

IUMI Policy Agenda

9. Low pressure fuel systems

Brief description

More than one third of all fires on board vessels start in the engine room. Leaking oil pipes or equipment placed very closely to a potential ignition source – a so called hot spot – has been identified as the cause of several of these engine room fires.

Measures to control such leaks are described in SOLAS Reg.II-2/4. The regulation includes, amongst others, requirements to

- use suitable materials in piping conveying flammable oils,
- minimise the number of joints in such piping,
- use screening and jacketed high pressure fuel oil pipes to prevent flammable oil sprays, and
- properly insulate hot surfaces.

While the risk of fires from high pressure systems has decreased with the implementation of new design rules for the fuel pipes in 2003, the low pressure pipes/systems remain a significant risk.

To further consider measures that would be effective to reduce the risk of fires from low pressure fuel systems and mitigate the consequences, IACS and IUMI formed a correspondence group comprised of technical experts from the membership of both associations.

Identification of hot spots, use of thermography, and proper installation of insulation were among the preventive measures identified for further discussion and review by IACS.

Relevant authority / organisations and documents

- **IMO – MSC:**
 - **MSC/Circ.601:** Fire protection in machinery spaces, 29 January 1993.
 - **Resolution MSC.31:** SOLAS amendments, 23 May 1994.
 - **MSC/Circ.647:** Guidelines to minimize leakages from flammable liquid systems, 6 June 1994.
 - **MSC/Circ.851:** Guidelines on engine-room oil fuel systems, 1 June 1998.
 - **MSC.1/Circ..1321:** Guidelines for measures to prevent fires in engine-rooms and cargo pump-rooms, 11 June 2009.
- **IACS:**



- **Rec.No.18/Rev. 2:** Fire prevention in machinery spaces of ships in service – Guidance to owners, February 2021.
- **Rec.No.58/Rev. 2:** Fire protection of machinery spaces, February 2021.
- **UR35/Rev.8:** Fire protection of machinery spaces, June 2005.
- **Cefor: Technical Forum Memo 6: Fire risks due to leakage from low pressure fuel pipes, 22 May 2017.**

Timeline / important dates

- Report from IACS-IUMI correspondence group, IUMI-IACS meeting 18 May 2021.
- Presentation by Sverre Andersen (NHC) in IACS-industry technical meeting 20 July 2021.

IUMI will:

- Take part in discussions on how to prevent and mitigate fire risks due to leakage from low pressure fuel systems.