

# JAPAN P&I NEWS

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To the Members

## **US - Safety Alert for Marine Heavy Fuel oil in Houston area**

It is alerted that since April this year, the vessel engine problems caused by contaminated vessel fuel oil bunkers supplied at Houston and surrounding ports in the USA. We also obtained further information about the recent same sort of problems occurred in Panama as well as Singapore. Under these circumstances, please pay thorough attention whenever you use fuel oil bunkers at the ports in the concerned areas.

### **1. Outline of "Safety Alert 10-18" US Coast Guard (USCG)**

Marine Safety Alert 10-18, "USCG Marine Safety Alert 10-18: We've all experienced bad gas, but how about IFO 380? U.S. Gulf Coast Bunker Contamination" (Please refer to the attachment ), raises awareness of a significant emerging problem at Houston and surrounding ports in the USA regarding contaminated vessel fuel oil bunkers and the use of blended fuel oil such as Intermediate Fuel Oil (IFO 380). The Outline of the Marine Safety Alert 10-18 are as follows;

#### **Trouble**

- The fuel oil contamination could bring engine failures which might constitute the factor of associated losses of propulsion potentially having catastrophic and wide ranging consequences. The presence of these substances within the fuel is in violation of MARPOL Annex VI regulation 18.3 and Clause 5 of ISO 8217 which indicates the fuel shall not include any added harmful substance. However, this fuel oil contained the substances which lead to engine failures, sticking fuel plungers and fuel pump seizures and other engine fuel oil supply system. Furthermore, the fuel may increase sediment levels at separators and fuel filters and, in some cases, may completely clog filters.
- The standard fuel oil test methods found in the ISO 8217 specification will not detect these underlying problems of contamination. It is important for the vessel owners, the managers, and the vessel operators to send and analyse the fuel oil sample in order to identify and recognise whether the fuel oil is in the appropriate range of usage or not.

#### **Preventive Counter measure**

The USCG recommend the vessel owners, the managers, and the vessel operators to pay an attention and require caution regarding the following matter;

- to aware this potential hazardous condition,
- to monitor and pay attention to fuel oil system components onboard the vessel closely and carefully, such as the fuel supply and fuel injection equipment.
- to consult their bunker suppliers and other technical service providers regarding this issue,

- to pay attention to the terms of the bunker requisition.
- to specify that the fuel must be absent of abnormal components.
- to determine the acid number of the fuel

## 2. Related Information

We have obtained following information from our local correspondents/members;

- The problem seems to be spread across the spectrum of bunker suppliers at Houston and surrounding ports in the USA.
- Since the bunker suppliers would buy from each other depending on their needs and availability, its supply chains are too sophisticated to find and determine the source of the outbreak.
- Similar cases, such as fuel pump sticking and excessive sludge generation, and detection of phenolic compounds by special analysis, have also been reported in Singapore.
- Similar cases have also been reported in Panama.

## 3. Reference

We issued Loss Prevention Bulletin No. 30, "[Bunkers - Quantity and Quality Disputes](#)" in 2014. It contains some information about the handling of poor-quality marine fuels.

Yours faithfully,

### **The Japan Ship Owners' Mutual Protection & Indemnity Association**

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Attachment: USCG MARINE SAFETY ALERT (Safety Alert 10-18)

“We’ve all experienced bad gas, but how about IFO 380? U.S. Gulf Coast Bunker Contamination”



# UNITED STATES COAST GUARD

U.S. Department of Homeland Security

## **MARINE SAFETY ALERT**

### ***Inspections and Compliance Directorate***

June 8, 2018  
Washington, DC

Safety Alert 10-18

### **We've all experienced bad gas, but how about IFO 380? U.S. Gulf Coast Bunker Contamination**

This safety alert raises awareness of a significant emerging problem in the U.S. Gulf Coast region regarding contaminated vessel fuel oil bunkers. This involves blended fuels oil such as Intermediate Fuel Oil (IFO 380) and has caused fouled fuel pump plungers, fuel pump seizures and other fuel system related failures. Furthermore, the fuel may increase sediment levels at separators and fuel filters and, in some cases, may completely clog filters. The standard fuel oil test methods found in the ISO 8217 specification will not detect these underlying problems.

One fuel testing organization that performed marine fuel analysis on affected vessels that experienced fuel oil system problem found that phenolic compounds and long chain fatty acids were present in the fuel. Another fuel testing organization identified similar contaminants in fuels they sampled. The contaminant was identified as phenolic compound 4-Cumyl-Phenol (CAS No. 599-64-4) and all fuel oil samples were found to be in the concentration range of 300ppm to 1,000ppm. This 4-Cumyl-Phenol has many industrial applications due to its adhesive qualities including the manufacture of epoxy resins as well as is used as an emulsifier in pesticides. Sampling and analysis has determined this contamination is not limited to one fuel supplier but exists across many. No definitive source has been identified but it's presumed to be associated with the use of fuel oil cutter stocks. Cutter stocks are generally lighter petroleum products that are added to heavy fuel to reduce its viscosity.

This fuel oil contamination could lead to engine failures and associated losses of propulsion potentially having catastrophic and wide ranging consequences. The presence of these substances within the fuel is in violation of MARPOL Annex VI regulation 18.3 and Clause 5 of ISO 8217 which indicates the fuel shall not include any added substance or chemical waste which jeopardizes the safety or adversely affects the performance of the machinery; or is harmful to personnel; or contributes overall to additional air pollution.

One fuel testing organization makes the following recommendations to vessel owners and operators:

- Pay attention to the terms of the bunker requisition.
- Specify that the fuel must be absent of abnormal components.
- Determine the acid number of the fuel.
- Carefully pay attention to the fuel supply and fuel injection equipment onboard the vessel.

The Coast Guard **recommends** that vessel owners and managers ensure vessel operators are made aware of this potential hazardous condition, closely monitor fuel oil system components and consult their bunker suppliers and other technical service providers regarding this issue.

Additional information may be found:

<https://www.fobas.com/bulletin/109>

<http://www.v-p-s.com/latest-news/>