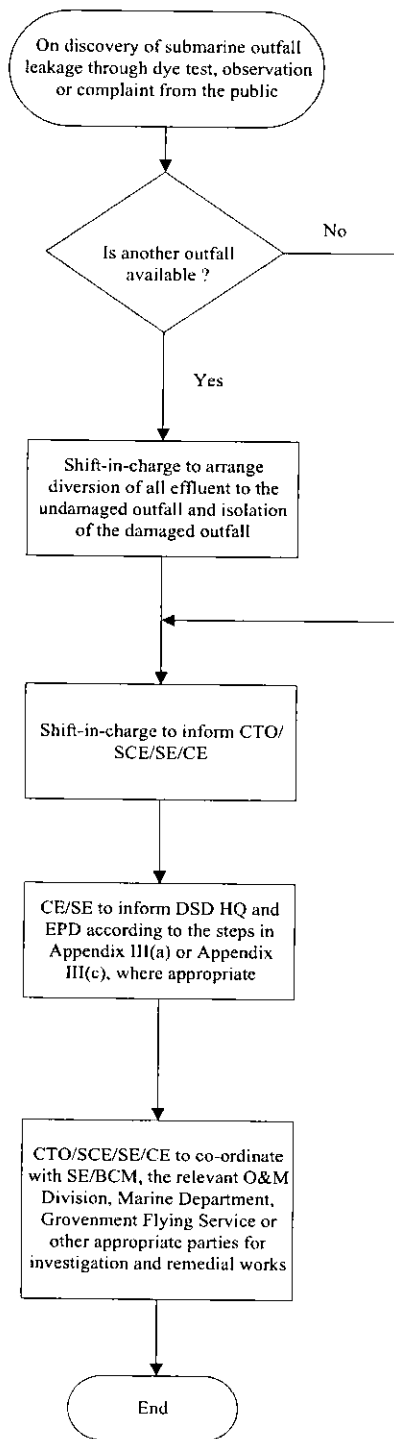
Abnormal Influent (Which Immediately Affects the Normal Operation of the Treatment Process)



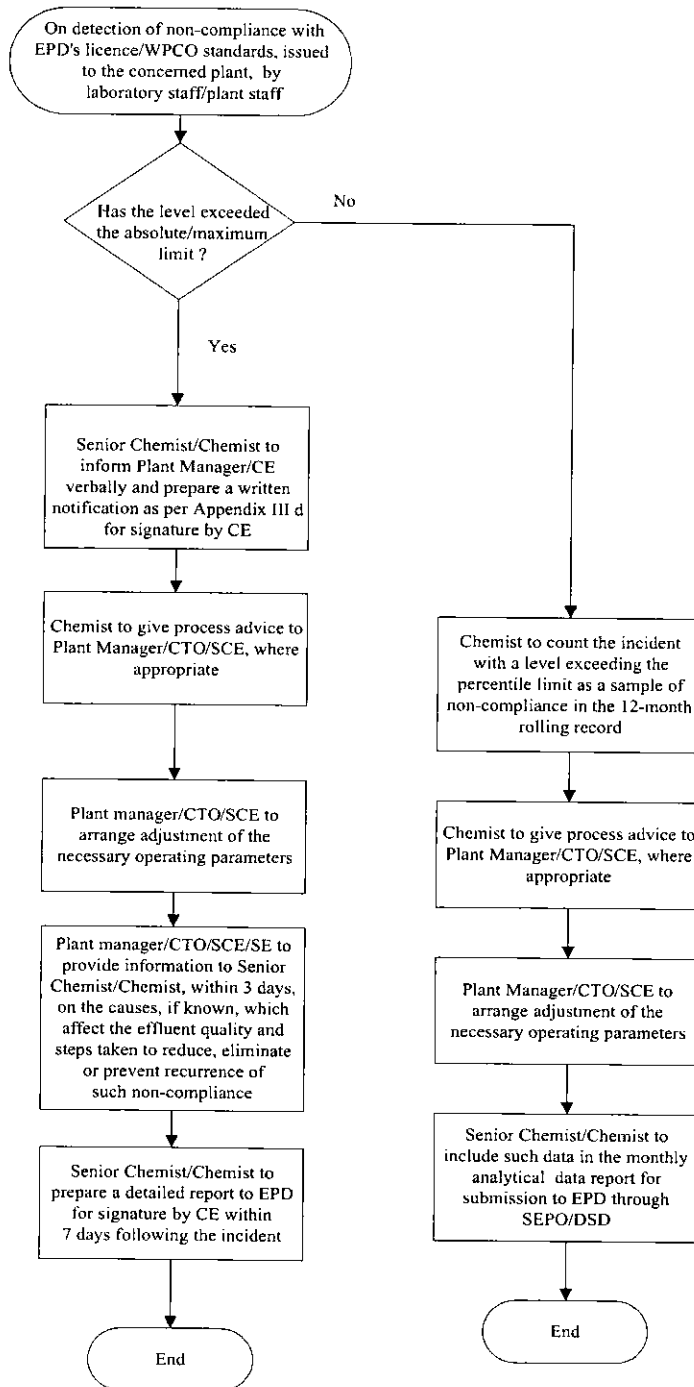
Sewage Overflow/Leakage/Bypass due to Excessive Inflow, Pipe Burst and Treatment Unit Failure



Leakage from Submarine Outfall



Non-compliance with EPD's discharge standards



Notes :

- (1) For some existing licences, only absolute levels of the determinands are specified by EPD.
- (2) For those recently renewed licences, both percentile and maximum levels of the determinands are specified by EPD. In addition, the maximum number of samples for a given determinand permitted to exceed percentile limit in a 12-month rolling period is also specified.
- (3) All cases of non-compliance with EPD's discharge standards should be reported to EPD other than those exception cases which have been previously agreed by EPD.

Standard Checklist for Considering Various Options to
Mitigate/Avoid Sewage Discharge Prior to Bypass
for the Purpose of Maintenance or Minor Modifications in
Existing Sewage Treatment Facilities

[I] Generally Applicable to Emergency/Planned Sewage Bypass

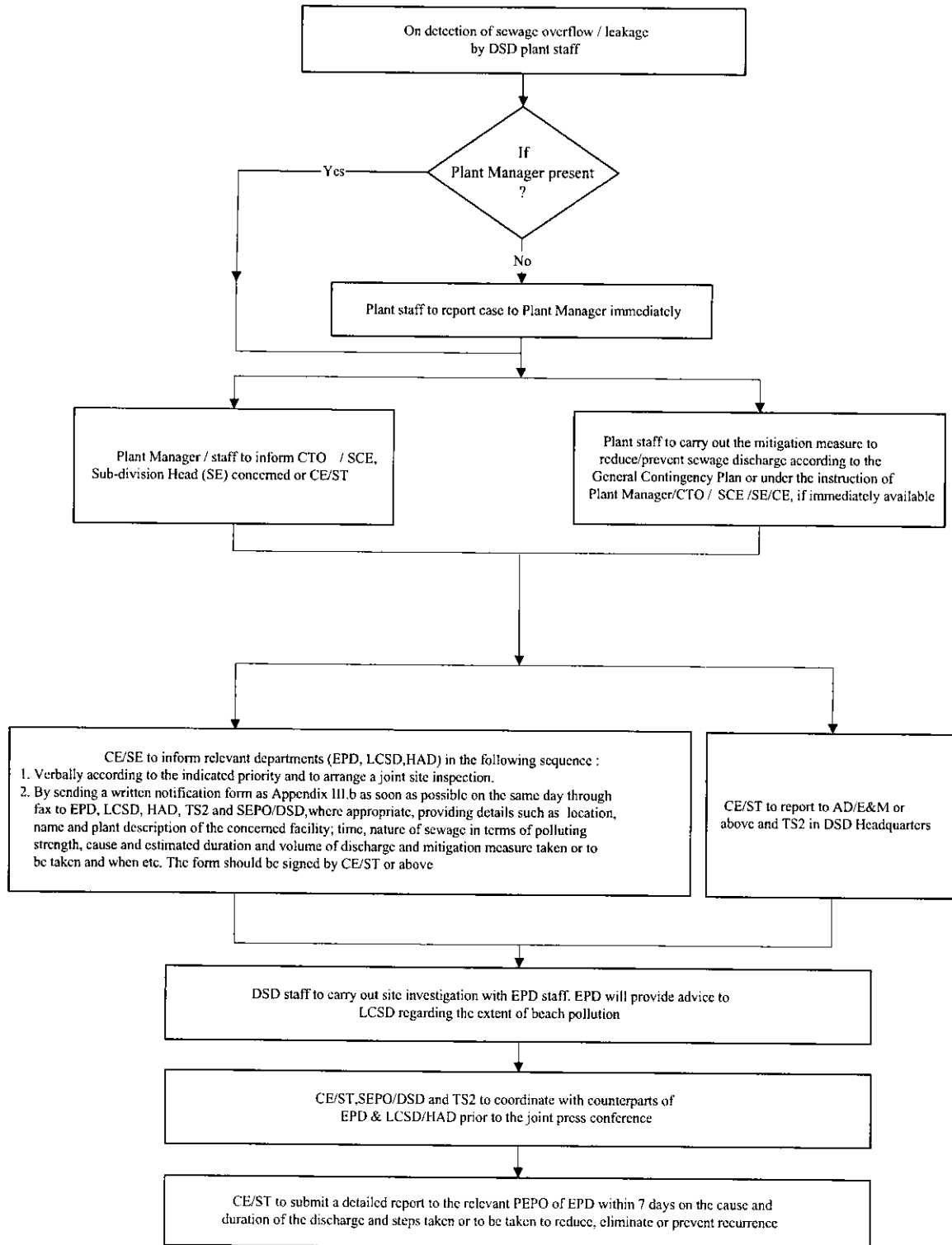
	Yes	No
(A) <u>Temporary Storage of Sewage on the Upstream Side</u>		
• Pump down the sewage level at the Pump Sump, where appropriate.	<input type="checkbox"/>	<input type="checkbox"/>
• Check the hydraulic level in the Pump Sump and on the upstream side.	<input type="checkbox"/>	<input type="checkbox"/>
• Stop pumping of sewage from the Pump Sump.	<input type="checkbox"/>	<input type="checkbox"/>
• Monitor the hydraulic level in the Pump Sump and on the upstream side.	<input type="checkbox"/>	<input type="checkbox"/>
 (B) <u>Flow Diversion</u>		
• Energise a standby facility, if available.	<input type="checkbox"/>	<input type="checkbox"/>
• Divert flow to equalization tanks, if available.	<input type="checkbox"/>	<input type="checkbox"/>
• Adjust the hydraulic level and retention times in the treatment units so as to prevent overflow as far as feasible.	<input type="checkbox"/>	<input type="checkbox"/>
• Divert the flow to bypass the defective treatment unit to achieve at least partial treatment if other mitigating measures are not yet made available.	<input type="checkbox"/>	<input type="checkbox"/>
 Arrangement of temporary piping to form an alternative sewage route so as to avoid/reduce the environment impact.	<input type="checkbox"/>	<input type="checkbox"/>
 (C) <u>Tankering</u>		
• Assess the feasibility of tankering of sewage in terms of quantity, access road, tanker nos, etc.	<input type="checkbox"/>	<input type="checkbox"/>
• Identify where to dispose of the tanker loads.	<input type="checkbox"/>	<input type="checkbox"/>
• Check requirement of closed area/entry permits.	<input type="checkbox"/>	<input type="checkbox"/>
• Check the availability of tankers from either or all of the following sources (refer to Appendix V of the General Contingency Plan.)	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No
ST Term Contractor	<input type="checkbox"/>	<input type="checkbox"/>
O&M Branch : -		
HK&I Div, CTO/DLF	<input type="checkbox"/>	<input type="checkbox"/>
MN Div, SLOW/DLF	<input type="checkbox"/>	<input type="checkbox"/>
MS Div, CTO/DLF	<input type="checkbox"/>	<input type="checkbox"/>
Food and Environmental Hygiene Department (FEHD):		
-		
Kwai Chung Depot, TSO (KwC)	<input type="checkbox"/>	<input type="checkbox"/>
Tuen Mun Depot, TSO (TM)	<input type="checkbox"/>	<input type="checkbox"/>
Yuen Long Depot, TSO (YL)	<input type="checkbox"/>	<input type="checkbox"/>
Tai Po/North Depot, TSO (TP)	<input type="checkbox"/>	<input type="checkbox"/>
Sha Tin Depot, TSO (ST)	<input type="checkbox"/>	<input type="checkbox"/>
Sai Kung Depot, TSO (SK)	<input type="checkbox"/>	<input type="checkbox"/>
Depots in Hong Kong and Kowloon Areas		
Hong Kong : TSO (HKW)	<input type="checkbox"/>	<input type="checkbox"/>
Kowloon : TM(K)	<input type="checkbox"/>	<input type="checkbox"/>
(* Where appropriate)		
• Check pumps, hoses and power supply required for tankers.	<input type="checkbox"/>	<input type="checkbox"/>
(D) <u>Temporary Mitigation Measures for Treating Sewage</u>		
• Install temporary screen (in case of inlet bypass), if site conditions allow.	<input type="checkbox"/>	<input type="checkbox"/>
• Increase chlorine dosing to enhance disinfection, if chlorination facilities available.	<input type="checkbox"/>	<input type="checkbox"/>
(E) <u>Emergency Facilities</u>		
• Determine the size of pump required according to the sewage quantity.	<input type="checkbox"/>	<input type="checkbox"/>
• Identify the nearby manhole/disposal point.	<input type="checkbox"/>	<input type="checkbox"/>
• Check the availability of electricity supply.	<input type="checkbox"/>	<input type="checkbox"/>
• Locate sources of emergency facilities (e.g. electric pumps, engine driven pumps, hoses, generators etc.)	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No
<ul style="list-style-type: none"> • Arrange transportation and installation of emergency facilities. 	<input type="checkbox"/>	<input type="checkbox"/>
(F) <u>Temporary Power Supply</u>		
<ul style="list-style-type: none"> • Identify the nature of power failure. 	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Identify the required power rating to keep running of essential equipment. 	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Check availability of temporary power supply from either or some of the following sources : - 	<input type="checkbox"/>	<input type="checkbox"/>
ST Sub-divisions : -		
ST1/1	<input type="checkbox"/>	<input type="checkbox"/>
ST1/2	<input type="checkbox"/>	<input type="checkbox"/>
ST2/1	<input type="checkbox"/>	<input type="checkbox"/>
ST2/2		
ST Electrical Term Contractor (refer to Appendix V.d of the General Contingency Plan)		
Power Supply Utilities	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Arrange transportation of emergency generators. 	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Arrange delivery of connecting cables and accessories. 	<input type="checkbox"/>	<input type="checkbox"/>
[II] <u>Applicable to Planned Sewage Bypass</u>		
(G) Study on the feasibility of concurrently carrying out some or all of identifiable works requiring sewage bypass in order to reduce the total period of sewage bypass.	<input type="checkbox"/>	<input type="checkbox"/>
(H) Arrangement of the works to be carried out during the non-peak periods (say 00.00 to 06.00 hours), taking into account the noise level requirement of the work site.	<input type="checkbox"/>	<input type="checkbox"/>

DSD's Route of Notification of Incidents with a Potential of Polluting Beach Water

Appendix III(a)



Drainage Services Department
Notification of Sewage Pollution Incident

Section A. Description

1. Type of incident

- STP breakdown/operation irregularities
- pumping station failure/overflow
- sewage bypass
- damage of sewage outfall
- others _____

Particulars:

Particulars:

2. When did it happen (Time/Date) : _____

3. Physical location of the pollution source and final discharge point: _____

4. Estimated distance from the final discharge point to the nearest gazetted beach (m) : _____

5. Estimated volume of sewage already discharged (cu.m) : _____

6. Estimated flowrate of sewage being discharged (cu.m/h) : _____

7. Mitigation measures already implemented or will be implemented : _____

8. Anticipated time to resume normal operation (Time/Date) : _____

9. Other relevant information : _____

Section B. Reporting Officer

Name: _____ Designation (if applicable): _____

Tel. No. : _____ Fax No. : _____ Mobile/Pager : _____

Signature : _____ Time / Date : _____

Section C. EPD Recipient Officer (Please return one copy to DSD by fax on acknowledgment of this notification form)

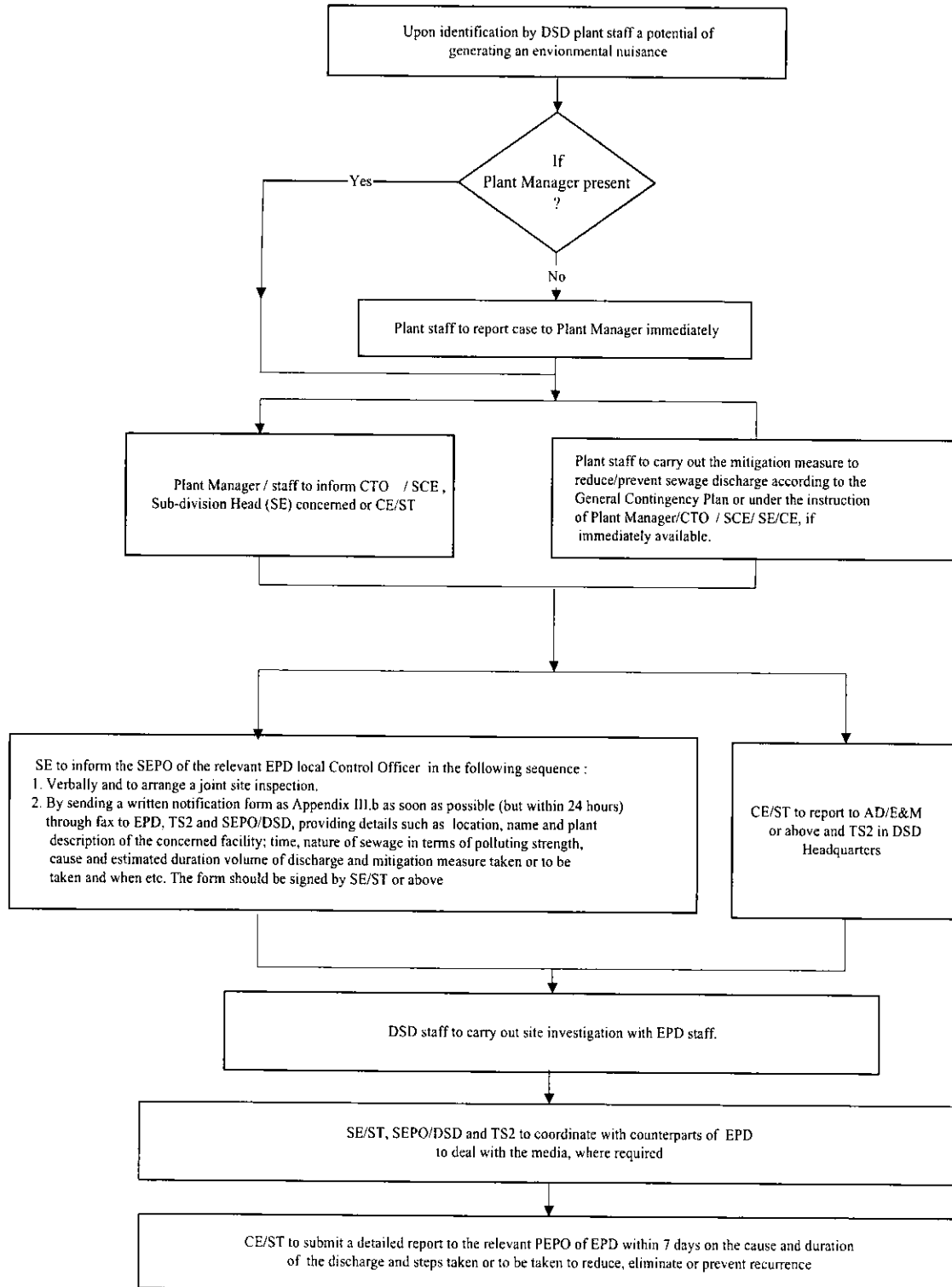
Name: _____ Designation (if applicable): _____

Tel. No. : _____ Fax No. : _____ Mobile/Pager : _____

Signature : _____ Time / Date : _____

DSD's Route of Notification of Incidents with a Potential of Generating an Environmental Nuisance
(Other than Polluting Beach Waters)

Appendix III(c)



Appendix IV (Not Included)

Appendix V (Not Included)