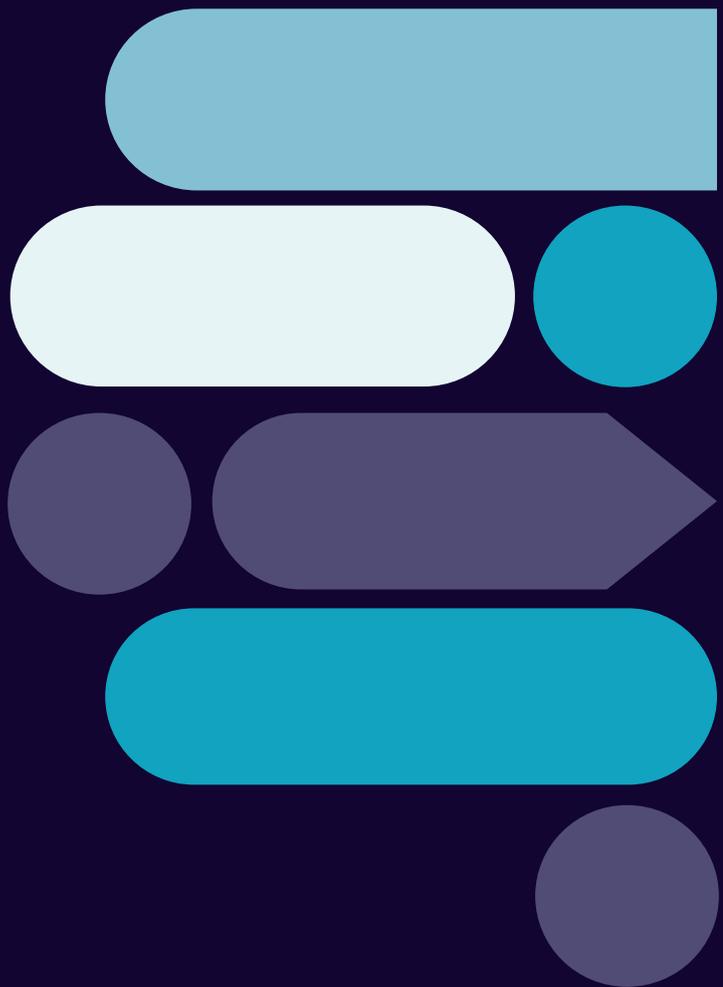




# LNG Charters Common Issues



UKDC  
IS MANAGED  
BY **THOMAS  
MILLER**



# Introduction

**Although charterparty disputes may be less common in the LNG trade than in other trades, when they do arise, they can be complicated and costly. It also seems that such disputes are gently on the rise.**

This could be partly due to the trend towards shorter-term spot charters which may not generate the same commercial relationship between owner and charterer as the long-term charters traditionally seen in the world of LNG. Another reason may be the ever-increasing complexity of LNG ships and on-board technology, which inevitably means there is more scope for things to go wrong. The high hire rates attached to LNG ships mean that even short delays are potentially expensive. Together, these facts are a recipe for dispute.

Whatever the reason may be, in this growing industry, it is important to be alive to the potential areas of dispute and minimise them where possible by careful drafting and understanding of the relevant charter terms.

In this publication, we take a look at three of the main areas where we have seen a trend for claims (underperformance, breakdowns and terminal compatibility) and offer guidance to Members in terms of preventing and handling such disputes.

Conventional charter terms used in other trades cannot readily be used for the charter of an LNG carrier. Charter terms must be specific to LNG carriage and its special features. Although it is not unusual for parties to negotiate bespoke terms, we shall focus our analysis on the most common standard terms: the ShellLNGTime 1 and 2 and LNGVOY charter forms.

# Performance claims

A particular feature of LNG ships is their ability to use cargo boil-off as fuel in dual-fuel engines.

The ability to use different fuels is highly advantageous. It provides a flexibility which can be used to minimise operating costs. That is of course a positive development. However, it brings with it new challenges for owners, as charterers become ever more demanding, in terms of flexibility and the use of boil-off to increase efficiency.

It is therefore readily accepted that claims relating to a ship's performance are typically more complex in the LNG trade than in other trades, due to the need to factor in boil-off.

In a conventional shipping context, there are two quite distinct types of claim which do not overlap with each other:

1. Cargo shortage claim; and
2. Performance (or over-consumption) claims.

In an LNG context, however, the sharp line between these two types of claim becomes blurred because LNG is both cargo and fuel. For the most part it is cargo, but it is fuel when used, in the form of boil-off, to power a ship's engines.

As a result, an LNG time charter form needs to address (among many other things) two inter-related matters:

1. The circumstances in which there will be a valid shortage claim, bearing in mind that some LNG may have been deliberately boiled off for use as fuel, used for cooling down lines prior to cargo operations, and also that some boil-off is inevitable; and
2. The circumstances in which there will be a valid performance claim (in the sense of over-consumption of fuel) bearing in mind that two types of fuel are involved: regular fuel and the LNG itself.

A particular feature of LNG ships is their ability to use cargo boil-off as fuel in dual-fuel engines.



# Performance claims continued

## Charter terms

The ShellLNGTime 1 form, by way of example, contains detailed terms concerning performance in Appendix C. In brief summary, it addresses the matters set out above in the following five key ways.

First, there is the concept of “fuel oil equivalent”. This is essentially a conversion factor, which allows one to say that “x” cubic metres of LNG cargo corresponds to “y” tonnes of fuel oil. This enables a more straightforward comparison between the volume of LNG lost as boil-off and the consumption of fuel oil.

Secondly, there is a maximum allowed consumption, expressed in terms of fuel oil equivalent. This provides, subject to the exclusion mentioned in the fourth point below, for the actual consumption of the ship to be assessed as the sum of (1) regular bunkers consumed and (2) the cargo lost as boil-off. So, subject to the exclusion, cargo lost as boil-off is treated as having been consumed in the ship's engines or burnt in the GCU.

Thirdly, there is an agreed maximum amount of permitted boil-off. The charterer will have a claim if more LNG is lost by way of boil-off than the

stipulated maximum. This is, however, subject to an important qualification. The maximum is deemed to be complied with if the charterer gives orders that result in an increased volume of boil-off. This makes explicit that which would probably be implicit anyway. If the charterer takes advantage of the ship's ability to use boil-off and requires boil-off to be generated for that purpose, known as “forced boil off”, it cannot expect to have a claim based on the maximum being exceeded.

Fourthly, if there is any amount of boil-off in excess of the maximum permitted boil-off, that excess amount is not included in the calculation of consumption. This addresses the categorisation and double-counting issues that would otherwise arise. Excessive boil-off could be categorised as either a consumption claim or as a shortage claim, but it cannot sensibly be both simultaneously – that would be double-counting. Excluding excess boil-off from the consumption calculations in this way means that any claim by a charterer in respect of the excess is effectively treated as a shortage claim and cannot feature in any performance (over-consumption) claim.

Conventional charter terms used in other trades cannot readily be used for the charter of an LNG carrier.

Fifthly, subject to the other terms of the charter, the owner has “free use” of all boil-off. Because this “free use” is subject to the other terms, it does not affect the owner’s obligations in relation to maximum boil-off and maximum consumption. It does mean, however, that boil-off can be used, without penalty and to the owner’s advantage, if those obligations are complied with.

Aside from the above, Appendix C also includes a minimum speed requirement. That is, a speed at which the ship must be capable of steaming whilst at the same time complying with the obligations as to maximum consumption and boil-off.

### **Potential problems**

We set out below three brief illustrations of how the additional contractual and technological complexity in LNG charters can throw up questions not necessarily answered clearly by the standard charter forms.

1. **Exceeding maximum boil-off**  
Suppose that the charterer gives orders that result in increased boil-off so that the qualification mentioned in the third point above comes into play. However, it may be the case that the ship is generally inefficient, so that there is more boil-off and more consumption than there should be. In that situation it seems the charterer cannot make a

shortage claim based on the boil-off maximum, because by reason of the charterer having ordered the ship to use boil-off, that maximum limit is deemed to have been complied with. What then is the effect of the exclusion (fourth point above) on any performance claim?

There are two ways of looking at this. The owner can say that, simply as a matter of fact or arithmetic, there was boil-off in excess of the figure stipulated as the maximum and argue on that basis that the excess has to be ignored when it comes to calculating consumption because of the exclusion. The charterer, by contrast, might argue that the exclusion is simply intended to avoid double-counting and becomes irrelevant where the boil-off maximum has been complied with, including the case of deemed compliance. In that case, as there can be no shortage claim, the total amount of boil-off (including the excess) should be included in the calculation of the ship’s consumption.

# Performance claims continued

2. Method for calculating consumption and boil-off  
Appendix C of ShellLNGTime 1 sets out a methodology for calculating fuel consumption and boil-off in order to establish whether there has been over-consumption. While those provisions are important, their complexity can lead to confusion and, in turn, inaccurate performance claims by a charterer.

For example, Article 2(a)(i) of Appendix C to ShellLNGTime 1 defines the term “*Sea Passage*” as meaning “*the shortest safe route to the named port measured from pilot station to pilot station*”. Article 8(a) of Appendix C then provides that “*The Boil-Off excess or saving on any sea passage shall be calculated by comparing the guaranteed Boil-Off for the sea passage (i.e. the daily guaranteed maximum Boil-Off multiplied by the time between gaugings) with the actual Boil-Off*”.

Crucially, “sea passage” in Article 8 is not capitalised and so seemingly may not bear the same meaning as “Sea Passage” in Article 2. Rather, for the purposes of the boil-off calculation under Article 8, sea passage arguably means the total period between gaugings. This difference in definitions may seem insignificant but applying the wrong definition could result in an inflated boil-off claim against the owner. An owner should review any excess boil-off claim carefully to check that the calculations are based on the correct temporal period.

In contrast to that boil-off calculation methodology, the approach to assessing fuel consumption is based on a “Voyage”, defined as starting when the ship proceeds Full Away On Passage from her departure point and ending at the time the ship records End Of Passage on arrival. Again, these discreet differences can catch an owner or charterer out and so their correct application should be checked for each claim.

3. Inability to meet warranties due to design or technical deficiencies  
In cases where the ship regularly has to consume more fuel oil and/or boil-off than is permitted under the charter terms in order to maintain the required minimum speed, it may transpire that she is physically unable to meet the warranties.

The performance warranties in the charter would likely have been based on the ship’s design criteria and the results of sea trials. If the ship cannot perform in line with those warranties, this may point to a technical or design problem with the ship.

The owner should, amongst other things, consider its position as against the shipyard at which the ship was designed and built. It may be that the owner can bring a claim against the shipyard to compensate it for the damages it has to pay to the charterer. The viability of such claim against the shipyard will depend on the terms of the shipbuilding contract, but contracts of this nature frequently restrict compensation for failure to meet such performance criteria solely to an agreed rate of liquidated damages, thereby removing or limiting an owner's ability to claim for their actual losses arising from such delays.

An alternative consideration for the owner is the extent to which the charterer was involved in the design and construction of the ship. In long term charters, the charterer is sometimes closely involved and indeed receives the design for approval in advance.

The problem which causes the ship not to be able to meet her performance criteria may arise from a fundamental design flaw which was overlooked by all parties during the design and construction phase. In this instance, it is possible that the ship was never going to be able to meet the performance warranties and that the parties had accordingly agreed the charter terms under an incorrect assumption as to the ship's capabilities.

The owner may wish to consider whether the doctrine of common mistake could be relied upon in this scenario to rectify the performance warranties so as to reflect the ship's actual capability. Again, this would require careful consideration as appropriate on the facts of the case.

The problem which causes the ship not to be able to meet her performance criteria may arise from a fundamental design flaw which was overlooked by all parties during the design and construction phase.



# Breakdowns and maintenance obligations

The LNG industry has a strong track record for operational safety. Inevitably, however, breakdown and maintenance issues can and do arise, even if they do not ultimately compromise safety. In dealing with such issues, parties to charters will wish to analyse the owner's obligations as to maintenance and whether there are any off-hire consequences in relation to the technical problem that has arisen.

## **Types of technical issues recently seen**

In recent times, the Club has seen a catalogue of technical issues. Examples include failure of reliquefaction systems, breakdown of low duty compressors, inaccuracy of measurements in the drive measurement chains, failed vacuum pumps, damaged companders, lube oil cooler breakdowns, leaks in engine hydraulic systems and defects in stern tube seals.

There is presently no clear pattern emerging, indicating that issues are arising merely because LNG carriers are technologically complex ships rather than through any particular difficulty with, for example, specific designs or yards.

LNG technology is also constantly evolving, bringing with it new fuel types, engines and gas management equipment, and, in turn, inevitable teething problems. Coupled with relatively high hire rates, which can mean a lot is at stake for even a minor delay to trade, there is clear potential for such disputes to continue. We therefore endeavour to highlight below the relevant charter terms and consequences of breakdown incidents.

## **The owner's maintenance obligations**

Clause 1 of the ShellLNGTime form requires the owner to deliver the ship in a seaworthy condition. This is an absolute obligation. However, despite the inclusion of the words "throughout the charter period" in the opening line of that clause, it is not thought that absolute obligation as to seaworthiness continues beyond delivery. Rather, after delivery the relevant obligation upon the owner as to maintenance is to be found in clause 3. This clause imposes an obligation of due diligence on the owner as regards maintenance, together with a positive obligation to take steps to restore and maintain the condition of the ship as it was on delivery (as described in the preceding clauses of the charter).

# Breakdowns and maintenance obligations continued

Clause 2B of the LNGVOY form is in similar terms, imposing the standard obligation of due diligence “throughout the currency of the Charterparty” to ensure that, among other things, the ship is tight, staunch, strong and in good order and condition, with machinery and equipment in good and efficient state and in every way fit for its voyage and trade. The explicit reference to the due diligence obligation subsisting throughout the charterparty avoids any debate as to the start or end point of the owner’s obligations. In contrast to the ShellLNGTime, there is no express obligation to restore the ship to the condition it was in on delivery.

Of course, it is open to the parties to amend these provisions and bespoke variations on the above wording have been seen.

## **Impact of a breakdown**

In the event of a breakdown during the charter period, a charterer may seek to allege a breach by the owner of the relevant maintenance obligation. The owner will only be in breach, under the standard form charters mentioned above, if there has been a failure to exercise due diligence. The first step for the owner, therefore, is to assess whether due diligence was in fact exercised such that the owner will have a defence to the charterer’s claim. This concept is not unique to LNG charters. Indeed, clause 3 of ShellLNGTime 1, for example, is largely a reflection of the maintenance provisions in clause 3 of Shelltime 4. This article will not therefore delve into further detail on the nature and scope of the due diligence obligation.

## **Off-hire and rights of termination**

What, then, if the owner is in breach of the due diligence obligation? Under the ShellLNGTime 1 terms, if the owner is in breach of its due diligence maintenance obligations, the charterer may look to clauses 3 and/or 22. Under clause 3(c), the charterer is to give the owner written notice of the breach and if, after expiry of a fixed period, the owner has failed to demonstrate to the charterer’s reasonable satisfaction the exercise of contractual due diligence, the ship shall be off-hire until the owner has so demonstrated that they are using due diligence.

There does not appear to be a requirement that the owner’s breach has led to any interruption of service, reduction in performance or loss of time. Thus, there is a possibility pursuant to this provision that the ship could be placed off-hire for a very minor breach of maintenance obligations which has had no material impact on performance. Moreover, at any time the ship is off-hire under this provision, the charterer may terminate the charter pursuant to clause 3(f).

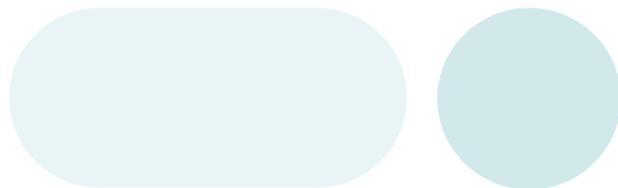
Consequently, even though the charterer may have had uninterrupted use of the ship, the owner may find that it is not entitled to hire and, worse still, that the charterer terminates the charter due to a (potentially minor) lapse in due diligence. The owner is likely to contest such an outcome vigorously. The charterer’s response will necessarily be that the dangerous nature of the LNG trade, which necessitates the highest standards of maintenance at all times, justifies the imposition of extremely stringent terms on the owner.

Further, under ShellLNGTime 2, in the event of the charter being for a single voyage only, the ship can be placed off-hire immediately upon notice to the owner of its alleged failure to exercise due diligence. Indeed, the charterer can proceed to terminate the charter at that point. There is no requirement for a rectification period for the owner to make good their alleged want of due diligence. For this reason, owners may be very wary indeed about using ShellLNGTime 2 in unamended form, at least when dealing with a single trip charter.

Aside from clause 3, the charterer may look to clause 22, the off-hire clause. In contrast to the off-hire situation under clause 3(c), clause 22(a) is very much in line with off-hire clauses in other charters such as Shelltime 4. The ship may be placed off-hire due to delays caused by matters such as breakdown of equipment, deficiency of stores, hull or machinery difficulties and also routine maintenance work or accidental damages. Further, clause 22 makes specific provision for certain technical LNG issues, such as LNG boil-off during off-hire periods, and for time lost in relation to tank cooling.

If, as a result of a maintenance-related off-hire event such as an equipment failure, the ship is able to proceed but fails to meet its guaranteed speed, the charterer has two alternative options: it can place the ship off-hire either under clause 22(b) or under Appendix C. It cannot do both. The differing off-hire calculations under each of those separate provisions will likely dictate how the charterer approaches its claim in this situation.

Under clause 22 (as opposed to the maintenance clause 3), there is a requirement that there be a loss of time (whether by reduction in performance, interruption of service or by any other means), with such loss of time having exceeded a certain minimum threshold.



# Breakdowns and maintenance obligations continued

This means that the owner's maintenance obligations, and alleged breach thereof, have different consequences depending on whether the breach is alleged as a failure of due diligence in maintenance (with notification given by the charterer), or whether it is a failure of maintenance which has resulted in loss of time (even without notification of the charterer). The "notified" failure, which the owner has (on this scenario) failed to rectify, can trigger off-hire even if there is no loss of time. However, a non-notified failure appears to require loss of time within the parameters set by the off-hire clause 22.

The LNGVOY form, being a voyage charter, does not make provision for off-hire. However, time lost due to ship-related matters such as breakdowns and repairs will inevitably not count as laytime or demurrage, pursuant to the laytime provisions of clause 17(a). Further, clause 23 makes provision for how to deal with boil-off in circumstances where this results from the owner's breach of charter or from delays excepted from the laytime provisions.

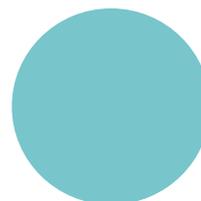
## **Damages**

It is worth noting that the charterer's rights to place the ship off-hire or to terminate the charter under clause 3 of the ShellLNGTime forms are not exclusive remedies for an owner's breach of clause 3(a). If the charterer has suffered other losses as a result of the breach (a lost sub-fixture, for example), then, prima facie, the charterer will have a claim in damages for those losses as well. The same concept would apply to losses incurred by the charterer following a breach of clause 2B of the LNGVOY form.

In either case, the charterer would need to tackle issues of causation and remoteness of damage in the usual way. The crux of such disputes, in terms of allocating liability, will be establishing what the technical issue is and what has caused it.

As a final point, it should be mentioned that breakdowns may result in lost LNG cargo. This can give rise to complex issues under LNG charters. However, the question of cargo loss is beyond the scope of this publication.

The crux of such disputes, in terms of allocating liability, will be establishing what the technical issue is and what has caused it.





# Terminal compatibility and acceptance

Terminal compatibility and acceptance is an issue that, to date, has received relatively little attention in published case law, and yet certainly has potential to give rise to dispute. Given the highly technical nature of LNG operations, it is of fundamental importance that the ship is technically compatible with and acceptable to the terminals to which it is intended to trade.

The main standard form LNG charters contain provisions for terminal compatibility and acceptance. However, there are some important differences between the clauses across the charter forms.

## “Compatibility”

In ShellLNGTime 1, clause 4(d) provides:

*“Owners warrant that the Vessel is compatible with the LNG Terminals listed in Appendix A for berthing, unberthing, loading and discharging LNG cargo without modification to the Vessel. In the event that such modification to the Vessel becomes necessary as a result of changes in international regulations or standards and/or are required by the Vessel’s Classification Society or Flag State, the cost of such modification shall be for Owners’ account, and the Vessel shall be off-hire for the time required to effect such modifications unless this can be achieved without affecting the performance of the Vessel under this Charter.”*

This is taken to be a warranty of technical compatibility with the terminals listed. It is largely within the owner’s control, it being possible to ascertain at the outset whether the ship is technically compatible with the LNG terminal. Nevertheless, problems arise in practice where, for example, terminals undergo structural changes or amend their safety regulations subsequent to the building of the ship or entering into the charterparty, or where a terminal has two jetties or berths, only one of which can accommodate the ship.

It is difficult for an owner to argue with a terminal’s decision on compatibility. When problems of non-compatibility arise, therefore, a careful assessment is needed to ascertain which party under the charter has accepted the contractual risk; crucially, to determine whether the owner will be in breach of the charterparty for non-compatibility.

In some cases, the charterer is closely involved in the design and construction of the ship from the outset as it has committed to take the ship on a long-term charter once built. The charter form may even require the owner to obtain the charterer's approval of the ship's design. So the ship must be built to a design acceptable to the charterer and at the same time be compatible with the given list of terminals. Yet it is plausible that the ship's design is such that the ship was never going to be compatible with one or more of the listed terminals and the parties overlook this by mistake when the design is produced. In this instance, it may be that neither party is liable for the inevitable future rejection of the ship by the terminal but instead the doctrine of common mistake could be relied upon to rectify the list of intended terminals in the charter form. Again, this would require careful consideration as appropriate on the facts of the case.

### **"Acceptability"**

Similar issues may arise in relation to the LNGVOY charter form. This charter also requires compatibility with the terminal, but goes a step further by providing a due diligence obligation that the ship be "acceptable" to the terminal. Clause 2 provides, under "Condition of the Vessel", as follows:

*"a. The Owners warrant that the Vessel... will be compatible with the terminals named in Boxes 9 and 10..."*

*b. The Owners shall, before and at the commencement of the voyage, and throughout the currency of this Charter Party, exercise due diligence to ensure that the Vessel...*

*c. Will be accepted by the terminals named in Boxes 9 and 10."*

This is a much broader obligation and must be interpreted to add a further duty on the owner over and above the warranty of technical compatibility. Whilst technical compatibility may frequently be a factual issue, the concept of "acceptability" is significantly broader and offers scope for interpretation and argument. The obligation may be tempered by being one of "due diligence" only, but it nevertheless creates a significant liability risk for the owner. It imposes a potentially unpredictable and onerous burden on the owner. What is "acceptable" to a terminal could be varied without notice and could even be dependent on business conditions outside the parties' knowledge at a particular time.

Charterparties may also have bespoke provisions, such as warranties of "commercial and technical acceptance", which can create further ambiguity.

The concept of "acceptability" creates a significant liability risk for the owner.

### **Consequences of non-compatibility or rejection**

If despite the matters discussed above, the owner is in breach of the charter in relation to terminal acceptance and/or compatibility, the standard form charters do not provide a regime to address this. The obvious course for a disgruntled charterer would be to seek damages for breach of the provision. Given the high value of LNG cargoes, and likelihood of onward sales with particular timetables, the owner could be exposed to significant claims.

There appear to be no reported cases directly on point arising from the standard LNG charter forms. However, analogies can be drawn with other cases. There have been a number of older cases considering the concept of "terminal acceptance" within contracts for the sale/purchase of oil, rather than in the charter itself. In *The Honam Jade* [1991] 1 LLR 38 (a judgment which pre-dates the standard LNG charter forms), the Court of Appeal considered the status of a term that nomination of a ship in a sale/purchase of oil be "subject to terminal acceptance". The Court of Appeal found that this was, in the context, an innominate term, meaning that the consequences of breaching it will depend on the severity of the breach. Where a breach of an innominate term is considered to deprive the innocent party of substantially the whole benefit of the contract, the innocent party may terminate the contract. In this case, the consequences of the owner's failure to comply with the term in a timely fashion was considered sufficient to justify the

buyer in cancelling the contract. The claimant was awarded its loss of profits on the sale and an indemnity against claims arising from lost sub-sales.

Whilst there have been many developments in the law of damages since 1991, the fact remains that there is high potential exposure for an owner should they fail to provide a ship that is acceptable to the terminal.

### **Terminal acceptance not for parties to pre-empt**

"Terminal acceptance" means acceptance by the terminal. This will necessarily involve going through requisite processes with the terminal. The charterer should not pre-empt or second guess a terminal's decision as to whether a ship is acceptable or not. Otherwise they risk being in breach of contract themselves for wrongful rejection of the ship.

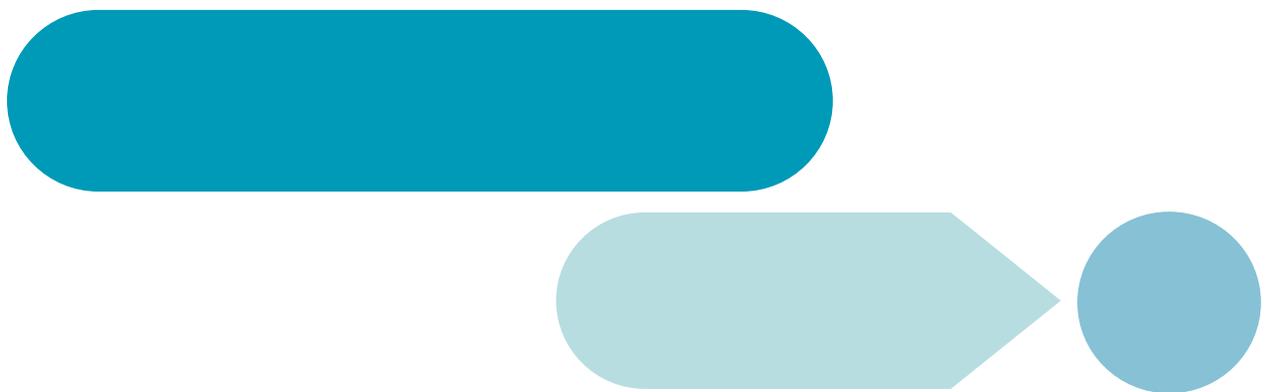
In the case of *SK Shipping v BB Energy (Asia) Ltd* (1999), in a sale/purchase of gasoil, the seller announced that a ship was not acceptable to the terminal, because it believed that the terminal would not be able to permit loading at the relevant time. However, the seller had not in fact confirmed this with the terminal itself. The seller was held to be in breach of contract and liable for damages as a result. They were not entitled to substitute their view for that of the terminal.

# Looking to the future

**There has been little consideration in case law of the above issues. Standard contracts specific to the LNG trade are comparatively recent and have not yet generated a substantial body of jurisprudence. This therefore means that there is scope for argument, both from first principles and by analogy with other cases, as and when disputes do arise.**

As ever in contractual matters, any dispute will require a close consideration of the particular words used in the relevant contract and the answer will usually depend on precisely how those words are interpreted. In that respect, LNG carriage and the disputes to which it gives rise are entirely conventional. Yet the complexity of the LNG ship itself and the relative paucity of case law surrounding the standard LNG forms of charter set the scene for difficulties to arise.

As the LNG trade grows, it is expected that there may be an increase in disputes relating to the issues discussed in this publication.





**UK Defence Club**

Thomas Miller Defence Ltd,  
90 Fenchurch Street,  
London EC3M 4ST

T: +44 207 283 4646

[tmdefence@thomasmiller.com](mailto:tmdefence@thomasmiller.com)

**Cyprus**

Thomas Miller Cyprus Insurance  
Agency Ltd,  
2 Pavlou Nirvana & Agias Fylaxeos Street,  
Limassol, Cyprus  
CY-3021

T: +357 25 375020

[tmdefence@thomasmiller.com](mailto:tmdefence@thomasmiller.com)

[ukdefence.com](http://ukdefence.com)