



# **EHS REGULATIONS & REQUIREMENTS FOR BUNKERING OF SHIPS**

**First Edition 2008**

## **CONTENTS**

<b>SECTION 1</b>	<b>: Introduction</b>
<b>SECTION 2</b>	<b>: Definitions</b>
<b>SECTION 3</b>	<b>: Approval Process for Bunker Suppliers</b>
<b>SECTION 4</b>	<b>: Bunker notification</b>
<b>SECTION 5</b>	<b>: Distribution of Responsibility</b>
<b>SECTION 6</b>	<b>: Safety Checklist</b>
<b>SECTION 7</b>	<b>: Bunker Safety Precautions</b>
<b>SECTION 8</b>	<b>: Oil Spill Response Equipments Requirements</b>
<b>SECTION 9</b>	<b>: Actions during Oil Spills Emergencies</b>
<b>SECTION 10</b>	<b>: EHS Monitoring Of Bunker Operations</b>
<b>SECTION 11</b>	<b>: Appendix 1: <u>Bunker Notification Form</u></b>
	<b>Appendix 2: <u>Ship To Ship Bunker Safety checklist</u></b>
	<b>Appendix 3: <u>Ship-Shore Safety Checklist for Bunkering</u></b>

## Section 1: Introduction

- 1.1 These regulations are intended to execute bunkering operations safely without spillages and leakages in line with Port's EHS regulations & requirements.
- 1.2 The scope covers all bunkering operations for ships within the Dubai World premises and anchorages regardless of the quantity being transferred and Tanker Berths where oil transfer is for the purpose of bunkering

## Section 2: Definitions

**Agent** means any person mandated to supply information and act on behalf of the owner or operator of the ship and holding a valid license from Port management.

**Applicable International Requirements** means the conventions, protocols, guidelines, resolutions or codes of International Maritime Organization , International chamber of shipping or OCIMF or by other maritime industry organisations.

**Approved Bunker Supplier** means a bunker supply company approved by the Harbour Master and Environment, Health & Safety - to supply oil to vessels within the Dubai World premises and Anchorages;

**Bunkers** means the transfer of liquid hydrocarbons, intended for the main propulsion and/or operation of the auxiliary machinery of a vessel or a liquid intended for lubricating the vessel's engine or her other machinery including slops and bilge waters.

**Bunkering vessel** means a ship that delivers bunkers to a receiving ship.

**Bunkering vehicle** means a tank-truck or other vehicle that delivers bunkers to a receiving ship.

**Receiving ship** means a ship that receives bunkers either from a shore pipeline, another vessel or a vehicle.

**Responsible Person** means a person who is authorized by the owner/operator to supervise bunkering operation

**DW** means Dubai World

**DPW** means DP World

**DPA** means Dubai Ports Authority

**EHS** means Environment, Health & Safety

**PCFC** means Ports Customs & Freezone Corporations

**SOPEP** means Shipboard Oil Pollution Emergency Program

## Section: 3: Approval Process for Bunker Suppliers

### 3.1 General Requirements

- 3.1.1 Only EHS approved supplier shall deliver bunkers to vessels within the Dubai World premises and Anchorages.
- 3.1.2 Any company wishing to deliver bunkers within the Dubai World premises and Anchorages shall first obtain necessary approval from EHS and the Harbour Master( Port Jebel Ali/Port Rasheed/Port Hamriya) / respective Business units (DMC, Drydock World etc.,)
- 3.1.3 The following documents shall be submitted to Harbour Master and EHS for review and necessary approval.
  - a. Copy of Trade License
  - b. Copy of appropriate Insurance cover for pollution risk including cost of cleaning up and consequential damage
  - c. Company HSE Management System or Vessel Safety Management System which includes standard operating procedure, equipment standard, pressure test certificates, contingency procedure, oil transfer procedure and other necessary elements that would provide an adequate level of protection from unsafe act, unsafe condition and risk of pollution.
- 3.1.4 Standard Oil transfer procedure shall contain the following minimum requirements:
  - a. List of oils to be handled
  - b. A line diagram of the vessel's oil transfer piping with clearly marked location of each valve, pump, control device, vent, emergency stop of the pump and overflow;
  - c. Deployment of spill containment
  - d. Minimum number of personnel required with their roles and responsibilities. Personnel must be familiar with their duties;
  - e. Emergency shut-down;
  - f. Normal and emergency communications;
  - g. Reporting of oil spill and other incident
  - h. Contact details of the Management Representatives
  - i. Details of the Bunker vessel which includes vessel particulars, copy of the statutory certificates etc.,
- 3.1.5 Details of the bunker vehicles which includes RTA registration, survey report etc.,
- 3.1.6 Preliminary Approval notification shall be sent to the bunker supplier once the above documents satisfy the EHS and Port's requirements.
- 3.1.7 Final Approval Process:
  - a. EHS inspection shall be carried out on bunkering vessels and vehicles which are to be engaged for bunkering operation.
  - b. Drivers of the bunker vehicles shall undergo mandatory EHS training as specified under 3.2 Training requirements.

- c. Drivers who have completed the training successfully shall be allowed to operate within the Dubai world premises.
- d. Final approval shall be given upon completion of the EHS inspection, but the bunkering vessels and vehicles which are not inspected by the EHS shall not be included in the approval letter, however those vessels and vehicles shall be added in the approval list once the EHS inspection is done.
- e. Every approved bunker supplier shall renew their approval annually by submitting written request for renewal to the Harbour Master and EHS.
- f. EHS shall carryout regular and mandatory annual inspection on bunker vessels and vehicles as prerequisite for renewal.

### 3.2 Training Requirements

- 3.2.1 The Driver of the bunker vehicle shall complete training in “Safe Bunkering in Ports” and obtain certification from EHS .Training shall be arranged upon request from the bunker supplier provided minimum 7 days advance notice is required.
- 3.2.2 The Master of the bunker supply vessel shall ensure that crew and officers engaged in bunkering operations are adequately trained to carryout bunkering safely and training record shall be made available to Port’s EHS officer, if requested .

### Section 4: Bunker Notification

- 4.1 Bunker Notification shall be made to Port control and EHS, minimum 24 hrs prior to bunkering operations via either E-mail or fax when bunkering is to be carried out in the port area.
- 4.2 Bunker notification form given in **Appendix 1** shall be sent to:

- a. EHS : [ehs.ports@dubaiworld.ae](mailto:ehs.ports@dubaiworld.ae) Fax: 04-8817023
- b. Port Control : [MarinePortControl@dpworld.com](mailto:MarinePortControl@dpworld.com) Fax: 04-8835430  
[PortControl.PortRashid@dpworld.com](mailto:PortControl.PortRashid@dpworld.com)

### Section 5: Distribution of Responsibility

- 5.1 The person onboard the receiving ship who is responsible for the bunkering shall, prior to the bunkering operation, appoint a responsible officer who has the authority to order the pumping and to stop if necessary.
- 5.2 The person onboard the receiving ship who is responsible for the bunkering operation and the master of the bunkering vessel or the driver of the bunkering vehicle are obliged, within their respective areas of responsibility, to take all necessary precautions to prevent the release of bunker oil into the water or onto the shore and to ensure that no hot work on deck and around the vessels.
- 5.3 Bunker supplier (Truck driver/shore operator/bunker vessel personnel) shall ensure that pumping rates & line pressures will be maintained as agreed and shall remain on duty close to the hose connection in order to oversee the safe bunker cooperation and to be able to respond to an emergency throughout the delivery.

- 5.4 Master/Chief Engineer of the receiving vessel shall ensure that the pumping rates and line pressures will be maintained as agreed and the ship's engineers in charge of the receiving operation will not close any valve which will restrict the flow of the product without adequate notice to the bunker supply personnel and their vessel crew will remain on duty close to the hose connection in order to oversee the safe bunkering operation and to be able to respond to an emergency throughout the bunkering operation.
- 5.5 Bunker supplier shall fax or email a copy of Bunker Delivery Note (BDN) to EHS for verification and record.
- 5.6 The Port Operator (DP World) is responsible for ensuring the requirements stipulated in these regulations are followed while bunkering at their operational berths.

## **Section 6: Safety Checklist**

- 6.1 The Master of the bunkering vessel or driver of the bunker vehicle and Master of the vessel receiving bunkers shall complete the appropriate "Bunker Safety checklists".
- 6.2 These checklists shall provide adequate level of protection against spillages, leakages, any other unsafe act and unsafe conditions. Model checklists are given in the Appendix 2&3.
- 6.3 Port authority shall accept these checklists or other appropriate checklist which meets or exceeds the level of protection given in these regulations.
- 6.4 Bunker checklist shall be checked by safety representatives from the business units where the bunkering operations to be taken place.

## **Section 7: Bunkering Precautions**

### **7.1 General**

- 7.1.1 All bunkering operations shall be carefully planned and executed in accordance with EHS and Applicable International Requirements.
- 7.1.2 The Master of a vessel involved in receiving bunkers shall ensure that the conditions described in the above paragraphs remain fulfilled during the entire bunkering procedure.
- 7.1.3 The Master of the vessel involved in receiving bunkers, the driver of a road tanker or a terminal providing bunkers shall ensure that a constant visual watch is maintained throughout the whole transfer operation.
- 7.1.4 Both the Master of the vessel involved in receiving bunkers and the driver of a road tanker or a terminal providing bunkers shall ensure that all scuppers are closed and that sufficient absorbent materials are available in case of an accidental spillage.

- 7.1.5 If it cannot be ensured during the whole bunkering operation that the requirements laid down in this Notice are fulfilled, bunkering operations are to be immediately suspended.
- 7.1.6 Hose shall conform to the recognized standard specifications, or as recommended by OCIMF and confirmed by established hose manufacturers. Hose shall be of a grade and type suitable for the service and operating conditions in which it is to be used.
- 7.1.7 Hose shall be hydraulically pressure tested with an interval not exceeding twelve months. A record shall be kept of the service history of each hose.
- 7.1.8 Personnel involved in the bunkering operation but working in close proximity to edge of quay shall wear life vest.
- 7.1.9 Utmost care shall be taken by the all parties involved in the bunkering operations to carryout cargo operations safely without any hindrance.

## **7.2 Precautions to be taken by all Receiving Vessels**

In addition to vessel owner and / or company mandated bunkering procedures, Master of all vessels receiving bunkers shall ensure that:

- 7.2.1 Scuppers are firmly closed.
- 7.2.2 Vessel is securely moored or safely at anchor
- 7.2.3 Any special instructions issued by the EHS/Harbourmaster/Operation departments have been complied with.
- 7.2.4 Bunker lines which are not in use are effectively blanked.
- 7.2.5 Bunker lines pressure tested and stencilled.
- 7.2.6 Bunker hoses have sufficient play and are adequately supported.
- 7.2.7 Bunker hose connections have been provided with a good seal.
- 7.2.8 There is a well-tightened bolt in every bolt hole in the bunker hose connection flanges; the bolts should be of standard size.
- 7.2.9 Bunker flanges should be of approved type as per international guidelines.
- 7.2.10 There is a sufficiently large overflow container under the bunker hose connection(s)
- 7.2.11 Cargo-handling or other operations in progress will not hazard the bunker operations or vice-versa
- 7.2.12 There is an agreed communication system established between the vessel receiving bunkers and bunkering barge.
- 7.2.13 Internationally mandated signals to be prominently displayed while engaged in the process of receiving, transferring and pumping of bunker fuels. Flag code B

to be hoisted during daylight hours and a red flashing light, visible all round, prominently displayed at the masthead or highest point of vessel.

7.2.14 SOPEP kit placed near the bunkering point.

7.2.15 Pressure gauges calibrated and in working condition near the bunker point.

7.2.16 Bunkering point always manned during bunkering.

7.2.17 Bunkering Plan should be prepared at least 2 hrs before the start of bunkering and discussed among the bunkering team. Master should ensure that the bunkering tanks are having sufficient space.

7.2.18 Ship's bunkering procedure posted nearby the bunkering point.

### **7.3 Precautions to be taken by, bunker supplying vessel, road tanker or terminal.**

The Master of a bunker barge, the driver of a road tanker or a terminal providing bunkers, is not to begin bunkering unless it has been ensured that:

7.3.1 Scuppers are firmly closed;

7.3.2 Bunkering vessel is securely moored;

7.3.3 Special instructions issued by the Harbourmaster/ operations department have been complied with;

7.3.4 Bunker hoses are properly maintained and in good condition;

7.3.5 Bunker hoses have sufficient play;

7.3.6 Bunker flanges of internationally approved type.

7.3.7 Bunker connection has been provided with a good seal;

7.3.8 There is a well-tightened bolt in every bolt hole of the bunker hose joining flanges

7.3.9 Bunker lines pressure tested and stencilled.

7.3.10 Road tanker shall follow the speed limits requirement stipulated by the business units.

7.3.11 Additional Road tankers, waiting for supplying bunkers shall be parked in a designated area allotted by the operation department

7.3.12 The pipelines and valves to tanks and pump are correctly set; and

a. There is an agreed communications system established with the vessel being bunkered.

b. Safety cones are placed around the bunkering area. Road tanker shall be barricaded properly.

c. Adequate numbers of fire fighting appliances such as fire extinguishers are placed close to the bunkering points.

### **7.4 Precautions before Bunkering Operation**

7.4.1 Before commencement of bunkering, Pumping rate shall be agreed between bunker supplier & receiver.

- 7.4.2 Safe communications shall be established between the receiving ship and the bunkering vessel or the bunkering vehicle. Where hand held radios are used, they are to be intrinsically safe.
- 7.4.3 Communications shall be maintained until the bunkering operation is completed and the bunkering hose (bunkering arm) is disconnected.
- 7.4.4 Bunker checklist shall be filled up appropriately and conditions specified in the checklist shall be followed strictly.

#### **7.5 Precautions during Bunker Transfer**

- 7.5.1 Hose-connections shall continuously be checked for leakage.
- 7.5.2 A responsible officer/ crew of the bunker supplying & bunker receiving vessel and Driver of the Road tanker or his designate shall be in attendance during the entire bunkering operation. He shall stay in such a place that he can immediately order an interruption of the pumping, should this be called for due to overfilling or otherwise.
- 7.5.3 The oil level in the tanks shall be carefully checked. The greatest caution shall be exercised during the “topping up” of tanks.

#### **7.6 Precautions after Completion of Bunkering Operations**

- 7.6.1 Prior to blowing out hoses with air, the responsible officer shall ensure there is adequate space in the tank being filled to receive its contents.
- 7.6.2 The hose of the bunkering vessel or the bunkering vehicle shall be disconnected in such a way that oil is not spilled. Drip trays, with their capacities clearly marked and adequately plugged, shall be used. The hose shall be blinded before being brought back to the bunkering vessel or ashore to the bunkering vehicle. New gaskets and a complete number of bolts shall be used when mounting blind flanges.

### **Section 8: Oil Spill Response Equipment Requirements**

- 8.1 Each bunkering and receiving vessels shall be provided with adequate oil spill response equipment as per Shipboard oil pollution emergency plans (SOPEP) which shall include sufficient quantity of oil dispersant, of a type as approved by the ROPME.
- 8.2 Bunkering vessel shall be provided with sufficient length of boom so as to form containment enclosure with vessel receiving bunkers at both fwd and aft of the vessels.
- 8.3 Bunker vehicle shall have adequate spill containment equipment for the containment and removal of oil spills such as absorbents material , either saw dust or absorbent pads, non-sparking brooms, shovels and buckets, appropriate personal protective equipment, gloves, boots and eye protection etc.,

### **Section 9: Actions during Oil Spills Emergencies**

In case where oil is spilled the following actions shall immediately be taken:

- 9.1 Pumping shall be stopped.
- 9.2 The valves onboard the bunkering vessel or the bunkering vehicle and the receiving ship shall immediately be closed.
- 9.3 Person in charge of bunkering vessel or bunkering vehicle shall immediately report to Port Control/Business units (DMC, Dry-dock world etc.,) if any spillage or other emergencies while bunkering. The following information shall be specified while reporting :
  - a. Spill location & time
  - b. The name of the vessel receiving bunkers;
  - c. The nature of the incident;
  - d. The quantity and the type of oil spilled into the water or on the berth area.
- 9.4 Activate the spill contingency plan. Any oil spill on deck or berth shall be dealt with immediately and all available resources deployed in clean up operation
- 9.5 All clean up waste shall be transported and disposed as per EHS & Dubai Municipality requirements.

## **Section 10: EHS Monitoring of Bunker Operations**

- 10.1 EHS Officers or any designated person from the Port management shall monitor all bunker operations on a regular or random basis depending on their discretion.
- 10.2 Every bunker supplier shall provide all the necessary documentation relating to bunkering operations, approval permits including driver's certification, testing, inspection, maintenance and operation, at any time if it is requested by the EHS Officers.
- 10.3 If the EHS Officers were denied any of the documents as referred to in paragraph 1.2, all transfer operations shall be stopped immediately and may not proceed until the EHS gives approval for bunkering to continue.
- 10.4 The presence of any representative of the authority shall not in any way relieve the responsibility of the personnel involved in the bunkering operations.
- 10.5 EHS officers shall inspect the bunker barge and the vessel for their compliance on Annex VI of MARPOL 73/78.
- 10.6 The authority may impose an appropriate penalty for the violation against these bunkering requirements

## **Section 11: Appendix**

- Appendix 1: Bunker Notification Form**
- Appendix 2: Ship To Ship Bunker Safety Checklist**
- Appendix 3: Ship-Shore Bunker Safety Checklist**

## Appendix: 1 Bunker Notification Form

(This form shall be made available to Port control and EHS, minimum 24 hrs prior to bunkering operations)

Date of Bunkering:	Time:	Port & Berth No:
Name of Vessel Taking Bunker:.....		Name of Bunkering Vessel/ or Vehicle Registration No:.....
Contact Details of the Agent:..... ..... ..... .....		Contact Details of the Bunker Supplier... ..... ..... .....
Details of Oil to be bunkered		
Grade	Quantity in MT or M <sup>3</sup>	Sulphur content for Marine Fuel oil

Notification to send:

Port Control : [MarinePortControl@dpworld.com](mailto:MarinePortControl@dpworld.com) fax: 04-8835430  
PortControl.PortRashid@dpworld.com

EHS : [ehs.ports@dubaiworld.ae](mailto:ehs.ports@dubaiworld.ae) Fax: 04-8817023

## Appendix 2 – Ship-To-Ship Bunkering Safety Checklist

(This checklist has to be completed prior to commencement of bunkering operations)

<b>Port / Anchorage</b>		<b>Berth No.</b>	
<b>Agent</b>		<b>Date &amp; Time</b>	
<b>Bunker Supply Company</b>		<b>Bunkering Vessel Name</b>	
<b>Bunker Receiver Company/ Operator</b>		<b>Receiving Vessel Name</b>	

No	Safety Precautions	Bunker Supplier	Bunker Receiver	Remarks
1	Are moorings appropriate and secured?			
2	Are personnel for tending of moorings designated?			
3	Is boom positioned, effectively enclosing transfer area?			
4	Is an Oil Transfer Procedure displayed prominently?			
5	Has loading rate been agreed with receiving vessel?			
6	Has topping-off rate been agreed with receiving ship?			
7	Are oil transfer hoses pressure tested, tagged?			
8	Are oil transfer hoses properly supported?			
9	Are oil transfer hoses free of damage/kinks/bulges?			
10	Are all flanges/drain cocks/valves checked for leaks?			
11	Are all unused manifolds blanked and valves closed?			
12	Is bilge and ballast piping effectively segregated?			
13	Are drip trays placed, plugged and free of liquid?			
14	Are deck scuppers effectively plugged?			
15	Is communication system established and tested?			
16	Is oil spill equipment ready for emergencies?			
17	Is emergency shut-down in place and tested?			
18	Are all personnel at their positions?			
19	Is deck lighting sufficient during the nighttime?			
20	Is red flag displayed or red light switched on?			

.....

Master Name & Signature

Bunkering Vessel

.....

Master/Chief Engineer Name & Signature

Receiving Vessel

### Appendix 3 – Ship-Shore Bunker Safety Checklist

(This checklist has to be completed prior to commencement of bunkering operations)

<b>Port</b>		<b>Berth No.</b>	
<b>Agent</b>		<b>Date &amp; Time</b>	
<b>Bunker Supply Company</b>		<b>Bunkering Vehicle Reg No</b>	
<b>Bunker Receiver Company</b>		<b>Receiving Vessel Name</b>	

No	Safety Precautions	Bunker Supplier	Bunker Receiver	Remarks
1	Is the ship securely moored?			
2	Road tanker is securely parked, away from berth edge?			
3	Is boom positioned, effectively enclosing transfer area?			
4	Is an Oil Transfer Procedure displayed prominently?			
5	Has loading rate been agreed with receiving vessel?			
6	Has topping-off rate been agreed with receiving ship?			
7	Are oil transfer hoses pressure tested, tagged?			
8	Are oil transfer hoses properly supported?			
9	Are oil transfer hoses free of damage/kinks/bulges?			
10	Are all flanges/drain cocks/valves checked for leaks?			
11	Are all unused manifolds blanked and valves closed?			
12	Is bilge and ballast piping effectively segregated?			
13	Are drip trays placed, plugged and free of liquid?			
14	Are deck scuppers effectively plugged?			
15	Is communication system established and tested?			
16	Is oil spill equipment ready for emergencies?			
17	Is emergency shut-down in place and tested?			
18	Are all personnel at their positions?			
19	Is deck lighting sufficient during the nighttime?			
20	Is red flag displayed or red light switched on?			

.....  
 Driver/Operator Name & Signature  
 Bunkering Vehicle/ Tanker Berth

.....  
 Master/Chief Engineer Name & Signature  
 Receiving Vessel