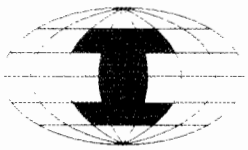

INTERTANKO

A Guide for Correct Entries in the Oil Record Book

(Part I – Machinery space operations)

3rd Edition

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ABBREVIATIONS:

DO	Diesel Oil
HFO	Heavy Fuel Oil
IOPPC	International Oil Pollution Prevention Certificate
LO	Lube Oil
MARPOL	International Convention for the Prevention of Pollution from Ships 73/Protocol 78, as amended
ORB	Oil Record Book (Part I – Machinery space operations)
ROB	Retained on board/Remaining on board

1. FOREWORD

The INTERTANKO Safety, Technical and Environmental Committee (ISTEC) has developed this Guide to assist ship operators with the proper and consistent filling in of the Oil Record Book Part I (ORB) and to avoid possible errors in logging information in it, which has been one of the main reasons for the increasing problems of ships being detained and fined in the US and other countries.

This third edition is published in response to the many requests from shipping companies, not only tanker owners. The Guide was updated and modified to include amendments to the Oil Record Book (ORB) Part I (Resolution MEPC.187 (59) on July 2009) which have been in force since 1 January 2011. The examples contained in section 4 of this Guide are in compliance with the MEPC.1/Circ.736/Rev.2 (October 2011) "Guidelines for the recording of operations in the Oil Record Book Part I – machinery space operations (all ships)".

The Guide, first issued in May 2004, proved very useful in assisting ship crews to cope with the complex task of filling in the ORB in a proper and consistent manner, and became very popular. Since May 2004 a large number of comments and questions from operators have been received – with many seeking clarification on whether the Guide is actually correct. The Guide was correct in most of the cases, however, the feedback helped us to make a few minor amendments and additions which were continuously included in the previous editions. A continuous update of this Guide was also determined by a series of revisions to Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78 consolidated edition 2011, as amended) and revisions to the IMO Guidelines for systems for handling oily waste in machinery spaces such as issues of MEPC.1/Circ.642, which introduced the concept of an integrated bilge water treatment system (IBTS) (Later amended by MEPC.1/Circ.676, July 2009).

This third edition of Part I of the ORB keeps the same structure and contains:

(a) instructions and interpretations on how to properly record all related operations as per MARPOL 73/78, Annex I, Regulation 17;
(b) a list of operations to be recorded;
(c) frequently found failures or mistakes;
(d) detailed examples for all related operations.

INTERTANKO's observations and clarifications are recorded in italics throughout the Guide.

The Guide is structured to facilitate integration in the document management system of any individual member of INTERTANKO. It can also be used as a training tool for seafarers.

INTERTANKO would like to extend special thanks to Mr. Takis Koutris of Roxana Shipping and Mr. Sokratis Dimakopoulos of Maran Tankers Management Inc. who have co-ordinated the production of the Guide and this revised edition. We wish also to thank all those who provided valuable feedback.

2. PREFACE

2.1 Scope of the Guide

This Guide offers advice for correct entries in the Oil Record Book (Part I – Machinery space operations) (hereafter referred to as ORB), in accordance with Annex I of MARPOL 73/78 consolidated edition 2011, including the latest amendments to regulations 1, 12, 13, 17, 38 and the Supplement to the IOPP Certificate Forms A and B which entered into force on 1 January 2011. It also includes some Flag Administrations' requirements, and is structured in such a way as to match with/refer to the individual documented management system of a ship-management company. The examples in section 4 of the Guide were updated to mirror the IMO issued Guidelines in MEPC.1/Circ.736/Rev.2 of October 2011.

2.2 Objectives of the Guide

Assist ship operators in defining the controls and activities necessary to ensure that:

- All operations referred to in regulation 17 of Annex I of MARPOL 73/78 consolidated edition 2011 as amended, are recorded in the ORB.
- All records are in accordance with the format stipulated by Appendix III of Annex I of MARPOL 73/78 consolidated edition 2011 as amended.
- The records in the ORB are compatible with the records in the other log books.

This Guide could also be used as a training tool for office and shipboard personnel ashore and on board.

2.3 Introduction to operational procedures

- An ORB shall be provided and maintained on every oil tanker of 150 GT and above and on every ship of 400 GT and above other than oil tankers, and endorsed by the Flag Administration, as required, and in accordance with the provisions of the applicable maritime regulations – particularly the MARPOL 73/78 Convention, as amended.
- The ORB must be properly completed. All machinery space operations must be clearly and accurately recorded as required. Operations should be recorded in chronological order as they have been executed onboard.
- Owners and their legal advisors, Masters and officers are reminded that, in addition to the statutory requirements covering the maintenance of an ORB, this record is a valuable means of providing evidence that a ship has complied with pollution prevention regulations.
- A comprehensive list of items of machinery space operations to be recorded in the ORB, as appropriate, is included in regulation 17 of Annex I of the International Convention for the Prevention of Pollution from Ships 1973 as modified by the Protocol of 1978 relating thereto (MARPOL 73/78 consolidated edition 2011, as amended). The items have been grouped into operational sections, each of which is denoted by a letter code.

- When making entries in the ORB, the date, the operational letter code and item number shall be inserted in the appropriate columns and the required particulars shall be recorded chronologically in the blank spaces (record of operations).

- Dates should be entered in dd-MONTH-yyyy format, e.g. 20-MAR-2013

- The entries in the Oil Record Book Part I, for ships holding an International Oil Pollution Prevention Certificate, shall be at least in English, French or Spanish. Where entries in an official national language of the State whose flag the ship is entitled to fly are also used, this shall prevail in case of a dispute or discrepancy.

- Each completed operation shall be signed for and dated by the officer(s) in charge of the operations concerned. The date of signature should also be written down same format, i.e. dd-MONTH-yyyy, e,g, 20-MAR-2013.

  Each completed page shall be countersigned by the Master of the ship.

  Upon completion of each operation/job the proper entries shall be completed.

  It is important not to wait until the end of the week or until each voyage is completed to enter records in the ORB. In this way errors and omissions are prevented.

- **All entries in the ORB have to be recorded in CAPITAL letters with INDELIBLE INK. Entries recorded in pencil are not acceptable.**

  If a wrong entry has been recorded in the ORB, it should immediately be struck through with a single line in such a way that the wrong entry is still legible. The wrong entry should be signed and dated, with the new, correct entry following.

  However, if a serious mistake is discovered at a later stage, contemporaneous evidence is needed to prove that such an entry was wrong, and that it was an innocent mistake.

  When an entry is made and the whole line is not completed, this line is not a "full line entry", and it is permitted to make another entry on the next line.

  Do not leave any full lines empty between successive entries.

- The competent authority of a Government which is Party to the MARPOL 73/78 Convention as well as the Port State Control authorities may inspect the ORB on board any ship in its ports or offshore terminals and may require a copy of any entry in the ORB, and may require the Master of the ship to certify that the copy is a true copy of such entry.

  Any copy so made which has been certified by the Master of the ship as a true copy of an entry in the ship's ORB shall be made admissible in any judicial proceeding as evidence of the facts stated in the entry.

- The inspection of an ORB and the taking of a certified copy by the competent authority, as described in the above paragraph, shall be performed as expeditiously as possible, without causing the ship to be unduly delayed.

- The ORB must be preserved for 3 (three) years from the date of the last entry.

- On board the ship one official ORB only must be kept. It is not permitted to keep a scrap ORB.

2.4 Responsibilities for shore and shipboard personnel

The Ship Manager's Office will ensure that:

- The ORB is ordered and delivered, stamped and endorsed by the Flag Administration, as required.
- Training and information are provided for the responsible ship staff.
- Records are kept for 3 (three) years.
- Proper record keeping is verified at each Superintendent's inspection/attendance.

The Master will ensure that:

- The ORB is received onboard properly stamped and endorsed by the Flag Administration, as required.
- Records are kept for 3 (three) years.
- Each page of the ORB is properly dated and signed by the Master.
- Each entry is correct as per format stipulated in Appendix III of Annex I of MARPOL 73/78 as amended, and in line with the other logs on board.
- The Chief Engineer is promptly informed when the vessel enters or exits from a "special area" as defined in regulation 1.11 of Annex I of MARPOL 73/78 as amended.
- The Supplement to the IOPP Certificate Forms A and B are properly filled out (tanks + capacities) as per 4.1 of this Guide.

The Responsible Engine Officer will ensure that:

- All operations stipulated in regulation 17 of Annex I of MARPOL 73/78 consolidated edition 2011, as amended, are properly recorded in the ORB.

- Each entry is correct, as per format stipulated in Appendix III of Annex I of MARPOL 73/78 consolidated edition 2011, as amended, is properly recorded and in line with the other logs on board and properly signed.

- The following documents are frequently reviewed and are readily available:
  - ORB with records up to the last day, and filed for 3 (three) years;
  - Bilge water separator manual and certificate;
  - Bilge water 15 ppm automatic stopping device manual and certificate.

- Bilge and incineration system (piping, cabling and equipment) are always in good operation, properly monitored and maintained.

3. ITEMS TO BE RECORDED

3.1 Introductory notes

The pages in this section show a comprehensive list of items of machinery space operations which are to be recorded in the ORB, when appropriate, in accordance with regulation 17 of Annex I of MARPOL 73/78.

The items have been grouped into operational sections, each of which is denoted by a letter code (A to I). These reference letters and numbers are used throughout the Guide.

When making entries in the ORB, the date, the operational (letter) code and item number shall be inserted in the appropriate columns and the required particulars shall be recorded chronologically in the column 'record of operations'.

Each completed operation shall be signed for and dated by the officer(s) in charge of the operation concerned. Each completed page shall be signed by the Master of the ship.

The ORB contains many references to oil quantity.

The limited accuracy of tank measurement devices, temperature variations and tank clingage will affect the accuracy of these readings. The entries in the ORB should be considered accordingly.

INTERTANKO's observations and clarifications are recorded in italics throughout the Guide.

3.2 List of items to be recorded, interpretations and clarifications

A. BALLASTING OR CLEANING OF OIL FUEL TANKS

1. Identity of tank(s) ballasted.

2. Whether cleaned since they last contained oil and, if not, type of oil previously carried.
   Date of last cleaning – oil commercial name, density and/or viscosity

3. Cleaning process:
   .1 Position of ship and time at the start and completion of cleaning;
   .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 m^3);
   .3 Identity of tank(s) into which cleaning water was transferred and the quantity in m^3.
   Quantity of cleaning water to be recorded as well.

4. Ballasting:
   .1 Position of ship and time at start and end of ballasting;
   .2 Quantity of ballast if tanks are not cleaned in m^3.

B. DISCHARGE OF DIRTY BALLAST OR CLEANING WATER FROM OIL FUEL TANKS REFERRED TO UNDER SECTION (A)

5. Identity of tank(s).

6. Position of ship at start of discharge.

7. Position of ship on completion of discharge

8. Ship's speed(s) during discharge.

9. Method of discharge:
   .1 Through 15 ppm equipment;
   .2 To reception facilities.

10. Quantity discharged in m^3.

C. COLLECTION, TRANSFER AND DISPOSAL OF OIL RESIDUES (SLUDGE)

11. Collection of oil residues (sludge).
    Quantities of oil residues (sludge) retained on board. The quantity must be recorded weekly[1]
    (This means that 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) in m^3
    .3 Total quantity of retention in m^3
    .4 Quantity of residue collected by manual operation in m^3
    (Operator initiated manual collections where oil residue (sludge) is transferred (transfer with a pump) into the oil residue (sludge) holding tank(s).)

Entries C11.1/C11.2/C11.3/C11.4 are related to pump transfers (manually tripped by operator) from any non IOPP section 3.1 tank in engine room (C11.4) to any IOPP section 3.1 sludge tank (C11.1) BUT ONLY PUMP TRANSFERS.

12. Methods of transfer or disposal of oil residues (sludge). State quantity of the oil residues transferred or disposed of, the tank(s) emptied and the quantity of contents retained in m^3:
    .1 to reception facilities (identify port)[2];
    .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).

Entries C12.2 are related to ANY internal transfer (pump or drain) of sludge from any IOPP 3.1 sludge tank to any IOPP section 3.1 sludge tank or ANY internal transfer drain of water from any IOPP section 3.1 sludge tank to any IOPP section 3.3 bilge holding tank.

[1] Only those tanks listed under Section 3.1 of Forms A and B of the Supplement to the IOPP Certificate used for oil residues (sludge)

[2] The ship's Master should obtain from the operator of the reception facilities, which includes barges and tank trucks, a receipt or certificate detailing the quantity of tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book (ORB) Part I, may aid the Master of the ship in proving that the ship was not involved in an alleged pollution incident. The receipt or certificate should be kept together with the ORB Part I.

D. NON-AUTOMATIC STARTING OF DISCHARGE OVERBOARD, TRANSFER OR DISPOSAL OTHERWISE OF BILGE WATER WHICH HAS ACCUMULATED IN MACHINERY SPACES

Bilge water originates from leaking water seals of pumps, stern tube, leaking pipes/flanges of fuel oil, steam, sea water, fresh water, boiler water systems. The anticipated quantity depends on many factors (engine room condition and maintenance, crew and management ashore competence, age of vessel, etc.).

13. Quantity discharged, transferred or disposed of, in cubic metres [3]

14. Time of discharge, transfer or disposal (start and stop).

15. Method of discharge, transfer or disposal:
    .1 Through 15 ppm equipment (state position at start and end);
    .2 to reception facilities (identify port)[2 (footnote on previous page)];
    .3 To slop tank or holding tank or other tank(s) (indicate tank(s); state quantity).

E. AUTOMATIC STARTING OF DISCHARGE OVERBOARD, TRANSFER OR DISPOSAL OTHERWISE OF BILGE WATER WHICH HAS ACCUMULATED IN MACHINERY SPACES

This section refers to the bilge systems with floater switches in the bilge wells activating "automatic" bilge water transfer to the bilge water holding tank or with floater switches in the bilge water holding tank activating "automatic" bilge water discharge overboard through the bilge water separator.

When these systems are used it could result in an un-monitored discharge of the bilges. Bilges are normally emptied under D 15 through the 15 ppm equipment.

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.

17. Time when the system has been put into automatic mode of operation for transfer of bilge water to holding tank (identify tank).

18. Time when the system has been put into manual operation.

F. CONDITION OF THE OIL FILTERING EQUIPMENT

19. Time of system failure[4]

20. Time when system has been made operational.

21. Reasons for failure.

[3] 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.
[4] The condition of the oil filtering equipment covers also the alarm and automatic stopping devices, if applicable.

G. ACCIDENTAL OR OTHER EXCEPTIONAL DISCHARGES OF OIL

22. Time of occurrence.

23. Place or position of ship at time of occurrence.

24. Approximate quantity and type of oil.

25. Circumstances of discharge or escape, the reasons therefore and general remarks.

H. BUNKERING OF FUEL OR BULK LUBRICATING OIL

26. Bunkering:
    - **.1** Place of bunkering.
    - **.2** Time of bunkering.
    - **.3** Type and quantity of fuel oil and identity of tank(s) (state quantity added, in tonnes and total content of tank(s)).
    - **.4** Type and quantity of lubricating oil and identity of tank(s) (state quantity added in tonnes and total content of tank(s)).

I. ADDITIONAL OPERATIONAL PROCEDURES AND GENERAL REMARKS

As per MEPC.1/Circ. 640, any voluntary declaration of quantities retained on board in oily bilge water holding tanks.

4. DETAILED EXAMPLES FOR RELATED OPERATIONS

The layout and language used on the examples given in this third edition were changed as compared with the previous editions. The examples in this section follow the language used in the IMO the "Guidelines for the recording of operations in the Oil Record Book Part I – machinery space operations (all ships)" (MEPC.1/Circ.736/Rev.2 of October 2011).

However, the sequence of the examples strictly follows the same examples given in the previous edition of this Guide. There is only one.

a/a	Example
Bunkering	
4.1	Bunkering of Fuel
4.2	Bunkering of lubricating oil in bulk
Oily bilge water handling	
4.3	Pumping of bilge water from engine-room bilges to an oily bilge water holding tank
4.4	Discharge of bilge water through the 15 ppm bilge separator taking suction from oily bilge water holding tank
4.5	Discharge of bilge water through the 15 ppm bilge separator taking suction from engine room bilge wells
4.6	Disposal of bilge water from oily bilge water holding tank to shore reception facilities
4.7	Transfer (disposal) of bilge water from oily bilge water holding tank to slop tank
Sludge handling	
4.8	Weekly recording of the contents of oil residue (sludge) tanks
4.9	Oil residues (sludge) collected by manual operation in oil residue (sludge) tank
4.10	Transfer of sludge between oil residue (sludge) tanks
4.11	Draining of settled water from an oil residue (sludge) tank to an oily bilge water holding tank
4.12	Heating of oil residue (sludge) as a method of reducing its volume by evaporation
4.13	Sludge incineration
4.14	Sludge disposal to port reception facilities
4.15	Transfer (disposal) of sludge from oil residue (sludge) tank to slop tank
Other operational procedures	
4.16a	Failure of the 15 ppm bilge separator, 15 ppm bilge alarm or automatic stopping device
4.16b	Sealing of 15 ppm bilge separator overboard valve when the separator has failed
4.17a	When proper operation of the 15 ppm bilge separator Bilge separator, 15 ppm bilge alarm or automatic stopping device has been restored
4.17b	Breaking of seal of the 15 ppm bilge separator overboard valve when the operation of the separator has been restored
4.18	Missed operational entry
4.19	De-bunkering of fuel oil (in case of out-of-spec fuel)

BUNKERS

4.1 Bunkering of fuel

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
22-MAR-2013	H	26.1	PHILADELPHIA
		26.2	START: 22-MAR-2013 -11:30 HRS STOP: 23-MAR-2013 15:30 HRS
		26.3	2000 MT OF ISO-F-RMG 380 HFO 2.7 %S BUNKERED IN TANKS:
			900 MT ADDED TO NO.2 FUEL OIL TANK (P) (FR:29-46) NOW CONTAINING 920 MT
			1100 MT ADDED TO NO.2 FUEL OIL TANK (S) (FR:22-29) NOW CONTAINING 1120 MT
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 23-MAR-2013

Notes:

Separate entries are required for each grade of fuel oil being bunkered.

Quantities should be recorded in metric tonnes.

4.2 Bunkering of lubricating oil in bulk

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
22-MAR-2013	H	26.1	SINGAPORE
		26.2	START: 22-OCT-2013 -11:30 HRS STOP: 23-OCT-2013 02:30 HRS
		26.4	50 MT CYL. OIL TARO 50 BUNKERED IN TANKS:
			20 MT ADDED TO NO. 1 CYL.O.STOR.T. (P) NOW CONTAINING 70 MT
			30 MT ADDED TO NO. 2 CYL.O.STOR.T. (P) NOW CONTAINING 60 MT
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 22-MAR-2013

Notes:

Separate entries are required for each grade of lube oil being bunkered.

Quantities should be recorded in metric tonnes.

An entry in the ORB is NOT required when lubricating oils are delivered onboard in packaged form (55 gallon drum, etc.)

OILY BILGE WATER HANDLING

4.3 Pumping of bilge water from engine-room bilges to an oily bilge water holding tank

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
12-JAN-2013	D	13	2 M^3 BILGE WATER FROM ENGINE ROOM BILGE WELLS
		14	START: 08:30HRS, STOP: 09:00HRS
		15.3	TO BILGE WATER HOLDING TANK (FR:11-19) OF CAPACITY 61.4 M^3, 25 M^3 RETAINED IN TANK
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 12-JAN-2013

Notes:

The identity of the oily bilge water holding tank and its capacity recorded in this example under D 15.3 should be in strict compliance with section 3.3 of the supplement of the IOPPC

4.4 Discharge of bilge water through the 15 ppm bilge separator taking suction from an oily bilge water holding tank

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
20-MAR-2013	D	13	15 M^3 BILGE WATER FROM BILGE WATER HOLDING TANK (FR:11-19) OF CAPACITY 61.4 M^3, 10 M^3 RETAINED IN TANK
		14	START:10:00 HRS, STOP:13:30 HRS
		15.1	THROUGH 15 PPM EQUIPMENT POSITION AT START: XX DEG XX MIN N/S, XX DEG XX MIN E/W POSITION AT STOP: XX DEG XX MIN N/S, XX DEG XX MIN E/W
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 20-MAR-2013

Notes (see opposite page)

4.5 Discharge of bilge water through the 15 ppm bilge separator taking suction from engine room bilge wells

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
20-MAR-2013	D	13	5 M^3 BILGE WATER FROM ENGINE-ROOM BILGE WELLS
		14	START:10:00HRS, STOP:11:30 HRS
		15.1	THROUGH 15 PPM EQUIPMENT POSITION AT START: XX DEG XX MIN N/S, XX DEG XX MIN E/W POSITION AT STOP: XX DEG XX MIN N/S, XX DEG XX MIN E/W
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 20-MAR-2013

Notes (for examples 4.4 and 4.5):

For the 15 ppm bilge separator to be set in operation:

(a) the ship should be en route; and

(b) the 15 ppm bilge alarm and the automatic stopping device must be in good working condition.

The quantity of bilge water being discharged as recorded in D 13 must be less than the maximum 15 ppm bilge separator throughput (capacity multiplied by time of operation).

The 15 ppm bilge alarm, being type approved as per MEPC.107(49), should record date, time and alarm status, and operating status of the 15 ppm bilge separator. The recording device should also store data for at least 18 months and should be able to display or print a protocol for official inspections, as required.

The identity of the oily bilge water holding tank and its capacity recorded in this example under D 13 should be in strict compliance with section 3.3 of the supplement of the IOPPC is applicable only for example 4.4.

With the aim of ensuring the accurate recording of the position (Lat/Long) at the START and STOP of the operation of the 15 ppm bilge separator, the C/E should provide the START and STOP times to the Bridge OOW and request from the OOW to provide the relevant ship's positions in a documented manner, which should contain date/time/ ship's position (Lat/Long), signed by the Bridge OOW.

4.6 Disposal of bilge water from oily bilge water holding tank to shore reception facilities

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
20-MAR-2013	D	13	25 M^3 BILGE WATER FROM BILGE WATER HOLDING TANK (FR:11-19) OF CAPACITY 61.4 M3, 5 M^3 RETAINED IN TANK
		14	START: 13:00HRS, STOP: 15:30HRS
		15.2	TO PORT RECEPTION FACILITIES OF ROTTERDAM, RECEIPT NO:453
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 20-MAR-2013

Notes:

The disposal to reception facilities should be made only through the standard discharge connection.

The identity of the oily bilge water holding tank and its capacity recorded in this example under D 13 should be in strict compliance with section 3.3 of the supplement of the IOPPC.

Vessels for which the requirement for the installation of the oil bilge water separator is waived should have only a bilge water holding tank and, as per note recorded in the IOPP Certificate, dispose of oily bilge water to shore facilities during dedicated days.

The Master should obtain from the operator of the reception facilities, which includes barges and tank trucks, a receipt or certificate detailing the quantity of the bilge water transferred, together with the time and date of the transfer.

This receipt or certificate should be kept together with the Oil Record Book Part I.

4.7 Transfer (disposal) of bilge water from oily bilge water holding tank to a slop tank

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
20-MAR-2013	D	13	25 M^3 BILGE WATER FROM BILGE WATER HOLDING TANK (FR:11-19) OF CAPACITY 61.4 M3, 5 M^3 RETAINED IN TANK
		14	START: 10:00 HRS, STOP:11:30 HRS
		15.3	TRANSFERRED TO SLOP TANK (S) (FR:51-55), 220 M^3 RETAINED IN TANK
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 22-MAR-2013

Notes:

Any arrangement provided for machinery space bilge transfer to slop tanks should incorporate adequate means to prevent any backflow of liquid cargo and gases into the machinery spaces. (Continued opposite.)

Notes (continued)

For such an entry to be made, it should be explicitly stated in paragraph 3.2.3 of the Supplement to the IOPPC that this method is allowed.

Prior to any such transfer the Company agreement should be requested.

An entry in the Oil Record Book – Part II must also be made.

The identity of the oily bilge water holding tank and its capacity recorded in this example under D 13 should be in strict compliance with section 3.3 of the supplement of the IOPPC.

SLUDGE HANDLING

4.8 Weekly recording of the contents of oil residue (sludge) tanks

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
20-MAR-2013	C	11.1	SLUDGE TANK (FR:29-40)
		11.2	20 M^3
		11.3	5 M^3
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 20-MAR-2013
20-MAR-2013	C	11.1	WASTE OIL TANK (FR:21-23)
		11.2	35 M^3
		11.3	8 M^3
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 20-MAR-2013
20-MAR-2013	C	11.1	INCINERATOR W.O. SERVICE TANK (FR:15-16)
		11.2	2 M^3
		11.3	0.5 M^3
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 20-MAR-2013
20-MAR-2013	C	11.1	INCINERATOR W.O. SERVICE TANK (FR:13-14)
		11.2	2 M^3
		11.3	1.5 M^3
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 20-MAR-2013

Notes:

The identity of the oil residue (sludge) tanks listed under C 11.1 and their capacity recorded under C 11.2 should be in strict compliance with section 3.1 of the supplement of the IOPPC.

This recording should be made once per week.

Optional, for ships engaged in long voyages, it would a good housekeeping procedure to also consider making this recording at the end of the voyage.

4.9 Oil residues (sludge) collected by manual operation in oil residue (sludge) tank

Example 4.9a

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
18-MAR-2013	C	11.1	WASTE OIL TANK (FR:24-27)
		11.2	38 M^3
		11.3	10 M^3
		11.4	1 M^3 COLLECTED FROM NO 1 AUX. ENGINE SUMP TANK
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 18-MAR-2013

Example 4.9b

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
28-OCT-2013	C	11.1	WASTE OIL TANK (FR:24-27)
		11.2	38 M^3
		11.3	25 M^3
		11.4	15 M^3 COLLECTED FROM M/E SUMP TANK
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 28-OCT-2013

Example 4.9c

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
16-APR-2013	C	11.1	WASTE OIL TANK (FR:24-27)
		11.2	38 M^3
		11.3	7.2 M^3
		11.4	0.6 M^3 COLLECTED FROM CAMSHAFT L.O TANK
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 16-APR-2013

Example 4.9d

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
11-SEP-2013	C	11.1	WASTE OIL TANK (FR:24-27)
		11.2	38 M^3
		11.3	9 M^3
		11.4	0.8 M^3 COLLECTED FROM STUFFING BOX DIRTY TANK
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 11-SEP-2013

Notes:

*This record should be made when oil residues are **transferred (by using a pump – including a portable one)** from a tank (which is **NOT** listed as sludge tank in the IOPPC/Supplement/Section 3.1) to a tank which **is** listed as an oil residue (sludge) tank in the IOPPC/Supplement/Section 3.1.*

The identity of the oil residue (sludge) tanks listed under C 11.1 and their capacity recorded under C 11.2 should be in strict compliance with section 3.1 of the supplement of the IOPPC.

4.10 Transfer of sludge between oil residue (sludge) tanks

Example 4.10a

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
11-JUL-2013	C	12.2	3 M^3 SLUDGE TRANSFERRED FROM SLUDGE TANK (FR:11-15), 5 M^3 RETAINED TO WASTE OIL TANK (FR:21-23), 7 M^3 RETAINED IN TANK
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 11-JUL-2013

Example 4.10b

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
12-JUL-2013	C	12.2	2 M^3 SLUDGE TRANSFERRED FROM WASTE OIL TANK (FR:21-23), 5 M^3 RETAINED TO INCINERATOR WASTE OIL SETTLING TANK (FR:15-16), 4 M^3 RETAINED IN TANK
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 12-JUL-2013

Example 4.10c

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
12-JUL-2013	C	12.2	1 M^3 SLUDGE TRANSFERRED FROM INCINERATOR WASTE OIL SETTLING TANK (FR:15-16), 3 M^3 RETAINED TO INCINERATOR WASTE OIL SERVICE TANK (FR:13-16), 1.8 M^3 RETAINED IN TANK
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 12-JUL-2013

Notes:

*These records should be made when oil residues (sludge) are transferred between oil residue (sludge) tanks which are **BOTH** listed as sludge tanks in the IOPPC/Supplement/Section 3.1.*

The identity of the oil residue (sludge) tanks should be in strict compliance with section 3.1 of the supplement of the IOPPC.

4.11 Draining of settled water from an oil residue (sludge) tank to an oily bilge water holding tank

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
07-MAR-2013	C	12.2	0.2 M^3 WATER DRAINED FROM INCINERATOR WASTE OIL SERVICE TANK (FR:13-16), 1.6 M^3 RETAINED TO BILGE WATER HOLDING TANK (FR:10-16), 21.5 M^3 RETAINED IN TANK
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 07-MAR-2013

Notes:

This record should be made when settled water from an oil residue (sludge) tank is drained to an oily bilge water holding tank.

The draining could be made only if the sludge tank is fitted with drains, with manually operated self-closing valves and arrangements for subsequent visual monitoring of the settled water, that lead to an oily bilge water holding tank.

The collection of bilge water in the oily bilge water holding tank need not to be accounted for, so there is no need for another entry.

The identity of the oil residue (sludge) tanks should be in strict compliance with section 3.1 of the supplement of the IOPPC.

The identity of the oily bilge water holding tank recorded in this example should be in strict compliance with section 3.3 of the supplement of the IOPPC.

4.12 Heating of oil residue (sludge) as a method of reducing its volume by evaporation

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
09-NOV-2013	C	12.4	0.2 M^3 WATER EVAPORATED FROM INCINERATOR WASTE OIL SETTLING TANK (FR:15-16), 0.8 M^3 RETAINED
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 09-NOV-2013

Note:

A vessel is authorised to carry out such an operation and record it in the ORB only if the "heating of oil residue (sludge) as a method of reducing its volume by evaporation" has been recorded in paragraph 3.2.3 "Other acceptable means" of the IOPPC Supplement.

The identity of the oil residue (sludge) tanks should be in strict compliance with section 3.1 of the supplement of the IOPPC.

4.13 Sludge incineration

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
14-NOV-2013	C	12.3	0.8 M³ SLUDGE FROM INCINERATOR WASTE OIL SERVICE TANK (FR:15-16), 0.1 M³ RETAINED
			BURNED IN INCINERATOR FOR 12 HOURS
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 14-NOV-2013

Notes:

The quantity incinerated must be less than the maximum incinerator throughput (capacity multiplied by time)

Sludge incineration is permitted only if paragraph 3.2.1 of the Supplement to the IOPP Certificate is duly marked.

The identity of the oil residue (sludge) tanks should be in strict compliance with section 3.1 of the supplement of the IOPPC.

4.14 Sludge disposal to port reception facilities

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
06-JUL-2013	C	12.1	20 M³ SLUDGE FROM WASTE OIL TANK (FR:21-25), 2 M³ RETAINED TO "SLUDGE BARGE II" DURING PORT STAY AT FUJAIRAH RECEIPT NO:653
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 06-JUL-2013

Note:

The Master should obtain from the operator of the reception facilities, which includes barges and tank trucks, a receipt or certificate detailing the quantity of the sludge transferred, together with the time and date of the transfer.

This receipt or certificate should be kept together with the ORB.

4.15 Transfer (disposal) of sludge from oil residue (sludge) tank to slop tanks

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
07-DEC-2013	C	12.4	15 M^3 SLUDGE FROM WASTE OIL TANK (FR:21-26), 2 M^3 RETAINED, TRANSFERRED TO SLOP TANK (S) (FR:51-55), 220 M^3 RETAINED IN TANK
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 07-DEC-2013

Notes:

Any arrangement provided for sludge transfer to slop tanks should incorporate adequate means to prevent any backflow of liquid cargo and gases into the machinery spaces.

For such an entry to be made, it should be explicitly stated in paragraph 3.2.3 of the Supplement to the IOPPC that this method is allowed.

Prior to any such transfer the Company agreement should be requested.

An entry in the Oil Record Book – Part II must also be made.

If sludge is transferred from multiple tanks in engine room a separate entry must be made in the ORB for each transfer.

OTHER OPERATIONAL PROCEDURES

4.16a Failure of the 15 ppm bilge separator, 15 ppm bilge alarm or automatic stopping device

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
05-FEB-2013	F	19	09:00 HRS
		20	UNKNOWN – SPARE PARTS HAVE BEEN ORDERED *(IF KNOWN, IT SHOULD BE RECORDED)*
		21	FAILURE OF FILTER ELEMENT
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 05-FEB-2013

Notes:

The condition of the 15 ppm bilge separator covers also the 15 ppm bilge alarm and the automatic stopping device.

A code 'I' entry should also be made indicating that the overboard valve was sealed shut due to the failure of the 15 ppm bilge separator (see example 4.16b opposite).

4.16b Sealing of 15 ppm bilge separator overboard valve when the separator has failed

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
05-FEB-2013	I		OVERBOARD VALVE (VALVE NUMBER: BV12) FROM 15 PPM BILGE WATER
			SEPARATOR SEALED, SEAL NO.:158634
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 05-FEB-2013

Note:

On the date where the system is functional again, a new entry, using code F 19 / 20 / 21 should be made where F 19 is the date and time of the initial failure and F 20 is the time the system is functional again (see example 4.17a).

4.17a When proper operation of the 15 ppm bilge separator, 15 ppm bilge alarm or automatic stopping device has been restored

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
15-FEB-2013	F	19	09:00 HRS *(NOTE: THE SAME TIME AS IN EXAMPLE 16A. IF THE DATE OF THE RECTIFICATION IS DIFFERENT FROM THE DATE OF FAILURE THE DATE SHOULD BE ENTERED AS WELL)*
		20	13:00 HRS
		21	FAILURE OF FILTER ELEMENT
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 15-FEB-2013

Notes:

The condition of the 15 ppm bilge separator covers also the 15 ppm bilge alarm and the automatic stopping device.

A code 'I' entry should also be made indicating that the seal of the overboard valve was broken when the operation of the 15 ppm bilge separator was restored (see example 4.17b below).

4.17b Breaking of seal of the 15 ppm bilge separator overboard valve when the operation of the separator has been restored

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
15-FEB-2013	I		OVERBOARD VALVE (VALVE NO.:BV12) FROM 15 PPM BILGE WATER SEPARATOR WAS UNSEALED FOR NORMAL OPERATION OF THE 15 PPM BILGE WATER SEPARATOR, SEAL NO.: 158634
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 15-FEB-2013

4.18 Missed operational entry

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
22-OCT-2013 (1)	I		ENTRY PERTAINING TO AN EARLIER MISSED OPERATIONAL ENTRY
29-OCT-2013 (2)	C	12.2	2 M^3 SLUDGE TRANSFERRED FROM SLUDGE TANK (FR:11-15), 4 M^3 RETAINED TO WASTE OIL TANK (FR:21-23), 8 M^3 RETAINED IN TANK
			SIGNED (1): (OFFICER-IN-CHARGE, NAME & RANK) 29-OCT-2013
			SIGNED (2): (OFFICER-IN-CHARGE, NAME & RANK) 29-OCT-2013

Note:

This entry should be made only in exceptional cases

Date (1) to be the date when the original operation was carried out.

Date (2) to be the current date i.e. the date when the entry is made.

Signed (1): Signature of Officer making the "I" entry

Signed (2): Signature of Officer making missed entry.

4.19 De-bunkering of fuel oil (in case of out-of-spec fuel)

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
14-MAR-2013	I		700 MT OF ISO-F-RMG 380 HFO 3.2 % S DE-BUNKERED FROM TANKS:
			500 MT REMOVED FROM NO.1 FUEL OIL TANK (P) (FR: 29-46), NOW CONTAINING 0 MT
			200 MT REMOVED FROM NO.1 FUEL OIL TANK (S) (FR: 22-29), NOW CONTAINING 0 MT
			DE-BUNKERED TO BARGE "ACRON III" AT FUJAIRAH PORT, RECEIPT NO: 245
			START 14-MAR-2010 AT 09:00 HRS, STOP 14-MAR-2010 AT 22:00 HRS
			SIGNED: (OFFICER-IN-CHARGE, NAME & RANK) 14-MAR-2013

Note:

Include receipt & certificate from receiver for amount and type of fuel oil de-bunkered.

5. ADDITIONAL CLARIFICATIONS FOR ISSUES RELATED TO ORB PART I

Periodical recording of the oily bilge water holding tank content

There is **NO** mandatory requirement to record in the ORB Part I on a periodical basis (i.e. weekly) the quantities of oily bilge water retained in the bilge water holding tank.

In accordance with MEPC.1/Circ.640, where a **voluntary** declaration of the quantities of bilge water retained on board in oily bilge water holding tanks is entered in the Oil Record Book, Part I, the entry should be made under Code (I).

Maintenance of items pertaining to the OWS

The recording in the ORB of general/routine maintenance of items pertaining to the OWS is **voluntary** and as such vessels are **not** required to make such records in the ORB. As regards the planned maintenance of the OWS (e.g. cleaning of the unit/filters etc.) the relevant records have to be made and kept in accordance with the vessel's PMS. Any failure of the 15 ppm bilge separator, 15 ppm bilge alarm or automatic stopping device has to be recorded in the ORB Part I, using the Code Letter F (see examples 4.16 and 4.17).

The necessary OWS inspection records have to be kept onboard in accordance with the ISM/PMS requirements. There is no need to make duplication of these records in the ORB since such is not a legal requirement.

Sludge generation (%)

There is NO MARPOL requirement requiring a specific value or % of sludge generation. Neither does the ORB contain any such recommendation. The actual sludge generation depends on a number of factors such as the fuel oil quality, the set frequency of the flushing operation of the purifiers, the quantity of drains/leakages collected in the machinery spaces etc. The 1.0% (e.g $K_1 = 0.01$) value is referred to in the Unified Interpretation 15 of MARPOL Annex I as a design factor used to determine the capacity of the sludge tanks (i.e. "it should not be construed as determining the amount of oily residues which will be produced by the machinery installation in a given period of time").

Main engine air cooler drain

On a number of vessels, the Main engine air cooler condensate is drained directly to the oily bilge holding tank. This quantity varies with climatic conditions. When in tropical area the condensate quantity could be substantial. In this respect, it should be noted that there is NO any MARPOL requirement to make a separate record in the ORB for this draining. The same applies for other drains which lead directly to the oily bilge holding tank.

Eventually, the quantity of the main air cooler drain collected in the oily bilge water holding tank will be included in the "quantity retained" in the tank which will be recorded under the Code D whenever a discharge to/from the tank is to be carried out.

Disposal of oily garbage and used filters

Incineration or landing ashore of oily garbage and used filters should be recorded in the Garbage Record Book only.

6. AUTHORS' REFERENCES

- IMO 650E 2000 Edition, Procedures for Port State Control in relation to MARPOL and Oil Pollution Prevention.

- Annex I of MARPOL 73/78 consolidated edition 2011 as amended (MEPC.117(52))

- MEPC.1/Circ.640. (November 2008) – Interim Guidance on the use of the Oil Record Book concerning voluntary declaration of quantities retained on board in oily bilge water holding tanks and heating of oil residue (sludge).

- MEPC.1/Circ.760 (August 2011) – Amendments to the 2008 revised guidelines for systems for handling oily wastes in machinery spaces of ships incorporating guidance notes for an integrated bilge water treatment system (IBTS) MEPC.1/Circ.642 (November 2008) as amended by MEPC.1/Circ.676 (July 2009).

- MEPC.1/Circ.736/Rev. 2 (October 2011) – Guidance for the recording of operations in the Oil Record Book Part I – Machinery space operations (all ships)

- Resolution MEPC.187(59) (July 2009).

- Supplement to the IOPP Certificate Forms A and B, as amended.