

Recurrent Non-Compliances under MARPOL Annex I and Annex IV

In recent periods, non-compliances related to machinery space bilge water treatment systems (MARPOL Annex I) and sewage treatment systems (MARPOL Annex IV) have increasingly been observed on the same vessel and during the same inspection. Particularly frequent findings include the inability to operate or test the 15 ppm bilge alarm, the presence of temporary bypass arrangements within the OWS (Oily Water Separator) / OCM (Oil Content Monitor) circuit, and inconsistencies between ORB (Oil Record Book) entries and the vessel's actual piping arrangement, valve positions and seal records. Such deficiencies may lead not only to environmental penalties but also to port state detention.



Similarly, deficiencies such as an inoperative sewage treatment plant, permanently open overboard valves, insufficient sewage holding tank capacity for expected port stays, or systems being operated only shortly prior to inspection constitute non-compliance with MARPOL Annex IV Regulations 9 and 11. Port authorities are demonstrating reduced tolerance towards such deviations.



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As Türk P&I Sigorta, we have identified recurring deficiencies of a similar nature during condition surveys carried out on vessels insured under our cover. These include T-connections not shown on approved piping arrangement / bilge & ballast system diagrams, unsealed overboard valves, OWS units for which operational testing cannot be demonstrated, and sewage holding tanks with inadequate capacity or non-functional level indicators. Through this circular, we share MARPOL related statutory obligations together with the minimum technical controls required by Türk P&I Sigorta during condition surveys. With this approach, we aim to support the consistent implementation of operations across the vessels in our portfolio within a common framework and in line with established “good practice” principles.

1. Bilge / Oily Water Separator (MARPOL Annex I)

- For vessels of 400 GT and above, machinery space bilge water must be treated in accordance with MARPOL Annex I prior to discharge. Discharge to sea is permitted only when:
 - Oil content is below 15 ppm,
 - The vessel is proceeding en route, and
 - The OWS, together with the 15 ppm OCM, the automatic stopping/recirculation device (*auto stop arrangement*), and all associated alarm and interlock functions, are fully operational.

If these conditions are not met, bilge water must be retained onboard in designated tanks or delivered to approved reception facilities (*MARPOL Annex I Reg. 15*).

- The OWS, 15 ppm oil content monitor and automatic stopping/recirculation devices must be type-approved in accordance with MEPC.107(49) and maintained in a condition that allows operational testing at all times. Testing via internal recirculation must be possible even with the overboard valve closed. Manufacturer’s operation and maintenance manuals must be available onboard.
- Temporary hose connections, additional T-pieces, bypass pipes, or any bridging arrangements intended to disable the OWS/15 ppm circuit are not accepted by Türk P&I Sigorta. Within the scope of this circular, no modification outside the approved piping arrangement shall be made to the OWS or associated overboard discharge lines. Any deficiencies identified during survey will be photographed and reported.
- Entries in the Oil Record Book referring to “discharge / bilge water to sea” must be fully consistent with the vessel’s actual piping arrangement, valve seal records and operational timelines. The tank used, position, date/time and equipment utilised must be clearly stated in ORB Part I.



1.1. Items Checked During Condition Surveys

- 1.1.1. The seal number and open/closed position of the bilge overboard valve are recorded.
- 1.1.2. Presence of temporary hoses, clamped connections or additional T-pieces around the OWS is photographed.
- 1.1.3. Actual piping arrangements are compared against approved machinery space bilge system diagrams; undocumented lines are reported as unauthorised modifications.
- 1.1.4. The 15-ppm alarm and automatic shut-off are demonstrated by ship staff, inability to test is recorded as a deficiency.
- 1.1.5. Absence of proper seal logs documenting seal changes (date, reason, old/new numbers) is considered a deficiency.

2. Sewage Treatment (MARPOL Annex IV)

In accordance with MARPOL Annex IV, vessels must be fitted with either;

- (i) an IMO-approved sewage treatment plant,
- (ii) a comminuter and disinfection system with compliant discharge, or
- (iii) a holding tank of capacity approved by the Administration.

Whichever arrangement is selected, a valid International Sewage Pollution Prevention (ISPP) Certificate must be available onboard, and the certified equipment must be fully operational. Any discrepancy between certification and actual installation is not acceptable to Türk P&I Sigorta.

Direct discharge of untreated sewage is generally prohibited. Discharge is permitted only when:

- sewage has been treated through an approved system, or
- Discharge shall take place only outside the distances prescribed under MARPOL Annex IV (*typically 3 NM for comminuted and disinfected sewage, 12 NM for untreated sewage*), with the vessel proceeding en route and, in practice, maintaining a speed generally accepted as not less than approximately 4 knots.

Discharge from holding tanks should be conducted in a controlled and gradual manner rather than by sudden release.



2.1. Items Checked During Condition Surveys

- 2.1.1.** Blowers, pumps and dosing units of the sewage treatment plant must be operational and demonstrated during survey.
- 2.1.2.** Sewage overboard valves must be closed (and preferably sealed) while in port or at anchorage; seal numbers are recorded.
- 2.1.3.** Holding tank capacity is assessed against crew/passenger numbers and expected port stay; inadequacy is recorded as a direct discharge risk.
- 2.1.4.** In case any bypass or direct overboard connection not shown in the approved piping diagram is identified, it shall be photographed and recorded as not in compliance with approved class/Administration drawings, and rectification will be requested.
- 2.1.5.** Waste reception receipts obtained in ports must be retained onboard and presented during survey.

3. Standards Required by Our Company During Condition Surveys

3.1. Sealing of Overboard / Discharge Valves

Valves on bilge, sewage and sludge discharge lines must be kept closed and secured with numbered seals.

3.2. Compliance with Approved Schemes

The piping arrangement observed onboard must be in full compliance with the vessel's approved piping scheme / bilge & ballast system diagram.

3.3. Demonstration of Operational Testing

The operational condition of the OWS, the 15-ppm monitor and the sewage treatment plant shall be demonstrated by the ship's personnel during the survey. Where equipment cannot be demonstrated, a follow-up survey or photographic confirmation may be requested.

3.4. Record Integrity

ORB Part I, the Seal Log, engine logbook and, where applicable, waste reception receipts must be mutually consistent. In case of discrepancies in dates or seal numbers, rectification will be requested.

3.5. Photographic Evidence and Labelling

Photographs shall be taken for any unauthorized, high-risk or follow-up findings, and the placement of warning labels on the relevant piping arrangements is recommended.

