25 June 2024

Conventional fuel safety

Brief description

The Maritime Safety Committee (MSC) agreed in December 2018 to include in its biennial agenda an output on 'Development of further measures to enhance the safety of ships relating to the use of fuel oil', with a focus on safety issues related to flashpoint requirements. MSC 103 re-established the Correspondence Group on oil fuel safety in May 2021 to further consider draft requirements and guidelines until MSC 105.

In November 2022, MSC 106 adopted amendments to SOLAS chapter II-2 requiring vessels carrying oil fuel to be provided with a bunker delivery note, prior to bunkering, stating that the flashpoint of the actual fuel batch is in conformity with SOLAS regulation II-2/4.2.1. Contracting governments are requested to inform the IMO of cases where oil fuel suppliers have delivered fuels that do not meet the requirements and take appropriate action against those suppliers. The amendments will enter into force on 1 January 2026. In June 2023, MSC 107 approved draft guidelines for sampling procedures to harmonize with the new requirements. The Committee also approved draft amendments to SOLAS related to oil fuel parameters other than flashpoint, requiring that oil fuel shall not jeopardize the safety of vessels, adversely affect the performance of the machinery or be harmful to crew. The draft amendments were subsequently submitted to MEPC for concurrent approval.

Fuel contamination

In March 2022, the Maritime and Port Authority of Singapore (MPA) was notified that a number of vessels had been supplied in the Port of Singapore with HSFO containing high concentration levels of chlorinated organic compounds (COC). The contaminated fuel oil was traced back to fuel purchased by Glencore Singapore in January and February 2022. The contaminated HSFO was loaded at the Port of Khor Fakkan, UAE onto a tanker and shipped to floating storage facilities to be further blended. The blended HSFO was subsequently delivered to storage facilities in Singapore. Fuel onboard the tanker was found to contain high concentrations of COC, of up to 21,000 ppm. The MPA-licensed bunker suppliers who supplied the contaminated fuel had carried out tests on the fuel supplied based on the international standards of petroleum products of fuel (ISO 8217). However, as the current international standards do not require tests for COC, the

contamination was not detected promptly. Some 200 vessels were affected by the off-spec HSFO sold in Singapore in February and March 2022.

A similar case occurred in 2018 in the U.S. Contaminated supplies of biodiesel fuel that were first reported in the US Gulf region in February 2018 led to a range of technical problems, including blocked fuel filters, fuel pump seizures and even loss of main engine power. The cost of an engine damage could be up to USD 800,000 for an individual vessel. The loss of engine power from such contamination may lead to serious incidents such as collisions and groundings.

Testing to ISO 8217 levels will not necessarily show if the fuel is contaminated or not, as the suitability of biofuels requires gas chromatography and specialised equipment in a laboratory to determine any contamination. This test will generally take 7 to 10 days, and there are currently not enough laboratories to perform the necessary testing. Consequently, vessels are forced to sail with fuel in separate tanks and rely on the ability of the crew and equipment to make the fuel fit for use.
IUMI believes that the current system with the end-user taking all the risk is unacceptable. Rather than the end user, refineries should be compelled to do the testing and confirm the delivery of non-contaminated fuels. IUMI advocated for this approach in the work on fuel oil safety in the IMO's Maritime Safety Committee. A revised version of ISO 8217 was published in May 2024.

A joint MEPC-MSC circular addressing the delivery of compliant fuel oil by suppliers was approved by MEPC 74 and MSC 101 in May and June 2019, respectively. The circular recommends that Member States take appropriate action to ensure that fuel oil suppliers under their jurisdiction deliver compliant fuel.

IUMI will:

- Encourage an amendment of the 60mg/kg limit for cat fines and the inclusion of biofuels in the ISO standard.
- Suggest that refineries are compelled to test and confirm the delivery of non-contaminated fuels.