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VPS identifies a major bunker fuel contamination crisis

Almost exactly four years on, are we now witnessing a growing marine fuel quality crisis on a similar devastating scale as Houston 2018?

Quite possibly.....

On 11th March 2022, a VPS Bunker Alert first informed the company's customers of chlorinated hydrocarbons being found and identified in HSFO's recently delivered in Singapore. Over the course of February-March 2022, VPS identified 34 vessels which received HSFO deliveries from two Singapore suppliers, which were contaminated with up to 2,000ppm of chlorinated hydrocarbons.

These bunker fuel contaminations have affected 14 vessels so far and the impact has been failure of the fuel system to the auxiliary engine resulting in loss of power and propulsion creating a blackout. Fuel system failure arose from seizure and consequent failure of the fuel pumps due to plunger and barrel corrosion, caused by the bunker fuel contaminants.

It is worth noting that the HSFO fuel actually met the ISO8217 specifications upon each delivery. However, VPS, via its in-house GC-MS HS (Gas Chromatography-Mass Spectrometry Head Space) screening method identified the fuel contaminants listed in the



table below in each fuel. These were subsequently confirmed and quantified by more detailed forensic GC-MS methods.

Chlorinated Hydrocarbon Compound	CAS Number
1,1 Dichloroethane	75-34-3
1,2 Dichloroethane	107-06-2
1,1,2 Trichloroethane	79-00-5
Trichloromethane	67-66-3
Tetrachloroethylene	127-18-4
Chloro-benzene	108-90-7

The problems listed above appear to be continuing to affect an increasing number of vessels.

The cause of this recent Singapore fuel quality issue is due to different chemical contaminants to that which VPS identified back in 2018, as the cause of the Houston fuel issue. However, the number of cases identified at this time in Singapore, is at a higher level over the first six weeks compared to the number identified in Houston over a similar time period.

The associated problems due to this latest fuel contamination regarding, asset and vessel protection, crew health & safety and potential environmental-related issues, can and will, have significant impact upon ship operators, in terms of costly damages and repairs, voyage delays and time-consuming claims, all drawing on their resources.



Additional testing services from VPS, such as GC-MS, can and will, provide many benefits and added value to ship operators in reducing the numerous risks associated with today's marine fuels.

For further clarifications email technical@vpsveritas.com, or speak with your Account manager. More contact details at www.vpsveritas.com.