

H2S limit and test method criticised

31st March 2010 14:52 GMT

Global fuel testing agency **Viswa Lab** says there are issues with the proposed limit and test method for detecting hydrogen sulphide (H₂S) in the proposed revision of ISO 8217.

The ISO 8217 Final Draft International Standard (FDIS) on marine fuel specifications proposes a maximum H₂S content in bunker fuel of 2.00 parts per million (mg/kg) in the liquid phase.

It says the limit will only be enforced from 2012, and the proposed test method for determining it will be 'IP 570:2009, Determination of hydrogen sulfide in fuel oils - Rapid liquid phase extraction method'.

"This method detects dissolved hydrogen sulfide in liquid bunker fuel. The new method does not detect the potential of the tested bunker fuel to release hydrogen sulfide in the head space in a compartment," Viswa Lab said in a circular to its customers.

It said this level of H₂S in the fuel "may expand to 50 to 100 or more times in the head space in a compartment," and that the new method "may in fact give the fuel user a false sense of security".

Similar concerns have been raised by **DNV Petroleum Services**, whereas **Lloyd's Register FOBAS** has expressed support for the proposed H₂S limit.

Last week, **Seta Analytics**, which has worked with FOBAS to develop an H₂S Analyser that would could be used to test the proposed 2 mg/kg limit, [welcomed the inclusion of a H₂S limit in FDIS ISO 8217](#).

The H₂S limit was subject to intense debate after the first draft revision was published in September last year. While some have said the limit is too high and therefore not safe, others have said it is better to have a limit in order to [gain more insight into the presence of H₂S in marine fuel](#).

Viswa Lab said the potential safety risk posed by H₂S is not the only problem; it can also cause serious machinery damage.

It referred to an investigation of fuels from **St. Petersburg** that caused "catastrophic damage to fuel pumps and nozzles in about 30 vessels". Viswa Lab's investigation determined H₂S and mercaptan sulphur at room temperature and also at elevated fuel pump temperatures.

It said elevated temperatures caused the liquid fuel to release more H₂S.

"The need therefore is to determine the presence of H₂S under stored conditions and also to determine the potential H₂S that can be generated under fuel pump conditions of temperature and pressure," Viswa Lab said.

"IP 570 which detects H₂S in liquid fuel is not a complete answer," Viswa lab said, asking ISO to "consider all aspects of the H₂S problem."

Unni Einemo, 31st March 2010 14:52 GMT

Comments? Email editor@bunkerworld.com.



Proposed limit and test method applies to H₂S in the liquid phase