UK P&I CLUB

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# Oil Record Book entries: Machinery space operations (Part 1)

*January 2011 amendments to Technical Bulletin 24*

The Club's Inspectors have noted that the above subject does not seem to be either clear cut or well understood by ships' officers or MARPOL inspectors. IMO guidance on entries in the Oil Record Book (ORB) has also been ambiguous in the past. However, IMO recently brought out (November 2010) a new MEPC Circular 736 in an attempt to clarify and standardise ORB entries with the revision of the ORB under Resolution MEPC.187(59) which came into force on 1 Janaury 2011.

The Club would suggest a standard format for entries described in the MEPC circular should be adopted on all Club entered vessels as soon as possible to avoid the possibility of fines from PSC or others for incorrect record keeping.

A comprehensive listing of machinery space items to be recorded in the ORB as appropriate, is included in Appendix III of Annex 1 to MARPOL 73/78 as amended, and the standardised entry system in the circular from IMO.

All entries must be in ink, pencil in any log record should be avoided, and all entries should be recorded at the time of the operation to avoid possible mistakes.

The areas of most concern to the Club are the entries required when:

- Related to oil residue (sludge and other residues) retained on board the vessel.
- Transferring or disposing of oil residues.
- Operating the Oily Water Separator, when non automatic disposal methods are used.
- Transferring and collecting bilge water to the bilge tanks and any oil residue (sludge) content of the bilges.
- Related to other operations required under Section (I).

# Entries under Section (C)

## Section (C) 11, Collection of oil residues

**(C) Collection and disposal of oil residues (sludge and other oil residues)**

**11 Collection of oil residues.**

Quantities of oil residues (sludge and other oil residues) retained on board. The quantity should be recorded weekly:* (This means that the quantity must be recorded once a week even if the voyage lasts more than 1 week.).

11.1 – identity of tank(s).....

11.2 – capacity of tank(s)..... $m^3$

11.3 – total quantity of retention..... $m^3$

11.4 – quantity of residue collected by manual operation..... $m^3$
(Operator initiated manual collections where oil residue (sludge) is transferred into the oil residue (sludge) holding tank(s))

* Tanks listed in item 3.1 of forms A and B of the supplement in the IOPP Certificate used for sludge.

It should be noted that entries under this heading are now weekly at all times, whether at sea or in port, but **never more than once a week**, and should include all tanks mentioned in section 3.1 only of Form A or B of the International Oil Pollution Prevention (IOPP) Certificate, and only these tanks. Other tanks and bilge water should be included under a different heading.

Manual collections should be recorded when they occur and separate to the weekly ROB sludge records.

Example of IOPP Cert Form A (or B):

**3 Means for retention and disposal of oil residues (sludge) (regulation 17) and bilge water holding tank(s)***

3.1 The ship is provided with oil residue (sludge) tanks as follows:

| Tank identification | Tank location | | Tank volume $m^3$ |
|---|---|---|---|
| | Frames (from-to) | Lateral position | |
| Waste Oil Tank | 116-118 | Port | 13.4 |
| F.O. Sludge Tank | 120-121 | Port | 6.0 |
| L.O. Sludge Tank | 120-121 | Starboard | 6.0 |
| | | TOTAL VOLUME | 25.4 $m^3$ |

3.2 Means for the disposal of oil residue (sludge) retained in oil residue (sludge) tanks:

3.2.1 Incinerator for oil residues (sludge), maximum capacity.....500.....kW or ~~kcal~~/h ☐
(delete as appropriate)

3.2.2 Auxiliary boiler suitable for burning oil residues (sludge)..... ☐

3.2.3 Other acceptable means, state which..... ☐

3.3 The ship is provided with holding tank(s) for the retention on board of oily bilge water as follows:

| Tank identification | Tank location | | Tank volume $m^3$ |
|---|---|---|---|
| | Frames (from-to) | Lateral position | |
| Dirty Bilge Tank | 125-134 | Centre line | 27.0 |
| | | | |
| | | | |
| | | TOTAL VOLUME | 27.0 $m^3$ |

* Oily bilgewater holding tank(s) are not required by the Convention; if such tank(s) are provided they shall be listed in Table 3.3.

Example: ORB entry made *weekly* would read as follows:

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 30/Nov/2010 | C | 11.1 | Waste Oil Tank |
| | | 11.2 | 13.4m³ |
| | | 11.3 | 6.3m³ signed: C/E Jim Binder, 30 Nov 2010 |
| 30/Nov/2010 | C | 11.1 | L.O. Sludge Tank |
| | | 11.2 | 6.0m³ |
| | | 11.3 | 3.2m³ signed: C/E Jim Binder, 30 Nov 2010 |
| 30/Nov/2010 | C | 11.1 | F.O. Sludge Tank |
| | | 11.2 | 6.0m³ |
| | | 11.3 | 1.0m³ signed: C/E Jim Binder, 30 Nov 2010 |

Example: ORB entry for *manual collection* of residues would read as follows:

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 04/Jan/2011 | C | 11.1 | Waste Oil Tank |
| | | 11.2 | 13.4m³ |
| | | 11.3 | 9.8m³ |
| | | 11.4* | 3.5m³ collected from Bilge Holding Tank signed: 4/E Ian Wilkins. 04 Jan 2011 |

Note: Operator initiated manual collection where oil residue (sludge) is transferred into the 3.1 tanks could include, but not be limited to:

1. Transfer of sludge from separator drain tanks (fuel or lub oils)
2. Transfers of oil residues from engine sump tanks
3. Addings any oils to a sludge tank from any source (all oils in the tank are then considered sludge)
4. Collection of sludge from the bilge water holding tanks – in this case an entry for the disposal of bilge water is also required.

* The use of Code C 11.4 came into force from 1 January 2011.

## Section (C )12, Methods of disposal

**(C) Collection and disposal of oil residues (sludge and other oil residues)**

**12 Methods of disposal of residue.**

State quantity of oil residues disposed of, the tank(s) emptied and the quantity of contents retained:

12.1 To reception facilities (indentify port);*

12.2 Transferred to another(other) tank(s) [indicate tank(s) and the total content of tank(s)];

12.3 Incinerated (indicate total time of operation);

12.4 Other method (state which).

* Ships' masters 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, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or certificate should be kept together with the Oil Record Book, Part 1.

Example 1: Disposal of shore reception facilities:

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | C | 12.1 | 9.5m³ sludge from Waste Oil Tank, 0.3m³ retained |
| | | | To shore facility during port stay Pusan, South Korea |
| | | | signed: C/E Jim Binder, 12 Dec 2010 |

Note: Each tank disposed should be entered separately even if all are included in the single receipt. Also all tanks in form A (or B) including 3.1 and 3.3 tanks should be included under this heading.

Example 2: Internal transfer between tanks under 3.1 to tanks of 3.1 or 3.3 of Form A (or B):

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | C | 12.2 | 0.8m³ water drained from Waste Oil Tank, 9.0m³ retained to |
| | | | Dirty Bilge Tank (3.3), ROB Dirty Bilge Tank 22m³ |
| | | | signed: C/E Jim Binder, 12 Dec 2010 |

Note: Only one entry required as the ROB in the bilge tank is included here.

Example 3: Transfer from one sludge tank to another sludge tank designated under 3.1 of Form A (or B):

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | C | 12.2 | 0.8m³ sludge transferred from F.O. Sludge Tank, 0.3m³ retained to |
| | | | Waste Oil Tank, 9.9m³ retained |
| | | | signed: C/E Jim Binder, 12 Dec 2010 |

Example 4: Incineration of sludge from 3.1 or 3.2.3 tanks in Form A (or B):

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | C | 12.3 | 0.8m³ sludge from Waste Oil Tank, 9.1m³ retained |
| | | | Burned in incinerator for 08 hours |
| | | | signed: C/E Jim Binder, 12 Dec 2010 |

Example 5: Burning of sludge in the boiler:

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | C | 12.4 | 3.8m³ sludge from Waste Oil Tank, 6.0m³ retained |
| | | | Burned in boiler for 08 hours |
| | | | signed: C/E Jim Binder, 12 Dec 2010 |

Example 6: Evaporation of water from sludge in tank listed in 3.1 of Form A (or B):

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | C | 12.4 | 0.8m³ water evaporated from Waste Oil Tank, 9.1m³ retained |
| | | | signed: C/E Jim Binder, 12 Dec 2010 |

Example 7: Regeneration of fuel oil (only allowed if permitted under IOPCC supplement):

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | C | 12.4 | 9.1m³ of sludge disposed by regeneration of 7.5m³ fuel in F.O. Deep Tank |
| | | | and 1.6m³ water in Dirty Bilge Tank |
| | | | signed: 4/E Ian Wilkins, 12 Dec 2010 |

## Entries under Section (D)

**(D) Non-automatic discharge overboard or disposal otherwise of bilge water which has accumulated in machinery spaces**

**13 Quantity discharged or disposed of, in $m^3$***

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

**15 Method of discharge, transfer or disposal:**

15.1 Through 15 ppm equipment (state position at start and end);

15.2 To reception facilities (indentify port);**

15.3 To slop tank or holding tank or other tank(s), [indicate tank(s); state quantity retained in tank(s), in $m^3$].

* 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.

** The ship's masters 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, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or certificate should be kept together with the Oil Record Book, Part 1.

*** In case of discharge or disposal of bilge water from holding tank(s), state the identity and capacity of holding tank(s) and quantity retained in holding tank.

Example 1: Disposal of bilge water overboard via 15ppm equipment:

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | D | 13 | 2.5$m^3$ of bilge water from Dirty Bilge Tank, capacity 27$m^3$, 14.3$m^3$ retained |
| | | 14 | Start: 08.00, stop: 11.30 |
| | | 15.1 | Through 15ppm equipment overboard |
| | | | Position start: 35 deg 15 min N, 126 deg 31 min E |
| | | | Position stop: 35 deg 00 min N, 126 deg 04 min E |
| | | | signed: 4/E Ian Wilkins. 12 Dec 2010 |

Note: Code I entries for the unsealing and re-sealing of the overboard valve will also be required as detailed below.

Example 2: Disposal of bilge water to shore reception facilities:

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | D | 13 | 15$m^3$ of bilge water from Dirty Bilge Tank, capacity 27$m^3$, 0.5$m^3$ retained |
| | | 14 | Start: 08.00, stop: 11.30 |
| | | 15.2 | Pumped to shore reception facilities Pusan, South Korea |
| | | | signed: 4/E Ian Wilkins. 12 Dec 2010 |

Example 3: Pumping from bilges to a bilge tank:

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | D | 13 | 0.5$m^3$ of bilge water from engine room bilge wells |
| | | 14 | Start: 08.00, stop: 11.30 |
| | | 15.3 | To Dirty Bilge Tank, 15.5$m^3$ retained in tank |
| | | | signed: 4/E Ian Wilkins. 12 Dec 2010 |

Example 4: Pumping from Bilge Tank to an oil residue (sludge) tank:

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | D | 13 | 1.5m³ of bilge water from Dirty Bilge Tank, now 12.5m³ |
| | | 14 | Start: 08.00, stop: 11.30 |
| | | 15.3 | Collected in Waste Oil Tank, 10.5m³ retained in tank |
| | | | signed: 4/E Ian Wilkins. 12 Dec 2010 |

Note: A Code C 11.4 entry will also be required if this is a manual operator initiated operation.

## Entries under Section (E)

**(E) Automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces**

**16 Time and position of the ship at which the system has been put into automatic mode of operation for discharge overboard, through 15ppm 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.**

Note: We would stress that the system must be in a totally automated state, switching itself on and off, and automatically operating the required valves and pumps without any personnel present for the operation to be considered **automatic**, otherwise code D should be used. In the case of automatic operation of the OWS unit a code I entry unsealing and opening the overboard valve prior to setting the operation to fully automatic mode must be made as well, and a second code I entry re-sealing the overboard valve is also required after the E 18 entry at time of stopping automatic operation, entry examples for these are shown under Code I below.

Example 1: Pumping from bilge tank automatically via 15ppm OWS unit :

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | E | 16 | OWS unit start at 09.00 at 35 deg 15 min N, 126 deg 31 min E |
| | | | from Dirty Bilge Tank |
| | | 18 | Stop 12.00 |
| | | | signed: 4/E Ian Wilkins. 12 Dec 2010 |

Example 2: Pumping from bilge tank automatically via 15ppm OWS unit :

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | E | 17 | Transfer start 09.00 to Dirty Bilge Tank |
| | | 18 | Stop 10.00 |
| | | | signed: 4/E Ian Wilkins. 12 Dec 2010 |

## Usage of Code I: Additional operational procedures and general remarks

Example 1: Optional sealing of MARPOL Annex 1 related valve and/or equipment:

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | I | | Overboard valve (no 23) from 15ppm bilge separator unit sealed |
| | | | Seal no: D156783 |
| | | | signed: 4/E Ian Wilkins. 12 Dec 2010 |

Example 2: Breaking of optional sealing of MARPOL Annex 1 related valve and/or equipment:

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | I | | Overboard valve (no 23) from 15ppm bilge separator unit |
| | | | unsealed fro normal operation of 15ppm equipment |
| | | | Seal no: D156783 |
| | | | signed: 4/E Ian Wilkins. 12 Dec 2010 |

Example 3: Testing of 15ppm alarm of bilge separator unit:

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | I | | 15ppm alarm unit of the bilge separator unit tested and found satisfactory. |
| | | | signed: 4/E Ian Wilkins. 12 Dec 2010 |

Example 4: Cleaning of 15ppm bilge separator unit:

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | I | | Opened and inspected bilge separator unit, filters cleaned as required. |
| | | | After maintenance separator and 15ppm alarm unit |
| | | | tested and found satisfactory. |
| | | | signed: 4/E Ian Wilkins. 12 Dec 2010 |

Example 5: Voluntary weekly declaration of bilge tank retention quantity:

| Date | Code | Item | Record of operations/Signature of officer in charge |
|---|---|---|---|
| 12/Dec/2010 | I | | Weekly inventory of Bilge Water Tank(s) (listed under item 3.3) . |
| | | | Dirty Bilge Tank, capacity 27.0m$^3$, 15.0m$^3$ retained. |
| | | | signed: 4/E Ian Wilkins. 12 Dec 2010 |

Note: This item should be recorded every week directly after the weekly record of items under Code C 11.1/C 11.2/C 11.3 for oil residue (sludge) tank(s) in section 3.1 of Form A (or B).



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