

Overview of Joint Industry Guidance, with a focus on safety, and e-learning support for seafarers

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Joint Industry Guidance

# The supply and use of 0.50%-sulphur marine fuel



ipieca



JPEC



# Joint Industry Project team

- A group of multi-disciplinary experts within shipping, refining, supply and testing of marine fuels
- 17 participating organisations – 11 sponsors and 6 additional contributors

## Joint Industry Project sponsors



# Objectives

- Enable the safe and environmentally responsible implementation of regulation 14.1.3 of MARPOL Annex VI on a global basis
- Provide technical guidance at the operational level on fuel characteristics and potential fuel related issues
- Provide guidance on supply, storage, handling and usage of 0.50% max. Sulphur fuels

# Three main sections

- Section 1: Guidance on fuel characteristics and properties
- Section 2: Guidance on the supply of max. 0.50% sulphur fuels
- Section 3: Guidance on the storage, handling and use of max. 0.50% sulphur fuels

# Key Messages

- Ensure fuel quality by maintaining appropriate documentation to help identify product origins, including manufacturing source and the various links in supply chain to enable traceability
- Fuel suppliers and purchasers should provide adequate information to the ship concerning the fuel as supplied to enable ship crew to identify and manage potential safety and operational issues associated with certain fuel properties and characteristics
- Fuel characteristics are expected to vary considerably between bunkers. The ship's crew will need to adopt a more proactive approach to fuel management. They will need to know the fuel characteristics as loaded and be able to respond to the requirements, especially in terms of on board temperature requirements and any commingling



# Key Messages

- While compatibility between fuels from different supply sources can be a concern in today's environment, assessing compatibility of 0.50%-sulphur fuels from different sources will be key. Where practicable, fuel should be loaded into an empty tank. The available space for new bunkers to be loaded should be taken as the capacity of the empty tanks in order to avoid commingling on loading
- Ship operators and fuel suppliers should review operational practices to allow sufficient time to test for compatibility between existing and proposed bunker fuel delivery, especially if no "empty" dedicated storage tank is available on the vessel

# Responsibilities of the supplier

- QMS needs to be in place addressing all factors that affect the quality, characteristics, or properties of the fuel to be supplied
  - Control the quality of the individual blend components
  - Avoid the entry of extraneous materials (e.g. water, debris, waste chemicals)
  - Ensure correct blending procedures are applied
  - Ensure that a homogeneous and stable fuel is delivered
  - Provide an MSDS
- The fuel suppliers should provide information such as:
  - Confirmation of the ordered specification
  - Viscosity, Density, Cold flow properties
  - CoQ
  - Any other information that the supplier considers operationally useful for the ship to know
- Follow appropriate guidance on the conduct of the delivery, e.g. completion of BDN, management of representative sample(s) and MARPOL sample

# Responsibilities of the buyer/receiving ship

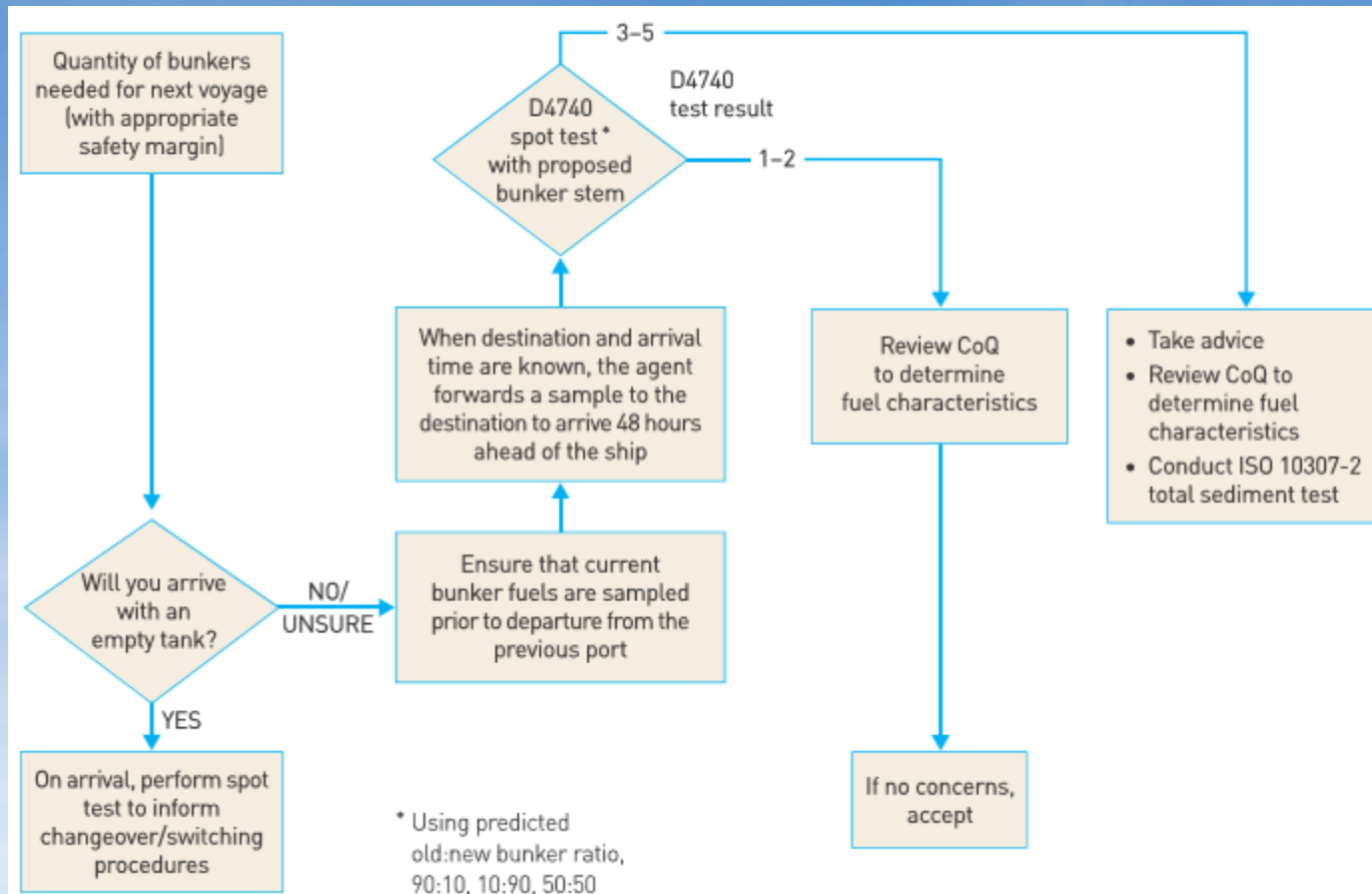
- Ship's crew need to know the fuel characteristics as loaded and be able to prepare the system for the receipt of the bunkers
- Make supplier aware of any special circumstances that may affect the delivery of the fuel to the ship
- Follow appropriate guidance on the conduct of the delivery, e.g. completion of BDN, management of representative sample(s) and MARPOL sample



# Key aspects related to onboard fuel handling

- Compatibility
  - Not to be confused with stability
  - Refers to the suitability of commingling one fuel with another
    - Compatible fuels can be commingled without precipitation of asphaltenic sludge
    - Incompatible fuels result in formation of asphaltenic sludge, if commingled, despite being stable fuels individually
- Good practice when commingling fuels
  - To the extent possible, avoid commingling fuels of different batches/sources in tanks, i.e. segregation
  - Perform compatibility checks (e.g. ASTM D4740)

# The guidance gives examples of compatibility testing procedures



# An e-learning course is being developed in a collaborative project between the JIP members and VideoTel

- Three-part e-learning module focused on safety for ships crew
  1. Basic information on fuels and fuel compatibility
  2. Scenarios, including compatibility testing, boiler safety, etc.
  3. Additional reference information
- Will be available “free to air” and will be accessible by anyone with a computer or smart phone
- Estimated release: end-November