

Bunkering Best practice

Members should follow procedures as per their Shipboard Management Systems (SMS) and latest industry practices. The below guidelines are for Members' awareness and not a replacement for their SMS. Usually, SMS contains history of bunker quality issues in fleet vessels and can be a good reference point for awareness.

1. Pre-fixing and planning stage

- Assess port-specific and supplier-specific risks.
- Avoid decisions based solely on lowest price.
- Specify latest ISO 8217 standard in charter parties. Members' technical management team should review the latest ISO 8217 standard with regard to the specific ship before adhering to it.
- Review fuel suitability (stability, compatibility, cold flow).
- Obtain Certificate of Quality. Bunker fuel fingerprint (GC-MS) tracing is very handy in bunker claims.
- Consider bunker quantity and quality surveys.
- Insist that bunker samples (primary) will be ship samples and not barge samples. Refer MSC-MEPC.2/Circ.18 11 July 2024.
- Consider standard, independent, high-quality and high-integrity labs for bunker fuel testing.
- Avoid mixing stems unless compatibility confirmed.
- Maintain strict fuel segregation.

Exercise caution with:

- Biofuel blends.

2. Pre-bunkering preparation

- Confirm tank readiness and segregation plan.
- Avoid commingling with existing bunkers.
- Conduct compatibility testing if required.
- Inspect and clean sampling equipment.
- Install drip sampler and record the seal number in Tank Gauging Form (TGF).

3. During bunkering (critical stage)

Start continuous drip sampling at commencement.

Ensure sampling is:

- Continuous.
- Representative.
- Seal the needle valve and record seal numbers.
- Insist that bunker samples (primary) will be ship samples and not barge samples. Refer MSC-MEPC.2/Circ.18 11 July 2024.

Monitor for:

- Water ingress.
- Unusual appearance/density.
- Irregular flow.
- Unwarranted air blows during bunkering leading to a sudden increase in fluid flow (increased flow is known to impact Mass Flow Meter readings (MFM)).
- Unwarranted air blows towards end of bunkering operation (may lead to cappuccino effect).
- Use of heavy magnets on bunker barge supply line or in vicinity of MFM. It is known that heavy magnets impact MFM by affecting the fluid flow rates.

4. Sampling and documentation

- Check seal integrity after completion.
- Mix sample thoroughly before bottling.
- Fill bottles in multiple passes.
- Apply unique numbered seals.

Record seal numbers on:

- Sample labels.
- BDN.
- TGF.
- Ensure samples are signed jointly with the supplier.

Do not:

- Sign/stamp labels before completion.
- Sign/stamp extra labels.

Remember to keep ship and staff stamps under strict control to avoid misuse.

5. Post-bunkering (before use)

- Send samples to standard, independent but high-quality and high-integrity labs for bunker fuel testing.
- Do NOT consume fuel until test results are received. Members technical team should highlight concerns to ship staff in cases where results are within range however closer to limits.
- If borderline results require additional testing and analysis, same should be considered.

Verify:

- BDN vs laboratory results.
- ISO limits and operational parameters (TSP, cat fines).
- Review results against any specific guidance in SMS of the company.

6. Fuel management onboard

Following Members' technical team guidance and laboratory advice.

- Adjust purifier settings to fuel characteristics as highlighted in the bunker fuel oil analysis reports.
- Maintain appropriate temperature (esp. paraffinic fuels) as highlighted in the bunker fuel oil analysis reports.

Monitor:

- Sludge formation.
- Filter condition.
- Separator performance.