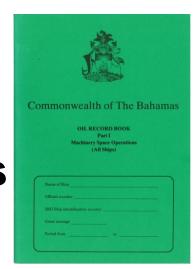
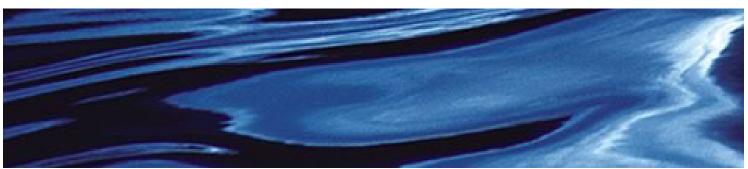
# BRIEF on Review and Audit on Oil Record Books (ORB):

- Requirements
- Guidelines and Interpretations
- Example Code Entries





#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### References:

- Guidance for the Recording of Operations in the Oil Record Book Part I Machinery Space Operations (All Ships) - IMO MEPC.1/Circ.736 - rev.2 (6 Oct 2011)
- 2. A Guide for Correct Entries in the Oil Record Book (Part I) –Intertanko, 3rd edition March 2014 (as amended)
- 3. Oil Record Book Entries Machinery Space Operations -UK PANDI Technical Bulletin #35 2011 (amending #24)
- 4. Oil Record Book Bahamas Maritime Administration Bulletin #84, rev.3 May2014
- 5. Interim Guidance on the Use of the ORB concerning Voluntary Declaration of Quantities Retained on Board in Oily Bilge Water Holding Tanks and Heating of Oil Residue (Sludge) IMO MEPC.1/Circ 640
- 6. MARPOL (consolidated 2011) Annex I, as amended

\* items in the presentation underlined by a blue dash line are additionally required to Marpol I by the Company's SMS

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 1. Requirements

Marpol Annex I (as amended):

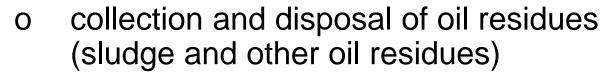


- every non-tanker ship ≥ 400GT shall be provided with an ORB Part I (Machinery Space Operations)
- the ORB shall be of a specified form (Appendix to Marpol I)
- ORB statement is required for the reasons and circumstances of discharge of oil and oily mixtures in the events resulting from:
  - o securing the safety of the ship or saving life at sea
  - o damage to the ship or its equipment

BRIEF on Review and Audit on Oil Record Books (ORB):

### 1. Requirements

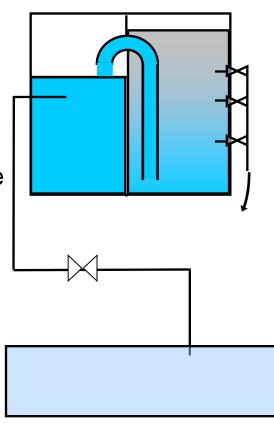
 the ORB part I shall be completed routinely on each occasion, on a tankto-tank basis if appropriate whenever any of the following machinery operations take place:



- discharge overboard or disposal otherwise of bilge water from machinery spaces
- o bunkering of fuel of bulk lube oil in bulk

## BRIEF on Review and Audit on Oil Record Books (ORB):

- 1. Requirements
- each machinery space operation is to be:
  - o Fully recorded on completion of the operation, so that all appropriate entries for that operation are completed
  - Where a number of similar transfers are made in the course of a watch (ie several bilges transferred from one and the same machinery space to one and the same tank(s))it is acceptable to enter the total sum of transfer as a single entry, which must clearly state that the transfers were made over the watch period
- each entry shall be signed by the officer (s) in charge of the operation
- each completed page shall be signed by the Master (as required by Marpol) and the Chief Engineer (as required by the SMS) of the ship
- entries shall be in English, French, Spanish or the official language of the Flag State



## BRIEF on Review and Audit on Oil Record Books (ORB):

#### 1. Requirements

- any failure of the oil filtering equipment (including alarm and automatic stopping device as applicable) shall be recorded in the ORB
- inspections of ORB:
  - ORB shall be kept in such a place as to be readily available for inspection at all reasonable times
  - o authorized authorities may inspect the ORB and may make copy of entries and require the Master to certify them as "true copy"
  - inspections are to be done as expeditiously as possible without causing undue delay
- ORB shall be kept onboard for three (3) years

BRIEF on Review and Audit on Oil Record Books (ORB):

- the accuracy of the oil quantity readings is affected by:
  - the constructional limitations of the measuring devices and the principle their work on (i.e. change of pressure, vessel's motion, trim and list etc)
  - o temperature variations
  - o clingage
- the entries in the ORB should be considered accordingly as above

#### BRIEF on Review and Audit on Oil Record Books (ORB):

- making entries in the ORB:
  - o the date, operational Code and Item Number shall be inserted in the appropriate columns
  - o dates should be recorded in the dd-MONTH-yyyy format ie 16-MAR-2012. Entries in the ORB are to be made in local ("ships") time
  - o 15 ppm bilge alarms fitted on or after 01-Jan-2005 and approved under MEPC.107(49) are designed to record date, time and alarm status, and store the data for at least 18 months. Chief Engineer should be familiar with the procedure to remove the memory card/ data when the unit is replaced or when requested by authorities. Such 15 ppm bilge alarms should have their time set to UTC, unless when a ship operates exclusively in a particular time zone, then the local time may be set (annotation should be made in ORB confirming the time on which the bilge alarm is set)
  - o the required particulars shall be recorded chronologically in the blank spaces as they have been executed onboard
  - o the Introduction and List of Codes will be either a part of the ORB or available in the form of a supplement and they shall be in accordance with the latest amendments in force of Marpol Annex I

## BRIEF on Review and Audit on Oil Record Books (ORB):

- making entries in the ORB:
  - o entries are to be made in ink and not pencil
  - o full lines should not be left empty between entries
  - tank nomenclature (i.e. identity and capacity) is to be recorded as per the format noted within the IOPPC supplement section 3.1 (for oil residues (sludge) tanks) and 3.3 (for the oily bilge water holding tanks)
- making an amendment in the ORB:
  - o to take the form of a single thin line through the erroneous entry
  - o amendments are acceptable provided that they are endorsed by both the Chief Engineer and the Engineer Officer responsible for the operation
  - o a correct entry should then be made at the first available clear line below

## BRIEF on Review and Audit on Oil Record Books (ORB):

- making an amendment in the ORB (continued):
  - o If an incorrect or missing entry is detected at a later date documentation is needed to prove that such an entry was incorrect or missed. The Master shall notify the Fleet Manager and the DPA immediately, which will then advise the Flag State as appropriate. An "I" code entry should then be made as per example given below
  - o if errors are found during audits, a copy of the report with findings and corrective actions is to be attached to the relevant ORB
- it is recommended that a "Signature recognition sheet" is used and attached to the ORB in order to identify the signatures of the officers entitled to make entries in the ORB
- one only official ORB is to be kept onboard, it is not recommended a "scrap" ORB to be kept

BRIEF on Review and Audit on Oil Record Books (ORB):

- Discrepancies between ORB entries and other documents
  - o IOPP: supplement "A" for non-tank ships should be verified for:
    - the Oil filtering equipment throughput capacity against the Manufacturer's Type Approval Certificate and the Operating Manual
    - all oil residue (sludge) tanks are recorded
    - bilge water holding tanks may also be recorded
    - tanks names, location, capacities are correct
    - oil residues (sludge) incinerator capacity against the Manufacturer's Type Approval Certificate (if available) and the Operating Manual
    - Auxiliary boiler to burn Oil Residue (sludge) marked and against the Burner's Manual and piping system

BRIEF on Review and Audit on Oil Record Books (ORB):

- Discrepancies between ORB entries and other documents
  - o Deck Log Book:
    - ship's location and positions and times of starting and stopping of operations
    - "Special Areas" for ORBs (Marpol Annex I) do not completely coincide with the "Special Areas" for GRB (Garbage Record Books) under Marpol Annex V
      - Marpol I "Special Areas" are relevant only if a non tank vessel is not equipped with an alarm and automatic stopping device

BRIEF on Review and Audit on Oil Record Books (ORB):

### 3. Example Code Entries

Code "A" Ballasting or Cleaning of Oil Fuel Tanks"

Operations onboard cruise ships may require under certain circumstances oil fuel tanks to be gas free, clean for inspections or repair. Code A 3 should be used then in conjunction with Code B

#### o 3. Cleaning process:

- .1 position of ship and time at the start and completion
- .2 identify tank(s) in which one or another method has been employed (rinsing through, steaming, cleaning with chemicals; type and quantity of chemicals used, in m3);
- .3 identity of tanks into which cleaning water was transferred and the quantity in m3

## BRIEF on Review and Audit on Oil Record Books (ORB):

### 3. Example Code Entries

- Code "B" Discharge of Dirty Ballast or Cleaning Water from Oil Fuel Tanks referred to under Section "A"
  - o 5. Identity of tank(s)
  - o 6. Position of ship at start of discharge
  - o 7. Position of ship on completion of discharge
  - o 8. Ship's speed(s) during discharge
  - o 9. Method of discharge
    - 1. through 15 ppm equipment
    - 2. to reception facilities
  - o 10. Quantity discharged, in m3

#### **BRIEF on Review and Audit on Oil Record Books (ORB):**

#### 3. Example Code Entries

 Code "A" Ballasting or Cleaning of Oil Fuel Tanks" and "B" Discharge of Dirty Ballast or Cleaning Water from Oil Fuel Tanks referred to under Section "A"
 o If cleaning water transferred to bilge tank and then processed and discharged overboard

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
11-OCT-12	Α	3.1	Started: 43°12'N; 025°19'W; Stopped 43°01'N; 026°00'W
		3.2	Heavy Fuel Oil Tank (#1) cleaned with chemical "BioClean"; 0.8 m3
		3.3	2.4 m3 of water transferred to Bilge Tank (#14),
			(signature of responsible officer)

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
11-OCT-12	В	5	Bilge Tank (#14)
		6	40°11'N; 030°29'W
		7	40°03'N; 030°37'W
		8	12 – 13 Kn
		9.1	Through 15 ppm equipment, OWS Helisep
		10	1.2 m3
			(signature of responsible officer)

#### **BRIEF on Review and Audit on Oil Record Books (ORB):**

#### 3. Example Code Entries

 Code "A" Ballasting or Cleaning of Oil Fuel Tanks" and "B" Discharge of Dirty Ballast or Cleaning Water from Oil Fuel Tanks referred to under Section "A"
 o If cleaning water transferred to sludge tank and then delivered ashore

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
11-OCT-12	А	3.1	Started: 43°12'N; 025°19'W; Stopped 43°01'N; 026°00'W
		3.2	Heavy Fuel Oil Tank (#1) cleaned with chemical "ME Clean"; 0.6 m3
		3.3	1.2 m3 of water transferred to Sludge Tank (#7)
			(signature of responsible officer)

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
11-OCT-12	В	5	Sludge Tank (#7)
		6/7	Piraeus
		9.2	to barge "Mina 2"
		10	1.6 m3
			(signature of responsible officer)

BRIEF on Review and Audit on Oil Record Books (ORB):

## 3. Example Code Entries

 Code "A" Ballasting or Cleaning of Oil Fuel Tanks"

o 3. Cleaning process:

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
11-OCT-12	Α	3.1	Started: 43°12'N; 025°19'W; Stopped 43°01'N; 026°00'W
		3.2	Heavy Fuel Oil Tank (#1) cleaned with chemical "BioClean"; 0.1 m3
		3.3	Fuel Sludge Tank (#7)
			(signature of responsible officer)

BRIEF on Review and Audit on Oil Record Books (ORB):

## 3. (new) Definitions (Sludge):

- Oil residue (sludge) means the residual waste oil products generated during the normal operation of a ship such as those resulting from the purification of fuel or lubricating oil for main or auxiliary machinery, separated waste oil from oil filtering equipment, waste oil collected in drip trays, and waste hydraulic and lubricating oils
- Oil residue (sludge) tank means a tank which holds oil residue (sludge) from which sludge may be disposed directly through the standard discharge connection or any other approved means of disposal

**BRIEF on Review and Audit on Oil Record Books (ORB):** 

## 3. Example Code Entries

- Code "C" Collection, Transfer and Disposal of Oil Residues (sludge) for tanks listed under 3.1 in the supplement to the IOPPC
  - o 11. Collection of oil residues (sludge)

Quantities of oil residues (sludge) retained on board.

The quantity must be recorded once a week even if the voyage lasts more than one week.

- .1 —identity of tank(s)
- .2 capacity of tank(s) (m3)
- .3 total quantity of retention (m3)
- .4 quantity of residue collected by manual operation (m3) [Operator initiated manual collections where oil residue (sludge) is transferred (transfer with a pump) into the oil residue (sludge) holding tank(s), i.e. only pump transfers manually tripped by an operator]

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "C" Collection, Transfer and Disposal of Oil Residues (sludge)
  - o 11. (weekly, but never more than once a week) Collection of oil residues (sludge) for tanks listed under 3.1 in the supplement to the IOPPC

Date	Code (letter )	Item (number )	Records of operations / signature of officer in charge
11-AUG-12	С	11.1	Fuel Oil Sludge Tank #7 (fr. 24-27)
	С	11.2	7.7 m3
	С	11.3	1.3 m3
11-AUG-12	С	11.1	Lub. Oil Sludge Tank #9 (fr. 43-44)
	С	11.2	9.1 m3
	С	11.3	2.5 m3
11-AUG-12	С	11.1	Incinerator Sludge Tank for Burning #160 (fr. 30-31)
	С	11.2	1.0 m3
	С	11.3	0.3 m3
			(signature of responsible officer)

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "C" Collection, Transfer and Disposal of Oil Residues (sludge)
  - o 11. (weekly, but never more than once a week) Collection of oil residues (sludge) for tanks listed under 3.1 in the supplement to the IOPPC

#### Continued from previous page

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
11-AUG-12	С	11.1	Dirty Oil Tank #4 (fr. 18-20)
	С	11.2	4.0 m3
	С	11.3	2.0 m3
			(signature of responsible officer)

#### o Notes:

- Only for those tanks listed in item 3.1 of the IOPP certificate supplement form A used for oil residues (sludge). The identity and frame location of the oil residue (sludge) tanks listed under C11.1 and their capacity recorded under C11.2 should be in strict compliance with section 3.1 of IOPPC supplement form A
- expected weekly sludge generation should be around 0.8% -1.0% of HFO plus 0.5% of DO consumption
- record used oils or other liquids of hydrocarbon origin which due to degradation can not be used anymore

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "C" Collection, Transfer and Disposal of Oil Residues (sludge)
  - o 11.4 Oil residues (sludge) collected by manual operation in oil residue (sludge) tank listed under 3.1 in the supplement to the IOPPC
  - o C11.4 record should be made (in conjunction with C11.1, 11.2 and 11.3) when oil residues are transferred (by using a pump including a portable one) from a tank/ location which is NOT listed as sludge tank under IOPPC supplement section 3.1 to a tank which is listed as an oil residue (sludge) tank under IOPPC supplement section 3.1
    - Examples of such operations could be:
      - Transfers/collection by pump (manually tripped by an operator) of oil residue (sludge) from fuel or lub oil separator drain tanks (when these are not listed in IOPPC suppl. Section 3.1)
      - Transfers/collection by pump (manually tripped by an operator) of oil residue (sludge) from engine sump tanks
      - Adding oil to an oil residue (sludge) tank (all content of a sludge tank is considered sludge)
      - Collection of sludge from bilge water holding tanks in this case a disposal entry for bilge water is also needed

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "C" Collection, Transfer and Disposal of Oil Residues (sludge)
  - o 11.4 Oil residues (sludge) collected by manual operation in oil residue (sludge) tank listed under 3.1 in the supplement to the IOPPC

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
11-AUG-12	С	11.1*	Dirty Oil Tank #4 (fr. 18-20)
	С	11.2*	4.0 m3
	С	11.3	3.0 m3
	С	11.4	1.7 m3 collected from ME sump tank
			(signature of responsible officer)

#### o Notes:

■ The identity of the oil residue (sludge) tanks listed under C11.1 and their capacity recorded under C11.2 should be in strict compliance with section 3.1 of the IOPPC supplement form A

BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "C" Collection, Transfer and Disposal of Oil Residues (sludge)
  - o 12. Methods of transfer or disposal of oil residue. State quantity of oil residues transferred or disposed of, the tank(s) emptied and the quantity of contents retained in m3:
    - .1 to reception facilities (identify port)
    - .2 \* to another (other) tank(s) (indicate tank(s) and the total content of tank(s))
    - .3 incinerated (indicate total time of operation);
    - .4 other method (state which)

<sup>\*</sup> C12.2 entries are related to any internal transfer (pump or drain) of sludge from any IOPPC supplement 3.1 sludge tank to any IOPPC supplement 3.1 sludge tank (ie. BOTH sludge tanks are listed in the IOPPC supplement), or internal transfer (drain) of water from any IOPPC supplement 3.1 sludge tank to any IOPPC supplement 3.3 bilge holding tank

## BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "C" Collection, Transfer and Disposal of Oil Residues (sludge)
  - o 12. Methods of transfer or disposal of oil residues (sludge) for tanks listed under 3.1 in the supplement to the IOPPC
    - 12.1 to reception facilities

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
29-JUL- 2012	С	12.1	Hamburg, 5.0 m3 sludge to barge "Titan", from FO sludge Tk No.7, retained onboard 0.3 m3; receipt No. 1234
			(signature of responsible officer)

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
30-JUL- 2012	С	12.1	Piraeus, 6.2 m3 sludge to tank truck (P 2346 G), from LO sludge Tk No. 9, retained onboard 0.4 m3; receipt No. 235
			(signature of responsible officer)

#### o Notes:

 certificate receipt is to be obtained from the operator of the reception facility, including barges and trucks, detailing the quantities of oil residues delivered including date and time of the transfer and should be kept together with the ORB

#### **BRIEF on Review and Audit on Oil Record Books (ORB):**

#### 3. Example Code Entries

- Code "C" Collection, Transfer and Disposal of Oil Residues (sludge)
  - o 12. Methods of transfer or disposal of oil residues (sludge) for tanks listed under 3.1 in the supplement to the IOPPC
    - 12.2 transferred from one oil residue (sludge) tank to another oil residue (sludge) tank, both listed under item 3.1 in the supplement to the IOPPC

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
16-AUG- 2012	С	12.2	0.5 m3 from FO sludge Tk No. 7 to Sludge Tk for Burning No.160; Qty retained on board (rob): FO Sludge Tk No.7 = 3.4 m3; Sludge Tk for Burning No.160 = 0.6 m3
			(signature of responsible officer)

 12.2 draining water from a sludge tank listed under item 3.1 in the supplement of the IOPPC to a bilge tank listed under item 3.3

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17-AUG- 2012	С	12.2	Draining 1.2 m3 water from FO sludge Tk No. 7 to Bilge Tk No.8; Qty retained on board (rob): FO Sludge Tk No.7 = 4.3 m3; Total content Bilge Tk No.8 = 2.6 m3; /cap. 4.0 m3
			(signature of responsible officer)

#### **BRIEF on Review and Audit on Oil Record Books (ORB):**

#### 3. Example Code Entries

- Code "C" Collection, Transfer and Disposal of Oil Residues (sludge)
  - o 12. Methods of transfer or disposal of oil residues (sludge) for tanks listed under 3.1 in the supplement to the IOPPC
    - 12.3 incineration (in incinerator when IOPPC item 3.2.1 is ticked)

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
16-JUN- 2012	С	12.3	Burned 0.6 m3 sludge in incinerator for 8 hrs (from 08:00 to 16:00) from Sludge Tk for Burning Tk. 160; Qty r.o.b. Sludge Tk for Burning No.160 = 0.2 m3
			(signature of responsible officer)

#### o Notes:

- The incinerated quantity should not exceed the capacity of the incinerator (IOPPC item 3.2.1) for the operation time
- 12.4 other method (mixing when IOPPC item 3.2.3 is ticked)

15-AUG- 2012	С	12.4	0.8 m3 from FO Leakage Tank to Tk for mixing Oil Residues with Fuel No. 99; Qty R.o.b.: FO Leakage Tk = 0.5 m3; Total content Tk for mixing Oil Residues with Fuel No.99 = 1.1 m3
			(signature of responsible officer)

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "C" Collection, Transfer and Disposal of Oil Residues (sludge)
  - o 12. Methods of transfer or disposal of oil residues (sludge) for tanks listed under item 3.1 in the supplement to the IOPPC
    - 12.4 other method (burning in aux boiler when IOPPC item 3.2.2 is ticked)

07-JUL- 2012	С	12.4	1.2 m3 of sludge from Sludge Tank 12 burnt into the aux. boiler, Qty rob 4.5 m3
			(signature of responsible officer)

12.4 other method (evaporation)

08-JUL- 2012	С	12.4	1.0 m3 of water evaporated from the sludge volume by heating from Sludge Tank 13, Qty rob 3.4 m3
			(signature of responsible officer)

 12.4 other method (regeneration of fuel oil from sludge – when mentioned as an approved means of disposal in the IOPPC Supplement)

28-OCT- 2012	С	12.4	1.1 m3 sludge disposed by regeneration of 0.6m3 fuel in Fuel Tank HFO #34 and 0.5m3 of water in Sludge Tank #11
			(signature of responsible officer)

BRIEF on Review and Audit on Oil Record Books (ORB):

## 3. (new) Definitions (Bilge Water):

- Oily bilge water means water which may be contaminated by oil resulting from things such as leakage or maintenance work in machinery spaces.
- Any liquid entering the bilge system including bilge wells, bilge piping, tank top or bilge holding tanks\* is considered oily bilge water

\*Note: All high bilge alarms must be investigated immediately. It is in order to leave pumping out to end of watch or other agreed time as long as the EOOW monitors levels regularly

 Oily bilge water holding tank means a tank collecting oily bilge water prior to its discharge, transfer or disposal

## BRIEF on Review and Audit on Oil Record Books (ORB):

### 3. Example Code Entries

- Code "D" Non-automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces
  - o 13. Quantity discharged, transferred or disposed of, in m3
    - » In case of discharge or disposal of bilge water from holding tank(s), state identity and capacity of holding tank(s) and quantity retained in holding tank
  - o 14. Time of discharge, transfer or disposal (start and stop)
  - o 15. Method of discharge, transfer or disposal:
    - .1 through 15 ppm equipment (state position at start and end)
    - .2 to reception facilities (identify port)
    - .3 to slop or holding tank or other tank(s) (indicate tank(s); state quantity retained in tank(s), in m3)

#### **BRIEF on Review and Audit on Oil Record Books (ORB):**

#### 3. Example Code Entries

- Code "D" Non-automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces
  - o 15 Methods of discharge, transfer or disposal:
    - 15.1 through 15 ppm equipment (Oily Water Separator OWS) overboard from a tank listed in item 3.3 in the supplement to the IOPPC

		10110	
Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
16-FEB- 2012	D	13	3.8 m3 from Bilge Tank No.14, capacity 11.5 m3, qty r.o.b. 2.2 m3
		14	Started 08:00; Stopped 10:50
		15.1	Through 15ppm equipment overboard; Started: 43°12'N; 025°19'W; Stopped 43°01'N; 026°00'W
			(signature of responsible officer)

#### o Notes:

- the vessel must be en route
- the quantity disposed overboard should not exceed the capacity of the OWS for the operation time

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "D" Non-automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces
  - o 15 Methods of discharge, transfer or disposal:
    - 15.1 through 15 ppm equipment (Oily Water Separator OWS) overboard from engine room bilges

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
08-FEB- 2012	D	13	4.0 m3 bilge water from the engine room bilge wells
		14	Started 08:00; Stopped 12:00
		15.1	Through 15 ppm equipment overboard; Started: 43°12'N; 025°19'W; Stopped 43°01'N; 026°00'W
			(signature of responsible officer)

- o Notes:
  - the vessel must be en route
  - the quantity disposed overboard should not exceed the capacity of the OWS for the operation time

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "D" Non-automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces
  - o 15 Methods of discharge, transfer or disposal:
    - 15.1 through 15 ppm equipment (Oily Water Separator OWS) overboard from a tank under 3.1 in the IOPPC supplement, when the operation continues for more than one watch period:

Date	Code (letter)	<b>Item</b> (number)	Records of operations / signature of officer in charge
17-FEB- 2012	D	13	2.0 m3 from Bilge Tk No.14; capacity 11.5 m3, qty r.o.b. 4.1 m3
		14	Started 09:00 (till 12:00)
		15.1	Through 15ppm equipment overboard: Started: 43°12'N; 025°19'W (till 43°03'N; 026°02'W)
			(signature of responsible officer)
17-FEB- 2012	D	13	2.2 m3 from Bile Tk No.14; capacity 11.5 m3, qty r.o.b. 1.9 m3
		14	12:00- continued from the previous watch; Stopped: 14:20
		15.1	Through 15ppm equipment overboard: continued from the previous watch (43°03'N; 026°02'W); Stopped: 42°50'N; 026°27'W
			(signature of responsible officer)

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "D" Non-automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces
  - o 15 Methods of discharge, transfer or disposal:

15.2 to reception facilities (identify port)

Date	Code (letter)	<b>Item</b> (number)	Records of operations / signature of officer in charge
18-FEB- 2012	D	13	7.7 m3 from Bilge Tk No.14; capacity 11.5 m3, qty r.o.b. 1.1 m3
		14	Started 08:10; Stopped 10:45
		15.2	Lisbon; to truck (L 7654 A), receipt No. 987
			(signature of responsible officer)

#### o Notes:

- certificate receipt is to be obtained from the operator of the reception facility, including barges and trucks, detailing the quantities of oil residues delivered including date and time of the transfer
- Reminder: to avoid clerical errors and verify the correctness of the entry, ensure that the quantity stated as transferred or discharged is within the rated pump capacity for the time of the operation, which obviously should not be exceeded

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#### **BRIEF on Review and Audit on Oil Record Books (ORB):**

#### 3. Example Code Entries

- Code "D" Non-automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces
  - o 15 Methods of discharge, transfer or disposal:
    - 15.3 transfer to slop tank or holding tank or other tank(s): <u>from engine</u> <u>room bilge wells to a bilge tank</u> listed under item 3.3 in the supplement to the IOPPC

Date	Code (letter)	<b>Item</b> (number)	Records of operations / signature of officer in charge
18-FEB- 2012	D	13	0.7 m3 bilge water from Engine Room Bilge Wells
		14	Started 08:10; Stopped 08:30
		15.3	Transferred to Bilge Tank No.14- total qty r.o.b. 5.8 m3
			(signature of responsible officer)

#### o Notes:

 Reminder: to avoid clerical errors and verify the correctness of the entry, ensure that the quantity stated as transferred or discharged is within the rated pump capacity for the time of the operation, which obviously should not be exceeded

## BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "D" Non-automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces
  - o 15 Methods of discharge, transfer or disposal:
    - 15.3 transfer to slop tank or holding tank: <u>from bilge wells to a sludge</u> tank (listed under item 3.1 in the IOPPC supplement)

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
18-FEB- 2012	D	13	0.6 m3 bilge water from engine room Bilge Wells
		14	Started 08:30; Stopped 08:50
		15.3	Transferred to Sludge Tank No.24- total qty r.o.b. 6.6 m3
			(signature of responsible officer)

#### o Notes:

 Reminder: to avoid clerical errors and verify the correctness of the entry, ensure that the quantity stated as transferred or discharged is within the rated pump capacity for the time of the operation, which obviously should not be exceeded

#### BRIEF on Review and Audit on Oil Record Books (ORB):

- Code "D" Non-automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces
  - o 15 Methods of discharge, transfer or disposal:
    - 15.3 transfer to slop tank or holding tank or other tank(s): <u>from a bilge</u> tank to a bilge tank, both listed under item 3.3 in the supplement of the IOPPC)

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
18-FEB- 2012	D	13	0.8 m3 from Bilge Tank No.14, capacity 11.5 m3, qty r.o.b. 5.0 m3
		14	Started 08:30; Stopped 08:45
		15.3	Transferred to Bilge Tank Tk No.15 – qty r.o.b. 3.8 m3
			(signature of responsible officer)

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "D" Non-automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces
  - o 15 Methods of discharge, transfer or disposal:
    - 15.3 transfer to slop tank or holding tank or other tank(s): <u>from a bilge</u> tank (listed under item 3.3 in the supplement to the IOPPC) to a sludge tank (listed under item 3.1 in the supplement to the IOPPC)

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
18-FEB- 2012	D	13	0.9 m3 from Bilge Tank No.14, capacity 11.5 m3, qty r.o.b. 4.9 m3
		14	Started 08:30; Stopped 08:45
		15.3	Transferred to FO Sludge Tk No.7 – qty r.o.b. 3.9 m3
			(signature of responsible officer)

#### o Note:

if this operation is a manually initiated operation (ie by pump tripped by an operator) to a sludge tank listed in the IOPPC, then it is to be recorded with code C 11.4 (in conjunction with C11.1, 11.2 and 11.3)

BRIEF on Review and Audit on Oil Record Books (ORB):

- Code "E" Automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces
  - o 16. Time and position of ship at which the system has been put into automatic mode of operation for discharge overboard, through 15 ppm equipment
  - o 17. Time when the system has been put into automatic mode of operation for transfer of bilge water to holding tank (identify tank)
  - o 18. Time when the system has been put into manual operation

# BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "E" Automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces
  - o this code entry (16) is to be used when there is an automatic system onboard which starts when the bilge tank level indicator activates bilge water discharge overboard through 15 ppm equipment OWS from a tank listed in item 3.3 in the IOPPC supplement

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
18-FEB- 2012	E	16	Started 04:00, 43°12'N; 025°19'W from Bilge Water Holding Tank 15
		18	07:30 stopped (system to manual)
			(signature of responsible officer)

#### o Notes:

the vessel must be en route

# BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "E" Automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces
  - o this code entry is used when there is an automatic system onboard which starts when the bilge wells level indicators activate bilge water transfer to a holding tank listed under item 3.3 in the supplement of the IOPPC

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Date	Code (letter)	<b>Item</b> (number)	Records of operations / signature of officer in charge
18-FEB- 2012	Е	17	Transfer started 02:00 to Bilge Tank No.14
		18	03:50 stopped (system to manual)
			(signature of responsible officer)

#### BRIEF on Review and Audit on Oil Record Books (ORB):

## 3. Example Code Entries

- Code "F" Condition of the oil filtering equipment
  - o 19. Time of system failure
  - o 20. Time when system has been made operational
  - o 21. Reasons for failure

#### Notes

- The condition of the oil filtering equipment also covers the alarm and automatic stopping devices (ie OCM and 3-way-valve/solenoids etc), if applicable
- A code "I" entry should also be made indicating that the overboard valve was unsealed since the operation of the Oil filtering equipment (OWS) or Oil Content Meter (OCM) has been restored
- On the date when the system is functional again, a new entry using codes F 19/20/21 should be made where F19 is to note the date and time of the initial failure and F20 is the date and time the system is functional again

v.10/ July16

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "F" Condition of the Oil Filtering Equipment
  - o this covers apart from the condition of the15ppm equipment (OWS), also the alarm and automatic stopping devices (Oil Content Meter (OCM, 3-way valve, solenoids, "White Box" etc as applicable

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
08-JUL- 2012	F	19	16:20 the OWS Westfalia failed
		* 20	17:50 the OWS was made operational
		* 21	Electrical fault (burnt fuse) in control panel
			(signature of responsible officer)

#### o Notes:

- \* might be unknown at the time (ie esp for code 20. if spare parts need to be ordered
- A code "I" entry should also be made indicating the overboard valves was sealed shut due to non working OWS/OCM/stopping device and then again when it was unsealed

#### BRIEF on Review and Audit on Oil Record Books (ORB):

- Code "F" Condition of the Oil Filtering Equipment
  - o this covers apart from the condition of the15ppm equipment (OWS), also the alarm and automatic stopping devices (Oil Content Meter (OCM, 3-way valve /solenoids, "White Box" etc as applicable)

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
18-FEB- 2012	F	19	17:30 the OCM Rivertrace CDM displaying error "E2" no scatter signal" constantly and not operational
	I		17:30 overboard valve sealed shut
	F	20	19:40 faulty OCM Rivertrace CDM (ser.no. 1234567) replaced with the spare one ser.no.7654321) by Ch. Electrician Pettersen
		21	damaged measuring cell of the OCM
	I		19:40 Overboard valve unsealed
			(signature of responsible officer)

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. **Example Code Entries**

- Code "F" Condition of the Oil Filtering Equipment
  - Notes:  $\mathbf{O}$

• If the failure is not rectified before the next operation which needs to be recorded in the ORB, then only code F19 is entered and code entries F20 and F21 are recorded later, again with repeating the code F19 entry,

whenever the system has been made operational

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
18-FEB- 2012	F	19	16:30 -the 3-way-valve stuck open and not operational
	F	20/21	Unknown at this time, under investigation
	I		16:30 Overboard valve sealed shut
			(signature of responsible officer)
19-FEB- 2012	F	19	Ref. 3-way valve stuck open and not operational on 18-FEB-2012 16:30
		20	10:40 fixed by Staff Ch. Engineer Johnson
		21	associated air control pipe has been leaking air, now repaired
	l		10:45 Overboard valve unsealed
			(signature of responsible officer)

#### **BRIEF on Review and Audit on Oil Record Books (ORB):**

## 3. Example Code Entries

- Code "G" Accidental or other exceptional discharges of oil
  - o 22. Time of occurrence
  - o 23. Place or position of ship at time of occurrence
  - o 24. Approximate quantity and type
  - o 25. Circumstances of discharges or escape, the reasons therefore and general remarks

#### Notes

- If failure of Oil Filtering Equipment or Oil Content Meter related equipment is involved, appropriate (F) entry is to be made
- Relevant sections of the SOPEP are to be used to combat oil spills
- Examples of Circumstances of discharge include, but are not limited to:
  - OCM failure
  - Fuel tank overflow
  - Ruptured bunkering hose/flange
  - Fuel tank leakage (ie due to grounding or collision)

Silversea

# BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

Code "G" Accidental or other exceptional discharges of oil

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
19-FEB- 2012	G	22	16:55
		23	43°12'N; 025°19'W
		24	0.1 m3 of bilge water > 15 ppm
		25	3-way valve found not completely closing and leaking when OCM > 15 ppm; equipment stopped, manual overboard valve closed.
			(signature of responsible officer)

#### o Notes:

 the example above would also necessitate a code F entry for failure of equipment

# BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

Code "G" Accidental or other exceptional discharges of oil

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
19-FEB- 2012	G	22	08:35
		23	Alongside Piraeus, Terminal 1
		24	0.030 m3 (approx. 30 litres) of Castrol Hyspin AWH-040 hydraulic oil
		25	Oil leaked overboard from a ruptured joint on a hydraulic pipe for forward portside tender platform during its opening. Code "Black" announced. Oil spill equipment deployed. Port Authorities and Company advised. Pipe fixed.
			(signature of responsible officer)

BRIEF on Review and Audit on Oil Record Books (ORB):

- Code "H" Bunkering of fuel or bulk lubricating oil
  - o 26. Bunkering
    - .1 Place of bunkering
    - .2 Time of bunkering
    - .3 Type and quantity of fuel oil and identity of tanks(s) (state quantity added, in tonnes and total content of tank(s))
    - .4 Type and quantity of lubricating oil and identity of tanks(s) (state quantity added, in tonnes and total content of tank(s))

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

 Code "H" Bunkering of fuel or bulk lubricating oil o Fuel bunkering (for all marine fuels HFO, MDO, MGO etc)

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
19-FEB- 2012	Н	26.1	Napoli (ex barge Marna-I)
		26.2	Started 07:40 ; Stopped 10:50
		26.3	Bunkered 101.1 tonnes of HFO IFO-380, 2.4% Sulphur
			DT Tk 06CP, added 20.4 t, ttl content 42.2 t
			DT Tk 06CS, added 22.3 t, ttl content 42.8 t
			DT Tk 06P, added 29.8 t, ttl content 35.7t
			DT Tk 06S, added 28.6 t, ttl content 43.8 t
			(signature of responsible officer)

#### o Notes:

- A Bunker Delivery Note (BDN) is to be received by the bunker operator in conformity with Marpol Annex VI. The quantities of the BDN should correspond (as converted) to the figures entered as per code H
- Sulphur content (%) should also be recorded for the type of fuel
- Separate entries required for each grade of fuel oil bunkered respectively to ensure transparency

#### **BRIEF on Review and Audit on Oil Record Books (ORB):**

#### 3. Example Code Entries

 Code "H" Bunkering of fuel or bulk lubrication oil o Bunkering of lubricating oil in bulk

Date	Code (letter)	<b>Item</b> (number)	Records of operations / signature of officer in charge
19-FEB- 2012	Ι	26.1	Bergen (ex two trucks)
		26.2	Started 08:40 ; Stopped 11:50
		26.4	Bunkered 12.7 tonnes of Lube oil Exxon, Guard SAE 30 in bulk
			Storage Tk 24P, added 4.6 t, ttl content 8.9 t
			Storage Tk 25P, added 3.2 t, ttl content 7.5 t
			Storage Tk 26S, added 4.9 t, ttl content 9.1 t
			(signature of responsible officer)

#### o Notes:

- A Bunker receipt is to be received from the bunker operator. The quantities of the receipt should correspond (as converted) to the figures entered as per code H
- Separate entries required for each grade of lubricating oil bunkered in bulk to ensure transparency
- This entry is not required if lubrication oil is delivered onboard in packaged form (ie drums etc)

#### BRIEF on Review and Audit on Oil Record Books (ORB):

- Code "I" Additional operational procedures and general remarks
  - o Under this heading the following, including but not limited to, should be logged:
    - OWS / OCM alarm tests and verifications of the of the 15 ppm alarm system
    - OWS / OCM cleaning or maintenance of the unit in general
    - Any extraneous emergency drain of oil to the engine room bilges, even if later transferred to a holding tank
    - Late correction entries
    - Voluntarily declaration of quantities retained onboard in oily bilge water holding tanks ie those listed under item 3.3 of the IOPPC Supplement (not under code entry C 11 for sludge tanks listed under item 3.1 of the IOPPC supplement)
    - Outcome of ORB audits and errors noted
    - Tests/Checks/Verifications/Maintenance on associated equipment
    - Sealing /un-sealing of associated overboard valves
    - De-bunkering of fuel oil
    - etc

# BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

Code "I" Additional operational procedures and general remarks

OWS / OCM alarm tests and verifications of the of the 15 ppm alarm system

Date	Code (letter)	<b>Item</b> (number)	Records of operations / signature of officer in charge
19-FEB- 2012	I		15 ppm alarm of OWS unit tested and satisfactory
			(signature of responsible officer)

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
19-FEB- 2012	I		OCM Deckma (ser.no. 01234) on OWS verified against liquid with known oil content by authorized technician Mr. Smith. OCM readings within operational accuracy +/- 5 ppm on all verification tests. PMS updated as well.
			(signature of responsible officer)

#### o Notes:

 Should in the above example, the verification turned out to be unsuccessful (outside operational accuracy), then an equipment failure code F should be made as well.

# BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "I" Additional operational procedures and general remarks
  - OWS / OCM cleaning or maintenance of the unit in general

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
19-FEB- 2012	I		Opened and inspected OWS unit, filters cleaned/renewed as required; valves and piping on discharge side of the OWS opened, inspected and cleaned as required. After maintenance OWS and OCM checked for proper operation
			(signature of responsible officer)

 Any extraneous emergency drain of oil to the engine room bilges, even if later transferred to a holding tank

Date	Code (letter)	<b>Item</b> (number)	Records of operations / signature of officer in charge
19-FEB- 2012	I		Drained pipe work to bilges between lube oil pump and cooler to change leaking flange gasket
			(signature of responsible officer)

#### BRIEF on Review and Audit on Oil Record Books (ORB):

- Code "I" Additional operational procedures and general remarks
  - Late correction/insertion entries

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
* 26-OCT- 2012 [date of orig, operation]	_		Late correction (insertion) entry pertaining to an earlier missed operational entry for 26-OCT-2012.
* * 30- OCT-2012 [current date]	C	12.2	1.1 m3 from FO sludge Tk No. 7 to Sludge Tk for Burning No.160; Qty retained on board (rob): FO Sludge Tk No.7 = 3.4 m3; Total content Sludge Tk for Burning No.160 = 2.6 m3;
			* signature of the officer making the "I" entry on 30-OCT-2012
			** signature of officer making the missed entry on 30-OCT-2012

#### **BRIEF on Review and Audit on Oil Record Books (ORB):**

#### 3. Example Code Entries

- Code "I" Additional operational procedures and general remarks
  - Voluntarily declaration of quantities retained onboard in oily bilge water holding tanks listed under item 3.3 of the IOPPC supplement (not under code entry C 11)

	Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
C	)8-JUL- 2012	I		12:00 hrs: bilge water tanks weekly inventory voluntary declaration: Bilge Tank 14 – qty rob 8.2 m3/ cap. 11.5 m3; Bilge Tank 19 – qty rob 4.1 m3 / cap. 8.1 m3;
				(signature of responsible officer)

de-bunkering of fuel oil

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
28-OCT- 2012	_		121 mts of IFO-380 HFO, 4.4% S, de-bunkered from tanks:
			60 mts removed from HFO tank #13P, now containing 6 mts
			61 mts removed from HFO tank #14S, now containing 5 mts
			De-bunkered to Petrobras in Rio De Janeiro, to barge 'Santos", IMO # 9876543, receipt # 245
			Start: 08:20; stopped: 11:45
			(signature of responsible officer)

#### BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

- Code "I" Additional operational procedures and general remarks
  - optional sealing of Marpol Annex I related valve and/or equipment

Date	Code (letter)	<b>Item</b> (number)	Records of operations / signature of officer in charge
08-OCT- 2012	I		Overboard valve #2386 from 15 ppm bilge water separator unit sealed (seal number 1234)
			(signature of responsible officer)

breaking of optional seal on Marpol I Annex related valve and/or equipment

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
10-OCT- 2012	I		Overboard valve #2386 from 15 ppm bilge water separator unit unsealed for normal operation of the 15 ppm OWS (seal # 1234)
			(signature of responsible officer)

# BRIEF on Review and Audit on Oil Record Books (ORB):

#### 3. Example Code Entries

Code "I" Additional operational procedures and general remarks

 If multiple and / or common errors are identified during audit, a corrective "I" entry should NOT be made for each error. Rather a single "I" entry is to be made referring to the audit report and its supplement and no corrections are required for already made erroneous entries, as per the following examples:

Date	Code (letter)	Item (number)	Records of operations / signature of officer in charge
19-FEB- 2012			During an internal Company Audit from 17 <sup>th</sup> till 19 <sup>-</sup> FEB-2012 by DPA J.Smith, errors were observed in this ORB. The audit report and a supplement outlining the specific errors in the ORB are attached to the inside cover of this ORB. All Engineers making entries in the ORB have been explained the errors and are being re-trained on correct entries per the Company's guidelines. A Non Conformity for the errors observed has been raised per company's SMS but no further action with regards to amending already made erroneous entries in this ORB is required.
			(signature of Auditor)

BRIEF on Review and Audit on Oil Record Books (ORB):

While every effort has been made to ensure the information and examples in this Brief are correct, V.Ships will not accept any responsibility whatsoever for any errors or omissions and consequences that may arise there from.

The examples and information therefore in this Brief are to be considered as guidance only. They should not be relied upon without independent verification.

This Brief does not in any way constitute an official version of the regulations as contained in Marpol Annex I and its Appendices (as amended) or modify or supersede them and the actual regulations always take precedence.

