MOTT MACDONALD

AECOM Asia Co. Ltd.
12/F, Grand Central Plaza, Tower 2
138 Shatin Rural Committee Road
Shatin, Hong Kong

Attn: Mr. Simon H.M. YEUNG – CRE(C)

Your Reference

Our Reference
AFK/EC/TC/BW/bw/
T601100019/02/02/L031

Mott MacDonald
3/F Manulife Tower
348 Kwun Tong Road
Kwun Tong
Kowloon
Hong Kong

T +852 2828 5757
F +852 2827 1823
mottmac.hk

Contract No. SPW 03/2022

Independent Environmental Checker for Construction of Yuen Long Effluent Polishing Plant Stage 1 (2022-2023)

Environmental Permit No. EP-565/2019

EP Condition 2.9 – Construction Phase Emergency Response Plan (Rev 0) for Contract No. DC/2019/10

19 May 2023
By Hand and Email

Dear Sir,

I refer to the captioned "Construction Phase Emergency Response Plan" (Rev 0) for Contract No. DC/2019/10 "Construction of Yuen Long Effluent Polishing Plant – Main Works for Stage 1" (document no.: PYCRJV/ERP/001) which was prepared by the Contractor, received via e-mail on 19 May 2023 and certified by the Environmental Team Leader on 19 May 2023 (ref. no.: MCL/ED/0216/2023/C).

I have no comment on the captioned submission and hereby verify that this submission complies with the relevant requirements set out in Condition 2.9 of Environmental Permit No. EP-565/2019.

Should you have any queries regarding the captioned or require any further information, please contact the undersigned at 2828 5875.

Yours faithfully
for MOTT MACDONALD HONG KONG LIMITED

Brandon WONG
Independent Environmental Checker
T +852 2828 5875
Brandon.Wong@mottmac.com

c.c.	DSD	Mr. Wallace CHENG – E/SP 16	By Email
	Fugro Technical Services Limited	Mr. YU Lap Bong – ETL	By Email
	Paul Y.-CREC Joint Venture	Mr. Wilson TAM – Project Manager	By Email

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Date 19 May 2023
Our Ref. MCL/ED/0216/2023/C

Paul Y.-CREC Joint Venture,
11/F, Paul Y. Centre,
51 Hung To Road,
Kwun Tong, Kowloon,
Hong Kong

BY E-MAIL

Attn: Mr. Wilson TAM

Dear Sir,

Contract No. SPW 07/2020
Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Environmental Permits: EP-565/2019
Contract No. DC/2019/10 - Certification of Construction Phase Emergency Response Plan

We refer to your Construction Phase Emergency Response Plan (Rev.0) submitted on 19 May 2023 for the captioned project and are pleased to certify the captioned submission pursuant to Environmental Permit No. EP-565/2019 Condition 2.9.

Thank you for your attention. Should there be any queries, please contact Mr. Cyrus LAI on 3565-4442 or the undersigned on 3565-4373.

Yours faithfully,
for and on behalf of
FUGRO TECHNICAL SERVICES LIMITED

Alvin L.B. YU
Environmental Team Leader

c.c.	DSD	Engineer	Attn: Mr. Wallace CHENG (by E-mail)
	AECOM	ER	Attn: Mr. Simon YEUNG (by E-mail)
	Mott MacDonald HK Limited	IEC	Attn: Mr. Brandon WONG (by E-mail)

Encl.

Document Title: Construction Phase Emergency Response Plan

Responses to Comments from EPD dated 19 May 2023

Item No.	Comment	Response
•	Appendix A: The telephone no. for EPD is incorrect. Please update the contact by Regional (North) Office of EPD.	Noted and updated Appendix A accordingly.

香港特別行政區政府
渠務署

Drainage Services Department
The Government of the Hong Kong Special Administrative Region

CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN

Document No. PYCRJV/ERP/001

(Pursuant to the Environmental Permit - No. EP-565/2019)

0	19/05/2023	Initial ISSUE	Diana Lee	MH Isa	Wilson Tam
Rev	**Date**	**Status**	**Prepared By** Environmental Officer	**Reviewed By** Environmental Specialist	**Approved By** Project Manager

CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0

LIST OF CONTENTS

APPENDICES

CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0

1.0 Purpose of the Plan

The purpose of this Construction Phase Emergency Response Plan (ERP) is to minimize the chance of sewage overflow throughout the entire construction period in accordance with the Condition 2.9 of the Environmental Permit No. EP-565/2019 dated 26/04/2019.

1.1 In the event of Yuen Long Sewage Treatment Works (YLSTW) overflow incident which may cause potential adverse water quality impacts to sensitive sites including fish farm and oyster cultural near Deep Bay, it is necessary for the YLSTW to coordinate immediate actions to tackle the pollution problem, to make a quick decision on the mitigation measures.

1.2 The purpose of the ERP is to set out the required emergency responses and actions to be followed during the construction period, the ERP is intended to focus on pollution incidents arising from the site and the sewage discharges which might require immediate response.

As noted in the EIA Report (Final) dated February 2019 section 2.5. While all the proposed upgrading works will be taking place within Yuen Long Sewage Treatment Works (YLSTW) boundary, one of the challenging tasks for upgrading YLSTW to Yuen Long Effluent Polishing Plant (YLEPP) is to maintain the operation of existing YLSTW during construction period. The treatment capacity of existing YLSTW is 70,000 m3/day, containing eight equal sets of sewage treatment streams. During Phase 1 works, half of these treatment streams will be decommissioned and demolished. The remaining treatment capacity will then be significantly reduced during the construction period of Phase 1 works.

To deal with the above concerns, there is a provision to divert part of the sewage flow from YLSTW's catchment to San Wai Sewage Treatment Works via Ping Shun Street Sewage Pumping Station in order to relief the pressure during the construction of YLEPP Phase 1 works. With such a provision EIA Report estimated 35,000m3/d will be treated at YLSTW while the construction is going on. On the other hand, a stress test previously conducted in the existing YLSTW has revealed that half of the treatment streams could handle an ADWF in the range from 36,000m3/d to 38,000m3/d with a design peaking factor of 3.0 to cater for wet weather conditions, which should be adequate to cater for the projected flow up to Year 2026. Furthermore, temporary treatment units could be provided in YLSTW, if necessary, to ensure proper treatment for excessive sewage flow in the construction phase. An Emergency Response Plan will also be formulated to minimize the chance of sewage overflow before commencement of the construction works.

1.3 The present ERP will cover the following elements:

(a) the types of incidents requiring emergency response;
(b) the roles and responsibilities of the concerned departments;
(c) the reporting and communication arrangements.

2.0 Sewage Pollution Incidents Requiring Emergency Response

2.1 There are occasions in which a sudden release of large quantity of untreated or partially treated sewage may occur in the catchment area of sensitive sites, such as fish farms or oyster cultural areas, due to breakdown of sewage pumping and treatment facilities as mentioned above causing overflow of sewage. Depending on the circumstance, the released sewage may

CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0

cause adverse impact to the water quality and in some cases serious pollution of nearby sensitive areas, requiring immediate attention by the government. Scenario requiring emergency response is stated in Section 2.3.1.

2.2 The location plan referred in **Appendix C** indicated the locations of the water sensitive receiver that may be affected by the extent of the potential impact of a pollution incident and appropriate emergency measures (such as the use of standby pumps, sandbags and diversion of sewage) can be put in place and can be implemented quickly in the event of an incident to contain sewage discharge.

2.3 Emergency Discharge

2.3.1 Emergency Discharge within YLSTW

Out of the 8nos. of primary sedimentation tanks (PST) to be demolished, it is noted from the YLSTW that 3 nos. of PST are sufficient to handle the sewage in the YLSTW. Therefore, the sewage from the remaining 5 nos. of tanks will be diverted to the 3nos. of PST prior to the demolition of the first 2 nos. of PST.

The following scenario leading to sewage build up and their emergency response have been described below in this ERP.

(a) Underground sewerage pipe burst due to excavation works.
There are 3 nos. of PST which can be in operation. Presently 2 nos. of the PST are in continuous service. Sewage from the burst pipe will be pumped to the temporary settling tank then divert to the PST not in service and finally to the PST in operation. The sludge will therefore be treated by the YLSTW prior to dispose of.

Depending on the severity, the contractor's emergency team (refer **Appendix A**) will inform the Plant Manager and will escalate the information to relevant authorities.

For mitigation measures refer to **Section 5.0**.

2.3.2 Emergency Discharge to Shan Pui River

For the scenarios leading to shutdown of the YLSTW and unavoidable discharge of untreated sewage to Shan Pui River, examples caused by construction accidents includes: -

(a) Power failure of major plant equipment due to broken electricity pipeline/ signal cables;
(b) Fire outbreak causing; and
(c) Other accidental damages caused by construction works resulting in malfunction of major plant equipment.

Some other conditions that are vulnerable to discharging untreated sewage to Shan Pui River are outlined in Appendix D "Contingency Plan in Sewage Treatment Facilities having Potential of Generating an Environmental Nuisance" section 4.1.

For mitigation measures refer to **Section 5.0**.

3.0 The Roles of the Responsible Departments

CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0

3.1 The contractor's emergency team (refer Appendix A) will inform the *Project Manager's Supervisor,* the Senior Resident Engineer (SRE) and the Plant Manager and depending of the severity of the incident, will escalate the information to relevant authorities, and carry out the mitigation measures as detailed in Section 5 where appropriate.

3.2 In accordance with DSDTC No. 2/2014. DSD Headquarters (DSDHQ) will be informed by DSD for incidents involving sewage facilities operated by DSD with a potential of generating a significant environmental nuisance due to:

(i) Power failure;
(ii) Fire;
(iii) Abnormal influents;
(iv) Sewage overflow/leakage/by-pass;
(v) Leakage from submarine outfall; or
(vi) Non-compliance with the Environmental Protection Department's discharge standards.

Details on remedial measures/contingency plan for the above scenario had been issued by DSD and referred in **Appendix D**.

DSDHQ must be informed as promptly as possible in order that the Department is able to:
(a) Take appropriate action(s) to deal with the incident;
(b) Monitor closely the development of the incident;
(c) Mobilise departmental resources and those of others, if necessary, to deal with the situation in order to avoid it being developed into a crisis;
(d) Alert and liaise with DEVB and other concerned bureau, departments or organisations so as to take appropriate follow up actions;
(e) Work with the Secretariat Press Office (SPO) of DEVB (and SPO of ENB also) to deal with media and public enquiries; and
(f) Brief senior government officials of the situation.

3.3 It is important for each of the concerned departments to establish guidelines and operational procedures covering the actions to be taken in discharging their respective responsibilities. Together, the departmental operational procedures will constitute a system of coordinated government actions.

For emergency response the following incident reporting proforma as indicated in the abovementioned DSD Technical Circular will be used by DSD.

CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0

Appendix IV

Proforma for Reporting Emergency Incidents which ARE related to Sewerage Matters

CONFIDENTIAL
Environment Bureau
Category 1/2* Emergency Incident / Crisis* Report
(title of incident)

From:	/ (Name) (Designation)	To:	DDEP(1), SPO(EN), ENB
Tel:	/ / (Office)(Mobile)(Home)	Fax No. or Lotus Notes Address:	2832 9400, 2836 0600 &EPD/DDEP[1] &EPD/PIO
Date:	Time:	Priority:	Very High/High/Medium*
Ref:	DSD CRC 1/90/801/5	Sensitivity:	Very High/High/Medium*

(A) Technical Assessment

1. **The Incident (Crisis/ Potential crisis*)**
   (Please include date, time, location with district, cause.)

2. **Nature and Magnitude of Incident (Crisis/ Potential crisis*)**

3. **Characteristics or Consequential Implications**
   (Please include the following:
   (i) media interest,
   (ii) public concern & political sensitivity,
   (iii) traffic impact,
   (iv) effect on members of the public/public facilities and
   (v) fatality.)

4. **Actions Being Taken**
   (Please include the following:
   (i) whether ETCC has been consulted before commencement of works; and
   (ii) those actions by ETCC, as appropriate.)

5. **Expected Completion Time**
   (Please include the time for resumption of traffic flow.)

CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0

(B) PR Impact Assessment

6. **Reasons of Sensitivity**[Note 1]
Yes/No/To be assessed*

7. **Potential Implications and Proposed Actions**

8. **Suggested Line-to-take in Chinese** *(to be prepared in collaboration with TS2, if required)*

(C) Subject Officer of this Incident
Name:
Title:
Contact No.: (Office)
(Mobile)
(Home)

( )
Deputy Director of Drainage Services

c.c.:

	Fax No.
PSW	2523 5327
DS(W)1	2536 9732
DS(W)2	2536 9299
PAS(W)1	2801 5034
AA/SDEV	2147 3691
Press Secretary (DEV)	2147 3691
SPO(DEV)	2537 9672
AS(WP)4	2524 9308

Internal:
D of DS
AD/
CE/
TS2

* Please delete as appropriate.

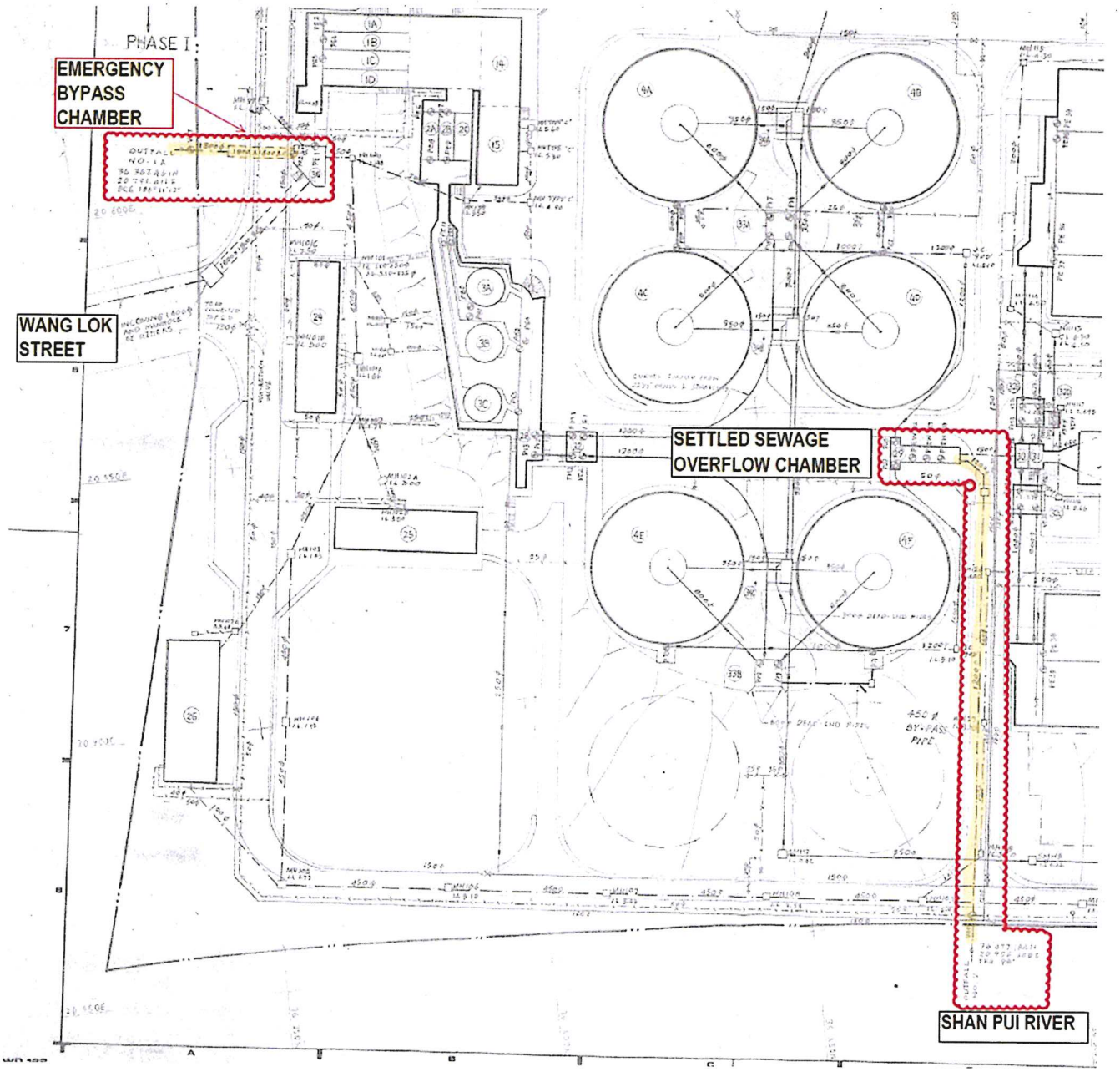
[Note 1] These may include but not limited to the followings: (i) media interest, (ii) public concern & political sensitivity, (iii) traffic impact, (iv) effect on members of the public/public facilities, and (v) fatality.

DSDTC No. 2/2014 Appendix IV Page 4 of 4

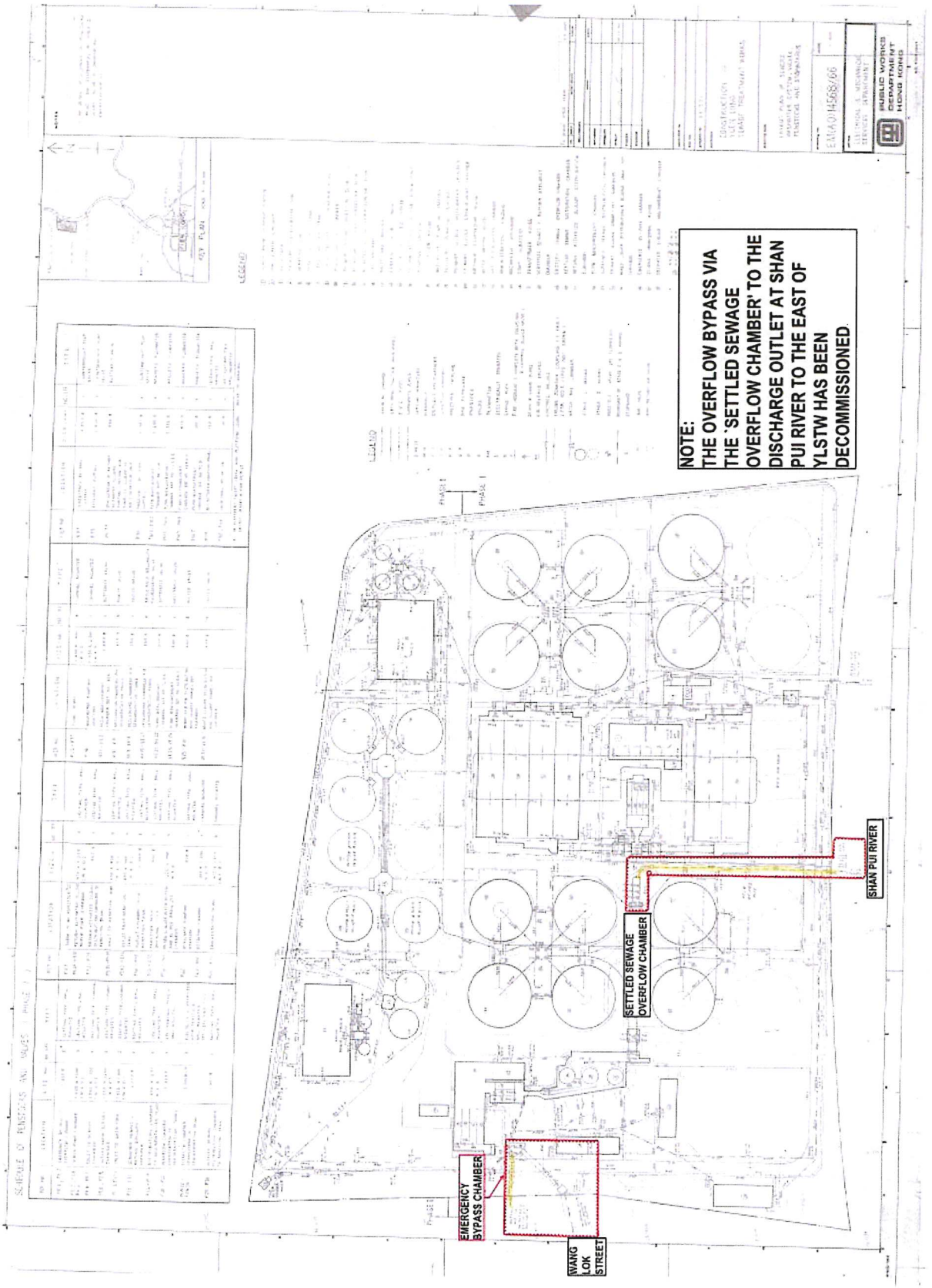
CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0

4.0 Mechanism to Monitor the Sewage Flow Build-up of the Existing Yuen Long Sewage Treatment Works

At YLSTW initially there were two (2) emergency bypass. One is at the inlet chamber of the pumping station to allow bypass of sewage direct into the watercourses under emergency conditions to avoid flooding in the upstream areas. The other bypass pipeline is from the settled sewage overflow chamber to Shan Pui River which is isolated and no long in use. Therefore, as of now there is only one emergency bypass, i.e. at the inlet chamber of the pumping station which is the discharge point under emergency conditions (refer to the part plan shown below and the layout plan on the next page).



CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0



CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0

Though the operation of a sewage pumping station does not require licence issue by EPD, however, 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.

Sewage flow to the existing Yuen Long Sewage Treatment Works will be monitored by a flowmeter after the pre-treatment system. Flow signal will be received in SCADA system for monitoring and alerting purpose. Operation configuration of the existing Yuen Long Sewage Treatment Works during construction stage are on the basis of 3 duties and 1 standby for Primary Sedimentation Tanks, Aeration Tanks and Final Sedimentation Tanks (Duty capacity = 35,000 m3/d and spare capacity = 11,660m3/d).

Based on the above, a monitoring mechanism for the sewage inflow and relevant emergency action plans is developed as detailed below: -

	Mechanism to monitor the sewage flow build-up
Mechanism to monitor the sewage flow	• A temporary flowmeter chamber will be constructed after the existing detritor and signal of flow rate will be sent to the temporary SCADA control system for real time / online monitoring. Also, some alarms of high inflow (> 35,000 m3/d and > 46,660m3/d, to be agreed and set) will be included at the SCADA system design to remind/notify the operator to take relevant necessary procedures.
Emergency Procedures for flow higher than 35,000 m3/D	• The plant operator will report to the Plant Manager and the *Project Manager's Supervisor* for the decision of operating the spare Primary Sedimentation Tanks, Aeration Tanks and Final Sedimentation Tanks as contingency treatment trains including the sludge treatment system to deal with the continuous high flow condition.
Emergency Procedures for flow higher than 46,600 m3/D	• Plant flow could be monitored by the flowmeter after the pre-treatment works and a high flow alarm will be set in the SCADA system to warn/remind the plant operator to promptly response/report when plant high flow was reached. • When a plant high flow alarm was received, operator will report to the *Plant Manager* and the *Project Manager's Supervisor* for the decision of operating the existing plant bypass system. The reporting system and operation procedures for the existing plant bypass will be followed.

Furthermore, refer to Appendix D attachment section 4.1 (f), 4.2 and 6.1.2 for impact monitoring procedures and reporting system.

5.0 Event and Action Plan with Mitigation Measures

Event and action plan with mitigation measures are shown below.

CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0

Event	Mitigation Measures and Monitoring Requirements
Emergency Discharge within YLSTW during construction	• To prevent wastewater overflow into the river and polluting the outlet of the YLSTW, adequate sandbags and water pumps will be standby for use in case of large amount of water from the construction works flows towards the outlet of the YLSTW. All wastewater on site will be treated via the proprietary water treatment plant prior to exit to the discharge point in accordance with the discharge licence requirements under the Water Pollution Control Ordinance (WPCO). Any slurry produced from the water treatment process will be pumped into tanker and disposed to Tseung Kwan O 137 • There are 3 nos. of PST which can be in operation. Presently 2 nos. of the PST are in continuous service. When temporary sewage diversion works are being carried out and resuming to the existing sewage flow is to be delayed, sewage from the temporary sewage diversion works will be pumped to the temporary settling tank then divert to the PST not in service and finally to the PST in operation. The sludge will therefore be treated by the YLSTW prior to dispose of. • Sewage from the burst pipe will be pumped to the temporary settling tank then divert to one of the PST not in use and finally to the 3 nos. of PST in operation. The sludge will therefore be treated by the YLSTW prior to dispose of. • Site Superintendent / Foremen inform Contractor's emergency team • Contractor's emergency team to inform Plant Manager and the *Project Manager's Supervisor* for the Project • Depending on the flow higher than 35,000m3/D or 46,600m3/D, report to the Plant Manager/ P*roject Manager's Supervisor* who will decide whether to operate the spare Primary Sedimentation Tanks, Aeration Tanks and Final Sedimentation Tanks as contingency treatment trains including the sludge treatment system to deal with the continuous high flow condition or the plant bypass system
	• Plant Manager (DSD) to inform DSD Headquarters to take appropriate action(s)
Emergency Discharge to Shan Pui River directly during construction	• Inform Contractor's emergency team • Contractor's emergency team to inform Plant Manager and the *Project Manager's Supervisor* for the Project • The Plant Manager (DSD) who will subsequently escalate to higher level of management. (The Contingency Plan Flowchart as presented in Appendix III(A) and Appendix III(c) to the Appendix D of this Plan will be followed by DSD • ET to notify the IEC within one working day of the occurrence of emergency discharge event • EC to notify the Director of Environmental Protection by fax or email, within one working day of receipt of notification from ET, or identification by the IEC and his team, of each emergency discharge event

- END -

Appendix A

Emergency Contact List

CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0

Emergency Team Contact Number
緊急聯絡電話

職位 Project Position	姓名 Name	電話號碼 Contact Tel.
緊急應變統籌 (項目經理) Project Manager	Mr. Wilson Tam (談永新)	5512 9958
緊急應變副統籌 (建經理) Construction Manager	Mr. Dan Tang (鄧子傑)	9280 0731
緊急應變副統籌 (地盤代表) Site Agent	Mr. Matthew Kwong (鄺文灝)	9382 7099
緊急應變副統籌 (地盤副代表) Deputy Site Agent	Mr. Kenneth Lau	6239 2589
高級組長 (地盤總管) Superintendent	Mr. Chan Kwok Hung (陳國雄)	5570 1482
組長 (高級管工及安全督導員) Senior Foreman	Mr. Leung Kam Keung (梁錦強)	4634 2617
組長 (安全經理) Safety Manager	Mr. Chan Cheuk Bong(陳卓邦)	6263 0560
組長 (安全主任) Safety Officer	Mr. Tam Pak Hong (譚栢康)	5269 5723
組長 First Aider (YLSTW)	Mr. Chow Man Hing (周文興)	5514 0634
(組長環境經理) Environmental Manager	Mr. MH Isa	6263 0455
組長(環境主任) Environmental Officer	Ms. Diana Lee (李秀旋)	5490 5271
電工 Electrician	Mr. Wong Kin Chuen (黃建全)	9063 7408
分判安全代表 (ATAL) Subcontractor Safety Representative	Mr. Gary Lee (李家煒)	6435 7829
分判安全代表 (DrilTech) Subcontractor Safety Representative	Mr. Y Wong (王延)	9655 8429
分判安全代表 (Skyrise) Subcontractor Safety Representative	Mr. CM Sung (宋志明)	9070 5718
分判安全代表 (Lap Kai) Subcontractor Safety Representative	Mr. Tai Huai-ting (戴懷庭)	5622 9622
分判安全代表 (Bestfit) Subcontractor Safety Representative	Mr. So Kam Po (蘇金保)	6907 3127
分判安全代表 (Hin Sum) Subcontractor Safety Representative	Mr. Lee Wai So(李渭蘇)	5290 0198
分判安全代表 (Chun Ki) Subcontractor Safety Representative	Ms. Wei Yongchun (韋永春)	5111 4159
分判安全代表 (Chong Yip) Subcontractor Safety Representative	Mr. Law Yiu Chun (羅耀忠)	9482 9069
分判安全代表 (Easy Telemax) Subcontractor Safety Representative	Mr. Chen Liang (陳亮)	6213 4086
分判安全代表 (Action Top) Subcontractor Safety Representative	Mr. TY Cheung (張道源)	9138 1996
分判安全代表 (Lee Fat) Subcontractor Safety Representative	Mr. KF Chan (陳國輝)	9080 3546
分判安全代表 (Boesan) Subcontractor Safety Representative	Mr. Wayne Chan (陳震邦)	9492 1891
分判安全代表 (Right Lead) Subcontractor Safety Representative	Mr. Chan Chi Wai (陳志偉)	9346 6011
分判安全代表 (Gold Ram) Subcontractor Safety Representative	Mr. Lam Hong Loi (林康來)	9346 6011

Government Department and Public Utilities
政府部門和公用事業

政府部門和公用事業 Government Department	電話號碼 Contact Number
Ambulance Service 救護車	2474 6845
Fire Services Department Fire Services (Yuen Long Fire Station) 元朗消防局	2723 2233 2474 6732
Pok Oi Hospital 博愛醫院詢問處	2486 8000
Labour Department – General Enquiry	2717 1771
Police Yuen Long Police Station	999 3661 4700
Agriculture, Fisheries & Conservation Department	2708 8885
Environmental Protection Department	2158 5757
Food / Environmental Hygiene Department	2868 0000
Hong Kong Observatory Local Forecast Typhoon Signal Enquiries	1878 2000 2835 1473
Water Supplies Department	2824 5000
Town Gas	2880 6999
China Light & Power	2728 8333

Appendix B

List of Bodies to be Informed for Emergency Incidents

CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0

Contract No. DC/2019/10
Yuen Long Effluent Polishing Plant – Main Works for Stage 1
List of Stakeholders

Organization	Contact Person	Tel No.	Remarks
Ping Shan Rural Committee (2019-2023) 主席：鄧志強 第一副主席：林權 第二副主席：鄧同發	辦事處總務張先生(email: pingshanheung@outlook.com)	2477 3886	**Current Term of Office: (2019-2023)**
	主席高級助理鄧偉健先生	3619 6486	
	助理黃宇婷女士	2477 3886	
Shap Pak Heung Rural Committee (2019 - 2023) 主席: 程振明 第一副主席:林照權 第二副主席: 梁智峯	職員羅小姐或其他辦事處員工)	2476 2264 / 2470 7600	**Current Term of Office: (2019-2024)**
Secretariat for Yuen Long District Council - Environmental Improvement Committee (YLDC - EIC) **Remark: It seems EIC has been renamed as Environment, Climate Change, Agriculture and Fisheries Committee in 2020**	Miss WONG Cheuk Ying, Cherry (EO I (Dist Council))	2475 3808	**Current Term of Office: 1 January 2020 to 31 December 2023 (4 years)**
	Ms. KWOK Yuk Yin, Eliza (CO / District Council)	2475 3831	
Home Affairs Department (Yuen Long District Office)	Mr. WU Tin Yau, Gordon, JP (Dist Offr (Yuen Long))	2470 1110	N/A
	Mr. CHAN Park Sun, Sunny (Asst Dist Offr (Yuen Long)1)	2470 1111	
	Mr. CHAN Chun Kit, Luke (Asst Dist Offr (Yuen Long)2)	3586 3715	
Drainage Services Department (Sewerage Projects Division)	Mr. CHOI Wing Hing (Asst Dir/Projects & Dev)	2594 7005	N/A
	Mr. YIP Tat Ming, Ben (Ch Engr/Sewerage Projects)	2594 7500	
	Mr. LAU Wai Kit Ricky (Sr Engr/Sewerage Projects 2)	2594 7502	
	Mr. Kelvin CHENG (Engr/Sewerage Projects 1)	2594 7456	
	Mr. Wallace CHENG (Engr/Sewerage Projects 16)	2594 7473	
	Ms. CHAN Wan Yan, Victoria (Engr/Sewerage Projects 24)	2594 7364	
Drainage Services Department (Electrical & Mechanical Projects)	Mr. Kenny HUI (Sr. Engr/P1(Electrical & Mechanical Projects Group 1))	2594 7243	N/A
	Miss CHEUNG Pik Sin (Engr/P1/5(Electrical & Mechanical Projects Group 1))	2594 7311	
	Mr. LEUNG Ka Chun Engr/P1/2 (Electrical & Mechanical Projects Group 1)	2594 7306	
	Mr. LEUNG Tsz Chiu Engr/P1/4(Electrical & Mechanical Projects Group 1)	2594 7149	
Drainage Services Department (Sewage Treatment Division 1/3)	Mr. SHUM Ching Nam (Sr Electrical & Mechanical Engr/Sewage Treatment 1/3)	2891 6195	N/A
	Mr. KWAN Yiu Keung Dennis	2891 6165	
Agriculture, Fisheries and Conservation Department (AFCD)	Ms. CHAN Long Kwan, Joyee ((Fauna Conservation Offr (Operation)1)	2150 6923	
	Dr. MOK Siu Yan, Flora Sr Conservation Offr (Biodiversity)	2150 6910	
	Dr. WONG Kam Yan, Azaria (Nature Conservation Offr (Yuen Long))	2150 6932	

CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0

Green Groups			
Green Power	Dr. Eric TSANG Po Keung (Chairman)	3961 0200	**Key Green Group: Actively expressed opinions**
	Dr. Cheng Luk-ki (Director)		
	Mr. Henry Lui (Senior Conservation Manager)	3961 0218	
	Mr. KUAN Yu-kuen		
The Conservancy Association	Dr. S. S. Chung (Chairperson)		**Key Green Group: Actively expressed opinions**
	Mr. Roy Ng		
	Mr. Peter Li		
	Ms. Kami Hui (Conservation Manager)		
	Dr. Angie Ng (Conservation Manager)	6023 9697	
	Mr. Ken, K.Y. SO (Chief Executive)	2728 6781	
		2272 0332	
The World Wide Fund for Nature (WWF) Hong Kong	~~**Mr Andrew Chan (Senior Conservation Officer, Local Biodiversity)**~~	~~2161 9667~~	**Key Green Group: Actively expressed opinions**
	Mr. Tobi Lau (Local Biodiversity)	2161 9626	
Kadoorie Farm and Botanic Garden (KFBG) Corporation	**Mr. Tony Nip (Senior Ecologist)**	2483 7200	**Key Green Group: Actively expressed opinions**
Hong Kong Bird Watching Society (HKBWS)	Mr. Yu Yat Tung (Director from June 2021 onwards))	2377 4387	**Key Green Group: Actively expressed opinions**
	Mr Cheng Nok Ming, Beetle		
	Ms. Woo Ming Chuan (Deputy Director from June 2021 onwards)		
	Ms. Wong Suet Mei (Conservation Officer)		
	Ms. Katy Chau (Senior Project Officer)		
	Ms Novia Yip (Assistant Research Manager)		
	Ms. Wong Yuen Ping Josephine (Surveyor) (Tel: 9809 4120)		
Friends of the Earth (HK)	Mr Robert Young (Chairperson)	2528 5588	**Key Green Group: Actively expressed opinions during design stage**
	Mr Edwin Lau (Director)	31841538	
	Dr Jeffrey Hung (CEO)		
Green Sense	Mr Roy Tam (President)	8100 4877	
	Ms Gabrielle HO (Project Manager)		
Greeners Action	Mr. Angus Ho (何漢威 (總幹事))	3499 1780	
		8330 0461	
Green Peace	Yeung, Ling Chun (Researcher)	2854 8300	
		65066741	
Designing Hong Kong	Mr Paul ZIMMERMAN (Chief Executive Officer)	3104 2767	
		2923 8688	
Hong Kong Entomological Society			
Firefly Conservation Foundation		3488 6100	
Lau Fau Shan Chamber of Commerce New Territories H.K. (香港新界流浮山商會)	劉鴻程(理事長) 陳鑑輝(首副理事長)	2472 1005	**Term of Office: 1 July 2021 to 30 June 2024** **YLDC member 鄧家良 is one of the Honorary Chairman.**

CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0

Relevant District Council members of Yuen Long District Council

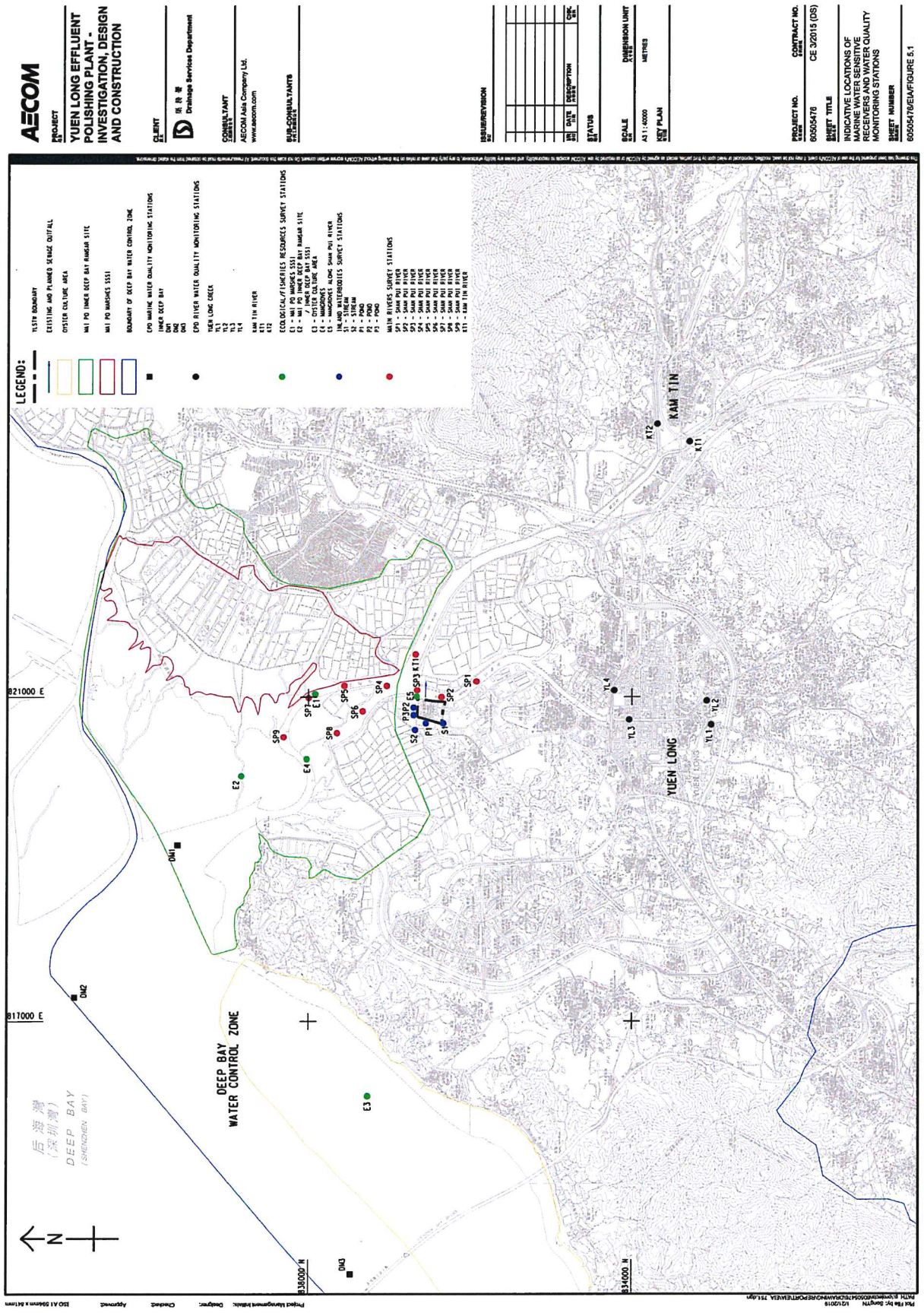
Name (in Chinese)	Name (in English)	Constituency	Capacity	Political Affiliation	Occupation	Tel
文富穩	MAN Fu-wan	新田 (M36)	民選議員	/	商人	2566 8838 / 5107 6173 / 5175 7568
鄧家良	TANG Ka-leung	廈村 (M15)	民選議員	/	/	2472 2292
何俊賢	Steven HO Chun-yin	/	立法會議員(功能界別 - 漁農界)	民主建港協進聯盟	立法會議員	2682 0155
鄧志強	TANG Che-keung	N/A	當然議員		公司董事	2477 3886
程振明	CHING Chan-ming	N/A	當然議員		全職區議員	2475 1009
沈豪傑	SHUM Ho-kit	十八鄉北 (M10)	區議會主席(民選議員)	/	律師	2478 3316
鄧賀年	TANG Ho-nin	N/A	區議會副主席(當然議員)		全職區議員	2382 6363

Name	Party	Tel No.:
Ben Yip	DSD	2594 7500
Simon Yeung	AECOM Asia Co., Ltd.	9075 7172
Patrick Leung	AECOM Asia Co., Ltd.	6124 8838
Dan Tang	PYCRJV	9280 0731
Kenneth Lau	PYCRJV	6239 2589
Bong Yu	Environmental Team Leader (Fugro Technical Services Ltd)	5393 2712
Brandon Wong	Independent Environmental Checker (Mott MacDonald Hong Kong Ltd)	9805 6309

Appendix C

Location Plan of Water Sensitive Receiver

CONSTRUCTION PHASE EMERGENCY RESPONSE PLAN REV. 0



Appendix D

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

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

August 2020

Contents

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 m^3/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 6,000m^3/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.

Appendix I

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

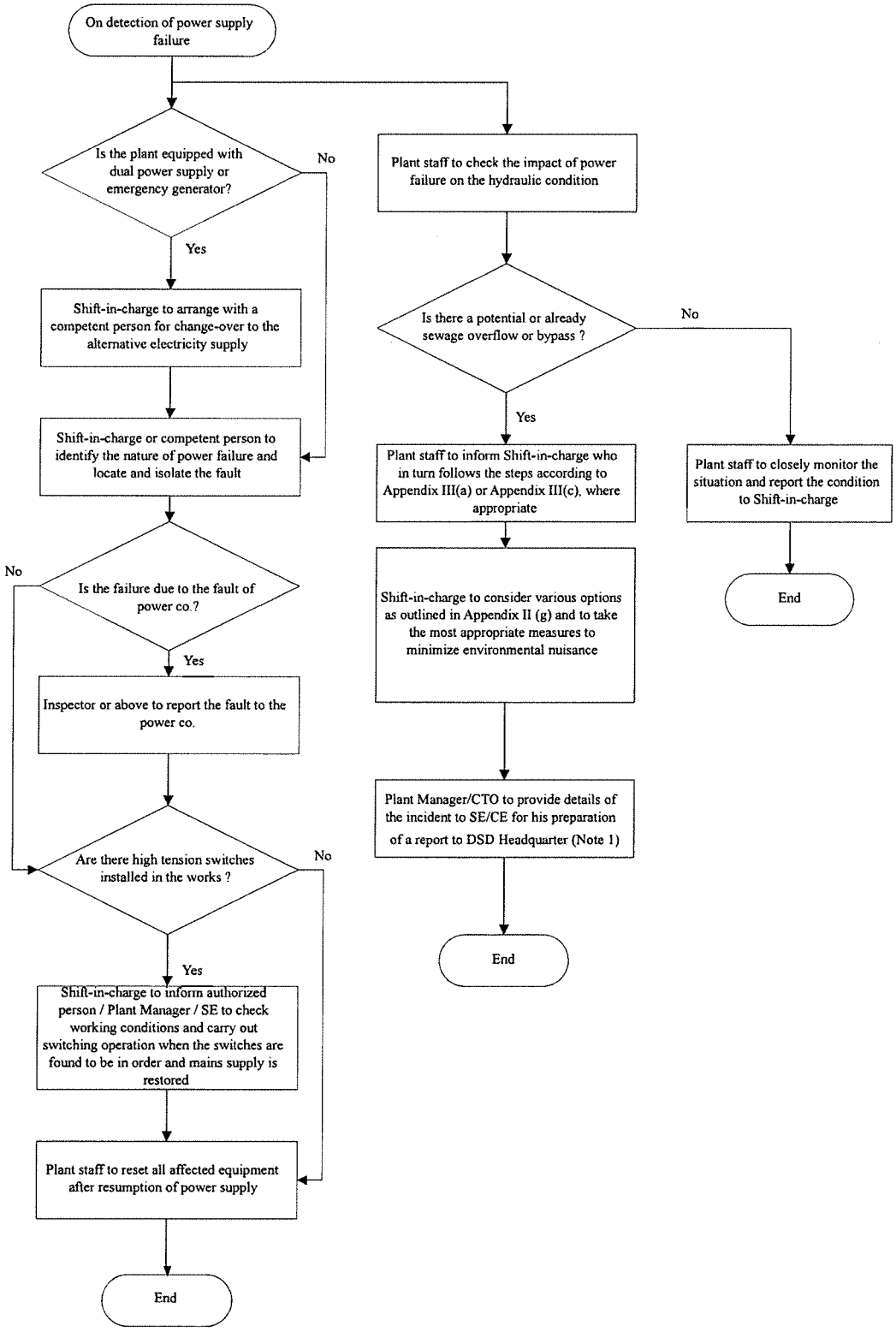
Sewage treatment facilities under **Sewage Treatment Division 2** can be found from the E&M Branch Portal as in the following URL:

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

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

Appendix II(a)

Power Supply Failure

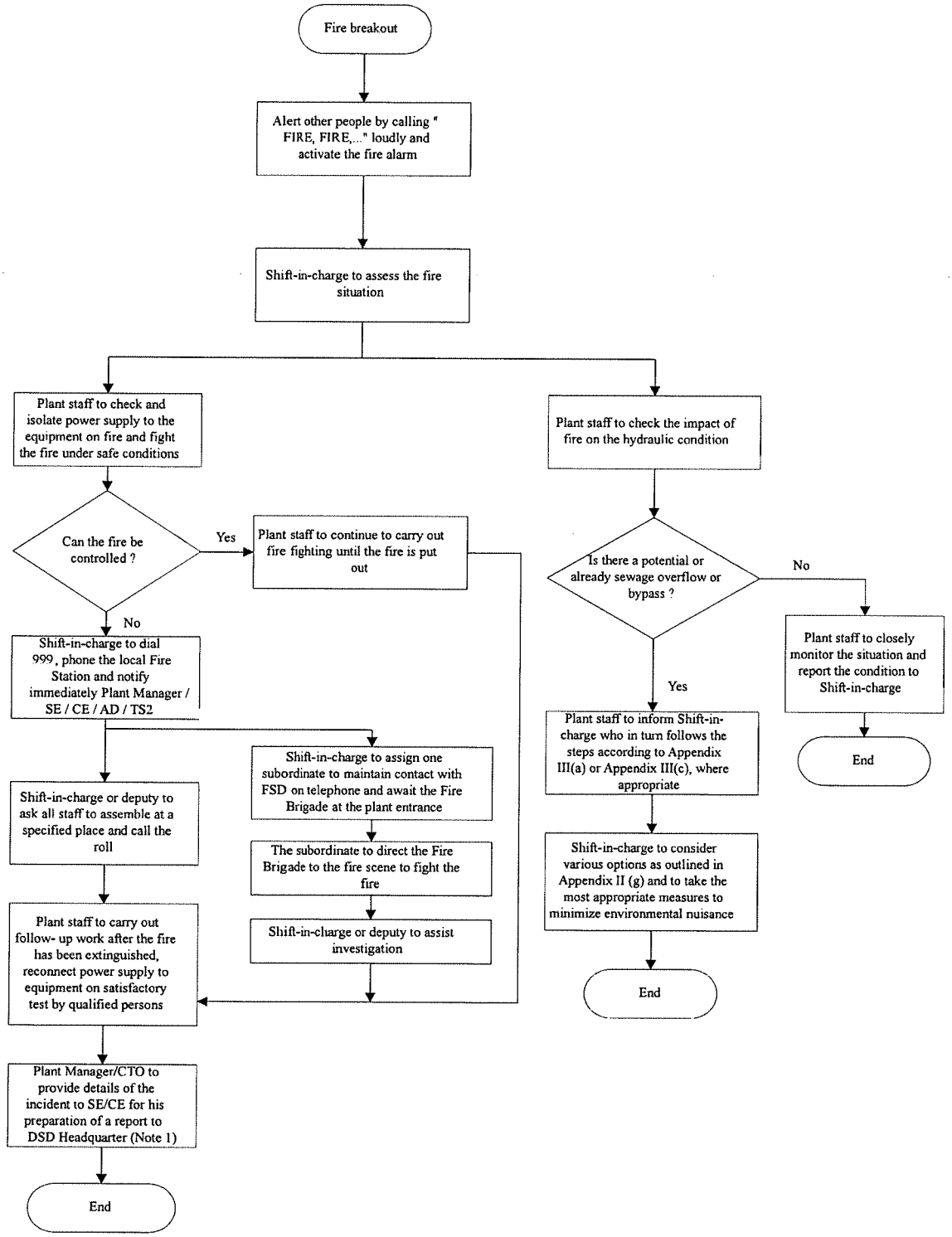


Note : (1) If the case is determined as a serious incident by CE, it shall alert AD/E&M as soon as possible.

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

Appendix II(b)

Fire Breakout

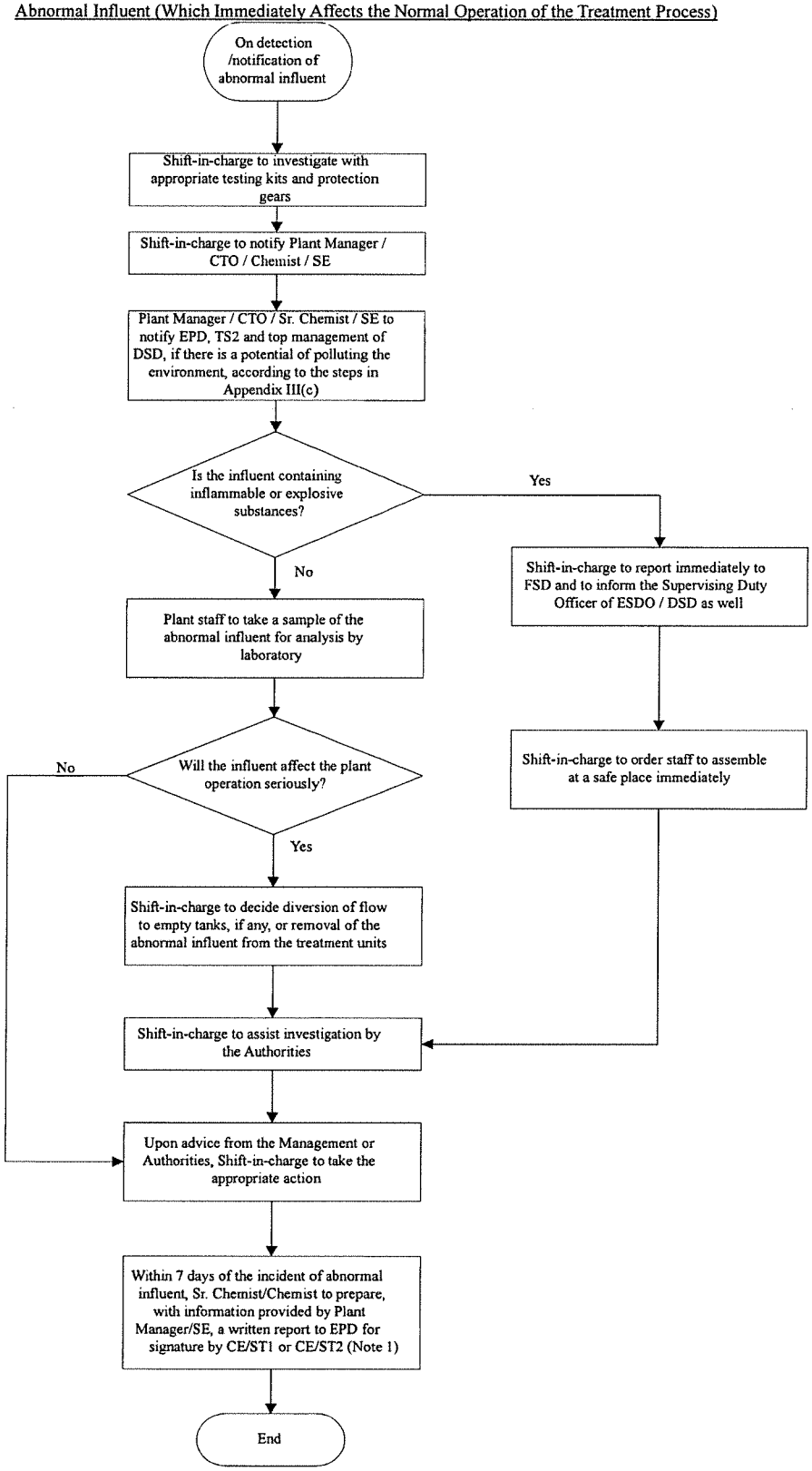


Note : (1) If the case is determined as a serious incident by CE, it shall alert AD/E&M as soon as possible.

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

Appendix II(c)

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

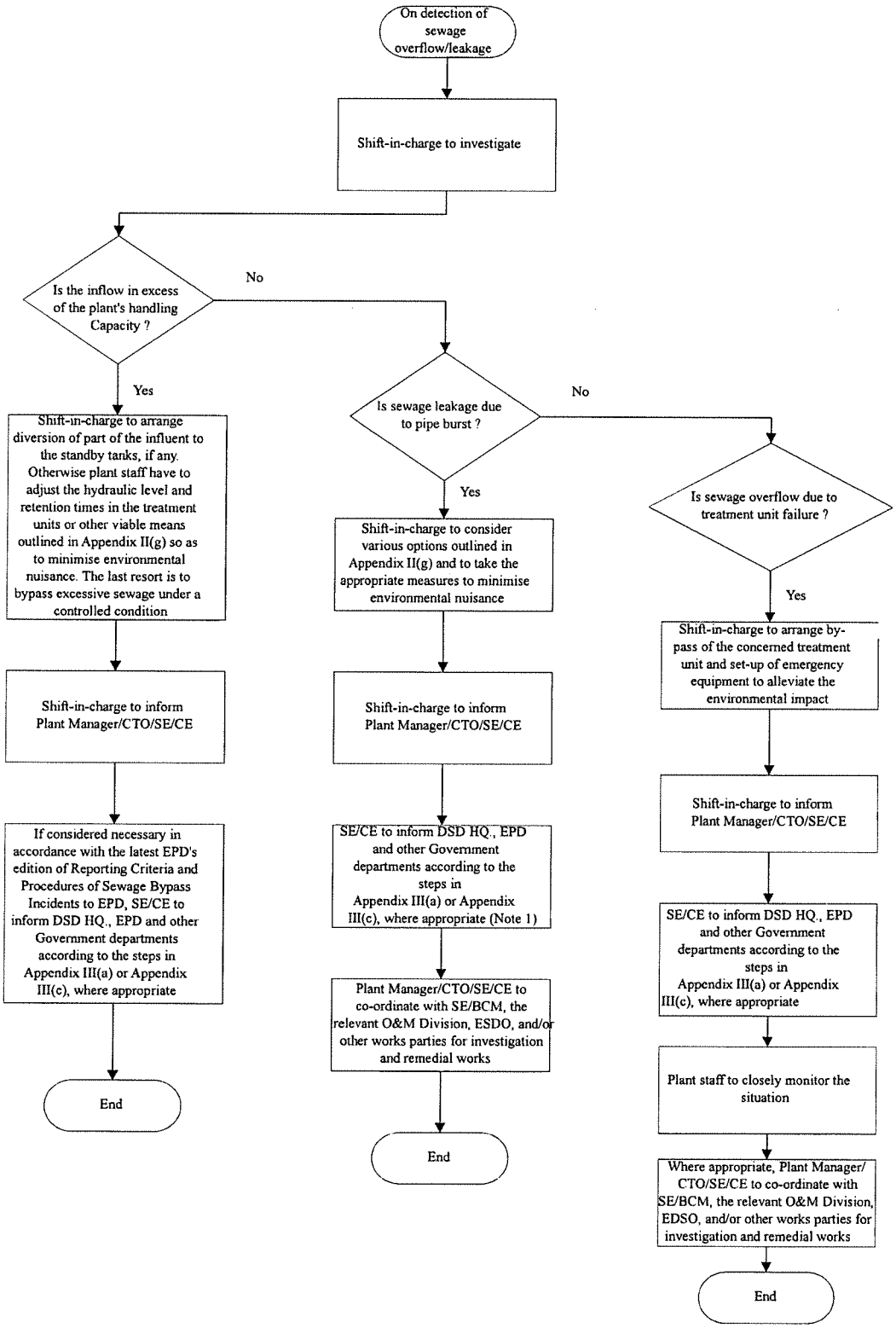


Note : (1) If the case is determined as a serious incident by CE, it shall alert AD/E&M as soon as possible.

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

Appendix II(d)

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

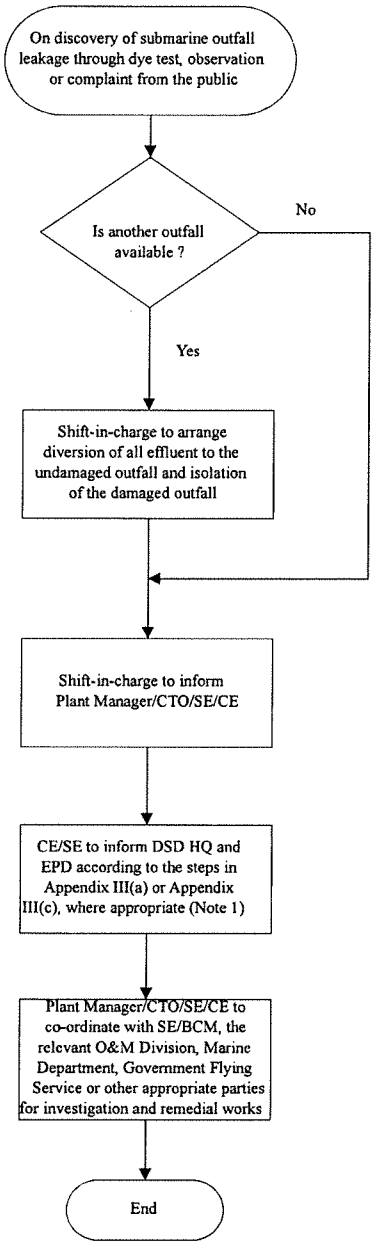


Note : (1) If the case is determined as a serious incident by CE, it shall alert AD/E&M as soon as possible.

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

Appendix II(e)

Leakage from Submarine Outfall

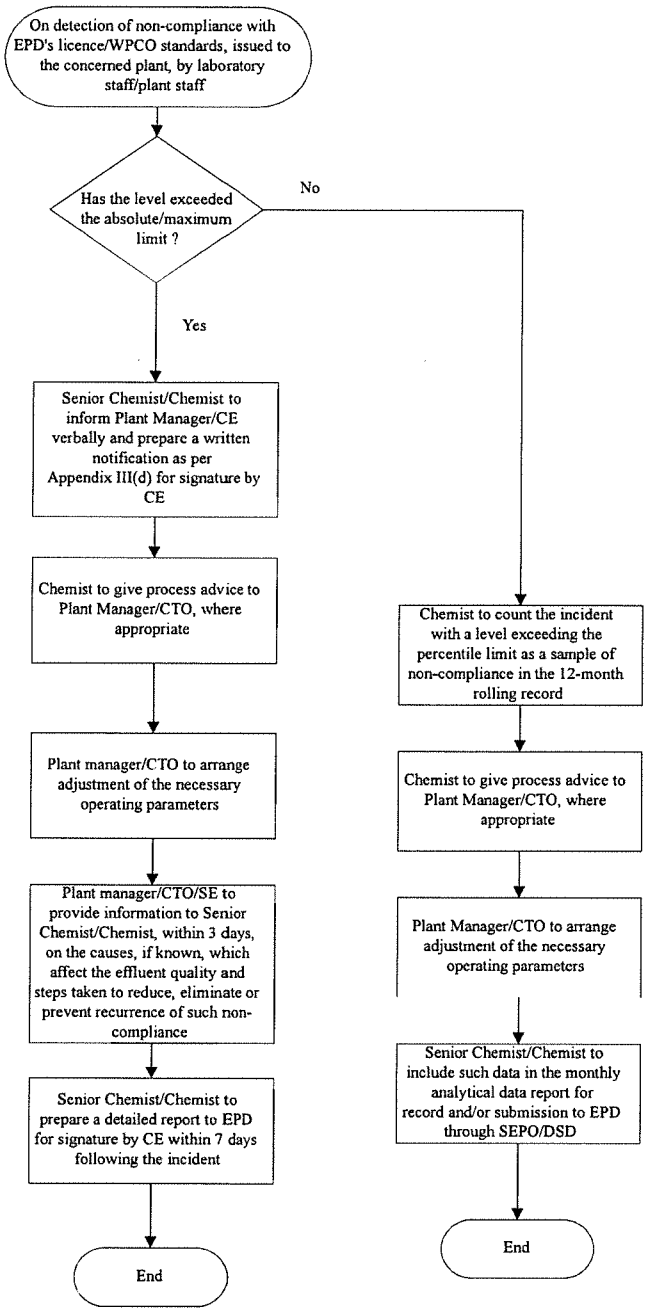


Note : (1) If the case is determined as a serious incident by CE, it shall alert AD/E&M as soon as possible.

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

Appendix II(f)

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

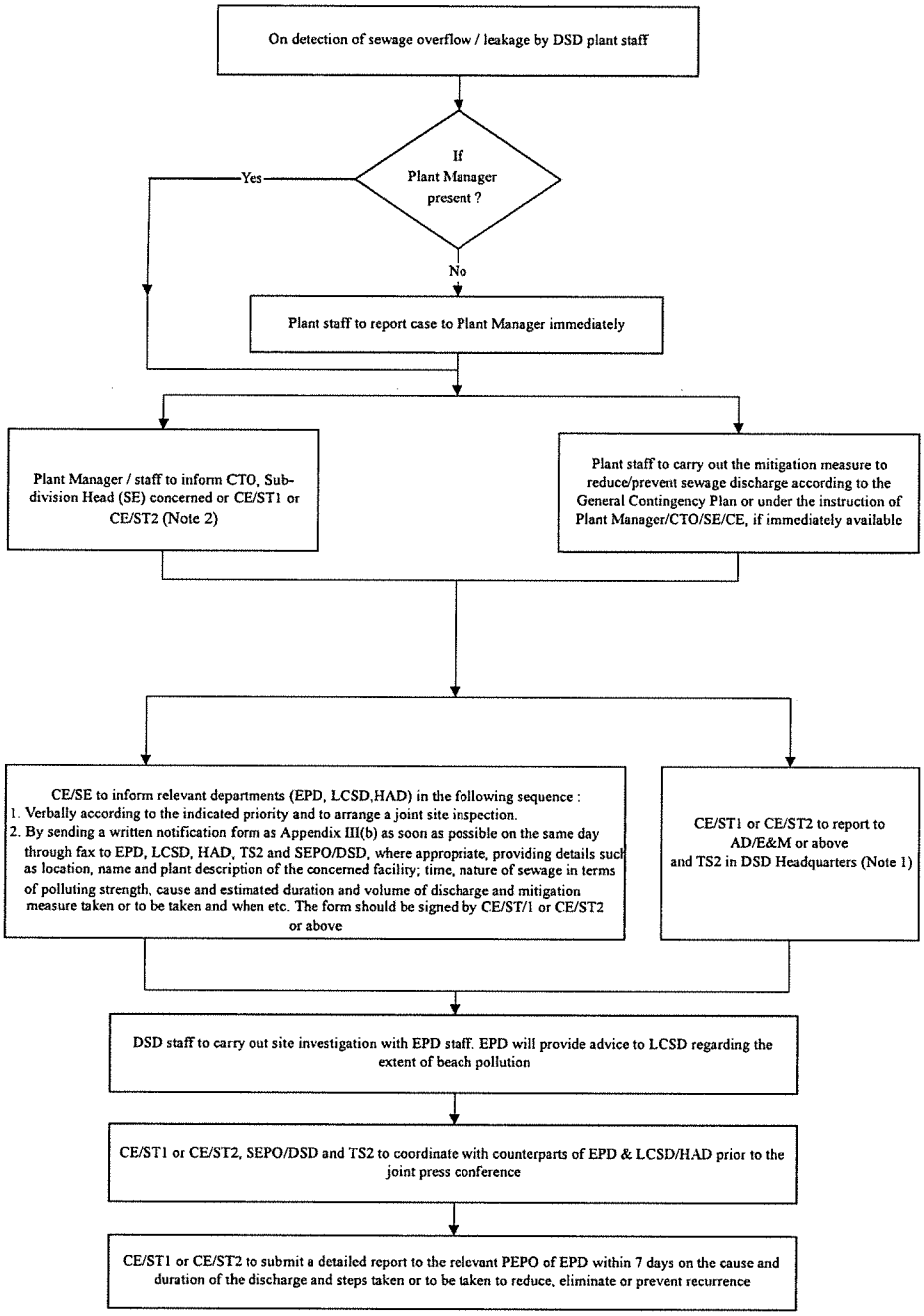
	Yes	No
(A) Temporary Storage of Sewage on the Upstream Side		
• Pump down the sewage level at the Pump Sump, where appropriate.	☐	☐
• Check the hydraulic level in the Pump Sump and on the upstream side.	☐	☐
• Stop pumping of sewage from the Pump Sump.	☐	☐
• Monitor the hydraulic level in the Pump Sump and on the upstream side.	☐	☐
(B) Flow Diversion		
• Energise a standby facility, if available.	☐	☐
• Divert flow to equalization tanks, if available.	☐	☐
• Adjust the hydraulic level and retention times in the treatment units so as to prevent overflow as far as feasible.	☐	☐
• Divert the flow to bypass the defective treatment unit to achieve at least partial treatment if other mitigating measures are not yet made available.	☐	☐
• Arrangement of temporary piping to form an alternative sewage route so as to avoid/reduce the environment impact.	☐	☐
(C) Tankering		
• Assess the feasibility of tankering of sewage in terms of quantity, access road, tanker nos, etc.	☐	☐
• Identify where to dispose of the tanker loads.	☐	☐
• Check requirement of closed area/entry permits.	☐	☐
• Check the availability of tankers from either or all of the following sources:	☐	☐
ST Term Contractors	☐	☐
O&M Branch : -		
HK&I Division	☐	☐
MN Division	☐	☐
MS Division	☐	☐
• Check pumps, hoses and power supply required for tankers.	☐	☐

		Yes	No
(D)	Temporary Mitigation Measures for Treating Sewage		
	• Install temporary screen (in case of inlet bypass), if site conditions allow.	☐	☐
	• Increase chlorine dosing to enhance disinfection, if chlorination facilities available.	☐	☐
(E)	Emergency Facilities		
	• Determine the size of pump required according to the sewage quantity.	☐	☐
	• Identify the nearby manhole/disposal point.	☐	☐
	• Check the availability of electricity supply.	☐	☐
	• Locate sources of emergency facilities (e.g. electric pumps, engine driven pumps, hoses, generators, etc.)	☐	☐
	• Arrange transportation and installation of emergency facilities.	☐	☐
(F)	Temporary Power Supply		
	• Identify the nature of power failure.	☐	☐
	• Identify the required power rating to keep running of essential equipment.	☐	☐
	• Check availability of temporary power supply from either or some of the following sources : -	☐	☐
	ST Sub-divisions		
	ST1/1	☐	☐
	ST1/2	☐	☐
	ST1/3	☐	☐
	ST2/1/1	☐	☐
	ST2/1/2	☐	☐
	ST2/2	☐	☐
	ST2/3	☐	☐
	Power Supply Utilities	☐	☐
	• Arrange transportation of emergency generators.	☐	☐
	• Arrange delivery of connecting cables and accessories.	☐	☐

[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.	☐	☐
(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.	☐	☐

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.

URGENT Appendix III(b)

Drainage Services Department

Notification of Sewage Pollution Incident

Section A. Description

1. Type of incident

- ☐ Breakdown of STW
- ☐ Breakdown of SPS
- ☐ Breakdown rising mains/trunk sewer
- ☐ Overflow (heavy rain)
- ☐ others

Particulars:

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

[State when DSD is informed of the bypass & the sequence of events if the bypass is detected by other parties.]

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 (m^3) : _____

6. Estimated flow rate of sewage being discharged (m^3/hr) : _____

7. Mitigation measures already implemented or will be implemented:

_____

8. Anticipated time to resume normal operation (Date/Time) : _____ 00:00

9. Other relevant information :

Section B1. Reporting Officer

Name : _____ Post : _____

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

Section B2. Site Engineer/Contact Point

Name : _____ Post : _____

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

URGENT Appendix III(b)

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 : _____

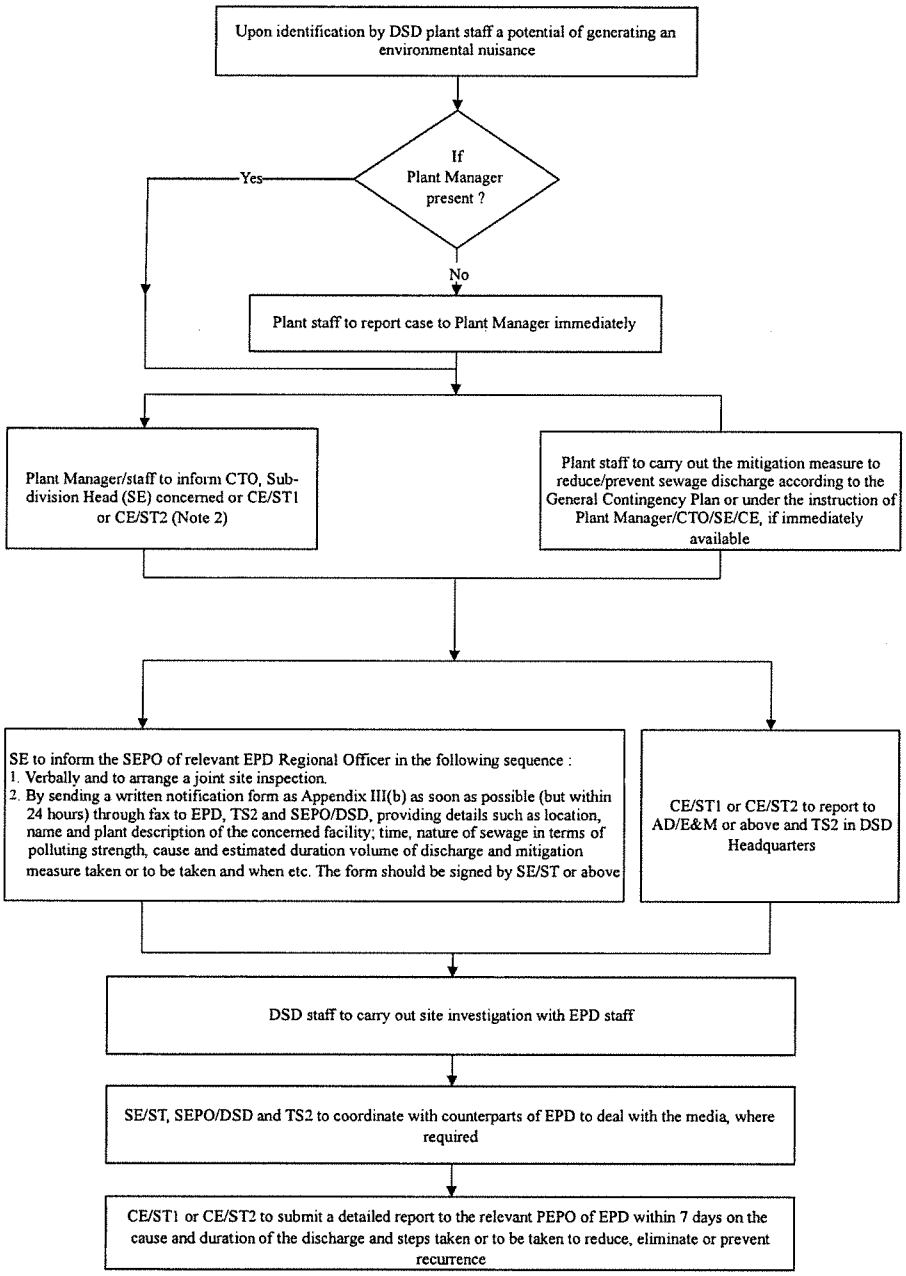
Bureau/Department : _____

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.

Appendix III(d)

Drainage Services Department

Notification of Non-Compliance with Discharge Licensed Standards

Section A. Description

1. Name and location of the concerned plant : _____

2. The discharge was unable to meet maximum / percentile limit(s) in respect of _____ [determinand(s)]

3. Cause(s) of Incident :
   - ☐ Abnormal influent
   - ☐ Incoming flow higher than the design flow
   - ☐ Breakdown of plant / process
   - ☐ Failure of power supply
   - ☐ others _____

4. Particulars of Incident (including the analytical result(s) of non-complying parameter(s)) : _____

5. Remedial measure(s) already implemented or will be implemented, if available (including time and date) :

6. Verbal notification given to : _____ of EPD by _____ of DSD at _____ (time) on _____ (date)

7. 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 acknowledge of this notification from as soon as possible)

Name: _____ Designation (if applicable): _____

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

Signature : _____ Time/Date: _____

c.c. SEPO/DSD ☐ Sr. Chem/ST1 ☐ CE/ST1 ☐ CE/ST2 ☐ _____ (Client Department)

☐ SE/ST1/1 ☐ SE/ST1/2 ☐ SE/ST1/3 ☐ SE/ST2/1

☐ SE/ST2/2 ☐ SE/ST2/3

Note : ☐ Tick as appropriate

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.

Appendix VI

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

August 2020