

# BUNKERSPOT

## **LIQUID ASSETS**

**LNG-FUELLED SHIPPING  
STEPS UP THE PACE**

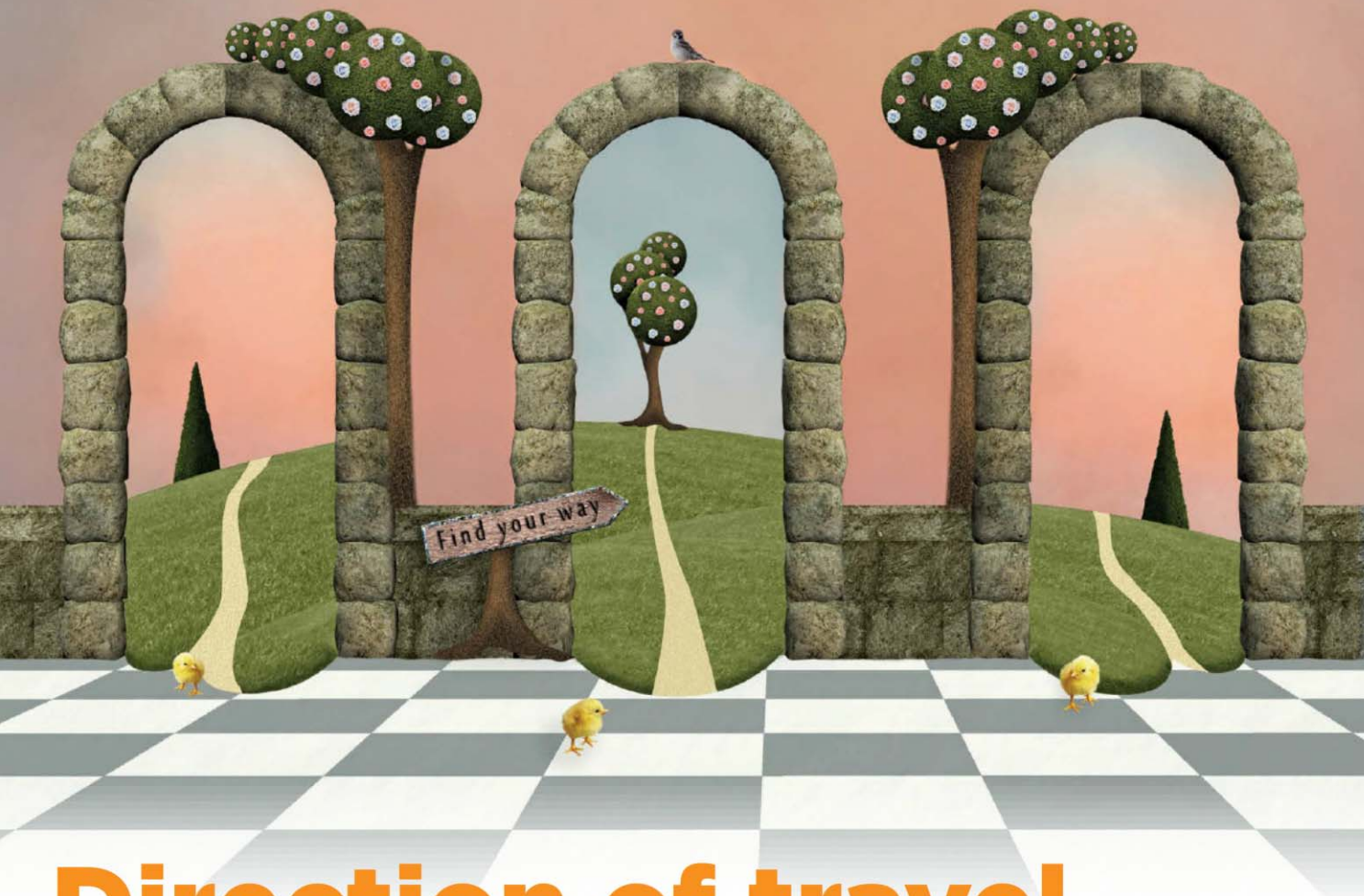
INSIDE:

ONSHORE POWER

LEGAL ISSUES

REGIONAL FOCUS

ECA REGULATIONS



## Direction of travel

Using ISO 8217 specifications along with MARPOL VI regulations in sales terms and conditions is not a clear cut issue. As Steve Simms explains, 'good enough' fuel will satisfy one but not both of these requirements

**A**lice asks the Cheshire Cat in Lewis Carroll's 19th century English classic, *Alice's Adventures in Wonderland*, 'Would you tell me, please, which way I ought to go from here?'

The Cheshire Cat: 'That depends a good deal on where you want to get to.'

Alice: 'I don't much care where.'

The Cheshire Cat: 'Then it doesn't much matter which way you go.'

Alice: '...So long as I get somewhere.'

The Cheshire Cat: 'Oh, you're sure to do that, if only you walk long enough.'

You or your employees have typed, copied and pasted it so many times you don't think about it at all. Without a thought, as you always have, you take the order and confirm:

**Quality: ISO 8217:2012 (or 2010)**

**Fuel oil delivered will be in compliance with applicable provisions of MARPOL Annex VI, Regulations 14 and 18.**

Of course, this is what your customers expect. They have probably also specified this information in their requests for you to quote. And really, you haven't otherwise much cared why you specified ISO 8217 along with MARPOL VI.

But as you (or they) have typed, copied or pasted, have you really thought very much at all – particularly in a time of increasing restrictions under MARPOL – where you and your employees are going with that – particularly after 1 January 2015?

Just like Alice, you are sure to get somewhere as you continue to type, copy and paste long enough. In the 2015 and post MARPOL VI regulation system, however, that 'somewhere' might easily be with the 'help' of environmental regulators – a place you do not want to be. It could be – because of increasing strict enforcement following MARPOL

VI (ISO 8217, in contrast, is not a regulatory enforcement standard) – a place that's more expensive than you would ever expect in terms of money and customer relationships.

Few bunker suppliers, traders and brokers appreciate that more than ever post-January 2015, the standards of ISO 8217:2012 (and even 2010) and MARPOL Annex VI don't match up. Those unaware of this mismatch – providing marine fuel not MARPOL Annex VI compliant as their confirmations promise – may soon be the recipients of fines from enforcement authorities or demands for indemnity from their customers.

How can you as a bunker supplier or trader now plan so that you can avoid what may certainly be a fine or liability to your customer, from a MARPOL VI violation? What are the pitfalls which you now must be aware of in the light of increasing enforcement?

As authorities focus on MARPOL VI compliance, the questions will become ever more pointed. Testing continues to be more accurate. With that, the lines are becoming drawn ever more clearly between what authorities consider to be MARPOL VI non-compliant fuel and fuel which ISO 8217 considers to be compliant. Can tests be absolutely accurate? Should authorities allow a variance with a range of test results for sulphur and other content? What do you promise your customers about content, and what should they reasonably expect?

Enforcement authorities and bunker suppliers, traders and their customers have always had different views of the world, and those views start from an understanding of the very nature of bunkers. First, then, let's take a perspective on the distinct 'world-views' that MARPOL VI and ISO 8217 present.

Historically, bunkers have been the 'bottom of the barrel'. They have been the residuals after the distilling process extracts the more valuable and relatively more pure and cleaner burning distillates. Bunkers can have all sorts of make-up and still power a vessel well.

From the standpoint of a bunker supplier, trader or their customer, 'close enough' has always been 'right enough'. Fuel that was the right price, powered the vessel and, after filtration, didn't damage the engine, has been the right fuel. The historical drivers of marine fuel purchases generally have been price and performance. Ships have been made to burn bunkers, the lowest cost fuel, because fuel price is the greatest constant price enabling an ocean voyage. The cost of marine fuel makes

up most of the cost of an ocean voyage, even when marine fuel is relatively inexpensive. The right marine fuel is one that gives the vessel the right engine performance and at an expense allowing for a right amount of profit.

The International Organization for Standardization (ISO), along with experts from the marine fuels industry, drafted the various versions of ISO 8217, which in its 2012 version was in its fifth (and most recent to this writing) edition. ISO 8217:2010 (the fourth edition) is probably the most frequently-specified '8217' term – and it has a number of 'annexes', including 'L', 'Precision and Interpretation of Test Results', which states in part the following:

*The true value, as defined by ISO 4259, represents the average of an infinite number of single results obtained by an infinite number of laboratories. A fuel test, run a number of times at the same laboratory, by the same person, on the same sample, under the same conditions, might not necessarily yield exactly the same answer for each test run. These variations are quantified for each test method as repeatability, r. When two different laboratories test the same sample using the same method, the variation is called reproducibility, R.*

No test method can measure the true value with 100% certainty. Each test method has a band of probability, referred to as the test precision. This means that if the test is carried out exactly as defined in the test method by an operator in a laboratory that fully meets the requirements of an accreditation standard such as ISO/IEC 17025[15], the result falls within the precision band of the test method. The precision of standard test methods is determined using procedures defined within ISO 4259.

This ISO 8217 'Annex L', of course, runs entirely with the worldview of the bunker industry, long work with residuals and the technical professionals familiar with the industry. This worldview holds that: 'No test method can measure the true value with 100% certainty.'

Why is this? It is because of the wide variation of elements that a residual bunker can contain along with the imprecision after a point of, say, parts per million, that any testing procedure could have in determining those elements. Add in also the often challenging marine environment in which testing takes place.

Then in comes MARPOL Annex VI – and

its increasingly restrictive requirements for fuel sulphur content. Bunkers may be a residual – but MARPOL Annex VI is a 'distillate' of various scientific and political viewpoints, dividing the world into parts per million. MARPOL has no truck with the 'close enough' is 'right enough' standard; it looks to 100% certainty.

ISO 8217 itself recognises this – that MARPOL ANNEX VI sets a standard independent of ISO 8217:

### *0.3 International statutory requirements*

*This International Standard takes into account the SOLAS Convention in respect of the allowable minimum flash point of fuels.*

*The Revised MARPOL Annex VI, which controls air pollution from ships, includes a requirement that either the fuel not exceed specified maximum sulphur content or an approved equivalent alternative be used. During the lifetime of this International Standard, regional and/or national bodies can introduce their own local emission requirements, which can impact the allowable sulphur content, for example the EU Sulphur Directive. It is the user's responsibility to establish the requirement to comply with such statutory requirements and to specify the maximum sulphur content of the fuel to the supplier.*

In other words, your customer (the user) specifies the standard – and it is your responsibility – when you specify that you are providing MARPOL VI-compliant fuel – to meet the standard.

Before January 2015, there was a relatively wide range for MARPOL compliance: to 31 December 2014, fuel could have up to 1.00% sulphur content. However, since the 1 January 2015 introduction of the MARPOL Annex VI 0.10% sulphur content maximum for emission control areas (ECA), 0.1% is what MARPOL says – and means.

Here is a way to put it. Before 2015, you could drive your car at a speed limit of about 80-110 kilometres per hour (km/h) and not be stopped and fined. From January this year, you can be stopped and fined for driving over 80 km/h. But, what if you're going down a hill – or passing a slower car – or have a following wind behind you?

In very broad terms, ISO 8217 Annex L essentially says that if you are found to be going 84 km/h – or 5% over the speed limit – you are 'close enough'. MARPOL VI says that if you are over 80 km/h it doesn't matter, you are in violation – and subject to

being stopped and fined. Therefore, your company and your customers could be completely compliant with ISO 8217 but fined and sanctioned under MARPOL Annex VI.

As regulators increase their enforcement of MARPOL and reliance on testing, bunker suppliers and traders must be aware of the mismatch between ISO 8217 and MARPOL testing standards. By certifying MARPOL compliance, bunker suppliers and traders confirm that the fuel they sell absolutely will test to MARPOL standards.

Regulators do not have to accept any variance from those standards as compliant, and given continuing reports, they won't.

There is good policy reason for this, too. One needs to look no further than the dramatic increase in compliance after the 1 January 2015 deadline. But what really was the reason for this increase? Likely it was twofold: first the relative ease that the regulators had in determining whether vessels were burning (and suppliers were providing) 1.00% versus 0.1% fuel; and, second, testing could easily determine the difference.

However, testing arguably had not been deployed in any widespread way to detect whether 0.1% sulphur content fuel was exactly 0.1% content. Fuel testing now, however – or at least confidence in testing – is improving, so that tests more accurately may determine whether a fuel has 0.1% or more sulphur content.

As tedious as it may be, it is therefore now more important than ever for those specifying ISO 8217 in their contracts, actually to have a copy of and to read ISO 8217. If you are specifying an ISO 8217 version (2010 or 2012) in your contracts, you should have that version readily available.

ISO 8217 contains some surprisingly general requirements, such as: *5.3 Fuels shall be free from any material that renders the fuel unacceptable for use in marine applications.*

Unacceptable by who?

Or, 5.5:

*The fuel shall not contain any additive at the concentration used in the fuel, or any added substance or chemical waste that*

- a) jeopardises the safety of the ship or adversely affects the performance of the machinery, or*
- b) is harmful to personnel, or*
- c) contributes overall to additional air pollution.*

Who decides, under ISO 8217, whether a fuel with additives jeopardises ship

safety, harms personnel or contributes 'overall' to 'additional' air pollution (when, of course, the burning of even the lowest sulphur-containing fuel results in carbon dioxide (CO<sub>2</sub>) emissions)? Additives (cutter stock, for example) are now frequently used to achieve ECA-compliant fuels.

So, by specifying ISO 8217 in your contract, if you are selling fuels including additives to meet the 1 January 2015 ECA requirement, you might at the least be giving your customer a reason to reject your fuel as non-compliant, even though it is otherwise 'good enough' to burn, power a vessel and not damage the vessel engines in the process.

Adding in the requirements of MARPOL VI Regulation 14 ('Sulphur oxides') and 18 ('Fuel oil quality') (which begins: '(1) Fuel oil for combustion purposes delivered to and used on board ships to which this Annex applies shall meet the following requirements'), should – particularly post 1 January 2015 – give even more pause for thought.

At least the wordings of these regulations (unlike ISO 8217) are on line and free of charge. These likely are part of your contracts, but do you know what they say and what your contracts are promising to provide by specifying them, particularly for ECA-compliant fuel?

MARPOL VI Regulation 14 ('Sulphur oxides (SOx)') – 'General requirements' requires that:

- 1. The sulphur content of any fuel oil used on board ships shall not exceed 4.5% m/m. [Now, anywhere – and it could drop to 0.5% at 2020.]*
- 2. The world-wide average sulphur content of residual fuel oil supplied for use on board ships shall be monitored taking into account guidelines to be developed by the Organization. [The guidelines – effective 1 January 1, 2015 in ECAs for 0.1% content.]*

Requirements within SOx emission control areas:

- 3. For the purpose of this regulation, SOx emission control areas shall include:*
  - (a) the Baltic Sea area as defined in regulation 10(1)(b) of Annex I, the North Sea area as defined in regulation 5(1)(f) of Annex V; and*
  - (b) any other sea area, including port areas, designated by the Organization in accordance with criteria and procedures for designation of SOx emission control areas with respect to the prevention of air pollution from ships contained in appendix III to this Annex.*

*4. While ships are within SOx emission control areas, at least one of the following conditions shall be fulfilled:*

- (a) the sulphur content of fuel oil used on board ships in a SOx emission control area does not exceed 1.5% m/m;*

\* \* \*

*5. The sulphur content of fuel oil referred to in paragraph (1) and paragraph (4)(a) of this regulation shall be documented by the supplier as required by regulation 18 of this Annex.*

MARPOL VI Regulation 18 then says:

- (a) except as provided in sub-paragraph (b):*

- (i) the fuel oil shall be blends of hydrocarbons derived from petroleum refining. This shall not preclude the incorporation of small amounts of additives intended to improve some aspects of performance;*
- (ii) the fuel oil shall be free from inorganic acid;*
- (iii) the fuel oil shall not include any added substance or chemical waste which either:*

*1. jeopardises the safety of ships or adversely affects the performance of the machinery, or*

*2. is harmful to personnel, or*

*3. contributes overall to additional air pollution; and*

*(b) fuel oil for combustion purposes derived by methods other than petroleum refining shall not:*

- (i) exceed the sulphur content set forth in regulation 14 of this Annex;*
- (ii) cause an engine to exceed the NOx emission limits set forth in regulation 13(3)(a) of this Annex;*
- (iii) contain inorganic acid; and*
- (iv) (1) jeopardise the safety of ships or adversely affect the performance of the machinery, or*

*(2) be harmful to personnel, or*

*(3) contribute overall to additional air pollution.*

\* \* \*

*7. Parties to the Protocol of 1997 undertake to ensure that appropriate authorities designated by them:*

- (a) maintain a register of local suppliers of fuel oil;*
- (b) require local suppliers to provide the bunker delivery note and sample as*

- required by this regulation, certified by the fuel oil supplier that the fuel oil meets the requirements of regulations 14 and 18 of this Annex;
- (c) require local suppliers to retain a copy of the bunker delivery note for at least three years for inspection and verification by the port State as necessary;
- (d) take action as appropriate against fuel oil suppliers that have been found to deliver fuel oil that does not comply with that stated on the bunker delivery note;
- (e) inform the Administration of any ship receiving fuel oil found to be non-compliant with the requirements of regulations 14 or 18 of this Annex; and
- (f) inform the Organization for transmission to Parties to the Protocol of 1997 of all cases where fuel oil suppliers have failed to meet the requirements specified in regulations 14 or 18 of this Annex.

So, by specifying MARPOL VI Regulations 14 and 18, bunker suppliers and traders promise to comply – over and above the legal requirements that MARPOL VI and national regulation (and EC regulation) require – contractually, to, for example, what ISO 8217 requires concerning additives, but also to comply with sulphur content requirements, maintain bunker delivery notes (BDN) and agree to appropriate action[s] where their deliveries don't comply with BDNs.

Which, of course, gets back to the question of compliance, and ISO 8217.

So, clearly, between the two worldviews of bunker suppliers, traders and brokers, and of the regulators, the suppliers, traders and brokers must decide the direction that they want to go. And they must make that plain in their contracts with customers, anticipate the direction of the regulators, and advocate with regulators to understand that direction.

The first direction to go is that bunker suppliers, traders and brokers must know ISO 8217 requirements and specify them, only, in their contracts' sales terms and conditions.

The contracts must specify that any claimed non-compliance with ISO 8217 must be determined by the customer and reported no later than, at most, ten (10) days after the bunkers provision. Sales terms and conditions also explicitly should limit the amount of any claimed damages from alleged ISO 8217 non-compliance to the bunkers' value.

Any specified compliance with MARPOL VI requirements must be made explicitly

## 'Increasingly, authorities will look to more accurate testing and they will not (as 8217 does) permit any error margins between tests'

subject to the testing variances allowed by ISO 8217 Annex L. Disputes over tests measuring MARPOL VI compliance also should be subject to the Annex L dispute resolution procedure, where 'if the supplier and recipient cannot reach agreement about the quality of the product [and there is a ] situation where each laboratory is analysing fuel samples that are subdivisions from one representative sample.

Bunker suppliers', traders' and brokers' sales terms and conditions therefore should include a statement such as the following:

*Seller does not warrant or guarantee that any Products comply with MARPOL Annex VI, Regulations 14 and 18 nor will Seller be responsible for any expense which Buyer may incur relating to actual or claimed non-compliance with any MARPOL Annex VI or any related government requirements. Should Supplier provide a certificate pursuant to MARPOL Annex VI, such certificate does not constitute a general warranty of merchantability or fitness for a particular purpose of the Products.*

Bunker suppliers, traders and brokers also should have clear sales terms and conditions specifying that although they use their best efforts to assure that their products are MARPOL VI compliant, they shall not in the event be required to indemnify or defend a customer against the claims of any governmental or other entity, that the customer has bought or used a MARPOL VI non-compliant fuel.

Getting 'where you want to get to', however, cannot depend entirely on customer – or supplier – contractual relationships. It does turn on accurate and reliable testing and quality control. No matter how well done your contracts are with your customers, regulators increasingly will require that your supply complies with MARPOL VI standards. That is, even if a customer fined for MARPOL VI non-compliance may not (because of your contractual terms) be able to require you to pay the customer's fine arising from the fuel you provided), authorities still under MARPOL may fine or sanction


your company for selling non-compliant fuel.

Increasingly, authorities will look to more accurate testing and they will not (as 8217 does) permit any error margins between tests. The only way to minimise the likelihood of non-compliant fuel finding its way into the supplies you sell, is to require regular testing of supply by sophisticated, reliable laboratories. This is testing that you as supplier, and broker and trader, conduct independently of your customer. The more accurate the test, the better defence it will be to some claim that your supply has violated MARPOL VI standards (when the supply otherwise might have been fully ISO 8217 standards compliant).

Environmental regulators, including those developing the 'distillate' of MARPOL VI and its related legislation, unquestionably have many overriding good intentions which are expressed in their worldview. In the perfect world that they envision, all marine fuel will test 100% compliant without any variation from MARPOL VI standards.

This would require, however, that all marine fuel had uniform content and characteristics, which almost by definition the still dominant, residual marine fuel will never have. Marine fuel suppliers, brokers and traders therefore must recognise that in the post-January 2015 world, from the regulators' standpoint, 'close enough' cannot be 'right enough'.

So, make sure that your contracts – backed up by accurate pre-sale testing – correctly express the reality of the sale and use of residual fuels. Especially in the post-1 January 2015 world, do not, without full amplification of details in your sale contracts, specify both ISO 8217 and MARPOL VI. It matters that as a marine fuel supplier, trader or broker you operate in a residual world, so take heed which way you are going.

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