Contract No. HY/2013/04
HZMB HKBCF – Infrastructure Works Stage II (Southern Portion)

Spill Response Plan

May 2015

Mott MacDonald

Our ref JFP/TK/bw/T355861/02/02/L003
T 2828 5757
E Terence.Kong@mottmac.com.hk
Your ref -

Mott MacDonald

China State Construction Engineering (Hong Kong) Ltd.
27/F, China Overseas Building,
139 Hennessy Road,
Hong Kong

9 June 2015
By Email

Attn: Mr. Gary Ng – Environmental Officer

Dear Sir,

Contract No. HY/2013/04 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Infrastructure Works Stage II (Southern Portion)
Spill Response Plan

In accordance with Condition 2.7 of the Environmental Permit (EP-353/2009/H) covering the captioned contract, we are pleased to submit the certified Spill Response Plan for your onward submission to the Engineer and ENPO/IEC for approval.

Yours faithfully
For MOTT MACDONALD HONG KONG LIMITED

Terence Kong
Environmental Team Leader

Encl.

cc. AECOM – Mr. Alfred Cheng (by Email)
ENPO/IEC – Mr. Raymond Dai & Mr. Y.H. Hui (By Email)

RAMBOLL ENVIRON

Ref.: HYDHZMBEEM00_0_3062L.15

16 June 2015

By Fax (3468 2076) and By Post

AECOM Asia Co. Ltd.
The PRE's Offices
5 Ying Hei Road, Tung Chung, Lantau
Hong Kong

Attention: Mr. Alfred Cheng

Dear Sir,

Re: Agreement No. CE 48/2011 (EP)
Environmental Project Office for the
HZMB Hong Kong Link Road, HZMB Hong Kong Boundary Crossing Facilities, and Tuen Mun-Chek Lap Kok Link – Investigation

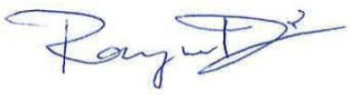
Contract No. HY/2013/04 – HZMB HKBCF – Infrastructure Works Stage II (Southern Portion)
Spill Response Plan

Reference is made to the Environmental Team's submission of Spill Response Plan certified by the ET Leader (ET's ref.: "JFP/TK/bw/T355861/02/02/L003" dated 9 June 2015) and provided to us via e-mail on 16 June 2015.

We are pleased to inform you that we have no adverse comment on the captioned Plan. We write to verify the captioned submission in accordance with Condition 2.7 of the Environmental Permit No. EP-353/2009/H.

Thank you very much for your attention and please feel free to contact the undersigned should you require further information.

Yours faithfully,
For and on behalf of
Ramboll Environ Hong Kong Limited



Raymond Dai
Independent Environmental Checker

c.c.	HyD	Mr. Matthew Fung	(By Fax: 3188 6614)
	HyD	Mr. Horace Hong	(By Fax: 3188 6614)
	Mott MacDonald	Mr. Terence Kong	(By Fax: 2827 1823)
	CSCE	Mr. Eddie Tang	(By Fax: 2459 4336)

Internal: DY, YH, SL, JM, ENPO Site

Q:\Projects\HYDHZMBEEM00\02_Proj_Mgt\02_Corr\HYDHZMBEMM00_0_3062L.15.doc

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1 Introduction

1.1 Background

This Spill Response Plan (SRP) is prepared for the Contract No. HY/2013/04 "Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Infrastructure Works Stage II (Southern Portion)" (the Contract) for the Highways Departments of HKSAR Government.

The Contract is part of the "Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities" (HZMB HKBCF) Project which is a "Designated Project" under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and for which an EIA Report (Register No. AEIAR-145/2009) was prepared and approved. The current Environmental Permit (EP) for HKBCF, namely No. EP-353/2009/H, was issued on 19 January 2015. These documents are available through the Environmental Impact Assessment Ordinance Register. The site layout plan is presented in the **Appendix A**.

1.2 Project Description

The Proposed works under this Contract comprise the following:

- Construction of vehicular bridge and at-grade roads at the southern portion of Hong Kong Boundary Crossing Facilities;
- Construction of associated street lighting, street furniture, road marking, road signage, box culverts and outfalls, drainage, sewerage, fresh water and flushing water supply, irrigation, landscape, electrical and mechanical (E&M), utilities and services works;
- Provisioning of civil engineering works and power supply for Traffic Control and Surveillance System (TCSS); and
- Other works which are shown on the Drawings or specified in the Specification or which may be ordered in accordance with the Contract.

1.3 Purpose & Scope

As specified in Condition 2.7 of the EP:

"The Permit Holder shall deposit with the Director at least 1 month before the commencement of construction of the Protect, three hard copies and one electronic copy of a Spill Response Plan detailing the actions to be taken in the event of accidental spillage of oil or other hazardous chemicals from construction activities including vessels operating for the Project, with specific provisions for protecting marine ecology and the Chinese White Dolphins."

This SRP is to establish the requirements for effective emergency preparedness and response to spillage incidents and has been prepared in accordance with the EP requirements. The aim of this Plan is to provide the framework for enabling the following:

- Identify the responsible parties involved;
- Identify the precautionary measures required;
- Specify the procedures for timely and effective responses to spill incident;

- Specify the requirements for spill cleanup and reporting; and
- Specify the measures to protect sensitive receivers from adverse impacts due to spills.

1.4 Report Structure

Following this introductory section, the report is structured as follows:

Section 2 Roles and Responsibilities

Section 3 Spill Prevention Measures

Section 4 Spill Response Procedures

Section 5 Spill Response Plan Implementation

Section 6 Relevant Parties Contact List

2 Roles and Responsibilities

2.1 General

Prevention and actions in relation to spillage incidents are the responsibility of the designated Emergency Team. The organisation of the Emergency Team and the responsibilities of the key personnel during an emergency spill response are described under this section.

2.2 Responsibilities of Key Personnel

2.2.1 Emergency Team Leader

The Emergency Team Leader's main responsibility is to ensure the SRP is issued and followed by all construction workers of the project. The Emergency Team Leader shall ensure that all construction workers perform their tasks and duties safely and correctly with sufficient resources. During spill response, the Emergency Team Leader shall provide high level direction to the Emergency Team members during any spill event, and maintain communication with China State Construction Engineering (Hong Kong) Limited and other relevant external parties in the event of spillage as mentioned in this SRP.

2.2.2 Emergency Team Coordinator

The Emergency Team Coordinator is mainly responsible for reporting to the Emergency Team Leader and coordinating all health, safety and environmental matters related to the SRP onsite. The Emergency Team Coordinator shall oversee the implementation and performance of the SRP and shall assist the Emergency Team Leader when any spillages occur. All management of environmental issues, staff supervision, control, planning as well as implementing and monitoring necessary remedial actions as related to the SRP shall be the responsibility of the Emergency Team Coordinator with assistance from the Environmental Officer (EO) / Environmental Supervisor (ES).

2.2.3 Safety Manager (SM) / Safety Officer (SO)

The SM / SO is responsible for assisting the Emergency Team Coordinator in all health and safety matters related to this SRP. The SM / SO is also responsible for assisting the EO / ES as part of spill incident / accident investigation.

2.2.4 Environmental Officer (EO) / Environmental Supervisor (ES)

The EO / ES is responsible for assisting the Emergency Team Coordinator to coordinate, monitor and oversee the performance and implementation of the SRP onsite. The EO / ES shall ensure that all construction workers follow the requirements of this SRP and shall provide related spill prevention and response training to all construction workers. The EO / ES shall conduct a spill incident / accident investigation when required, and shall review and update the SRP on a regular basis.

2.2.5 Foremen

The Foremen are responsible for assisting in daily implementation of the SRP, site supervision and coordination of individual construction works as well as implementation of any remedial actions or environmental protection measures as directed by the EO / ES and/or Emergency Team Coordinator in relation to spill response and cleanup in accordance with the SRP. The Foremen are also responsible for reporting all spillage incidences immediately to the EO / ES and Emergency Team Coordinator, and ensuring that all workers comply with this SRP onsite.

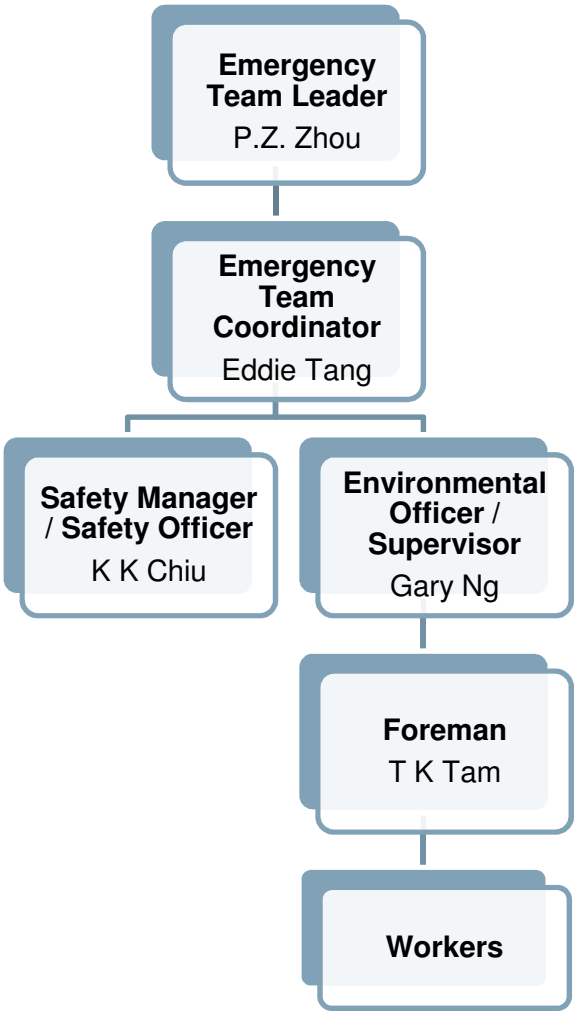
2.2.6 Onsite Workers

All onsite construction workers are responsible for complying with the SRP and following the instructions of the Foremen as related to this SRP. All workers are required to attend training provided by the EO / ES to ensure construction materials, chemicals and wastes are handled and stored properly onsite as required by the EIA and the SRP. Workers are required to properly use the spill kits to collect and store the spillage wastes generated during cleanup of any spills as directed in this SRP where applicable. Workers are also responsible for reporting immediately to the Foremen any incidences that occurred during the site works.

2.3 Emergency Team Organization

The typical Emergency Team organization chart for spillage incidences is presented in **Figure 2.1**.

Figure 2.1: Emergency Team Organization Chart for Spillage Incidents



3 Spill Prevention Measures

3.1 General Precautions

The following general precautionary measures shall be applied to all construction works areas to minimise the risk of accidental spillage:

- Maintain good site housekeeping practices and ensure all materials, chemicals and wastes are properly stored and placed in appropriate disposal areas onsite at the end of each day.
- Avoid disorder and storage of unnecessary materials in working areas.
- Open flames and smoking is prohibited within the construction site; smoking is permitted only at designated smoking areas.
- Stacked containers should be secured from falling.
- Large / heavy containers should be stored on the floor as far as possible to prevent falling.

3.2 Chemicals, Oils and Fuels

For chemicals, oils and fuels required and used onsite, the following measures shall be applied.

For procurement:

- Label all chemical storage containers and tanks in accordance with the Environmental Protection Department (EPD) 'Code of Practice on the Package, Labelling and Storage of Chemical Wastes'.
- An up to date list of chemicals, chemical waste and fuel oil should be maintained.

For storage:

- Suitable container should be used which are resistant to the stored oil fuel, chemical / chemical waste to avoid leakage.
- Containers should be checked before use and container lids should be closed tightly to avoid leakage of chemicals and chemical waste.
- Chemical waste storage areas should be located in a designated area that is sheltered on at least 3 sides and the top, and is locked and kept clean and free from obstruction.
- Incompatible chemicals should be separated.
- Chemical, oil and fuel containers should be kept under eyelevel as far as possible.
- Drip trays or bunds should be used for storage containers of chemicals and oil / fuel tanks and should have a capacity equal to 110 % of the storage capacity of the largest tank.
- Chemical storage area and drip trays should be inspected daily to ensure the containers are in good condition.
- Where chemicals are temporarily taken outside the sheltered chemical storage area, the chemicals including the drip trays / bund should be covered by waterproof tarpaulins and kept free of rainwater.
- The chemical storage area should be locked.

- Suitable fire-fighting, spill response materials should be provided in the storage areas or the vicinity of the storage areas.

For transfer / transport:

- Pumps should be used to transfer large quantities of oil, fuel, chemical / chemical wastes instead of pouring.
- Oil, fuel, chemical / chemical wastes should be transferred slowly to prevent spillage or overfilling.
- Suitable trolley should be used to transport chemicals / chemical wastes to other location.
- Storage containers should be checked to ensure they are tightly sealed with no leakage before transport to other location.

4 Spill Response Procedures

4.1 General

In the event of a spillage incident, the spill response needs to be carried out promptly and efficiently according to the spillage location, type of spill and quantity of spill. An effective spill response can prevent adverse impacts to the environment and may also minimize the quantity of release into the environment. The spill responses for different spillage types and scenarios are discussed in the following sections.

4.2 Construction Phase Spill Response

When a spill occurs, the worker shall inform the Emergency Team to proceed with the appropriate spill response immediately. The worker shall report the following to the Emergency Team:

- The location of the spill;
- Nature of the affected location (e.g. concrete, dirt, marine environment);
- When the spill occurred;
- The type of spill (e.g. oil, chemical, hazardous materials, suspended solid); and
- The approximate quantity and size of the spill.

After receiving the description of the spill from the worker, the Emergency Team shall proceed with the appropriate spill response according to the relevant scenario described below.

4.2.1 Oil or Hazardous Chemicals Spill on Land or on Deck of Marine Vessel

For spillage area less than $100m^2$

1. Worker shall take immediate measures (in line with spill response training) to stop the source of the spill if the source is obvious and it is safe to do so, and inform the Emergency Team of the spill incident;
2. Emergency Team Leader shall inform all relevant parties such as Engineer's Representative (ER), Environmental Team (ET) and Independent Environmental Checker (IEC) immediately and keep such parties informed throughout the spill response;
3. Emergency Team Leader / Coordinator shall organize the manpower to identify / check the source of the spill and provide instructions for stopping / containing the spill;
4. Worker shall stop, reduce, isolate or contain the spillage if possible measures can be taken (e.g. turn off the valve);
5. Worker shall install forced ventilation to ensure a safe spillage condition is provided, where applicable;
6. Emergency Team member shall appoint well-trained cleanup crew to cleanup the spillage area;
7. Emergency Team member shall review relevant Material Safety Data Sheet (MSDS) for the chemical spill. The MSDS would have specific instruction on how to deal with chemical spill;
8. Emergency Team member shall ensure all the workers involved in the cleanup works are equipped with suitable personal protective equipment (PPE);

9. The spilt material shall be put back into the containers of origin, if possible and practical. Otherwise dry sand, sawdust or other suitable materials shall be used to absorb the spill;
10. Any contaminated materials shall be collected and put in a bag and clearly marked as “Chemical Waste”;
11. All collected chemical waste shall be stored in designated chemical waste area;
12. EO / ES shall carry out spill investigation and submit the spill incident report to the ENPO, ER, ET and IEC within 2 days.

For spillage area greater than 100m^2

1. Worker shall immediately inform the Emergency Team of the spill incident;
2. Emergency Team Leader shall inform all relevant parties such as EPD, Highways Department (HyD), ER, ET and IEC immediately and keep such parties informed throughout the spill response;
3. Follow item nos. 3 to 11 of the spill response for spillage area less than 100m^2; and
4. The SM / SO and EO / ES shall carry out joint spill investigation and submit the spill incident report to the ENPO, ER, ET and IEC within 2 days with provisions for improvement measures / practices to prevent re-occurrence and update this SRP if necessary.

4.2.2 Oil or Hazardous Chemicals Spill into Marine Environment

When oil or other hazardous materials are spilt into the marine environment, the spill could be spread out quickly due to the water current and wind speed, therefore, a timely and effectively spill response shall be implemented in order to minimize the impacts to the marine environment.

For spillage area less than 100m^2

1. Worker shall take immediate measures (in line with spill response training) to stop the source of the spill if the source is obvious and it is safe to do so, and inform the Emergency Team of the spill incident;
2. Emergency Team Leader shall inform all relevant parties such as ER, ET and IEC immediately and keep such parties informed throughout the spill response;
3. Emergency Team Leader / Coordinator shall organize the manpower to identify / check the source of the spill and provide instructions for stopping / containing the spill;
4. Worker shall stop, reduce, isolate or contain the spillage if possible measures can be taken (e.g. deploy containment booms);
5. Worker shall isolate nearby sensitive receivers from the spillage area as an additional precaution if required (e.g. deploy perimeter booms around seawater intakes);
6. Emergency Team member shall appoint well-trained cleanup crew to cleanup the spillage area;
7. Emergency Team member shall ensure all the workers involved in the cleanup works are equipped with suitable PPE;
8. Absorption materials such as pads or pillow shall be used to absorb the spillage;
9. Any contaminated materials shall be collected and put in a spill containment and clearly marked as “ Chemical Waste”;

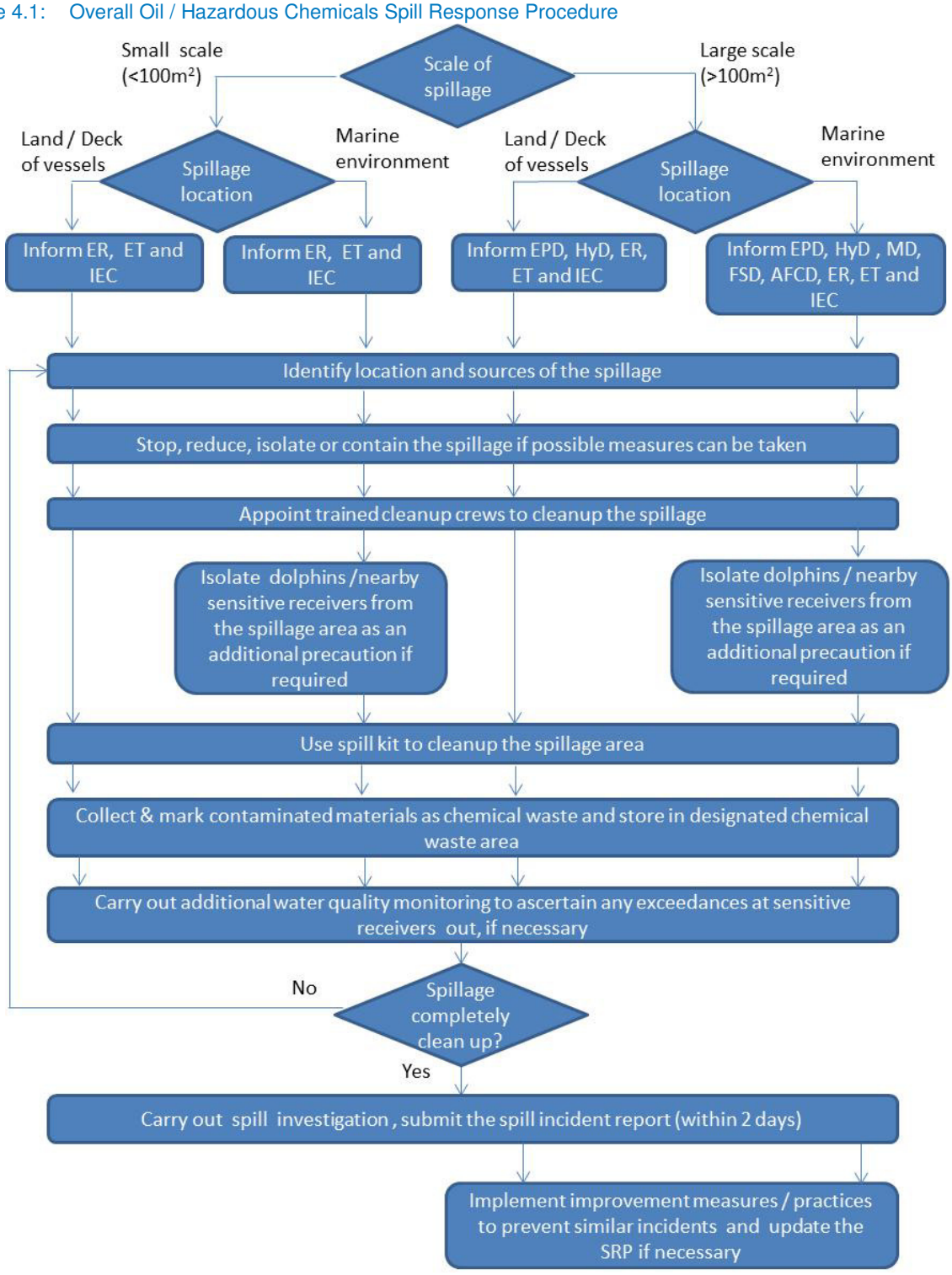
10. All collected chemical waste shall be stored in designated chemical waste area;
11. The ET shall review whether additional water quality monitoring is necessary to ascertain whether the spill has resulted in any exceedances at nearby sensitive receivers;
12. EO / ES shall carry out spill investigation and submit the spill incident report to the ENPO, ER, ET and IEC within 2 days.

For spillage area greater than $100m^2$

1. Worker shall immediately inform the Emergency Team of the spill incident;
2. Emergency Team Leader shall inform all relevant parties such as EPD, HyD, Marine Department (MD), Agriculture Fisheries and Conservation Department (AFCD), Fire Services Department (FSD), ER, ET and IEC immediately and keep such parties informed throughout the spill response;
3. Follow item nos. 3 to 11 of the above spill responses for spillage area less than $100m^2$;
4. Implement the specific dolphin contingency as per **Section 4.3** and the procedures for protection of sensitive receivers as per **Section 4.4**;
5. The SM / SO and EO / ES shall carry out joint spill investigation and submitted the spill incident report to the ENPO, ER, ET and IEC within 2 days with provisions for improvement measures / practices to prevent re-occurrence and update this SRP if necessary.

The overall process for oil and hazardous chemical spill procedures is presented in **Figure 4.1**.

Figure 4.1: Overall Oil / Hazardous Chemicals Spill Response Procedure



4.3 Dolphin Contingency Plan

Chinese White Dolphin (CWD) is commonly found within the western waters in Hong Kong. If a spill of oil / hazardous chemicals occurs in the marine environment and spreads over a large area, the health and wellbeing of CWD might be endangered. As such, a Dolphin Contingency Plan shall be implemented for large scale oil / hazardous chemicals spills released into marine environment.

When a large scale spill occurs, the worker shall inform the Emergency Team to proceed with the Dolphin Contingency Plan immediately as follows:

1. The EO / ES shall determine the location and approximate extent of the spill from a high platform;
2. The dolphin watchers shall check whether any CWD is present in the vicinity of the spill, if possible;
3. The Emergency Team Leader shall ensure the appropriate spill response measures are implemented. These may include:
    a. Containment booms to minimise the spread of spill. This helps to prevent the CWD from coming into contact with the spill and can act as a visual barrier to prevent the CWD from entering the contaminated area;
    b. Underwater barrier nets to isolate the CWD from the spill area, if necessary; and
    c. Absorption materials such as pads or pillow to clean up the spillage as soon as possible.
4. The dolphin watchers shall maintain watch of the spillage area until the spill is completely cleaned up. If dolphins are found to be entering into the contained spillage areas, the Emergency Team Leader / Emergency Team Coordinator shall contact the ET and seek their advice for appropriate actions.

4.4 Sensitive Receivers

When a large scale spill occurs, the following procedures will be taken in order to protect sensitive receivers within the vicinity of the project site:

1. Affected sensitive receivers such as seawater intakes, ecological sensitive receivers, fisheries and fish culture zones, corals and bathing beaches shall be identified.
2. Absorbent booms or other similar booms shall be used in order to surround and protect the sensitive receivers.
3. The Emergency Team Leader shall immediately inform the relevant parties as mentioned in **Section 4.2**.
4. The Emergency Team shall implement all possible mitigation measures in order to isolate the spill and minimize any potential adverse impacts to the sensitive receivers.
5. The ET shall implement additional monitoring if necessary to determine any potential adverse impacts to the sensitive receivers.

5 Spill Response Plan Implementation

5.1 Training

All construction site workers shall be introduced to the SRP during the environmental induction training and Tool Box talks which should be carried out by the EO / ES for each construction site. During the induction training and Tool Box talks, a demonstration of the containment methods and equipment shall be carried out by the EO / ES. The EO / ES shall conduct Tool Box talks with the site workers regarding the SRP periodically. Examples of spill related training topics are shown in **Table 5.1**. The Emergency Team Leader shall ensure that all relevant workers receive the appropriate spill related training prior to undertaking activities that may lead to spillage or involve spill response. A training record shall be maintained by the EO / ES to register the training provided and each individual's signoff to acknowledge that the training has been attended and the content is understood.

Table 5.1: Spill Related Training Topics

Training Topic	Applicable Personnel
Introduction to the SRP and its requirements on spill response	All construction site workers
Work safety around the spill	All construction site workers
Containment of spill	All construction site workers
Recovery and cleanup of spill	Spill cleanup crew
Handling and disposal of waste generated from spill	Spill cleanup crew

5.2 Spill Control Equipment

At least one set of spill kit should be provided and stored onsite near to each storage area for chemicals or chemical waste. At least three sets of spill kits should be available aboard each vessel if involved in marine works. Additional one set of spill kit should be located near to the EO / ES office. Additional spill kits should also be provided onsite at locations or activities with a higher risk of spills. The EO / ES shall ensure that sufficient spill kits are available onsite at all times. The EO / ES shall also notify the Foremen and onsite workers of the locations of spill kits. The spill kit shall include, but are not limited to the following items:

- Oil absorbent pads;
- Oil absorbent socks;
- Sorbent booms;
- Sweeps;
- Goggles;
- Protective masks;
- Nitrile gloves;
- Disposal bags; and
- Instruction sheets.

The standard spill kit details are shown in **Appendix B**.

5.3 Drills

Regular drills would be carried out to ensure all site workers, especially the Emergency Team members, are proficient in his/her assigned duties. Where applicable, spill incidents will be simulated, drilled and practiced at least annually. Relevant authorities such as FSD, MD, AFCD and Hong Kong Police Force would be invited to participate and/or witness the drill exercises.

5.4 Spillage Incident Report

The EO / ES shall prepare a spillage incident report for submission to ENPO, ER, ET and IEC within 2 days after the incident occurred. The report will investigate the reasons for the spillage and evaluate the effectiveness of the procedures and precautionary measures taken and specified in this SRP. Where applicable, additional mitigation measures will be proposed and implemented to prevent similar occurrence of spillage. The incident report should include but are not limited to the following:

- Details of the spillage incident;
- Clean up actions taken;
- Any residues of the spill remaining in the environment;
- Follow up or monitoring actions taken if required; and
- Photo records.

5.5 Review and Update

The spill response procedures in this SRP should be reviewed after every spill incident and/or spill response drill, and at least annually, and relevant procedures and measures shall be updated as required.

6 Relevant Parties Contact List

6.1 Emergency Contacts

The following tables (**Table 6.1 to Table 6.4**) provide the names and telephone contacts of various parties who should be contacted in case of a spill incident or emergency.

Table 6.1: Project / Environmental Team Contact List

Role	Name	Contact No.
Employer's Representative (ER)	Ir Lee Ping Kuen, JP	6329 8443
	Miranda Wong	9212 3668
Independent Environmental Checker (IEC)	Raymond Dai	5181 8401
Environmental Team Leader (ETL)	Terence Kong	2828 5919

Table 6.2: Emergency Team Contact List

Role	Name	Contact No.
Emergency Team Leader	P Z Zhou	6746 4151
Emergency Team Coordinator	Eddie Tang	9863 7686
Safety Manager	K K Chiu	9048 7948
Environmental Officer / Environmental Supervisor	Gary Ng	9475 6832
Foreman	T K Tam	6101 1113

Table 6.3: Government Department Contract List

Government Department	Contact No.
General Emergency Services	999
Highways Department	2926 4111
Labour Department	2717 1717
Fire Services Department	2302 5373
Agriculture, Fisheries and Conservation Department	2708 8885
Environmental Protection Department	2838 3111
Marine Department	2542 3711
Vessel Traffic Centre	2233 7801
Maritime Rescue Coordination Centre	2233 7999
Fire Station	Tung Chung Fire Station: 2988 1898
	Chek Lap Kok Fire Station: 2949 9081
Ambulance	Tung Chung Ambulance Depot: 2988 8282
Hospital	North Lantau Hospital: 3467 7000

Table 6.4: Utility Company Contract List

Utility Company	Contact No.
CLP Power Hong Kong Limited	2728 8333
The Hong Kong and China Gas Company Limited	2880 6999

The emergency contact list shall be reviewed annually. Any changes should be amended and notified to all onsite staff immediately.

Appendices

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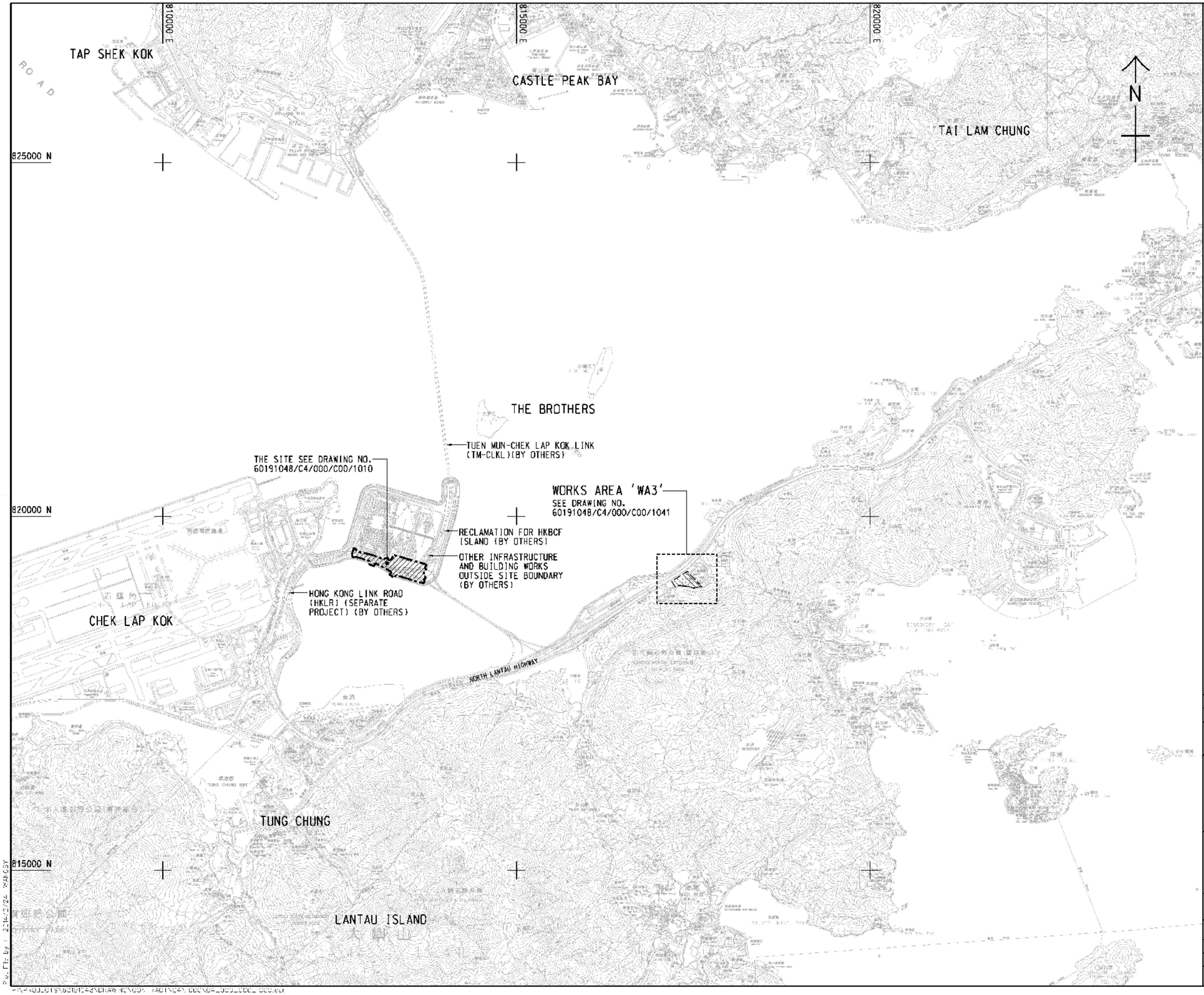
Appendix A. Site Layout Plan



NOTES:

1. COORDINATES ARE RELATED TO HONG KONG METRIC GRID (1980).
2. DIMENSIONS ARE IN MILLIMETER AND CHAINAGE ARE IN METRES UNLESS OTHERWISE SHOWN.

LEGEND:

SITE BOUNDARY

WORKS AREA

Rev.	Description	By	Ckd	Date
-	TENDER DRAWING	BWCW	SCI	FEB.14

路政署
HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處
Hong Kong-Zhuhai-Macao Bridge Hong Kong Project Management Office

HONG KONG-ZHUHAI-MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- INFRASTRUCTURE WORKS STAGE (I (SOUTHERN PORTION)

SITE LOCATION PLAN

AECOM
Rogers Stirk Harbour + Partners
BURO HAPPOLD ATKINS ADI
Aedas

DRG.NO. 60191048/C4/000/C00/1000

DESIGNED BY BWCW	CONTRACT NO. HY/2013/04	CHK'D BY TKH
DRAWN BY WSY	STATUS	
SCALE A1 1 : 25000		
DIMENSIONS ARE IN METRES	© COPYRIGHT RESERVED 版權所有	

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813600 E
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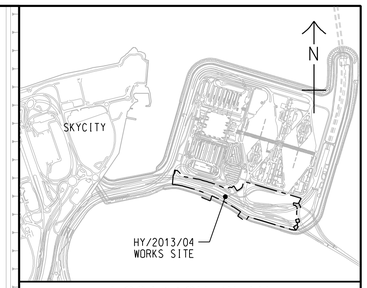
819400 N

BRIDGE D1
BRIDGE D8
BOX CULVERT C
DEPRESSED ROAD DRAINAGE
PUMP HOUSE CUM SWITCH ROOM
BRIDGE D9a
BRIDGE D14a
BRIDGE D10
BRIDGE D14b
BRIDGE D9b
BRIDGE D11
BRIDGE D9c
BRIDGE D16N
BRIDGE D16S
BRIDGE D15
BRIDGE D13
BRIDGE D12a
BRIDGE D12b
BOX CULVERT D
M.J.

A



LOCATION PLAN
SCALE 1 : 25000

LEGEND:

- SITE BOUNDARY
- AT-GRADE WORKS LIMIT
- M.J. — MOVEMENT JOINT
- BRIDGE
- BUILDING/FACILITIES
- AT-GRADE ROAD
- BOX CULVERT

REV. 修訂	DESCRIPTION 內容摘要	DRAWN 繪圖	CHECKED 複核	DATE 日期
B	WORKING DRAWING	BWCW	SCI	APR.15
A	TENDER ADDENDUM NO. 3	BWCW	SCI	MAY.14
–	TENDER DRAWING	BWCW	SCI	FEB.14

路政署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

HONG KONG-ZHUHAI-MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- INFRASTRUCTURE WORKS STAGE II (SOUTHERN PORTION)

GENERAL ARRANGEMENT

AECOM
Rogers Stirk Harbour + Partners
BURO HAPPOLD ATKINS ADI
Aedas

DRG.NO. 圖紙編號 60191048/C4/000/C00/1002B

DESIGNED BY 設計	BWCW	CONTRACT NO. 合約編號	HY/2013/04
DRAWN BY 繪圖	WSY	P. Dir. APPROVED 批准人	TKH
SCALE 比例	A1 1 : 2000	STATUS 階段	WORKING DRAWING
DIMENSIONS ARE IN 尺寸單位	METRES	© COPYRIGHT RESERVED 版權所有	

Plot File by : 2014/5/7 WANGSY

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SETTING OUT POINT

POINT	EASTING	NORTHING
301	817467.265	819162.683
302	817314.741	819069.828
303	817327.338	819049.295
304	817440.865	819117.811
305	817340.825	819027.314
306	817387.350	819023.403
307	817387.861	819043.396
308	817466.133	819091.047
309	817469.783	819087.181
310	817513.449	819113.764
311	817347.717	819016.082
312	817620.269	819000.620
313	817445.362	819013.131
314	817450.595	819032.307
315	817495.828	819059.595
316	817522.110	819075.388
317	817566.404	819028.472
318	817568.506	819008.526
319	817531.155	819001.066
320	817533.346	818991.306

A

817200 E

817400 E

817600 E

819200 N

819000 N

NORTH LANTAU HIGHWAY

CHEUNG TUNG ROAD

WORKS AREA OCCUPIED BY CONTRACT NO. HY/2011/03

WORKS AREA OCCUPIED BY CONTRACT NO. HY/2011/09

WORKS AREA OCCUPIED BY CONTRACT NO. HY/2013/02

WORKS AREA OCCUPIED BY CONTRACT NO. HY/2013/01

WORKS AREA OCCUPIED BY CONTRACT NO. HY/2013/03

10m WIDE COMMON ACCESS TO BE MAINTAINED BY CONTRACT NO. HY/2010/02

WORKS AREA OCCUPIED BY CONTRACT NO. HY/2010/02

10m WIDE COMMON ACCESS TO BE CONSTRUCTED AND INITIALLY MAINTAINED BY CONTRACT NO. HY/2013/01. UPON COMMENCEMENT OF CONTRACT NO. HY/2013/03. THE MAINTENANCE RESPONSIBILITY SHALL BE TRANSFERRED FROM CONTRACT NO. HY/2013/01 TO CONTRACT NO. HY/2013/03.

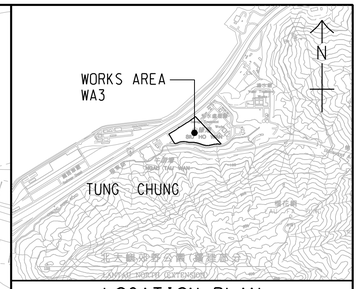
WORKS AREA OCCUPIED BY CONTRACT NO. HY/2013/04

WORKS AREA OCCUPIED BY CONTRACT NO. HY/2014/05

301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320

小濠灣污水處理廠
Siu Ho Wan Sewage Treatment Works

N



LOCATION PLAN
SCALE 1 : 25000

NOTES:

1. COORDINATES ARE RELATED TO HONG KONG METRIC GRID (1980).
2. DIMENSIONS ARE IN MILLIMETER AND CHAINAGE ARE IN METRES UNLESS OTHERWISE SHOWN.

LEGEND:

- WORKS AREA BOUNDARY
- PORTION 3.1
- PORTION 3.2
- PORTION 3.3
- PORTION 3.4
- PORTION 3.5
- PORTION 3.6
- PORTION 3.7
- PORTION 3.8
- PORTION 3.9
- PORTION 3.10 (A)

REV. 修訂	DESCRIPTION 內容摘要	DES. 設計 / CHECKED 查核	DATE 日期
B	WORKING DRAWING	BWCW SCI	APR.15
A	TENDER ADDENDUM NO. 2	BWCW SCI	APR.14
-	TENDER DRAWING	BWCW SCI	FEB.14

路政署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

HONG KONG-ZHUHAI-MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- INFRASTRUCTURE WORKS STAGE II (SOUTHERN PORTION)

WORKS AREA WA3

AECOM
Rogers Stirk Harbour + Partners
BURO HAPPOLD ATKINS ADI
Aedas

DRG.NO. 圖紙編號 60191048/C4/000/C00/1041B

DESIGNED BY 設計: BWCW	CONTRACT NO. 合約編號: HY/2013/04	P. Dir. APPROVED 批准人: TKH
DRAWN BY 繪圖: WSY	STATUS 階段: WORKING DRAWING	
SCALE 比例: A1 1 : 1000		
DIMENSIONS ARE IN 尺寸單位: METRES	© COPYRIGHT RESERVED 版 權 所 有	

Plot File by : 2014/4/11 WANGSY

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Appendix B. Standard Spill Kit Details

SKH55 spill lit is suitable for handling small scale spill situation (<100m^2)

SPC Product Information

Item #: SKH55

Family: ***KIT***
(Spill Kits)

KIT Family Product List

Product Image

SKH55 Description:
Open and close this lever locked 55 gallon drum for fast response. Drum meets UN specifications. For medium spill response. Contents: 50 - 15"x19" Pads; 4 - 3"x12'Socs; 8 - 17"x19" Pillows; 1 Pair Goggles; 1 Pair Nitrile Gloves; 5 - Disposal Bags; Emergency Response Handbook.

SKH55 Replaces:
AMI : 16210
CEP : CEP-HAZSK30
CEP : CEP-HAZSK55
New Pig : KIT243
New Pig : KIT263
New Pig : KIT307-01
New Pig : KIT343
New Pig : KIT363
NPS : 250055

UPC_Code: 66270625206
Type: chemical
Configuration: kit
Size:
Count: 1
Unit Of Sales: kit
Packaging: kit
Shipping Weight: 52 lbs
Absorbency: 38 gal/kit

Keywords:
kit, spill kit, drum, chemical, hazardous, aggressive

SKO95 spill lit is suitable for handling large scale spill situation (>100m^2).

SPC Product Information

Item #: SKO95

Family: ***KIT (Spill Kits)***

KIT Family Product List

Product Image

SKO95 Description:
Tough, secure and highly visible, this top quality screw topped overpack drum meets UN and DOT specifications. For larger spill response. Contents: 110 - 15"x19" Pads; 12 - 3"x4' Socs; 8 - 3"x12' Socs; 8 - 17"x19" Pillows; 1 Pair Goggles; 1 Pair Nitrile Gloves; 10 - Disposal Bags; Emergency Response Handbook.

SKO95 Replaces:
AMI : 16310
CEP : CEP-SK95
IEP : OSSK-95
New Pig : KIT202
New Pig : KIT241
New Pig : KIT262
New Pig : KIT402
New Pig : KIT441
NPS : 350095
OilDri : L90943

UPC_Code: 66270615205
Type: oil only
Configuration: kit
Size:
Count: 1
Unit Of Sales: kit
Packaging: kit
Shipping Weight: 107 lbs
Absorbency: 75 gal/kit

Keywords:
kit, spill kit, drum, oil only