




Civil Engineering and Development Department

Contract No. NL/2017/03

**Tung Chung New Town Extension – Reclamation and
Advance Works**

Spill Response Plan

Revision 1

Complied By :	Authorized for issue :
Signature : 	Signature : 
Name: Calvin Sze Post : Environmental Manager Date : 14 May 2018	Name: Mr. Keith Tse Post : Site Agent Date : 14 May 2018



Tung Chung New Town Extension

Environmental Certification Sheet for Environmental Permit No. EP-519/2016

Reference Document/Plan

Document/Plan to be Certified:	Spill Response Plan (Revision 1)
Date of Report:	14 May 2018

Reference EP Condition

Environmental Permit Condition: Condition 2.17

The Permit Holder shall, no later than 3 months before the commencement of reclamation related marine works at Tung Chung East, submit to the Director for approval 3 hard copies and 1 electronic copy of a Spill Response Plan (The Plan) detailing the actions to be taken in the event of accidental spillage of oil or other hazardous chemicals during construction of the Project.

ET Certification

I hereby certify that the above referenced document/plan complies with the above referenced condition of EP-519/2016

Jovy Tam
Environmental Team Leader
ERM-Hong Kong, Limited



Date: 15 May 2018

Qualified Ecologist Certification

I hereby confirm that the Qualified Ecologist of the ET has been consulted in preparing ecological aspects of the above referenced document/plan.

Raymond Chow
Qualified Ecologist
ERM-Hong Kong, Limited



Date: 15 May 2018



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OUR REF 198377-0019

YOUR REF

DATE 15 May 2018

Sustainable Lantau Office
Civil Engineering and Development Department
13/F, North Point Government Offices
333 Java Road, North Point
Hong Kong

For the attention of Mr. H.Y. Szeto / Mr. Stanley Yip

Dear Sirs,

Agreement No. CE 59/2017 (EP)
Independent Environmental Checker for Tung Chung New Town Extension – Investigation

Spill Response Plan (EP condition 2.17)

We refer to the Spill Response Plan (Revision 1) dated 14 May 2018 and certified by the Environmental Team Leader on 15 May 2018. Please note we have no adverse comments on the captioned submission. The captioned submission is hereby verified in accordance with the requirement stipulated in Condition 2.17 of EP-519/2016.

Should you have any query, please feel free to contact the undersigned at 2608 7314 (chuawo@bv.com) or our Ivan Ting at 9222 9490 (iec.tcnte@gmail.com)

Yours faithfully,
for and on behalf of
BLACK & VEATCH HONG KONG LIMITED



MANUEL CHUA
Independent Environmental Checker

c.c. ET Leader – ERM (Attn: Mr. Jovy Tam) [by Email: joyv.tam@erm.com]
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1. Introduction

Build King – SCT Joint Venture is the Main Contractor responsible for the execution of Contract No. NL/2017/03, Tung Chung New Town Extension – Reclamation and Advance Works. The work comprises of the reclamation of about 129ha of land including the construction of associated seawall and eco-shoreline and drainage box culverts/channel for the development of TCNTE at Tung Chung East and Road P1.

The following Spill Response Plan is required under Section 2.17 of Environmental Permit No. EP-519/2016, *“The Permit Holder shall, no later than 3 months before the commencement of reclamation related marine works at Tung Chung East, submit to the Director for approval 3 hard copies and 1 electronic copy of a Spill Response Plan (The Plan) detailing the actions to be taken in the event of accidental spillage of oil or other hazardous chemicals during construction of the Project. Then Plan shall include vessels operating for the Project, with specific provisions for protecting water quality and marine ecology.”*

Accordance with condition 2.5 of the EP, Qualified Ecologists had been appointed to form part of the ET and carry out work relating to ecological aspects. The Qualified Ecologists had been consulted in preparation of this Plan.

2. General Precautions

In order to minimize the possibilities of accidental spillage of oil or other hazardous chemicals at the construction site, the following precautionary measures will be implemented on site as far as possible:

- i) Use drip trays for the collect and storage containers of chemical oil fuel tanks and / or generators.
- ii) Oil activities (such as pumping of fuel, transporting of chemicals or chemical waste) should be carried out within a boundary area or inside a drip tray to minimize the potential for spillages.
- iii) Label the storage containers and the chemical tanks correctly.
- iv) Use suitable container, which are resistant to the stored chemicals so as to prevent leakage.
- v) Compatible chemical and its waste shall be stored in the same store area.
- vi) Provide adequate ventilation to the store area as necessary

- vii) Prohibit open flame and smoking near the chemical storage and fuel storage areas.
- viii) Store large and heavy containers on the floor as far as possible and avoid storing these containers higher than 0.75m above the floor level (storage in vessel / barge are exclusive)
- ix) Provide adequate space for safe and easy handling and inspection of the containers.
- x) Maintain an up-to-date log of all chemicals, chemical waste and fuel oil stored at site
- xi) Separate incompatible chemicals from one another
- xii) Provide a bucket of dry sand and a suitable fire extinguisher in the storage area.
- xiii) Operators of equipment (such as excavators, trucks etc.) shall inspect the equipment that they are using on a regular basis for leaks or drips. If there is any leakage or drips, the operators shall report the incident and ensure the issue to be rectified before the operation of the equipment.
- xiv) Vehicles and vessels shall be maintained in a regular basis to prevent spillage and good housekeeping shall be implemented.
- xv) Chemical storage areas shall be inspected regularly for signs of spills.

3. Transfer and Transport Precautions

In order to minimize the chance of accidental spillage of chemical during the transportation of chemical or containers of chemicals to and from the construction site, the following measures will be implemented on site, such as,

- i) Use suitable size of container so as to avoid overfilling.
- ii) Use pumps to transfer chemical waste instead of manually pouring them
- iii) Manual pumping shall be applied to transfer chemical waste between the containers on site, instead of manual pouring.
- iv) Use proper, safe and suitably labeled containers.
- v) Only engage suitable licensed, trained and responsible chemical waste collection companies to carry out the transportation of chemicals as well as the disposal of chemical wastes to and from the site.
- vi) Use suitable preventative measure (such as anchoring the containers, avoiding stacking containers, etc.) should be taken to avoid any spillage during the transportation of chemicals and chemical wastes.
- vii) Suitable trolley should be used to transport chemicals / chemical waste on site.

4. General Response to the Spilling

The response to any spill onsite shall be carried out promptly and efficiently, to minimize the amount of oil or other hazardous chemical or chemical waste that is released into the environment. The general spill response are classified in different scenarios and they are illustrated in a flowchart as shown in Appendix B.

4.1 Spill on Land or onto the Deck of a Marine Vessel

Suitable signage will be posted on or near the containers to inform workers of the emergency telephone numbers, the location of emergency showers, location of Spill Kits and emergency evacuation route. Medical emergency response should also be undertaken whenever necessary. The response actions to an incident should include the following steps:

- i) Immediately inform the Emergency Team of the spill incident occurring by providing the location of spill, type and quantity of material spilled, etc.
- ii) Take all responsible measures to isolate, reduce or stop the spillage, such as shut off the valve, provided it is safe to do so.
- iii) Provide it is safe to do so, the area containing the spill shall be ventilated by mechanical means in order to make a safe spillage condition
- iv) The Emergency Team Leader shall be responsible for organizing adequate resources to identify the spill source and if necessary stop or cease it.
- v) The Emergency Team Leader as the assigned person shall equip all people involved in the cleanup works suitable personal protective equipment prior to the removal of any leaked chemical or chemical waste.
- vi) Suitable material such as absorbent pads, dry sand or sawdust shall be used to absorb the leakage.
- vii) All the contaminated sand, sawdust and other materials shall be collected and labeled as “Chemical Waste”.
- viii) All the collected chemical waste shall be placed in an area designated for chemical waste storage and delivery off-site by approved companies.

4.2 Spill into the Marine Environment

A spill into the marine environment is considered as serious issue in term of the possibility of causing impact to the ecosystem and marine organisms. The notification system is divided into two scales by the approximate area affected by the spill.

Upon the identification of the spillage, standard spill response equipment (such as absorbent pads and pillows, Secondary Oil Containment, oil dispersant, etc.) will be used to contain the spill. Secondary Oil Containment is used to enclose the spill area and to prevent the spill from migrating outside of the Secondary Oil Containment. The pads and pillows are used for absorbing the spill within the Secondary Oil Containment. The example of the standard spill kits are attached in **Appendix C**.

Once the spillage is found in the marine environment, the person observing must report the details, such as the spillage area, location to their supervisor, who shall inform the superintendent and site agent as the Emergency Team Leader. Base on the scale of the spillage area, the reporting system is divided into the following two system:

- i) For a spill area of greater than 100m² :
 - The Emergency Team Leader shall inform all the parties such as the Project Manager, Marine Department, Fire Services Department, Agriculture, Fisheries and Conservation Department, Environmental Protection Department, Environment Team and Independent Environment Checker immediately. The contact list of the mentioned parties is attached in **Section 8.0**.
 - The Emergency Team Leader shall organize workers to identify the source of spillage and stop it provide it is safe to do so.
 - The assigned person to remove the spill shall be well equipped with suitable PPE.
 - Secondary Oil Containment shall be used to contain the spillage area.
 - Absorbent pads and pillows shall be used to absorb and remove the spill within the Secondary Oil Containment zone.
 - The used absorbent pads and pillows will be packed and treated as chemical waste.
 - An incident report will be submitted to ET, IEC and PM within 2

working days.

- ii) For a spill area less than 100m² :
 - The Emergency Team Leader shall inform all the parties such as the Project Manager, Environment Team and Independent Environment Checker immediately. The contact list of the mentioned parties is attached in **Section 8.0**.
 - The Emergency Team Leader shall organize workers to identify the source of spillage and stop it provide it is safe to do so.
 - The assigned person to remove the spill shall be well equipped with suitable PPE.
 - Secondary Oil Containment shall be used to contain the spillage area
 - Absorbent pads and pillows shall be used to absorb and remove the spill within the Secondary Oil Containment zone.
 - The used absorbent pads and pillows will be packed and treated as chemical waste
 - An incident report will be submitted to ET, IEC and PM within 2 working days.

4.3 Spillage Control Material

- i) The locations of spill kit are mentioned in Section 7.0 (ii). The Environmental Officer is responsible for check and ensure there are sufficient spill kits available on site.
- ii) The inventory of hazardous chemicals that will be used for this contract will be inspected periodically by Environmental Officer and Superintendent in a bi-monthly regular basis and it will be provided to the PM/ET when necessary.
- iii) The absorbent pads and pillows used for spill control by means of physical absorption. No chemical or biological reaction will take place during the spillage control practices.

4.4 Inventory of Hazardous Chemicals / Compounds

- i) Generally, diesel will be the major chemical used on site for this contract. Lubricant will be the other chemical that stored on site for the maintenance of equipment.
- ii) The sub-contractor shall provide the details of the inventory (including types of chemicals, quantity, storage locations etc.) of hazardous

chemicals used on site.

- iii) The superintendent is responsible for inspection of the condition of chemical storage regularly.
- iv) The record of the chemical, such as the types of chemical, quantity of chemical, location of the material shall be kept and updated by the Environmental Officer. It will be provided to the PM/ET when necessary.

4.5 Protection of Sensitive Receivers

- i) The action described in this section will only be applicable if any one of the following condition is met :
 - a) The area of the spillage of chemical is more than 100m²
 - b) The location of the spill relative to a sensitive water receivers such as water intake, ecological sensitive receivers, The Brothers Marine Park, fisheries resources and habitats, fish culture zone and Tai Ho Wan.
- ii) Deployed a layer of physical absorbent near the receptors to protect the sensitive marine receptors.
- iii) The Contractor will inform relevant parties and follow the spillage measure mentioned in **Section 4.2**.
- iv) The Contractor, the Project Manager, Environmental Team and Independent Environmental Checker will discuss a suitable program to monitor the potential adverse effects to the particular sensitive receptors.
- v) Follow the procedures as stated in **Appendix B**.

5. Dolphin Contingency Plan During Spill Response

It is not known what specific impacts a spill of chemical or chemical waste will have upon the Chinese White Dolphin and its food supply. Hence, the following approach will be applied to isolate the Chinese White Dolphin from any spill response event which may take place in our construction activities:

- i) Initial Response
 - Observation from high platform will be used to determinate the size of spillage.
 - In addition to identify the size of spillage, checking any Chinese White Dolphin within or in the vicinity of the spillage will be observed from high platform.

- The following course of action shall be decided upon the investigation of size of spillage, the present of any Chinese White Dolphin within the spillage and the likelihood of Chinese White Dolphin entering the spillage.

- ii) Isolation of Spillage from Chinese White Dolphin
 - In case the spillage is a small in scale, absorbent booms shall be used to prevent the spread of a spill and thus help to minimize the potential for Chinese White Dolphin to come into contact with the spillage. Together with the observers, our superintendent will organize workers to remove the small spill in a short time.
 - In the event of spillage of a larger scale, the deployment of underwater barrier nets (surrounding the absorbent booms) in addition to the measures outline above, could be an effective means of isolating the spill area from Chinese White Dolphin. Trained dolphin watchers shall maintain visual contact with any Chinese White Dolphins sighted in the area to ensure dolphins are not trapped within barrier nets. Qualified ecologist will be notified to give advice for further appropriate actions.
 - In case of the Chinese White Dolphin is found within the enclosed contaminated area of spillage, the same measures will be applied in the event of injury or of live stranded cetaceans, as described in the Dolphin Watching Plan will be followed (i.e. contact immediately through “1823” marine mammal stranding hotline).

6. Health and Safety Equipment

The health and safety equipment that will be made available on site is listed as following:

- i) Suitable fire extinguishers
- ii) Brushes, dustpans. Mops and buckets
- iii) Dry sand, sawdust or other absorbents
- iv) Tissue and towels both paper and cloth)
- v) Storage containers for absorbent pads, plastic bags
- vi) Spill response kits

7. Implementation of Spill Response Plan

i) Training to Workers

During the induction training, personnel will receive the information regarding the measures described in the Spill Response Plan. Besides, Environmental Officer shall organize tool box talks with the site workers regularly regarding the Spill Response Plan. All workers shall have ability to handle the spillage and prevent the chemical spillage.

In the event of a spill happening, the worker noticing a spill shall contact the site engineer or foreman immediately. The site engineer and foreman shall instruct the Emergency Team Leader and organize the workers to take necessary action to contain the spill. The detail spill response is outlined in **Section 4.0** of this Spill Response Plan. Moreover, spill drill will be conducted every 6 months. The Environmental Officer will be the trainer and the targeted trainees include workers, foreman, site Engineer and the Emergency Team. Qualified ecologists will assist the Environmental Officer in conducting training on dolphin contingency plan during spill response.

Trainer	Training	Participant
Environmental Officer	Safety around spills	All workers
	Containment of spill	
	Recovery and clean up of spill	
	Disposal of spill response waste	
	Reporting of spills	
	Types of sensitive receptors	
	Location of the sensitive receptors	
	Method to protect these sensitive receptors from spills and the necessary response to spills outlined in this SRP	
	Dolphin Contingency Plan during Spill Response	

ii) Location of Spill Kits

One spill kit (medium sized spill) will be stored near to the chemical storage areas. The other three sets of spill kit (medium sized spill) will be on the vessels involved in the marine works ready for use if a spill takes place. A further two spill kits (one medium sized spill and one larger sized spill) will be stored on patrol boat with any platforms for dolphin monitoring. Supplementary store of spill kit shall be kept by the Environmental Officer.

Site superintendent, foremen and site engineers would be notified by Environmental Officer about the location of the spillage control kits.

8. Relevant Party Contact List

	Name	Telephone No.
Emergency Team		
Site Agent	Keith Tse	9383 6173
Construction Manager	Lee Wai Man	9481 6024
Environmental Officer	Calvin Sze	9205 9277
Superintendent	Lai Chi Wing	6997 6847
Relevant Government Department		
General Emergency Services	-	999
Labour Department	-	2717 1717
Fire Services Department	-	2723 2233
Marine Mammal Stranding Hotline	-	1823
Agriculture, Fisheries and Conservation Department (AFCD) Marine Park Division		6020 3086
Environmental Protection Department (EPD)	-	2838 3111
Nearest Fire Station	Tung Chung Fire Station	2988 1898
	Chek Lap Kok Fire Station	2949 9081
Near Ambulance Depot	Tung Chung Ambulance Depot	2988 8282
	Castle Peak Bay Ambulance Depot	2451 7193
Nearest Hospital	Tuen Mun Hospital	2468 5111
Airport Authority Hong Kong	-	2186 7111
Weather Forecast	-	187 8200
Marine Department	-	2852 4472
Vessel Traffic Centre	-	2858 2163, VHF channel 12 or 14
Marine Police Control Centre	-	2803 6241
Maritime Rescue Coordination Centre	-	2545 0181

Relevant Utility Companies		
China Light and Power Co. Ltd.	-	2728 8333
China Gas Co. Ltd.	-	2880 6999
Water Supplies Department	(Hong Kong & Island)	2811 0788
	(Kowloon & New Territory)	2396 0210

9. Role and Responsibilities of Management Parties

i) Site Agent

The Site Agent will pick up the role of Emergency Team Leader. He is responsible for leading and coordinating appropriate action to be taken in accordance with the Spill Response Plan.

ii) Construction Manager

The Construction Manager is responsible for the site operation, management of environmental issues, staff supervision, coordination, planning, external liaison and implementing and monitoring necessary corrective actions related to the Spill Response Plan.

The Construction Manager also works with the Environmental Officer to carry out immediate action to rectify any non-compliance of environmental issues.

iii) Environmental Officer

The Environmental Office is responsible for the overall coordination, monitoring and overseeing the performance of the Spill Response Plan onsite. The responsibilities of the Environmental Officer are included as follow:

- a) Review the Spill Response Plan
- b) Ensure the works are executed with the requirement of the plan
- c) Train the workers and frontier workforces
- d) Handle the non-compliance of environmental onsite

iv) Environmental Supervisor

The Environmental Supervisor is responsible for the implementation of Spill Response Plan. The Environmental Supervisor is also responsible including the following:

- a) Assist with the Environmental Officer in executing the Spill Response Plan

- b) Assist with the Environmental Officer on any environmental accidents
 - c) Carry out environmental site inspection
 - d) Attend environmental meeting when necessary
- v) Foremen/Superintendent
- The Foremen/Superintendent are responsible for site inspection and coordination of the works as well as the implementation of any remedial actions or environmental protection measures as directed by Construction Manager/Environmental Officer.
- The foremen/Superintendent are also responsible including as following:
- a) Assist with the implementation of Spill Response Plan
 - b) Assist with the daily inspection of chemical storage area and the condition of dip tray
 - c) Supervise the whole process of cleaning if spillage occurs
 - d) Deploy the spill kits when a spillage occurs
- vi) Workers
- The workers are responsible for assisting the foremen/superintendent to execute the Spill Response Plan. They are responsible including as following:
- a) Attend trainings organized by the Environmental Officer
 - b) Use spill kits if spillage occurs
 - c) Collect and remove wastes in the cleaning of any spillage

10. Notification to Relevant Parties

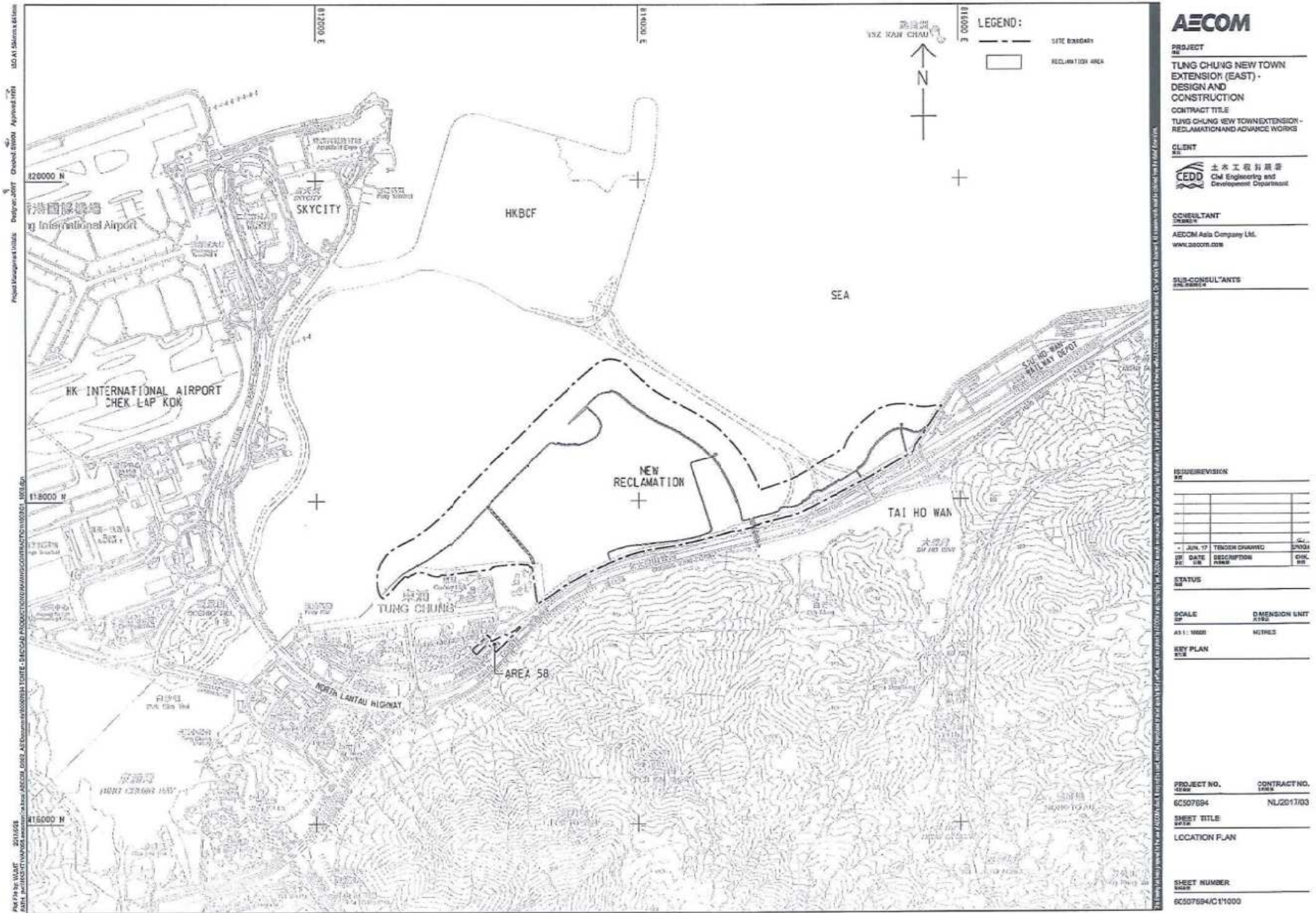
If the spillage is small and can be contained easily, the Environmental Officer shall be informed and notice the *Project Manager* as soon as practical. For the spillage area is less than 100m², the Environment Officer, the *Project Manager*, ET and IEC may choose to inspect the spillage area and confirm that the spill is contained and clean under suitable measures. Photographic record shall be kept by the Environmental Officer.

For the spillage is greater than 100m², the Environmental Officer, the *Project Manager*, ET and IEC shall inspect the area to check that the spill is probably contained and suitable cleaning method is adopted. A photographic record shall be kept. The top management including the Construction Manager, Site Agent, Project Manager shall be informed. If there is full containment and no significant

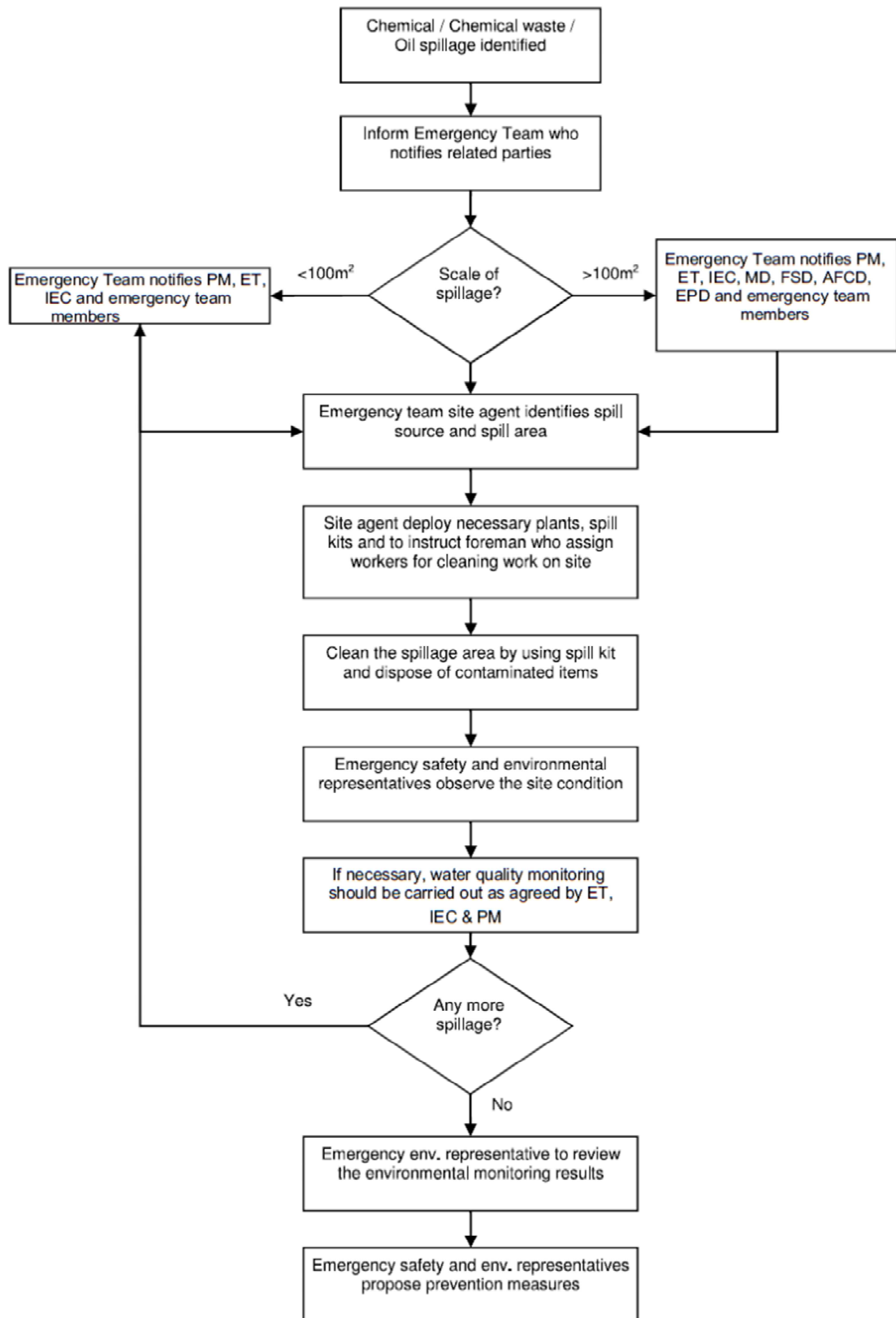
quantity entered into the marine environment, then the event shall be documented.

If there is a significant release of chemical entering the marine environment, then a full scale notification shall be executed. The people identified in the relevant parties section of this Spill Response Plan shall be notified for support as needed. The contact details of the relevant parties are listed in **Section 8.0**.

Appendix A Site Layout



Appendix B Flow Diagram of Handling the Spillage on Site



Appendix C Information of Spill Kits

SPC Environmental Spill Kits



55 Gallon Drum Spill Kit – Oil only (For Medium Sized Spill)

The oil only 55 Gallon Drum can be easily opened and closed for a fast response to medium sized spill of oil based materials. Drum meets UN specifications.

Product Type	Drum Spill Kit
Capacity (Metric) Sorbing	143.8 L
Includes	50 nos. of 15” x 19” pads, 4 nos. of 3” x 12’ socks, 8 nos. of 17” x 19” pillows, 1 pair nitrile gloves, 5 nos. of disposal bags, 1 pair goggles, emergency response handbook



95 Gallon Overpack Spill Kit – Oil only #SKO-95 (For Larger Sized Spill)

The Oil Only 95 Gallon Overpack Spill Kit is tough, secure, and highly visible. This top-quality screw topped overpack drum meets UN and DOT specifications. Best for a larger spill response of oil base materials.

Product Type	Overpack Spill Kit
Capacity (Metric) Sorbing	283.9 L
Includes	110 nos. of 15” x 19” pads, 12 nos. of 3” x 12’ socks, 8 nos. of 3” x 4’ socks, 8 nos. of 17” x 19” pillows, 1 pair nitrile gloves, 10 nos. of disposal bags, 1 pair goggles, emergency response handbook

Appendix D Implementation Schedule of the Major Environmental Mitigation Measures

Implementation Schedule of the Major Environmental Mitigation Measures

SRP Ref.	Recommended Major Environmental Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage
S2.0	<p><u>General Precautions</u></p> <p>In order to minimize the possibilities of accidental spillage of oil or other hazardous chemicals at the construction site, the following precautionary measures will be implemented on site as far as possible:</p> <ul style="list-style-type: none"> i) Use drip trays for the collect and storage containers of chemical oil fuel tanks and / or generators. ii) Oil activities (such as pumping of fuel, transporting of chemicals or chemical waste) should be carried out within a boundary area or inside a drip tray to minimize the potential for spillages. iii) Label the storage containers and the chemical tanks correctly. iv) Use suitable container, which are resistant to the stored chemicals so as to prevent leakage. v) Compatible chemical and its waste shall be stored in the same store area. vi) Provide adequate ventilation to the store area as necessary vii) Prohibit open flame and smoking near the chemical storage and fuel storage areas. 	General precaution measures	Contractor	Construction site	Construction phase

DWP Ref.	Recommended Major Environmental Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage
	<ul style="list-style-type: none"> viii) Store large and heavy containers on the floor as far as possible and avoid storing these containers higher than 0.75m above the floor level (storage in vessel / barge are exclusive) ix) Provide adequate space for safe and easy handling and inspection of the containers. x) Maintain an up-to-date log of all chemicals, chemical waste and fuel oil stored at site xi) Separate incompatible chemicals from one another xii) Provide a bucket of dry sand and a suitable fire extinguisher in the storage area. xiii) Operators of equipment (such as excavators, trucks etc.) shall inspect the equipment that they are using on a regular basis for leaks or drips. If there is any leakage or drips, the operators shall report the incident and ensure the issue to be rectified before the operation of the equipment. xiv) Vehicles and vessels shall be maintained in a regular basis to prevent spillage and good housekeeping shall be implemented. xv) Chemical storage areas shall be inspected regularly for signs of spills. 				

DWP Ref.	Recommended Major Environmental Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage
S3.0	<p><u>Transfer and Transport Precautions</u></p> <p>In order to minimize the chance of accidental spillage of chemical during the transportation of chemical or containers of chemicals to and from the construction site, the following measures will be implemented on site, such as,</p> <ul style="list-style-type: none"> i) Use suitable size of container so as to avoid overfilling. ii) Use pumps to transfer chemical waste instead of manually pouring them iii) Manual pumping shall be applied to transfer chemical waste between the containers on site, instead of manual pouring. iv) Use proper, safe and suitably labeled containers. v) Only engage suitable licensed, trained and responsible chemical waste collection companies to carry out the transportation of chemicals as well as the disposal of chemical wastes to and from the site. vi) Use suitable preventative measure (such as anchoring the containers, avoiding stacking containers, etc.) should be taken to avoid any spillage during the transportation of chemicals and chemical wastes. vii) Suitable trolley should be used to transport chemicals / chemical waste on site. 	Transfer and transport precaution measures	Contractor	Construction site	Construction phase

DWP Ref.	Recommended Major Environmental Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage
S4.1	<p><u>Spill on Land or onto the Deck of a Marine Vessel</u></p> <p>The response actions to an incident should include the following steps:</p> <ul style="list-style-type: none"> i) Immediately inform the Emergency Team of the spill incident occurring by providing the location of spill, type and quantity of material spilled, etc. ii) Take all responsible measures to isolate, reduce or stop the spillage, such as shut off the valve, provided it is safe to do so. iii) Provide it is safe to do so, the area containing the spill shall be ventilated by mechanical means in order to make a safe spillage condition iv) The Emergency Team Leader shall be responsible for organizing adequate resources to identify the spill source and if necessary stop or cease it. v) The Emergency Team Leader as the assigned person shall equip all people involved in the cleanup works suitable personal protective equipment prior to the removal of any leaked chemical or chemical waste. vi) Suitable material such as absorbent pads, dry sand or sawdust shall be used to absorb the leakage. vii) All the contaminated sand, sawdust and other materials shall be collected and labeled as “Chemical Waste”. viii) All the collected chemical waste shall be placed in an area designated for chemical waste storage and delivery off-site by approved companies. 	Response actions of spill on land / deck	Contractor	Construction site	Construction phase

DWP Ref.	Recommended Major Environmental Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage
S4.2	<p><u>Spill into the Marine Environment</u></p> <p>(i) For a spill area of greater than 100m² :</p> <ul style="list-style-type: none"> ➤ The Emergency Team Leader shall inform all the parties such as the Project Manager, Marine Department, Fire Services Department, Agriculture, Fisheries and Conservation Department, Environmental Protection Department, Environment Team and Independent Environment Checker immediately. The contact list of the mentioned parties is attached in Section 8.0. ➤ The Emergency Team Leader shall organize workers to identify the source of spillage and stop it provide it is safe to do so. ➤ The assigned person to remove the spill shall be well equipped with suitable PPE. ➤ Secondary Oil Containment shall be used to contain the spillage area. ➤ Absorbent pads and pillows shall be used to absorb and remove the spill within the Secondary Oil Containment zone. ➤ The used absorbent pads and pillows will be packed and treated as chemical waste. ➤ An incident report will be submitted to ET, IEC and PM within 2 working days. 	Response actions of spill area >100m ²	Contractor	Marine environment	Construction phase

DWP Ref.	Recommended Major Environmental Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage
S4.2	<p>(i) For a spill area of less than 100m² :</p> <ul style="list-style-type: none"> ➤ The Emergency Team Leader shall inform all the parties such as the Project Manager, Environment Team and Independent Environment Checker immediately. The contact list of the mentioned parties is attached in Section 8.0. ➤ The Emergency Team Leader shall organize workers to identify the source of spillage and stop it provide it is safe to do so. ➤ The assigned person to remove the spill shall be well equipped with suitable PPE. ➤ Secondary Oil Containment shall be used to contain the spillage area ➤ Absorbent pads and pillows shall be used to absorb and remove the spill within the Secondary Oil Containment zone. ➤ The used absorbent pads and pillows will be packed and treated as chemical waste ➤ An incident report will be submitted to ET, IEC and PM within 2 working days. 	Response actions of spill area <100m ²	Contractor	Marine environment	Construction phase

DWP Ref.	Recommended Major Environmental Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage
S5.0	<p><u>Dolphin Contingency Plan During Spill Response</u></p> <p>It is not known what specific impacts a spill of chemical or chemical waste will have upon the Chinese White Dolphin and its food supply. Hence, the following approach will be applied to isolate the Chinese White Dolphin from any spill response event which may take place in our construction activities:</p> <p>(i)Initial Response</p> <ul style="list-style-type: none"> ➤ Observation from high platform will be used to determinate the size of spillage. ➤ In addition to identify the size of spillage, checking any Chinese White Dolphin within or in the vicinity of the spillage will be observed from high platform. ➤ The following course of action shall be decided upon the investigation of size of spillage, the present of any Chinese White Dolphin within the spillage and the likelihood of Chinese White Dolphin entering the spillage. <p>(ii)Isolation of Spillage from Chinese White Dolphin</p> <ul style="list-style-type: none"> ➤ In case the spillage is a small in scale, absorbent booms shall be used to prevent the spread of a spill and thus help to minimize the potential for Chinese White Dolphin to come into contact with the spillage. Together with the observers, our superintendent will organize workers to remove the small spill in a short time. 	Dolphin contingency plan for spill response	Contractor	Marine environment	Construction phase

DWP Ref.	Recommended Major Environmental Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage
	<ul style="list-style-type: none"> <li data-bbox="327 379 1021 687">➤ In the event of spillage of a larger scale, the deployment of underwater barrier nets (surrounding the absorbent booms) in addition to the measures outline above, could be an effective means of isolating the spill area from Chinese White Dolphin. Trained dolphin watchers shall maintain visual contact with any Chinese White Dolphins sighted in the area to ensure dolphins are not trapped within barrier nets. Qualified ecologist will be notified to give advice for further appropriate actions. <li data-bbox="327 703 1021 914">➤ In case of the Chinese White Dolphin is found within the enclosed contaminated area of spillage, the same measures will be applied in the event of injury or of live stranded cetaceans, as described in the Dolphin Watching Plan will be followed (i.e. contact immediately through “1823” marine mammal stranding hotline). 				