

**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 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, harbours or beaches. 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 pollution according to the requirements of the discharge licence under 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 organized and implemented in an orderly manner.

(3) Type of Sewage Treatment Facilities

Sewage treatment facilities under Sewage Treatment Division 1 and Sewage Treatment Division 2 are 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 built in the Territory. The functions of these pumping stations are, under dry weather condition, to intercept and pump the contaminated streamwater to sewage treatment works in order to avoid direct discharge into watercourses.

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

Although operation of a sewage pumping station does not require a licence from EPD, the Water Pollution Control Ordinance (WPCO) does not normally allow any sewage overflow and/or 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 of 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) and/or inclined plate (Lamella) settler.

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, 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, membrane bioreactor (MBR), moving bed biofilm reactor (MBBR) 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 and/or disinfection facilities. Normally, the treated effluent 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. Similar for a plant fitted with disinfection facilities, effluent standards on E. coil 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 conveying to sludge treatment facility (T-park) for further treatment. Recently, there are some compact technologies developed that are adopted in the upgrading of major sewage treatment works (e.g. MBR at Shek Wu Hui Effluent Polishing Plant, Advance Works).

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/or 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 Regional 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-dialing, 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 measures 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 and/or 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 firefighting.
- 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 with photo and/or video record (Note 1);
 - (b) to investigate and assess the pollution impact with photo and/or video record (Note 1);

- (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(g) 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. Lists of relevant contact persons are shown in Appendix IV.
- (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) to alert AD/E&M as soon as possible if the case is determined as a serious incident by CE;

- (l) 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
- (m) to plan and implement long-term measures to improve the plant reliability.

Note : 1. There are 18 nos. of DSD facilities in ST1 approved to use unmanned aircraft system (UAS) by Civil Aviation Department listed in Appendix VI. In case of necessary, concerned plant staff can contact SEnI/ST1 for using UAS to facilitate the investigation and/or assessment.

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 Plant Manager/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 Plant Manager/CTO/SCE/Engineer/SE of the concerned Sewage Treatment 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 firsthand 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 enquiries 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.

**Sewage Treatment Facilities Operated and Maintained
by Drainage Services Department**

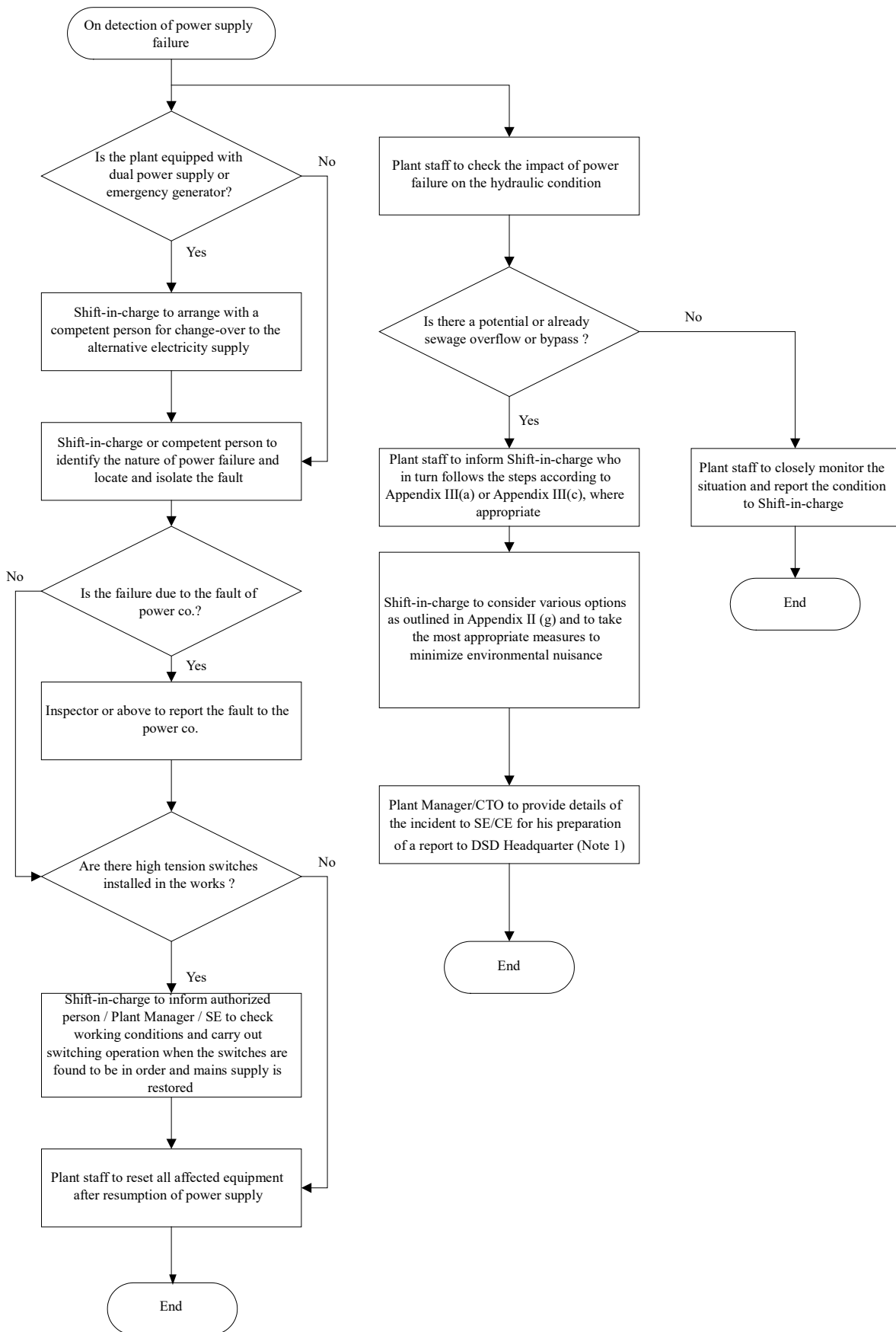
Sewage treatment facilities under **Sewage Treatment Division 1** can be found from the E&M Branch Portal as in the following URL:

<http://dsdp.dsd.hksarg/division/st1/PlantsInformation/Forms/AllItems.aspx>

Sewage treatment facilities under **Sewage Treatment Division 2** can be found from the E&M Branch Portal as in the following URL:

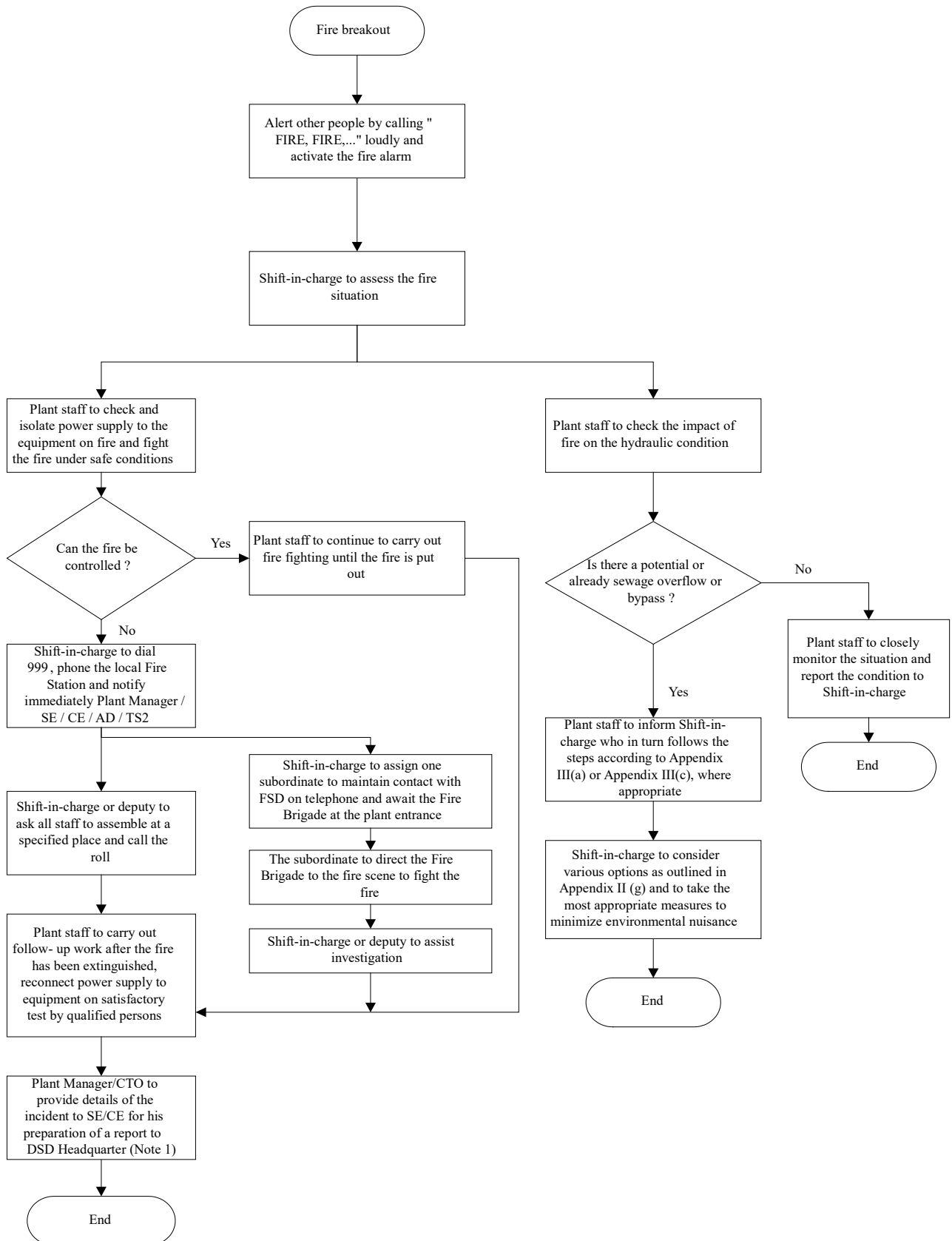
<http://dsdp.dsd.hksarg/division/st2/PlantInformation/Forms/AllItems.aspx>

Power Supply Failure



Note : (1) If the case is determined as a serious incident by CE, it shall alert AD/E&M as soon as possible.

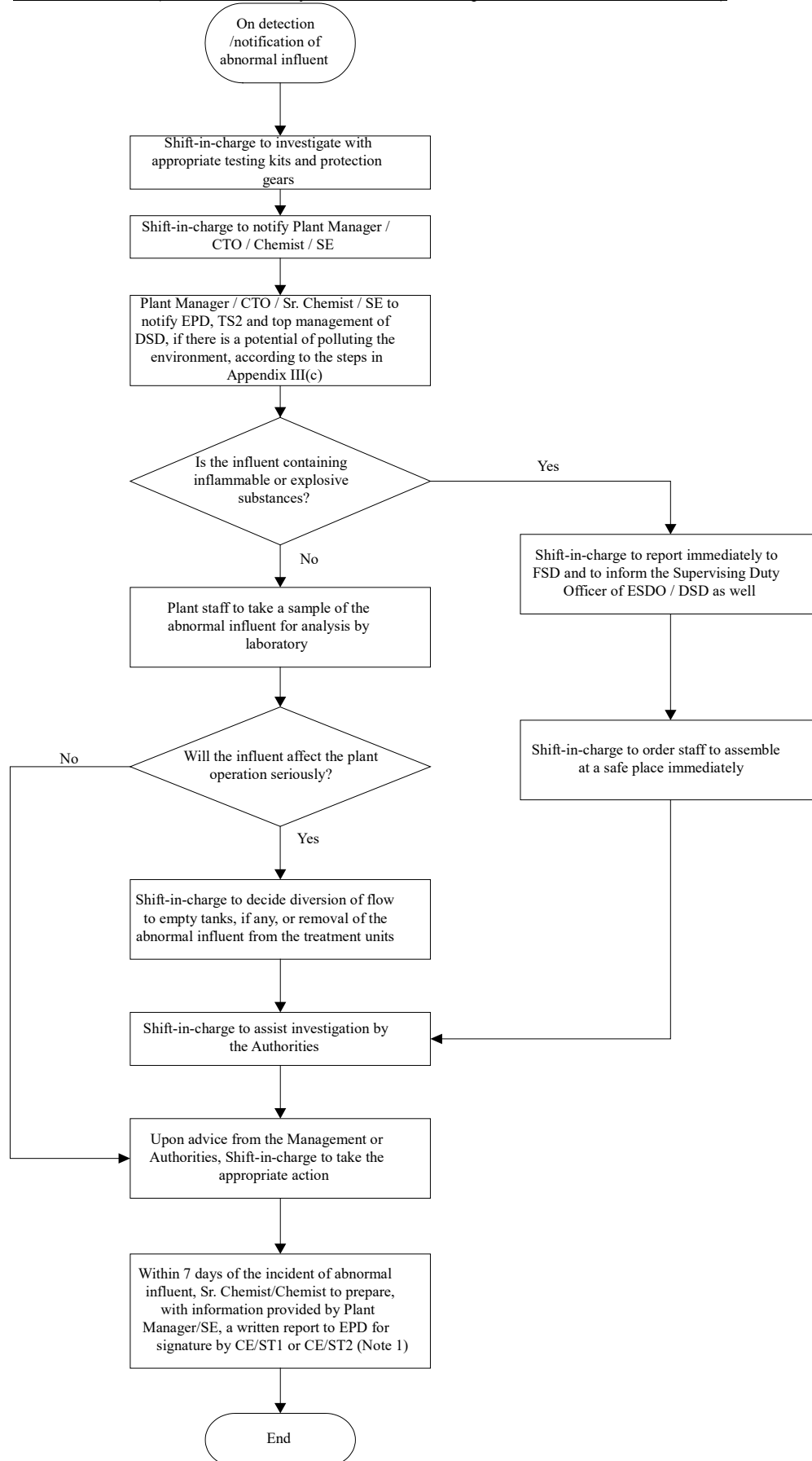
Contingency Plans for Incidents Possibly Encountered in Sewage Treatment Facilities
having a Potential of Generating an Environmental Nuisance
Fire Breakout



Note : (1) If the case is determined as a serious incident by CE, it shall alert AD/E&M as soon as possible.

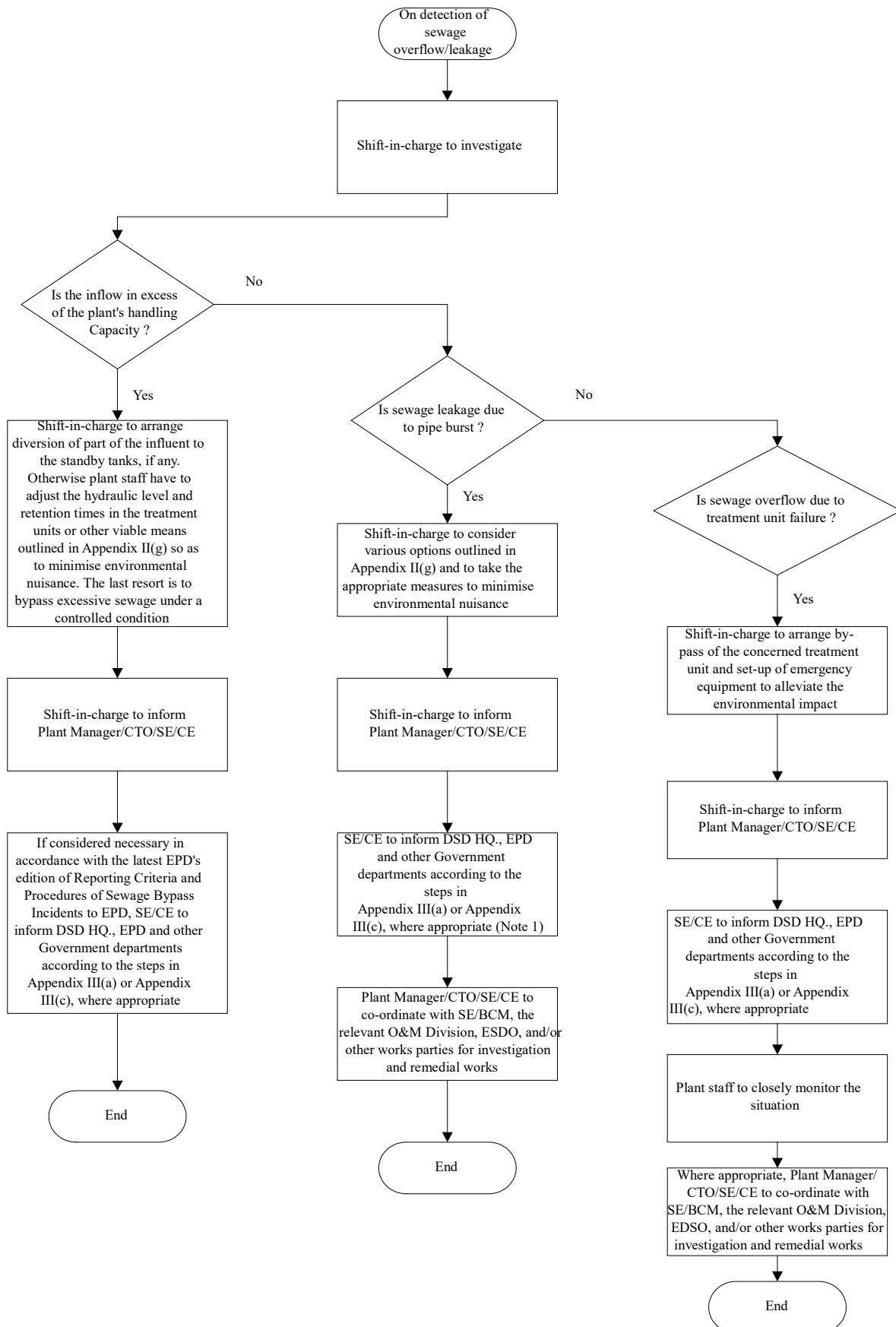
having a Potential of Generating an Environmental Nuisance

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



Note : (1) If the case is determined as a serious incident by CE, it shall alert AD/E&M as soon as possible.

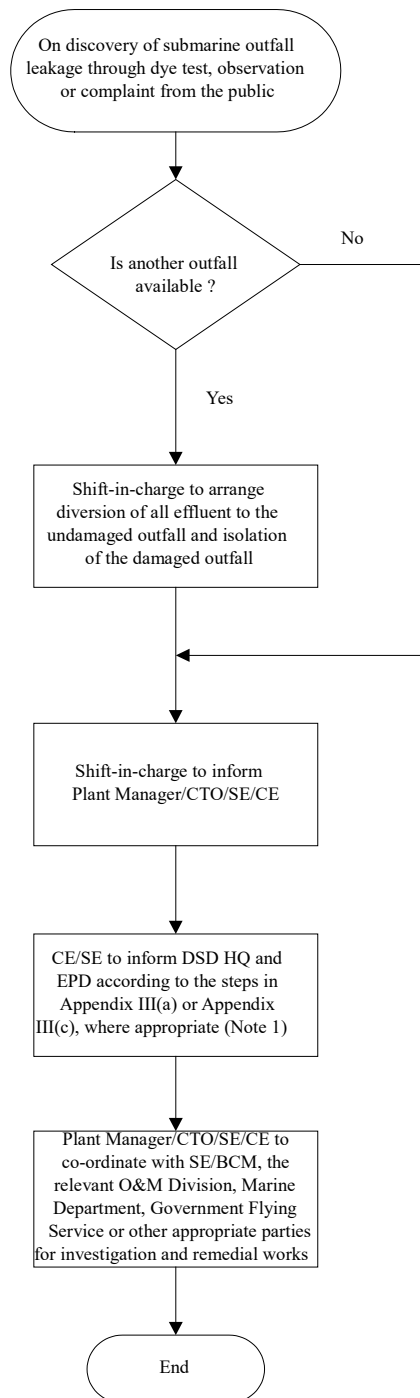
Sewage Overflow/Leakage/Bypass due to Excessive Inflow, Pipe Burst and Treatment Unit Failure



Note : (1) If the case is determined as a serious incident by CE, it shall alert AD/E&M as soon as possible.

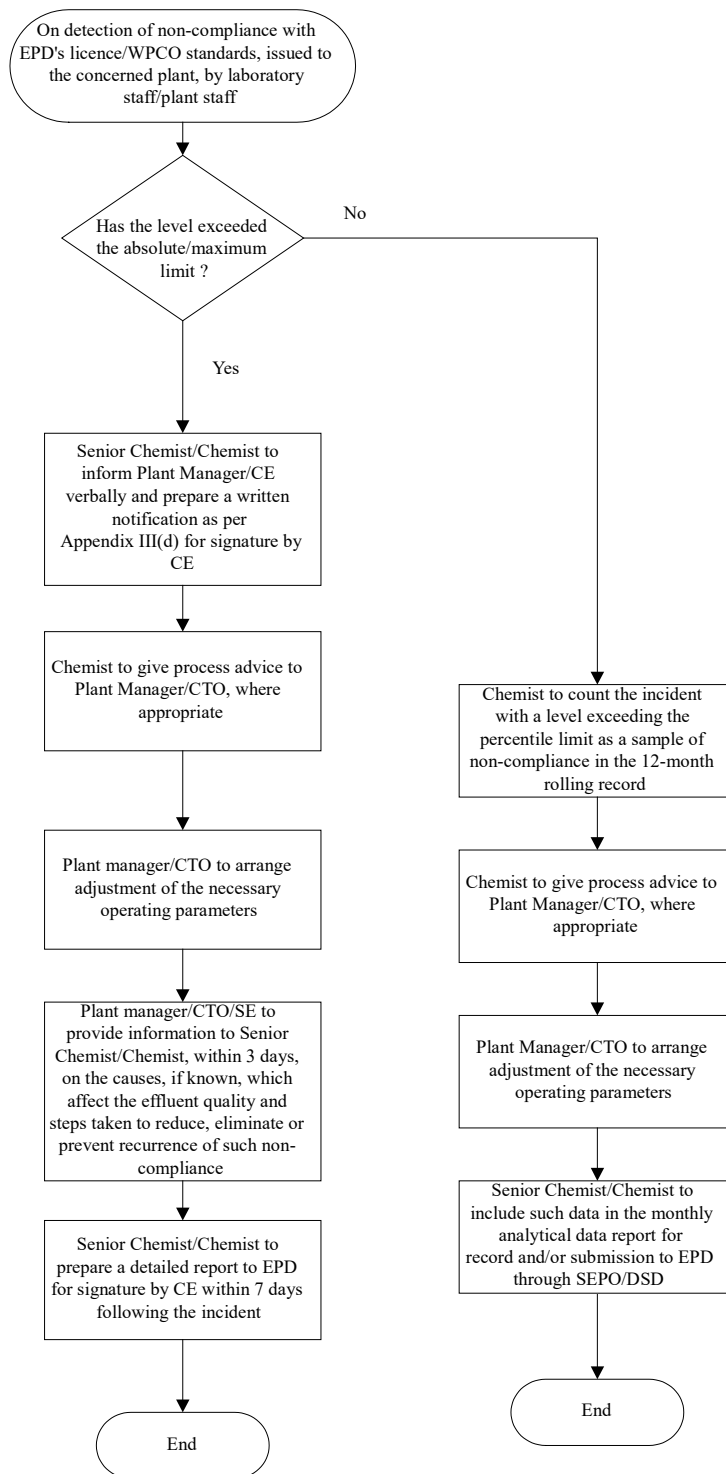
Contingency Plans for Incidents Possibly Encountered in Sewage Treatment Facilities
having a Potential of Generating an Environmental Nuisance
Leakage from Submarine Outfall

Appendix II(e)



Note : (1) If the case is determined as a serious incident by CE, it shall alert AD/E&M as soon as possible.

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

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

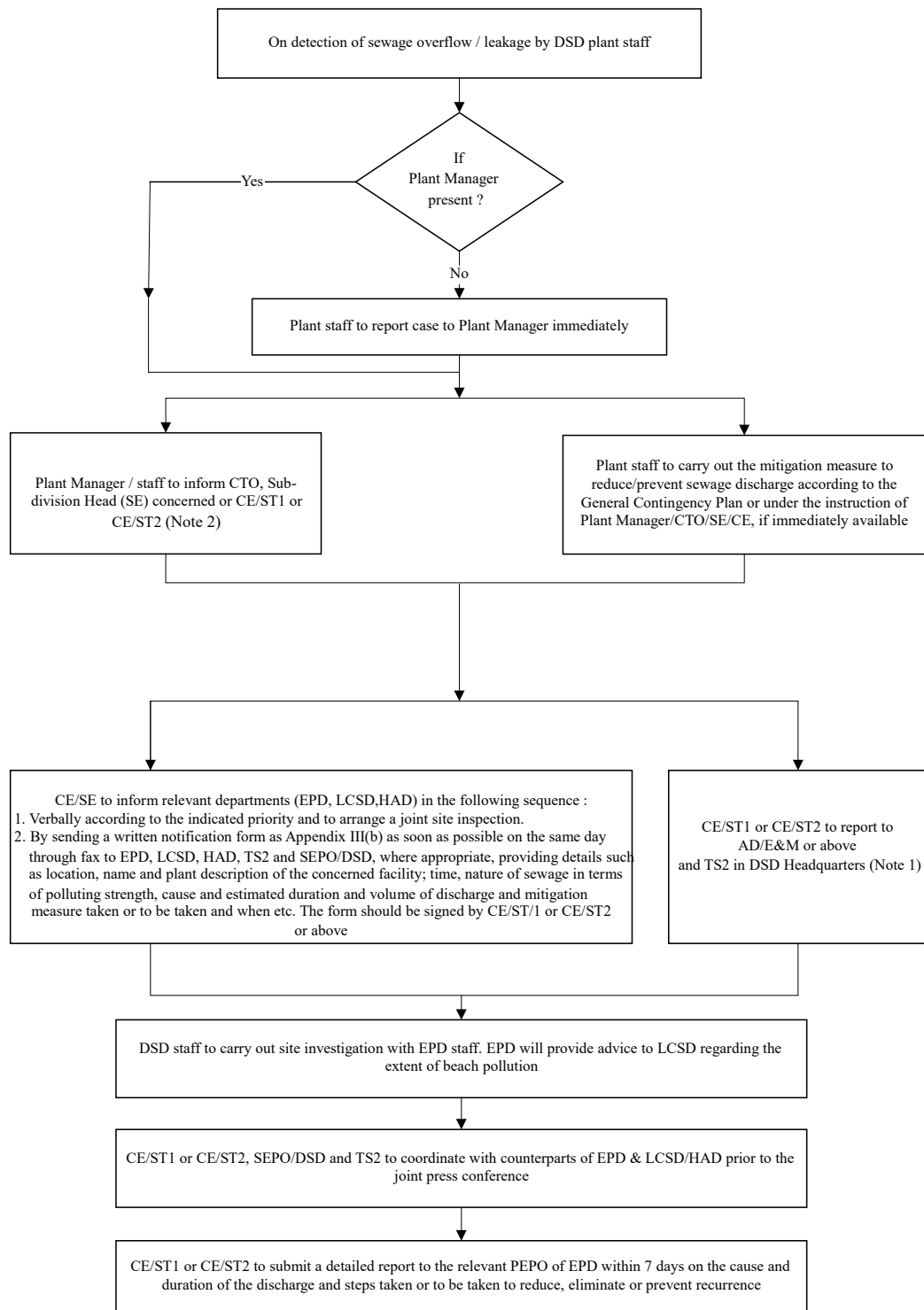
[I] Generally Applicable to Emergency/ Planned Sewage Bypass

	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:	<input type="checkbox"/>	<input type="checkbox"/>
ST Term Contractors	<input type="checkbox"/>	<input type="checkbox"/>
O&M Branch : -		
HK&I Division	<input type="checkbox"/>	<input type="checkbox"/>
MN Division	<input type="checkbox"/>	<input type="checkbox"/>
MS Division	<input type="checkbox"/>	<input type="checkbox"/>
• Check pumps, hoses and power supply required for tankers.	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No
(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"/>
• Arrange transportation and installation of emergency facilities.	<input type="checkbox"/>	<input type="checkbox"/>
(F) <u>Temporary Power Supply</u>		
• Identify the nature of power failure.	<input type="checkbox"/>	<input type="checkbox"/>
• Identify the required power rating to keep running of essential equipment.	<input type="checkbox"/>	<input type="checkbox"/>
• 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"/>
ST1/3	<input type="checkbox"/>	<input type="checkbox"/>
ST2/1/1	<input type="checkbox"/>	<input type="checkbox"/>
ST2/1/2	<input type="checkbox"/>	<input type="checkbox"/>
ST2/2	<input type="checkbox"/>	<input type="checkbox"/>
ST2/3	<input type="checkbox"/>	<input type="checkbox"/>
Power Supply Utilities	<input type="checkbox"/>	<input type="checkbox"/>
• Arrange transportation of emergency generators.	<input type="checkbox"/>	<input type="checkbox"/>
• Arrange delivery of connecting cables and accessories.	<input type="checkbox"/>	<input type="checkbox"/>

[II] Applicable to Planned Sewage Bypass

- | | Yes | No |
|---|--------------------------|--------------------------|
| (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 for Incidents with a Potential of Polluting Beach Water Quality

- Note : (1) If the case is determined as a serious incident by CE, it shall alert AD/E&M as soon as possible.
 (2) Plant staff shall take photo and/or video record of the incident and send it to SE/ CE for their onward submission to EPD upon requested.

**Drainage Services Department
Notification of Sewage Pollution Incident**

Section A.	Description
<p>1. Type of incident</p> <p><input type="checkbox"/> Breakdown of STW</p> <p><input type="checkbox"/> Breakdown of SPS</p> <p><input type="checkbox"/> Breakdown rising mains/trunk sewer</p> <p><input type="checkbox"/> Overflow (heavy rain)</p> <p><input type="checkbox"/> others <input style="width: 150px; height: 20px;" type="text"/></p>	<div style="border: 1px solid black; padding: 5px; min-height: 150px;"> Particulars: </div>
<p>2. When did it happen (Time/Date) : <input style="width: 500px; height: 25px;" type="text"/></p> <p>[State when DSD is informed of the bypass & the sequence of events if the bypass is detected by other parties.]</p>	
<p>3. Physical location of the pollution source and final discharge point :</p> <div style="border: 1px solid black; height: 80px; width: 100%;"></div>	
<p>4. Estimated distance from the final discharge point to the nearest gazetted beach (m) : _____</p>	
<p>5. Estimated volume of sewage already discharged (m³) : _____</p>	
<p>6. Estimated flow rate of sewage being discharged (m³/hr) : _____</p>	
<p>7. Mitigation measures already implemented or will be implemented:</p> <p>_____</p>	
<p>8. Anticipated time to resume normal operation (Date/Time) : _____ <u>00:00</u></p>	
<p>9. Other relevant information :</p> <div style="border: 1px solid black; height: 80px; width: 100%;"></div>	
Section B1.	Reporting Officer
<p>Name : _____ Post : _____</p> <p>Tel. No.: _____ Mobile/Pager : _____ Email : _____</p>	
Section B2.	Site Engineer/Contact Point
<p>Name : _____ Post : _____</p> <p>Tel. No.: _____ Mobile/Pager : _____ Email : _____</p>	

Drainage Services Department
Notification of Sewage Pollution Incident

Section C. Contact Points of Departments Concerned
(supplementary information to be provided as much as possible)

EPD

Name : _____ Post : _____

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

LCSD

Name : _____ Post : _____

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

WSD

Name : _____ Post : _____

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

AFCD

Name : _____ Post : _____

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

HAD

Name : _____ Post : _____

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

Bureau/Department : _____

Name : _____ Post : _____

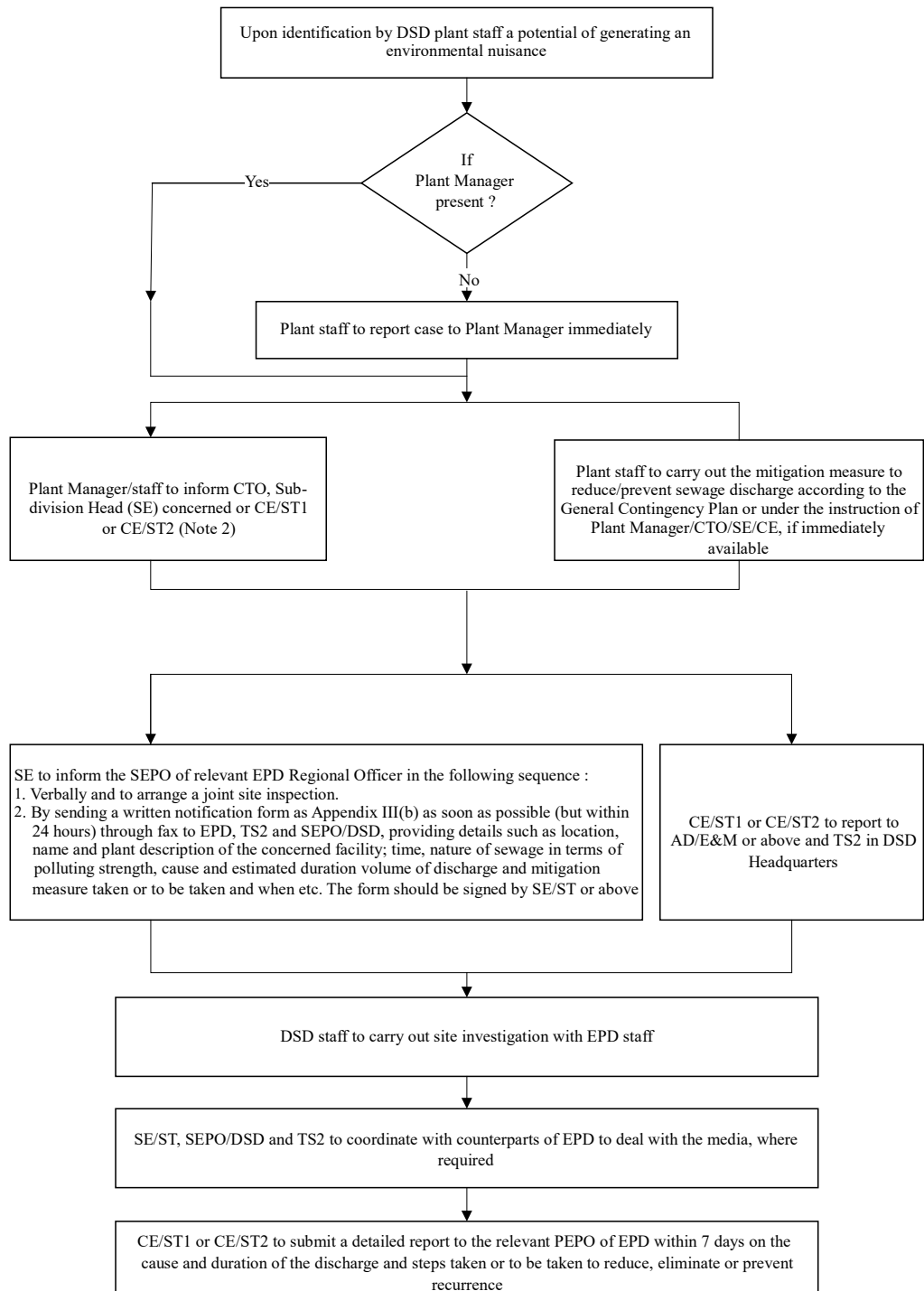
Tel. No.: _____ Mobile/Pager : _____ Email : _____

Bureau/Department : _____

Name : _____ Post : _____

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

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



- Note : (1) If the case is determined as a serious incident by CE, it shall alert AD/E&M as soon as possible.
 (2) Plant staff shall take photo and/or video record of the incident and send it to SE/ CE for their onward submission to EPD upon requested.

Emergency Telephone Directory

- (1) Environmental Protection Department (on Beach Pollution Incidents)
- (2) Drainage Services Department
- (3) Leisure and Cultural Services Department
- (4) Home Affairs Department
- (5) Other concerned Government Department
- (6) List of Contact Persons of EPD (Regional Office)
- (7) List of Contact Persons of DSD

Note:

- (1) to (5) Extract from Beach Pollution Response Plan

The emergency telephone directories for **(1) Environmental Protection Department (on beach pollution incidents), (2) Drainage Services Department, (3) Leisure and Cultural Services Department, (4) Home Affairs Department and (5) other concerned Government Department** are extracted from “Beach Pollution Response Plan” which can be found from the Environmental Unit Portal as in the following URL:

<http://dsdp.dsd.hksarg/sites/eu/BPRP/Forms/AllItems.aspx>

(6) List of Contact Persons of EPD (Regional Office)

The corresponding contact persons of EPD (Regional office) of various regions can be found from the plant-specific contingency plans.

(7) List of Contact Persons of DSD

The corresponding contact persons of DSD of various regions can be found from the plant-specific contingency plans.

(a) List of Emergency Equipment in Dealing with Sewage Discharge Incidents Available at Sewage Treatment Facilities

The list of emergency equipment in dealing with sewage discharge incidents available at sewage treatment facilities can be found from the plant-specific contingency plans.

(b) Contact Telephones for ST Divisions' Term Contractors for Tankers & Temporary Power Supply Equipment

The contact telephones for ST Divisions' term contractors for tankers & temporary power supply equipment can be found from the plant-specific contingency plans.

List of Approved DSD Facilities in ST1 for Using Unmanned Aircraft System

No.	DSD Facilities in ST1
1.	Tai Po Sewage Treatment Works
2.	Tai Po Market Stormwater Pumping Station
3.	Tai Wo Road Sewage Pumping Station
4.	Ting Kok Road Sewage Pumping Station No. 5
5.	Ting Kok Road Sewage Pumping Station No. 7
6.	Ting Kok Road Sewage Pumping Station No. 8
7.	Sai Kung Sewage Treatment Works
8.	Sai Kung Sewage Treatment Works Outfall
9.	Sai Kung Sewage Treatment Works (Hong Kin Road)
10.	Shatin Sewage Treatment Works
11.	Shatin Sewage Treatment Works (Outfall)
12.	Sham Tseng Sewage Treatment Works
13.	Sham Tseng Sewage Treatment Works (Outfall)
14.	Sham Tseng Sewage Treatment Works (Castle Peak Road Sham Tseng)
15.	Yuen Long Sewage Treatment Works
16.	Shek Wu Hui Sewage Treatment Works
17.	Upper River Indus Inflatable Dam
18.	Sha Tau Kok Treatment Works

Notes :

1. Approved period : 1 June 2020 to 31 May 2021 (Annual renew is required.)
2. Operating Time : 08:00 to 18:00 hours