



Technical Bulletin

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

Including 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 January 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)

11 Collection of oil residues.

Quantities of oil residues (sludge) 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)..... m³
- 11.3 – total quantity of retention..... m³
- 11.4 – quantity of residue collected by manual operation..... m³
(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 m³

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 ~~keal~~/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 m³

* 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	13.4m ³
		11.3	6.3m ³
			C/E Jim Binder, 30/Nov/2010 signed: Jim Binder
30/Nov/2010	C	11.1	L.O. Sludge Tank
		11.2	6.0m ³
		11.3	3.2m ³
			C/E Jim Binder, 30/Nov/2010 signed: Jim Binder
30/Nov/2010	C	11.1	F.O. Sludge Tank
		11.2	6.0m ³
		11.3	1.0m ³
			C/E Jim Binder, 30/Nov/2010 signed: Jim Binder

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	13.4m ³
		11.3	9.8m ³
		11.4*	3.5m ³ collected from Bilge Holding Tank
			4/E Ian Wilkins 04/Jan/2011 signed: Ian Wilkins

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	9.5m ³ sludge from Waste Oil Tank, 0.3m ³ retained
			To shore facility during port stay Pusan, South Korea
			C/E Jim Binder, 12/Dec/2010 signed: Jim Binder

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	0.8m ³ water drained from Waste Oil Tank, 9.0m ³ retained to
			Dirty Bilge Tank (3.3), ROB Dirty Bilge Tank 22m ³
			C/E Jim Binder, 12/Dec/2010 signed: Jim Binder

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	0.8m ³ sludge transferred from F.O. Sludge Tank, 0.3m ³ retained to
			Waste Oil Tank, 9.9m ³ retained
			C/E Jim Binder, 12/Dec/2010 signed: Jim Binder

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	0.8m ³ sludge from Waste Oil Tank, 9.1m ³ retained
			Burned in incinerator for 08 hours
			C/E Jim Binder, 12/Dec/2010 signed: Jim Binder

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	3.8m ³ sludge from Waste Oil Tank, 6.0m ³ retained
			Burned in boiler for 08 hours
			C/E Jim Binder, 12/Dec/2010 signed: Jim Binder

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	0.8m ³ water evaporated from Waste Oil Tank, 9.1m ³ retained
			C/E Jim Binder, 12/Dec/2010 signed: Jim Binder

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	9.1m ³ of sludge disposed by regeneration of 7.5m ³ fuel in F.O. Deep Tank
			and 1.6m ³ water in Dirty Bilge Tank
			4/E Ian Wilkins 12/Dec/2010 signed: Ian Wilkins

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 m³*

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 (identify port);**
- 15.3 To slop tank or holding tank or other tank(s), [indicate tank(s); state quantity retained in tank(s), 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.

** 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	2.5m ³ of bilge water from Dirty Bilge Tank, capacity 27m ³ , 14.3m 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
			4/E Ian Wilkins 12/Dec/2010 signed: Ian Wilkins

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	15m ³ of bilge water from Dirty Bilge Tank, capacity 27m ³ , 0.5m ³ retained
		14	Start: 08.00, stop: 11.30
		15.2	Pumped to shore reception facilities Pusan, South Korea
			4/E Ian Wilkins 12/Dec/2010 signed: Ian Wilkins

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	0.5m ³ of bilge water from engine room bilge wells
		14	Start: 08.00, stop: 11.30
		15.3	To Dirty Bilge Tank, 15.5m ³ retained in tank
			4/E Ian Wilkins 12/Dec/2010 signed: Ian Wilkins

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	1.5m ³ of bilge water from Dirty Bilge Tank, now 12.5m ³
		14	Start: 08.00, stop: 11.30
		15.3	Collected in Waste Oil Tank, 10.5m ³ retained in tank
			4/E Ian Wilkins 12/Dec/2010 signed: Ian Wilkins

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
			4/E Ian Wilkins 12/Dec/2010 signed: Ian Wilkins

Example 2: Automatic transfer from bilge well(s) to a tank:

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
			4/E Ian Wilkins 12/Dec/2010 signed: Ian Wilkins

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
			4/E Ian Wilkins 12/Dec/2010 signed: Ian Wilkins

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		<i>Overboard valve (no 23) from 15ppm bilge separator unit</i>
			<i>unsealed for normal operation of 15ppm equipment</i>
			<i>Seal no: D156783</i>
			<i>4/E Ian Wilkins 12/Dec/2010 signed: Ian Wilkins</i>

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		<i>15ppm alarm unit of the bilge separator unit tested and found satisfactory.</i>
			<i>4/E Ian Wilkins 12/Dec/2010 signed: Ian Wilkins</i>

Example 4: Cleaning of 15ppm bilge separator unit:

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

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		<i>Weekly inventory of Bilge Water Tank(s) (listed under item 3.3) .</i>
			<i>Dirty Bilge Tank, capacity 27.0m³, 15.0m³ retained.</i>
			<i>4/E Ian Wilkins 12/Dec/2010 signed: Ian Wilkins</i>

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).

Entries under Section (H)

Section (H) (repeated below) is the requirement for quantities of ALL BUNKERED OILS to be recorded in “tonnes” and not in m³. As far as we are aware this is the only diversion from the convention to record all other quantities in m³.

To avoid fines levied by port state control authorities we advise Members to pay attention to this point. The regulation as stated in the Guidelines is given below for reference;

Section (H) 26, Bunkering of fuel or bulk lubricating oil

(H) 26 Bunkering of fuel or bulk lubricating oil

- 26.1 Place of bunkering
- 26.2 Time of bunkering.
- 26.3 Type and quantity of fuel oil and identity of tank(s) (state quantity added, in tonnes and total content of tank(s)).
- 26.4 Type and quantity of lubricating oil and identity of tank(s) (state quantity added, in tonnes and total content of tank(s)).

Example: ORB entry for bunkering fuel or diesel would read as follows:

Date	Code	Item	Record of operations/Signature of officer in charge
30/Jan/2011	H	26.1	Shanghai
		26.2	Start 04.00. Stop 13.00
		26.3	Heavy fuel oil ISO 380cst, 1.0% sulphur bunkered in tanks
			aaaa Forward deep tanks P/S 850 tonnes added now
			containing 1450 tonnes
			bbbb Aft deep tanks P/S 600 tonnes added now
			containing 2400 tonnes
			C/E Jim Binder, 30/Jan/2011 signed: Jim Binder

Example: ORB entry for bunkering lubricating oil would read as follows:

Date	Code	Item	Record of operations/Signature of officer in charge
30/Jan/2011	H	26.1	Shanghai
		26.2	Start 04.00. Stop 13.00
		26.4	25 tonnes of cylinder oil bunkered in tanks:
			25 tonnes added to cylinder oil holding tank
			Now containing 32 tonnes
			C/E Jim Binder, 30/Jan/2011 signed: Jim Binder