Northern Shipping Company v Deutsche Seereederei Gmbh [2000] Int.Com.L.R. 03/03

CA on appeal from Admiralty before Auld LJ; Brooke LJ; Hale LJ. 3rd March 2000.

LORD JUSTICE AULD:

1. On 4th July 1993 the plaintiff's ("NSC's") container vessel, Kapitan Sakharov, was carrying laden containers of the first and second defendants ("DSR") and third Defendants ("CYL") on a short voyage from Khor Fakkan, near the entrance to the Arabian Gulf, to other ports in the Gulf. Shortly before midday a container on deck containing a dangerous cargo exploded, causing a fire on deck which spread below, resulting in the sinking of the vessel shortly after midnight on the next day. NSC, in addition to the loss of its ship, faces claims by the dependants of two seamen who lost their lives, by shippers, including DSR and CYL, for loss of cargo and containers and by the Iranian authorities for pollution damage. All the material contracts of carriage were governed by the Hague Rules.

2. NSC claimed against one or other of DSR and CYL damages for its own losses and an indemnity in respect of the claims it faced. DSR disputed NSC's claim and counter-claimed for its losses and for an indemnity in respect of cargo and other container owners' claims against it. CYL also disputed NSC's claim and counterclaimed for the loss of its cargo and for an indemnity in respect of claims that it faced from cargo and other container owners.

3. DSR and CYL together operated a world-wide container service in which one or other of them shipped containers for carriage of goods on ocean vessels. At the material time the Kapitan Sakharov, a Russian built vessel originally registered in the USSR in 1979, was acting as a "feeder" vessel for containers shipped to Khor Fakkan, making deliveries to various ports within the Gulf. Most of her cargo consisted of DSR's and CYL's laden containers. She had four holds and four hatches, all forward of the engine room, bridge and accommodation. No 1 hold and hatch was on a raised forecastle and the other three hatches were at main deck level. The initial explosion occurred when the vessel was proceeding slowly in hot sunny weather with the access hatches to the holds closed. Evidence of the master and members of the crew put the explosion and immediately ensuing fire in the middle of the forepart of hatch 3.

4. NSC's case was that the initial explosion giving rise to the fire and eventual loss of the vessel and its cargo occurred on deck, in a DSR container containing an undeclared and dangerous cargo - probably an unstable chemical - stowed at about the centre line and bottom tier of a stack of mostly DSR containers on hatch 3. DSR's case was that the initial explosion was caused below deck by combustion of vapour which had escaped from one or more of 8 CYL tank containers containing a highly flammable liquid called isopentane (IMPG class 3.1), stowed in the aft part of hold 3. CYL's case was that the initial explosion occurred in a DSR container containing calcium hypochlorite, also an explosive substance (IMPG class 5.1), which, it maintained, was stowed on hatch 3, but which, on DSR's case and according to the ship's loading documents, was stowed under deck in the after part of hold 2.

5. Wherever and in whoever's container the initial explosion occurred, it is common ground that it resulted in the cracking open of hatch 3 and a fire which, despite vigorous fire-fighting by the ship's crew, spread down into hold 3, in the aft section of which there were 8 CYL tank containers of isopentane. It was a liquid more flammable than petrol, having a flash-point well below 0 C and a boiling point of about 28 C. Ambient temperature at the time in the Gulf would have been well above that boiling point, so that the isopentane was bound to be under pressure, and any escape of it via the tank containers' pressure valves or otherwise would have been in the form of vapour. Given a source of ignition, the degree of risk of such vapour combusting and/or contributing to a fire in the hold clearly depended in large part on how well it was ventilated. There was no mechanical ventilation in the holds of the Kapitan Sakharov and, as the Judge found, "not very effective natural ventilation".

6. The evidence did not indicate whether there was already a concentration of isopentane in hold 3 before the initial explosion and fire or whether their heat caused it. But it is plain from the expert evidence that some concentration would have occurred when the fire spread to the hold and that, at an early stage, it would have fuelled and exacerbated it. The consequences of the introduction of isopentane to a fire in a poorly ventilated hold are particularly serious, not only because of its high flammability and volatility, but also because the fire is likely to become a general vapour fire not readily extinguishable by water.

7. The intense fire that developed in the Kapitan Sakharov's hold led, in turn, to over-heating of diesel fuel in her wing tanks, causing one or both of them to explode and breach the bulkhead separating holds 3 and 2, thus allowing them to flood in common. The result was that fire fighting water directed into hold 3 by the crew and then by fire-fighting vessels passed into and accumulated in hold 2 as well, eventually causing the vessel to sink.

8. The Judge held that the initial explosion occurred in undeclared dangerous cargo in a DSR container stowed on deck on hatch 3; that the stowage of that cargo had rendered the vessel unseaworthy, though not because of any lack of due diligence by NSC; that the explosion and resultant fire on deck caused damage to part of the ship and part of the cargo and were an effective cause of the sinking and loss of the vessel and most of the cargo; but that that they would not have caused those further losses if NSC had not stowed CYL's isopentane below deck; that that stowage had rendered the vessel unseaworthy and was due to NSC's lack of due diligence; and that it contributed to the fire below deck and explosion of one or both of the diesel tanks and was a further effective cause of the loss of the vessel and most of the cargo.

9. In the result, the Judge:
   1) allowed NSC's claim against DSR in respect of its loss from the initial explosion and fire on deck;
   2) dismissed its claim against DSR for damages and for an indemnity in respect of the third party claims arising out of the isopentane fire and loss of the vessel;
   3) dismissed the entirety of its claim against CYL;

4) dismissed DSR's counterclaim against NSC;
5) dismissed CYL's counterclaim against NSC for such loss as it suffered from the initial explosion and fire; and
6) allowed CYL's counterclaim in respect of damage to and loss of its containers and cargo caused by the isopentane fire.

10. The issues for this Court are: 1) Did the Judge apply the correct test in finding that the cause of the explosion was undeclared and dangerous cargo of DSR stowed on deck and was his finding, in any event, supported by the evidence? 2) Was he correct in finding that the vessel was unseaworthy by reason of NSC's stowage of CYL's isopentane below deck and, if so, that the unseaworthiness was caused by NSC's lack of due diligence? 3) If so, was he correct in holding that NSC's lack of due diligence excused DSR from liability to NSC under Article IV, Rule 6, of the Hague Rules and at common law for the total loss of the vessel and all its cargo? 4). Was he correct in holding that CYL's counterclaim under Article III, Rule 1, of the Hague Rules for its losses resulting from unseaworthiness of the vessel by reason of the initial explosion and fire and from the isopentane fire could only succeed as to the latter because the unseaworthiness resulting from the carriage of DSR's undeclared dangerous cargo on deck was not caused by any want of due diligence of NSC?

The cause of the initial explosion and fire

11. The Judge approached his task by considering in considerable detail a number of strands of evidence relating respectively to:
1) the loading and stowage of the containers, finding that, in the main, the ship had been loaded in accordance with the loading plan;
2) the location of the initial explosion and fire, finding that it occurred at or close to where a number of DSR's containers, in particular SENU 450699 4 ("SENU") and INKU 277277 2 ("INKU"), were stowed on the fore part of hatch3;
3) debris and materials found at the site of the explosion and shortly after it had occurred;
4) the location under deck of DSR's declared cargo of calcium hypochlorite, CYL's candidate for the culprit; and
5) expert and other evidence as to the unlikelihood of either that calcium hypochlorite or CYL's isopentane being responsible for the initial explosion or fire, and the absence of evidence indicating any culprit other than undeclared and dangerous cargo of DSR on deck.

12. As to 1), the loading and stowage of the vessel's cargo of containers, there was evidence in the form of preliminary and final loading ("bay") plans and of logs of the crane operators at the port at Khor Fakkan showing: that the majority of the containers stowed on or in the vicinity of the fore part of hatch 3 had been shipped by DSR including, on the bottom tier and at about the centre line, SENU and INKU, with declared contents respectively of rubber water hose and rubber tyres and tubes; that there were 2 DSR containers of calcium hypochlorite under deck in the aft part of hold 2 and 8 CYL tank containers of isopentane under deck in the fore part of hold 3. There was also evidence of the vessel's master, Captain Smirnov, the second officer and cargo officer, Mr. Dudnikov, upon whom the Judge said he could in general rely, and in part of Mr. Aziz an employee of NSC's and CYL's agents in Khor Fakkan, that the cargo was, with some possible insignificant exceptions within individual bays, loaded as shown on the loading plan. It should be noted that at the trial DSR did not challenge the accuracy of the loading plans as indicators of the locations of the various containers.

13. There were also oral evidence, uncontradicted witness statements, enquiry agents' reports and transaction and shipping documents showing: that there were 17 containers stowed on the fore part of hatch 3 the declared contents of all of which should have been harmless; that SENU was the only one of them with declared contents of black rubber water-hose; that its shipping documentation showed the rubber hose to have been manufactured in China and shipped from Hong Kong by a shipper of general hardware manufactured in China via an import agency in the Gulf to its ultimate consignee, Al Shabibi Trading, a builder's merchant in Jeddah, Saudi Arabia; that that was the only container on hatch 3 the declared contents of which included water-hose; and that, after the explosion, crew members saw rubber-hose in the debris on the top of hatch 3.

14. The Judge said of this evidence, at page 37 of his judgment: " *My overall conclusion is that the evidence relating to the loading supports the finding that both the cargo officer and the stevedores were trying to load the containers in accordance with the preliminary bay plan, and thus with the final bay plan, and that, subject to one or two minor exceptions, they did so. …. I recognise of course that the evidence of loading is only part of the evidence and that it must be fitted with and tested against the other evidence in the case, and I shall attempt to do that, but it is important evidence which strongly supports the conclusion that the containers of drums of calcium hypochlorite were stowed in no 2 hold and not on no 3 hatch.*"

15. As to 2), the location of the explosion and the immediately ensuing fire, the crew's eye-witness evidence pointed overwhelmingly to about the centre of the forward part of hatch 3. The Judge so found, and DSR and CYL do not challenge that finding.

16. As to 3), the debris found at the scene of the initial explosion and fire, there was the evidence from Mr. Cook, an accident investigator, of one or more of the crew members telling him of having seen rubber hose (the declared content of SENU) among the debris in the middle of the forepart of hatch 3. There was also evidence from Mr. Shepurev, the ship's carpenter, of having seen metal drums, about 50 cms. in length and diameter, lying on the deck on the starboard side of the vessel near to the corner of hatch no 3, some with their lids off and containing a fine grey powder, which was not burning. Of Mr. Cook's evidence relating to the rubber hose, the Judge

accepted that he was unlikely to have mentioned it unless one or more of the crew members had told him of it and concluded that it was *"more likely than not that rubber hose was … seen among the debris*". Of Mr. Shepurev's evidence, he said, at page 46:

"… his evidence does seem to me to afford support for the conclusion that there was a container with drums of chemical in the vicinity of the fire. To that extent it supports the plaintiffs' or CYL's case since there is no evidence of a container containing drums in any of the declared cargo which was stowed in containers said to have been stowed on deck. If the evidence otherwise points to the conclusion that the calcium hypochlorite was stowed under deck, this evidence seems to me to support the plaintiffs' case that there must have been an undeclared cargo in one of the containers on deck since otherwise there is no explanation for drums of the kind referred to by the carpenter."

17. and later, at page 62:

"If accepted, that evidence shows that there were such drums stowed on deck, which is inconsistent with DSR's case. … I see no reason not to accept Mr. Shepurev's evidence, which, in my judgment, provides compelling support for the conclusion that the explosion was caused by a chemical explosion on deck and not a vapour explosion under deck."

18. As to 4), the stowage under deck of DSR's declared cargo of calcium hypochlorite (CYL's suggested cause of the initial explosion and fire), the Judge was able to base his finding on the evidence of Captain Smirnov and other crew members, a number of statements, parts of the expert evidence and documentary material as to the loading and stowage.

19. Having reviewed the above evidence and expressed his conclusions on it, the Judge embarked on an examination of the parties' respective candidates for the initial explosion by testing them also against the expert evidence. In doing so, he traced the forensic approach of each party's counsel of focusing on "the alleged improbabilities of the other candidates rather than the probability of his own".

20. As to DSR's isopentane under-deck theory, he concluded, at page 71: *"… while the isopentane theory cannot be rejected as scientifically impossible, it is very unlikely indeed. It does not accord with the eye witness evidence and the combination of circumstances which are required to make it work is such that it is much less likely than either of the other two theories or candidates, each of which involved an explosion on deck*."

21. As to CYL's contention for DSR's declared calcium hypochlorite on deck, he began by referring to his already expressed view that the evidence relating to the loading and stowage of the vessel "strongly support[ed] the conclusion that that the containers of calcium hypchlorite were stowed under deck".

22. As to NSC's contention for DSR's undeclared cargo on deck, he began by referring to the improbabilities, advanced principally by Mr. Flaux, of anyone shipping an undeclared cargo of a dangerous chemical like calcium hypochlorite from China, via Hong Kong, to the Arabian Gulf. Briefly, these were: that there was no evidence why anyone might have wished to ship such an undeclared consignment to Saudi Arabia; that there were no restrictions on the importation of such chemicals into that country; that the savings, if any, in freight charges for the carriage of declared dangerous cargoes were insignificant; that there was no evidence that calcium hypochlorite or similar chemicals were manufactured in China or of any trade in them between that country and Saudi Arabia; and that the documentation relating to container SENU, on which NSC focused its case at trial, indicated, unless there had been an elaborate and widely-spread conspiracy, a perfectly legitimate sale and shipment of rubber hose and nothing else. The Judge said, at page 78:

"… if I were considering only this part of the case, I would not hold on the balance of probabilities that there was an undeclared cargo of chemicals on board. But Mr Macdonald submitted that, however improbable on the face of them, the improbabilities pointed to by the defendants did not lead to the conclusion that Mr Dudnikov must be lying or outweigh the improbabilities upon which he [Mr Macdonald] relied …."

23. Then, having considered Mr. Flaux's arguments, he said of the three competing theories that he found each improbable but that NSC's was the least improbable. He clearly had in mind the reasoning of the House of Lords in ***Rhesa Shipping S.A v. Edmunds ("The Popi M")*** [1985] 1 WLR 948, that it is for a claimant to prove his case on a balance of probabilities which he cannot do merely by relying on the least improbable of a number of possibilities. Nevertheless, he went on to find for NSC on this issue, clearly relying on his earlier findings of fact and taking into account certain gaps in the evidence relating to the transaction underlying the shipment of container SENU. This is how he put it, at pages 91-93 of his judgment:

" … it is necessary to consider the case as a whole. Each party's case contains improbabilities. It is improbable that the explosion occurred by the ignition of isopentane vapour under deck. It is improbable that the containers of drums of calcium hypochlorite were stowed on deck and not under deck as shown on the bay plan in circumstances where the cargo officer did not inform anyone and thereafter deliberately covered it up. It is improbable that there was any undeclared dangerous cargo on deck which could explode. It is not easy to compare the comparative probability of each of those improbabilities, especially where some of the evidence depends upon forming a view about the credibility of witnesses since one is not always comparing like with like.

I recognize, of course, that a court is not bound to choose between a number of improbable possibilities, as the House of Lords made clear in The Popi M … On the other hand, improbable things happen. … I have nevertheless tried to weigh up all the factors. I have considered carefully whether I should hold that the plaintiffs' claim fails because they have not established on the balance of probabilities what was the cause of the explosion. I have found this a particularly difficult exercise, but I have reached the conclusion that it is possible to reach a conclusion as to what probably happened even though it may be said that, from one or more points of view, the result is improbable."

24. As I have said, DSR does not now challenge the Judge's finding that that the explosion and first fire occurred on the fore part of hatch 3. It challenges his finding that an undeclared and dangerous cargo in a DSR container caused it. Mr. Flaux submitted that, given the Judge's conclusion that all three contentions were improbable, he should have found, in accordance with the reasoning of the House of Lords in ***The Popi M,*** that NSC had not proved its case on this issue against any of the defendants. He added that NSC, as DSR's bailee, could only resist a claim by DSR if it could prove the loss was without its negligence, so why should it be in a better position in a claim against DSR? He submitted that, in any event, certain of the Judge's findings of fact were wrong or conflicted with NSC's case.

25. Mr. Flaux submitted, first, that, although the Judge referred to the *Popi M*, he did not apply its reasoning in pressing on to find an answer to a question, which he clearly found difficult, as to the presence, identity and role of undeclared and dangerous cargo on deck. He said that if the Judge, in the passage quoted, was suggesting that the effect of his decision was that, although not bound to choose between various improbabilities, he had an option to do so, he was wrong because, if the plaintiff could not prove its case on a balance of probabilities, its claim should have failed.

26. If that had been the Judge's approach, I agree that it would have been wrong; see **the *Popi M,*** per Lord Brandon at 951B-D, 955D and 955F-955g-956D. This is not a case in which he could have selected a cause, albeit a highly improbable one, by a process of elimination, as Sherlock Holmes propounded in Conan Doyle's *"The Sign of the Four"*. All relevant facts are not known and there is not, therefore, an exhaustive list of options from which, logically or as matter of common sense, a choice of improbabilities may be made, having regard to the burden of proof. See ***The Marel*** [1994] 1 Ll.R 624, CA, per Dillon LJ at 632. Cf ***The Theodegmon*** [1990] 1 Ll.R. 52, in which Phillips J found for a shipper notwithstanding that its case against the carrier for loss of cargo on the ground that the vessel's steering gear had failed was "*improbable in the extreme*", since the carrier's case - the only possible alternative - that it was the pilot's fault, "*was impossible*".

27. However, I do not understand the Judge to have said that he had such an option. It is true that he qualified his references to **the *Popi M*** principle by treating as potentially significant, degrees of relative improbability. Thus, at page 89 of his judgment, after referring to some arguments of Mr. Macdonald as to the incompleteness of the documentation as to container SENU and as to the bona fides of the transaction as a whole, he said *"the history of the goods … is much less full than in most if not all of the other cases*" and "*there are gaps in information about this container*". Among the matters he had in mind were: the absence of evidence as to the manufacturer of the hose or its point of origin in China; the fact that sellers of the hose and freight forwarders had been uncooperative with enquiries; Mr. Al Shabibi's refusal to make a full statement; and uncertainties as to whether payment had ever been sought or made for the rubber hose. He said, at page 90::

" Mr. Flaux treated the whole of this part of Mr Macdonald's submissions with what may be termed forensic astonishment and I am bound to say that it could not possibly be held on the basis of the evidence before the court relating to container SENU … or any other container that it was probably stuffed with an undeclared dangerous cargo. Very many of the points made by Mr. Flaux, whether taken singly or together, point to the improbability that anyone shipped a dangerous cargo on deck without declaring it. However, as Mr. Macdonald pointed out, there remain unanswered questions, especially with regard to container SENU … While … the fact that such questions can be asked does not prove the plaintiffs' case, the fact that they cannot all be answered does have this significance.

The plaintiffs' case that an explosion on deck must have occurred in a container loaded with undeclared cargo depends in part on the conclusion that the explosion occurred on deck and not under deck (which I have discussed in detail) and in part upon the conclusion that the cargo officer's [Mr. Dudnikov's] evidence that the calcium hypochlorite was stowed under deck in accordance with the bay plan is credible, which in turn depends in part upon the probabilities relevant to that question. I have already expressed my view that Mr. Dudnikov's evidence appeared to me to be credible and that, in the context of the evidence relating to loading and stowage, the probabilities point strongly to the conclusion that calcium hypochlorite was stowed in no 2 hold and not on no 3 hatch. Although I recognise the force of the points made on behalf of the defendants as to the probabilities of there being undeclared cargo in container SENU … (or indeed any other container) the fact that the questions posed in connection with that container cannot all be answered does mean that the points to be weighed in the scales against the conclusion that the calcium hypochlorite was stowed under deck are less compelling than they might otherwise have been.

As I have said already, it is necessary to consider the case as a whole. …"

28. It is plain that, in expressing a view in the early part of that passage as to the improbabilities of NSC's case, he was not talking of its case and evidence as a whole, but simply of the evidence underlying the shipment of container SENU when looked at on its own. Looked at alongside the other evidence going to the question whether, overall, the plaintiff had proved its case on this issue, the *relative* improbabilities of one, albeit an important, aspect of the case could, as he said, be significant.

29. The Judge continued, at pages 92-93: *" … I have tried to assess the oral evidence against the probabilities and the probabilities (in which I of course include the improbabilities) against one another. I have reached the conclusion that the cargo officer [Mr. Dudnikov] was a witness of truth and his evidence broadly reliable, that the explosion occurred on deck and not under deck and that the declared drums of calcium hypochlorite were stowed under deck as shown on the bay plan and that the explosion occurred in undeclared cargo in a container on hatch no 3 which was probably shipped by DSR.*"

30. As Mr. Macdonald submitted, examination of the structure of the judgment as a whole shows that the Judge relied for his finding under this head on a number of strands of evidence quite separate from that relating to the transaction of sale of the rubber hose and its shipment. These were: the stowage of the containers, in particular SENU on the bottom tier at about the centre-line on the forepart of hatch 3; the location on deck at about the position of SENU of the explosion and immediately ensuing fire; the absence of any container on deck at or near hatch 3 with a declared explosive cargo; and Mr. Shepurev's evidence of seeing drums of what could have been chemical powder on the forepart of hatch no 3 immediately after the explosion. It follows, in my view, that the Judge's treatment of the respective cases and supporting evidence of the parties overall does not offend *The **Popi M*** rule.

31. That leaves Mr. Flaux's second submission that, in any event and on a proper analysis of the evidence, particularly that relating to container SENU, certain of the Judge's findings were wrong and conflicted with NSC's case that it contained undeclared explosive cargo. He maintained that the documentary and other evidence relating to the container and its cargo supported DSR's case that the sale and shipping of rubber hose in it were genuine trading transactions and that there was no reason why an undeclared dangerous cargo should also have been present in the container. He referred to the Judge's observations, seemingly of a piece with his submissions, at page 82 of his judgment, that it was difficult to see why anyone would want to ship undeclared chemicals to Saudi Arabia or to Iran or Iraq via Saudi Arabia, and his acceptance, at page 88, that there was no indication in the evidence that Al Shabibi Trading was concerned in the importation of chemicals or any other dangerous cargo.

32. However, as the Judge also observed, at page 182, that could no doubt be said about other occasions on which, on evidence before him, undeclared dangerous cargoes from China had been shipped in Hong Kong.. His general conclusion on the evidence as to the sale and shipment of the SENU container was that Mr Macdonald's various suggestions as to its shortcomings all *"fell far short of evidence that would support the conclusion that there was probably dangerous cargo in … [the] container"*. He made a number of other observations to similar effect in that part of his judgment concerned with the evidence of the sale and shipping of the rubber hose, including the introductory observation to this section of his judgment, at page 78, that I have already cited:
"… if I were considering only this part of the case, I would not hold on the balance of probabilities that there was an undeclared cargo of chemicals on board ."

33. Mr Flaux relied strongly on the Judge's attitude to that evidence because, he submitted, NSC's only real candidate for a culprit container was SENU. He said that, given the Judge's view, the only basis for his finding that it was a DSR container, and probably SENU, was that it was stowed near where the explosion occurred. At the most, he said, the Judge was entitled to hold that there had been an explosion in the fore part of hatch 3 caused by an illicit chemical, but that that was as far as he was entitled to go. He said that, in going on to identify SENU as the probable culprit, the Judge failed to give proper weight to serious difficulties in NSC's case about the transaction underlying its shipment.

34. Mr. Flaux made a number of other criticisms of the Judge's findings or inferences or lack of them on the evidence in this case. But they were, with respect to Mr Flaux, of little substance and at best peripheral to his main complaint that the Judge did not have the evidence upon which he could be satisfied that the explosion was caused by a dangerous undeclared cargo of DSR on hatch 3. Among them was a complaint that the Judge should not have placed so much reliance on Mr Shepurev's evidence of having seen what looked like drums of chemical powder at the scene of the explosion shortly after it had occurred. He pointed out that Mr. Shepurev had not mentioned them when first interviewed and that none of the other members of the crew, who might have been expected to see them if they had been there, mentioned them in their various statements or evidence. He added that, in any event, the Judge inflated the significance of the evidence since Mr. Shepurev had not said they came from SENU, the powder might not have been a chemical and there was no evidence that it was a substance that could have caused an explosion, still less in the massive form that occurred.

35. In my view, there is no basis upon which this Court could disturb the Judge's finding that the explosion and fire on deck was caused by an undeclared and dangerous cargo in a DSR container. On the evidence before him, he was entitled to find: that a large number of DSR containers were stowed on the forepart of hatch 3, one of which was SENU in the bottom tier close to the centre line of the vessel; that the explosion occurred at about that point; that the explosion resulted from a dangerous cargo, probably an unstable chemical; that since none of the containers stowed at or near the point of explosion had such declared cargo, the cargo responsible for the explosion must have been undeclared; that rubber hose, which was the declared content of SENU, and open drums of what looked like a chemical powder were afterwards found at the scene. The only remaining step in the reasoning was that, on a balance of probabilities, the undeclared dangerous cargo responsible for the explosion was in a DSR container. It was not essential to the Judge's conclusion that he should identify SENU as the container in question. However, it clearly formed an important part of his reasoning and he considered it a probability in the light of all the evidence, notwithstanding some improbabilities in NSC's case as to the transaction underlying its shipment and allowing for some gaps in the evidence about it. In my view, he was entitled to take that step and infer that the contents of SENU or another DSR container caused the explosion.

NSC's responsibility for unseaworthiness in the stowage of isopentane under deck - Article III, Rule 1, of the Hague Rules

Unseaworthiness

36. The Judge found that the cause of the loss of the vessel and most of its cargo was the isopentane in CYL's 8 tank containers stowed in the aft part of hatch 3 catching fire as a result of the explosion and fire on deck. He found

that the stowage of the isopentane under deck made the vessel unseaworthy and that NSC had, in that respect, failed to exercise due diligence. He held, in consequence, that it could only recover against DSR for damage to the ship caused by the explosion and fire on deck and that CYL could recover on its counterclaim for its loss of cargo and an indemnity.

37. There is now no issue that the stowage of the eight tank containers of highly inflammable isopentane under deck contributed to - was a cause of - the loss of the ship by the flooding of fire-fighting water from hold 3 into hold 2. The issues are: 1) whether the Judge was correct in holding that the stowage of the isopentane under deck made the vessel unseaworthy within the meaning of Articles III and IV of the Hague Rules; 2) if so, whether, in accordance with Article IV, Rule 1, the unseaworthiness resulted from NSC's lack of due diligence; and 3), if so, whether that deprived NSC from recovering damages against DSR for the loss of the vessel and for an indemnity against third party claims under Article IV, rule 6, or at Common law.

38. The international standards as to seaworthiness were those embodied in the International Convention for Health and Safety of Life at Sea 1974, as amended in 1981 and 1983 ("SOLAS") and, in this case, the USSR's, now the Russian Federation's, version of the International Maritime Dangerous Goods Code ("the IMDG Code'), given the initials "MOPOG". SOLAS and IMDG have been given effect to in the United Kingdom by regulations made under the Merchant Shipping Acts. SOLAS, in Cap. VII, Regulation 6.3, provided that "dangerous goods in packaged form which give off dangerous vapours shall be stowed in a mechanically ventilated space or on deck", and in IMDG, Regulation 5, that class 3.1 liquids should be carried in a well ventilated space. MOPOG, the preamble of which stated that it complied with both SOLAS and IMDG, made similar provision.

39. On the issues of unseaworthiness and due diligence, NSC's case is 1) that it was permissible for isopentane to be stowed under deck in the Kapitan Sakharov, despite its lack of mechanical ventilation, by virtue of the law and regulations of the Russian Federation, namely MOPOG, and in accordance with the vessel's technical certificate; 2) that compliance with those instruments in the circumstances of the case constituted due diligence and that it did comply with them; or 3), that if it failed to comply with them, such failure was not a result of want of due diligence but of a reasonable misunderstanding of them, and that the decision as to stowage under deck was otherwise reasonable. DSR's case is that neither MOPOG nor the technical certificate authorised such stowage and that, in any event, it was so plainly dangerous that to permit it amounted to want of due diligence. CYL does not challenge the Judge's finding of unseaworthiness on this account, but joins with DSR in its argument on the issue of due diligence.

40. The Judge found:

1) that the poor natural ventilation in the vessel's hold would not have effectively removed flammable vapour from the cargo spaces below deck and that the availability of fire-fighting equipment in the holds was no adequate substitute;
2) that the presence of isopentane below deck and its combustion by the initial fire and exacerbation of it, was responsible for the heating and explosion of one or both of the wing diesel tanks, causing, in turn, rupture of the bulkheads between holds 2 and 3, so allowing both holds to flood with fire-fighting water and the ship to sink;
3) that if the isopentane had been stowed on deck the vessel would not have been lost and it was, therefore "a cause of the sinking";
4) that a reasonably prudent Russian shipowner and master could reasonably have relied upon MOPOG without checking it against the IMDG Code but should also have had regard to the circumstances of the particular case;
5) that neither SOLAS nor the IMDG Code nor MOPOG nor the vessel's technical certificate permitted stowage of isopentane under deck in the inadequately ventilated hold of the Kapitan Sakharov; and
6) that in any event and in the particular circumstances, NSC's master and cargo officer had not exercised reasonable skill and care in stowing it there.

41. As to the last finding, the Judge said, at page 118 of the judgment, that it was reasonably foreseeable that if a fire occurred in the hold from some other source a flammable liquid like isopentane stowed there would be likely to exacerbate it in a way in which it would not do if stowed on deck. He continued::

" In these circumstances it is not surprising that both SOLAS and the IMDG code did not permit stowage of this cargo under deck in this vessel. For the reasons which I have tried to give I do not think that either MOPOG or the technical certificate did so either. Moreover, I am unable to accept Mr Macdonald's submission that it was reasonable for the master or cargo officer to think that it was proper to load a class 3.1 cargo under deck. In my judgment the isopentane should been stowed on deck. The vessel was not reasonably fit to withstand the ordinary incidents of the voyage with it stowed under deck because it might itself catch fire or, if another fire broke out, it would be likely to exacerbate it. It follows that it was unseaworthy in that respect because the master and cargo officer permitted the isopentane to be stowed under deck in circumstances in which, if they had exercised reasonable skill and care, they would not have done so. In all the circumstances I have reached the conclusion that the plaintiffs were in breach of Article III, rule 1 of the Hague Rules."

42. The clear purpose of MOPOG was to reproduce without distinction the provisions of SOLAS and IMDG, its preamble expressly stating that it complied with them. Like SOLAS and IMDG, it regulates the carriage by vessels of dangerous cargo, including that in tank containers. It provides that specified dangerous cargoes, including

isopentane, may be carried in tank containers and that if dangerous cargo is carried in a hold there must be a mechanical ventilation system. Particularly stringent provisions are made for highly inflammable liquids, including and without distinction, those carried in tank containers, and for the dangers of escape and ignition of flammable vapour in unventilated conditions (Article 13). It prescribes, by reference to an attached document called a *"KTRP sheet"* where particular types of cargo unit (i.e. packages and open and closed containers etc.) should be stowed on different types of ship.

43. The first question for the Judge was whether the ordinary restriction in MOPOG on the carriage of containers, including tank containers, containing dangerous cargo applied to the carriage of tank containers on container ships as well as to those carried on general cargo or passenger vessels. The answer turned on what is meant by open and closed containers as used in Appendix 1 to MOPOG and in the KTRP sheet.

44. Mr. Macdonald submitted that the intention and proper construction of MOPOG and the KTRP sheet were to exclude tank containers from the restriction when carried in container ships, because, as he maintained, the words *"closed container"* in Appendix 1 to MOPOG and in its use in the section of the KTRP sheet relating to container ships did not include tank containers. He compared the reference in the KTRP sheet to a "closed cargo container or tank container" in relation to, inter alia, general cargo ships and that to a "closed container" in relation to container ships. In support of his construction of the KTRP sheet he relied and continues to rely on the evidence of Mr Perfiliev, the NSC's leading engineer technologist in its shipping management department, whose opinion to like effect on the matter the Judge did not accept.

45. Mr. Flaux and Mr Milligan took a common stand against Mr. Macdonald's argument on construction of MOPOG and the KTRP, making a number of submissions, which the Judge accepted.

46. A fundamental shortcoming of Mr Macdonald's submission on this point of construction is that, even if he were correct, it would only mean that the KTRP sheet made no provision for, and therefore did not permit, the carriage under deck of dangerous cargo in tank containers in container ships and, therefore, that it was not permitted in this case.

47. But, as the Judge ruled, such a distinction would, in any event, be contrary to the intent of MOPOG, which was to reproduce SOLAS and IMDG, the terms of each of which permitted of no such linguistic distinction and would have prohibited the stowage of the isopentane in the hold, as Mr Macdonald conceded. It would lead, improbably and inconsistently with the general thrust of Article 13 of MOPOG, to the conclusion that the Russian authorities deliberately excluded tank containers carried on container ships from the general stowage precautions otherwise applicable. On the evidence before the Judge, there is no sensible basis upon which it could be said that the carriage under deck of highly flammable liquid in tank containers is less dangerous on container ships than on other types of ships, especially where, as here, the holds are unventilated. The equipment of the vessel with cell guides to hold the containers secure, upon which Mr. Macdonald relied for this part of his submission, is no protection against the activation of pressure valves by heat or against the resultant accumulation of highly combustible vapour in the holds.

48. As to construction, the use of the term "*closed cargo container or tank container*" in the part of the KTRP sheet relating to, inter alia, general cargo ships necessarily allowed for other types of packaging in addition to containers on such vessels, whereas in the case of container ships it was only necessary to refer to containers. In addition, Appendix 1 to MOPOG contains a separate definition of "*closed container*" which is clearly capable of including tank containers. Finally, tank containers would not satisfy the definition of its opposite, "*open container",* also defined in the Appendix. As the Judge said, DSR's construction made *"good sense and brings MOPOG clearly into line with IMDG, as intended and as one would expect*".

49. Mr Macdonald also attempted a connected argument of construction based on Kapitan Sakharov's technical certificate, a computer generated document recording various technical data of the vessel as authorised and required by the Russian authorities. I say "*a connected argument*" because, as he conceded, the certificate should be construed in the same way as MOPOG. It, therefore, depended for its success on his submission that under MOPOG a tank container was not a "*closed container*", a submission that I have rejected. The certificate prescribed where in the vessel cargoes of various classes in open and closed containers could be carried. Save in one respect, it made no separate reference to tank containers. The learned Judge held, in my view rightly, that the prescriptions in the certificate as to where closed containers of various sorts of cargo could and could not be stowed included tank containers. On that construction it did not permit the carriage of tank containers under deck on the Kapitan Sakharov save for those containing certain miscellaneous cargoes, which did not include isopentane.

50. The certificate, towards its end, did refer specifically to tank containers in the following standard provision applicable to various types of vessel:

"*Transportation of specific hazardous cargo in tank containers, special liquid and solid bulk containers, and in rail containers on ferries is permitted if the cargo in question is indicated in Appendix 17 [which includes isopentane] or Section 8 of the Regulations on Transportation of Hazardous Cargoes by Sea*".

51. Mr Macdonald relied on the lack of assignment in that general provision of such dangerous cargo to any particular stowage space, and submitted that the certificate did not, therefore prohibit the carriage by the Kapitan Sakharov under deck of tank containers carrying it. In so submitting, he found comfort in Mr. Dudnikov's evidence that he had read it as permitting the stowage under deck of any cargo listed in Appendix 17, provided

it was in a tank container. Mr. Flaux submitted that this general provision deals only with whether the vessel may carry dangerous cargo in certain types of package, not where on the vessel they may be carried. It does not add to or qualify MOPOG or the KTRP sheet. It simply confirms that the Kapitan Sakharov, like other types of vessel, may in principle carry dangerous cargo in containers, but does not say where on the vessel they may be carried. That is governed by MOPOG and the body of the certificate, which is to be read in the light of MOPOG. I agree with the Judge, who held in favour of Mr. Flaux's submission. The technical certificate did not qualify the general prohibition in MOPOG and the KTRP sheet from carrying tank containers of isopentane in an unventilated hold whatever the nature of the vessel.

52. Accordingly, I agree with the Judge that the stowage of the tank containers of isopentane under deck in the circumstances clearly contravened SOLAS , the IMDG and MOPOG and was not permitted by the technical certificate, as the Judge found. Even if there were room for another view on the question of construction of MOPOG and the technical certificate, there is Mr. Milligan's further submission, which I accept, that it was a finding of fact as to the meaning of a foreign instrument. The Court may have greater latitude to interfere with a finding of fact on a question of foreign law where expert evidence as to it is lacking than with other findings of fact; see ***MCC Proceeds Inc. v. Bishopsgate Investment Trust PLC*** 4 November 1998, CA (unreported). However, there was, as I have mentioned, much to support DSR's and CYL's case on this issue in the clear purpose of MOPOG to conform with SOLAS and IMDG and, on the expert evidence, that it conformed with common-sense and good seamanship. NSC relied on, and maintains that the Judge should have given greater weight to, the evidence of Mr. Perfiliev of how he and his colleagues in the office understood MOPOG and the technical certificate. But he was an engineer, not a lawyer competent to give evidence as to the legal effect in Russia of those documents.

53. I conclude, therefore, that the Judge correctly found that the stowage of the isopentane below deck rendered the Kapitan Sakharov unseaworthy.

Due diligence

54. NSC was required under Article III, Rule 1, of the Hague Rules to exercise due diligence to make the vessel seaworthy. The Judge correctly took as the test whether it had shown that it, its servants, agents or independent contractors, had exercised all reasonable skill and care to ensure that the vessel was seaworthy at the commencement of its voyage, namely, reasonably fit to encounter the ordinary incidents of the voyage. He also correctly stated the test to be objective, namely to be measured by the standards of a reasonable shipowner, taking into account international standards and the particular circumstances of the problem in hand.

55. The Judge held that NSC was in breach of Article III, Rule 1, of the Hague Rules in failing to exercise due diligence to make the ship seaworthy in respect of the stowage of the isopentane below deck. In doing so, he said, rightly, that the true construction of MOPOG and the technical certificate was not on its own determinative of that issue. He found that the master and Mr. Dudnikov, when dealing with the stow, had consulted and genuinely misunderstood the effect of both those instruments. However, he said that when considering them they should have kept in mind the particular problem facing them and made a reasonable decision in the circumstances. He considered and accepted the main body of expert evidence in the case that the stowage of isopentane in an unventilated hold should have struck a prudent shipowner and/or master as obviously dangerous regardless of the precise wording of the Codes. He also had regard to acknowledgement of the master and Mr. Dudnikov in evidence of the potential risks of storing the isopentane below deck in a hold without mechanical ventilation. Although there was evidence that the tank containers were well (hermetically) sealed, he was of the view that allowance had to be made for the risk of leakage and its possible serious consequence if there was a source of ignition present.

56. The Judge accepted the evidence of Mr. Dudnikov that he had consulted the certificate and, in an important passage as to his and the master's state of mind, continued, at pages 117-9 of the judgment:

" … He [Mr. Dudnikov] thought that it was all right to stow the isopentane under deck because of the provisions of the technical certificate, although both he and the master appreciated the potential risks. …

… the position may be summarised as follows. Mr. Dudnikov consulted the technical certificate from time to time and had formed the view (probably on an earlier occasion) that it was permissible to carry class 3 cargoes in tank containers under deck. He realised that there were risks and there was no ventilation, although he said that the access hatches could if necessary be opened. He stressed that they had a very good fire fighting system and that the voyages were very short. Moreover he checked the tank containers from time to time during loading. I see no reason to reject that evidence as untrue.

There was no stability reason why these tank containers should not have been stowed on deck. Although the tanks were supposed to be sealed, there was always the risk of leakage, any vapour would not be readily dispersed because of lack of ventilation and there was a risk of ignition, however unlikely it was to occur. Moreover, an explosion could have disastrous consequences. It also seems to me to have been reasonably foreseeable that if a fire occurred in the hold from some other source a flammable liquid like isopentane would be likely to add significantly to it in a way which would be likely to be much worse than if it was stowed on deck.

… I am unable to accept Mr. Macdonald's submission that it was reasonable for the master or cargo officer to think that it was proper to load a class 3.1 cargo under deck. … The vessel was not reasonably fit to withstand the ordinary incidents of the voyage with it stowed under deck because it might itself catch fire or, if another fire broke out, it would be likely to exacerbate it. It follows that she was unseaworthy at the commencement of the voyage.

Moreover the plaintiffs failed to exercise due diligence to make the vessel seaworthy in that respect because the master and cargo officer permitted the isopentane to be stowed under deck in circumstances in which, if they had exercised reasonable skill and care, they would not have done so. In all the circumstances I have reached the conclusion that the plaintiffs were in breach of Article III, rule 1 of the Hague Rules."

57. Mr Macdonald warned of the danger of relying on hindsight to convert an understandable mistake into a lack of due diligence. He suggested that, whatever the true construction of MOPOG and the technical certificate, their meaning was not clear and was open to misunderstanding by a Russian shipowner and its seamen, citing e.g. ***Richardson v. London County Council*** [1957] 1 WLR 751, CA., per Parker LJ at 761. More precisely, he submitted that, as NSC's and its seamen's understanding of the instruments did not produce an absurd result, they were entitled to rely on it. As instances of imperfection not amounting to lack of due diligence or - in other contexts - negligence, he cited ***Union of India v. N.V. Reederiji Amsterdam*** [1963] 2 Ll.R. 223, HL, per Lords Reid Evershed and Devlin at 230-1, 232 and 235 respectively, and authorities on solicitors' negligence, including ***Bell v. Strathairn & Blair*** (1954) 104 LJ 618, Ct. of Sess; and ***Simmons v. Pennington*** [1955] 1 WLR 183, CA, per Denning LJ at 186.

58. In support of his submission as to the reasonableness of the decision to stow isopentane under deck, Mr Macdonald referred to: the attention given by the master and Mr. Dudnikov to MOPOG and the technical certificate; the intrinsic safety of the tank containers in question; evidence as to regular checks on them; the fact, as he maintained, that there was no reason to foresee any source of ignition in the hold; the shortness of the voyage, the availability of some natural ventilation in the holds; the vessel's good fire-fighting system; and evidence that the Russian Maritime Register had certified an identical sister ship of the Kapitan Sakharov to carry tank containers of class 3.1 cargoes under deck, even though she had no mechanical ventilation. He submitted, in summary, that, but for the explosion and fire on deck caused by DSR's undeclared dangerous cargo, the isopentane would not have caught fire and exacerbated it, and there was no reason why anyone should have foreseen that initiating event.

59. Mr. Flaux submitted in reply that the SOLAS, IMDG and MOPOG codes and the technical certificate are not to be read as parts of a "*complex mesh of legislation*" or to have their meaning determined by minute legalistic and linguistic analysis, but as practical working guides for the use of seamen exercising ordinary nautical prudence. So read here, he submitted, it would not have been reasonable for NSC or the Kapitan Sakharov's master or Mr. Dudnikov to have concluded that MOPOG or the technical certificate would have permitted the obviously imprudent and dangerous stowage of a highly flammable liquid like isopentane in an unventilated hold.. He added that, if and to the extent that MOPOG or the certificate left NSC or the master or Mr Dudnikov uncertain, prudence would have required them to consult SOLAS or IMDG, which would have put the matter beyond all possible doubt.

60. On the broader question, Mr. Flaux adopted the reasoning and conclusions of the Judge. In particular, he referred to his analysis of and reliance on the factual and expert evidence as to the obvious dangers, regardless of any misunderstanding of the technical certificate, in stowing under deck 8 containers containing, under pressure, a substance more inflammable than petrol and liable to escape and accumulate as highly inflammable vapour in a poorly ventilated hold. He submitted, in short, that, however genuine may have been the misunderstanding, it was not a reasonable construction and produced an absurd result.

61. Compliance or otherwise with codes like MOPOG is not necessarily determinative of the issue of due diligence. Depending on the facts of the case, a reasonable misconstruction or misunderstanding of such an instrument may not amount to want of due diligence. Here, though the Judge found that there had been a genuine misunderstanding of the document, it was coupled with what, on the evidence before him, he was entitled to find was plainly unreasonable conduct in stowing isopentane below deck. It was an obvious risk notwithstanding the claimed inherent safety of the tank containers since their hermetic sealing would not overcome the danger of the valves operating, true to their intention, in the event of their over-heating and thereby increasing the pressure on their contents so as to expel them as highly inflammable vapour.

62. As at least one of the expert witnesses said, nobody knew whether in fact any of the containers leaked; it was the risk that mattered - small maybe - but if it occurred in conjunction with a source of ignition, potentially catastrophic. The weight of the expert evidence was that these were factors and possibilities that should have made it obvious to shipowners and experienced seamen that such cargo should not be stowed in a confined space unless it was efficiently ventilated. And it was implicit in such evidence that it was also obvious that escape and accumulation of inflammable gases would be likely, not only to combust on contact with a source of ignition, but also to exacerbate an existing fire originating from another source. In my view, the Judge's holding that NSC had not exercised due diligence in this respect is unassailable, both on the expert evidence and as a matter of common sense on the strength of his findings of primary fact.

NSC's entitlement to an indemnity from DSR - Article IV, Rule 6

63. As I have already mentioned, Article III, Rule 1, of the Hague Rules requires a carrier before and at the beginning of a voyage to exercise due diligence to make the ship seaworthy. Article IV, Rule 6, of the Rules renders the shipper of inflammable, explosive or otherwise dangerous goods, who gives no notice of their nature and dangerous character, liable to the carrier *"for all damages and expenses directly or indirectly arising out of or resulting from … [their] shipment"*. The shipper is so liable irrespective of its knowledge of the dangerous nature

of the goods; see *Effort Shipping Co. Ltd. v. Linden Management SA (The Giannis NK)* [1998] AC 605, HL. But what if another effective cause of the loss is the carrier's want of due diligence in providing an unseaworthy ship?

64. The Judge held that, as NSC's want of due diligence in failing to render the vessel seaworthy was an effective, albeit not the only, cause of its loss of the ship and most of the cargo, it could not recover damages for, or an indemnity in respect of, that loss against DSR under Article IV, rule 6, or at common law. He applied ***The Fiona*** [1994] 2 Ll.R 506, CA; ***Canada Steamship Line Ltd. v. The King*** [1952] AC 192, PC; and ***Smith v. South Wales Switchgear Co. Ltd.*** [1978] 1 WLR 165, HL, holding that the facts were indistinguishable from those in ***The Fiona***. In consequence, he held that NSC could only recover against DSR for the loss caused by the initial explosion and fire. He said, at pages123-4 of the judgment:

" …the correct analysis on the facts of the instant case is as follows. There were two causes of the sinking, namely the initial explosion, for the direct and indirect consequences of which the shippers are in principle liable under Article IV, rule 6, and the unseaworthiness of the vessel, for which the plaintiffs are liable by reason of Article III rule 1. There is no distinction in principle between the cause of the explosion in The Fiona and the cause of the sinking in the instant case. In The Fiona the explosion was caused by the unseaworthiness and (at least indirectly) by the shipment of dangerous cargo. Here the sinking (as opposed to the explosion) was caused by the unseaworthiness and (at least indirectly) by the shipment of dangerous cargo. Since the Court of Appeal held that Article IV rule 6 could not be construed as giving an indemnity to the shipowners in respect of the consequence of the explosion in The Fiona, it follows that it cannot be construed as giving an indemnity to the plaintiffs in respect of the consequence of the sinking here. It makes no difference that it was held on the facts of The Fiona that the dominant cause of the explosion was unseaworthiness. It is sufficient if an effective or proximate cause of the relevant loss is unseaworthiness."

65. The Judge held that that outcome was the same at common law. He said, at page 125:

"… the position at common law is as follows, assuming for present purposes that the shippers were in breach of a common law duty not to ship dangerous cargo. If (as here) there were two effective causes of the relevant loss, which in this context was the sinking, one of which was the plaintiffs' breach of Article III rule 1 and the other of which was a breach of duty at common Law on the part of the shippers, the plaintiffs' claim fails. It fails because, just as the plaintiffs can say that they are entitled to recover damages for the shippers' breach of their duty at common law, so the shippers can say that they are entitled to recover by reason of the breach of Article III rule 1. Both claims would fail, as it were, for circuity of action. I would add in passing that I do not think that this is a situation in which the plaintiffs' claim can properly be said to have failed by reason of a break in the chain of causation, although the result is the same."

66. Mr Macdonald submitted that the Judge should have held DSR liable to NSC under Article IV, Rule 6, and at common law for the total loss of the vessel and its cargo, and the consequences of such loss, notwithstanding his findings as to unseaworthiness and lack of due diligence in respect of the stowage of the isopentane. He sought to distinguish *The Fiona* on the grounds that it concerned concurrent causes of the disaster and all its consequences whereas this case does not, and that the dominant cause there was the shipowner's fault and the undeclared cargo only contributory. Here, on the Judge's finding, DSR was solely responsible for the initial explosion and resultant fire on deck and, without that, the unseaworthiness represented by the stowage of the isopentane below deck would have been no threat to the vessel. Accordingly, he submitted, DSR's original shipment of the undeclared dangerous cargo continued to be an indirect cause of the whole loss entitling NSC to recover in full, notwithstanding the later contribution caused by unseaworthiness for which it was responsible.

67. Mr. Flaux submitted that this distinction is bad, both factually for the reasons given by the Judge in the passage that I have just cited, and because the rationale of the judgments of Hirst and Hoffmann LJJ in ***The Fiona*** is not to confine it to original concurrent causes but to apply it wherever the shipowner's want or due diligence or negligence is a cause of the damage.

68. Hirst LJ said, at 519:

" Mr Boyd's … argument, which suggests that a shipper who places dangerous goods on board without the consent of the shipper places himself outside the pale of art. III, r. 1, I find wholly unacceptable. Far from that being a proper interpretation of art. IV, r. 6, it seem to me that art. IV, r. 6 proceeds on the assumption that dangerous goods have been loaded without the shipowner's consent, and then lays down a code of rules for dealing with that eventuality, which do not touch on art. III, r. 1.

… I hold that art. III, r. 1 is the overriding article, and that, seeing that the shipowners were in breach of their obligations under art. III, r. 1 to exercise due diligence to make the ship seaworthy, they are not entitled to invoke the indemnity under art. VI, r. 6."

69. And Hoffmann LJ said, 521-2:

" BP rely on the well established rule that exemption and indemnity clauses are, in the absence of a contrary intent, not construed as applying to loss cause by the negligence of the party who invokes them … Article IV, r. 6 is in my judgment an indemnity clause to which this principle of construction applies. It is not framed simply as a contractual duty on the part of the shipper to disclose the nature and character of dangerous goods. …

In this case the owner's negligence was only one of the causes of the explosion. Another cause was the shipment of the dangerous fuel oil. But Walters v. Whessoe Ltd and Shell Ltd [1960] 6 BLR 23 shows that the principle also applies when the negligence of the party relying on the indemnity is one of the causes of the damage."

70. In my view, the Judge was correct for the reasons he gave. The essential question was whether NSC's lack of due diligence in the stowage of the isopentane - breach of contract - causing unseaworthiness in the vessel was *an* effective cause of the fire in hold 3 and her loss. The Judge held that it was and that, therefore, NSC was not entitled to rely on Article IV, Rule 6, to seek an indemnity against DSR in respect of loss caused by that breach. It is immaterial that there was another cause or as to which of them was the dominant cause or their respective timings. The principle is the same as that applicable to a breach of Article III, Rule 1, resulting in damage to or loss of cargo where the shipowner pleads an excepted peril under Article IV, Rule 2, where it is for the shipowner to establish that the whole or a specific part of the damage or loss was caused by the excepted peril. See e.g. *The Torenia* [1983] 2 Ll.R 210, per Hobhouse J at 219. As the House of Lords held in the pre Hague Rules case of ***Smith, Hogg & Co. Ltd v. Black Sea & Baltic General Insurance Co. Ltd.*** [1940] AC 997, the obligation to furnish a seaworthy ship is the "*fundamental obligation*" or, now, as Lord Somervell in ***Maxine Footwear Co. Ltd. V. Canadian Merchant Marine Ltd***. [1959] AC 589, at 602-3, and Hirst LJ in ***The Fiona***, at 519, put it, Article III, Rule 1, is the *"overriding"* obligation.

71. As to Mr. Macdonald's submission that the general rule does not apply where the co-operating causes are concurrent, as causes they are almost never truly concurrent though they may be in their consequences. The unseaworthiness, where it is a cooperating cause of loss, will in all or most cases precede other cooperating causes, since it must exist at the commencement of the voyage. As Lord Wright put it in ***Monarch Steamship Co. Ltd. v. Karlshamns Oljefabriker (A/B)*** [1949] AC 196, HL, at 226-7:

"From one point of view, unseaworthiness must generally, perhaps always, in a sense be a 'remote' cause. To satisfy the definition of unseaworthiness it must exist at the commencement of the voyage. It must, however, still be in effective operation at the time of the casualty if it is to be a cause of the casualty, and from its very nature it must always, or almost always, operate by means of and along with the specific and immediate peril. That is because the essence of unseaworthiness as a cause of loss or damage is that the unseaworthy ship is unfit to meet the peril. In other words, the vessel would not have suffered the loss or injury if she had been seaworthy.

…unseaworthiness as a cause cannot from its very nature operate by itself; it needs the 'peril' in order to evince that the vessel, or some part or quality of it, is less fit than it should have been and would been if it had been seaworthy, and hence casualty ensues. A fitter ship would have passed through the peril unscathed. In this way unseaworthiness is a decisive cause or as it is called a dominant cause. If it is not expressly excepted, the shipowner cannot excuse himself by any specific exception for a loss for which he is himself responsible, because he is responsible for unseaworthiness.".

The isopentane unseaworthiness as a novus actus Interveniens

72. This issue would only have arisen for decision in the double event of our upholding the Judge's finding that DSR is liable for the initial explosion and fire and if *The Fiona* had been distinguishable so as to render DSR liable under that rule for the loss of the ship and all its cargo. In that event DSR would have contended that the total loss of the vessel is still the responsibility of NSC because its wrongful act in stowing the isopentane under deck was a novus actus, so entitling it to recover the whole of its loss from NSC.

73. Mr. Flaux submitted that any explosion or fire on deck for which DSR might be responsible did not of themselves cause the vessel to sink. The true and intervening cause of that was the plaintiff's stowage of isopentane below deck in hold 3 in breach of its duty under Article III, Rule 1 of the Hague Rules to exercise due diligence to make the vessel seaworthy. He argued that the significance to causation of such breach is that it is a finding of a wrongful act vis-a-vis DSR, including an awareness or imputed awareness of its breach of MOPOG and duty of due diligence, and also of a reasonable foreseeability that it would exacerbate any fire and/or make its consequences more serious. Such intervening conduct, especially by reason of its element of breach of duty, should, he submitted, relieve DSR from liability for the damage and losses caused by the isopentane fire. He relied upon ***The Sivand*** [1998] 2 Ll.R. 97, in which this Court held that the defence is available where the intervening act is *the* effective - in effect the exclusive - cause of damage.

74. Mr Macdonald essentially repeated his submissions on the Article IV, Rule 6, issue, namely that, but for the initial explosion and fire on deck the isopentane would never have become involved in the fire or would never have had any fire to fuel. As there was such an initial explosion and fire, the isopentane did become involved and both together caused the ultimate loss of the vessel and most of its cargo. On that basis, he submitted, the Judge correctly held that the chain of causation would have been unbroken.

75. As Evans LJ said in ***The Sivand,*** at 104 and 105, whether an intervening act is truly the sole effective or independent cause is a question of fact to be resolved on a common-sense basis to which issues of foreseeability and fault may be, but are not necessarily relevant. In my view, the Judge correctly held that if the question had arisen for decision NSC's claim against DSR would not have failed by reason of a break in the chain of causation.

NSC's "non-delegable" duty of due diligence in respect of DSR's undeclared and dangerous cargo

76. CYL appeal against the Judge's finding that NSC exercised due diligence in connection with DSR's shipment of the undeclared dangerous cargo on deck and that, therefore, NSC was responsible only for that part of CYL's loss caused by the isopentane fire.

77. The Judge held that CYL's counterclaim failed in relation to the damage and loss caused by the initial explosion and fire because, although the undeclared dangerous cargo of DSR on deck had made the vessel unseaworthy, *"there … [was] no suggestion that by the exercise of reasonable care and skill they could have identified the dangerous cargo concerned."*

78. Mr. Milligan submitted that the Judge should have found that NSC had not exercised due diligence in relation to DSR's undeclared dangerous cargo since it had a non-delegable duty to exercise such due diligence in all the stages of progress of the cargo to shipment. He argued that it was not enough for NSC to show that it could not itself have reasonably known what was in the offending container; it had to establish that due diligence was exercised by all concerned in the manufacture, packing, transport and storage of the cargo before shipment. He said that NSC was thus liable to CYL, even if not on notice of the undeclared and dangerous cargo, for the acts of DSR or of some other third party previously concerned with the cargo or DSR's container, and that it had a corresponding right of indemnity against DSR as contemplated by Article IV, Rule 2, of the Hague Rules.

79. The sole authority upon which Mr Milligan relied for that ambitious proposition was ***Riverstone Meat Co. Pty Ltd. v. Lancashire Shipping Co. Ltd.*** [1961] AC 807, HL, which concerned a claim by a shipper for damage to cargo as a result of unseaworthiness of the carrier's vessel caused by negligence of a firm of ship repairers instructed by the carrier. The House held that the carrier was liable since it could not discharge its obligation to prove due diligence by delegating its responsibility for the seaworthiness of the vehicle to an independent contractor. Their Lordships relied on a number of authorities, all concerned with a carrier's responsibility under the predecessor of the present Article III, Rule 1, for repairs to its ship done by its employees or independent contractors. The case did not concern - nor did any of the authorities upon which their Lordships relied - unseaworthiness by reason of stowage of dangerous cargo of which neither the carrier nor its servants or agents was on notice. Mr Milligan was unable to cite any such case and was frank enough to describe his submission as "*at the frontier of the due diligence argument*". He referred the Court to a number of passages in their Lordships' speeches, all to similar effect and of which the following of Lord Keith of Avonholm, at 871, is representative:

"We are not faced with a question in the realm of tort, or negligence. The obligation is a statutory contractual obligation. The novelty, if there is one, is that the statutory obligation is expressed in terms of an obligation to exercise due diligence etc.. There is nothing … extravagant in saying that this is an inescapable personal obligation. The carrier cannot claim to have shed his obligation to exercise due diligence to make his ship seaworthy by selecting a firm of competent ship repairers to make his ship seaworthy. Their failure to use due diligence to do so is his failure. The question, as I see it, is not one of vicarious responsibility at all. It is a question of statutory obligation. Perform it as you please. The performance is the carrier's performance. … I should … add that when I refer to repairers I include sub-contractors brought on to the ship by the repairers to enable them to perform the work which they contracted to do."

80. Mr. Macdonald, whose submissions Mr Flaux adopted, had two main arguments in reply. The first was that the Judge wrongly found or assumed that DSR's undeclared dangerous cargo on deck made the vessel unseaworthy. He accepted that bad stowage which endangers a ship renders it unseaworthy. But he submitted that bad stowage was not the cause of the danger here, but the presence in an otherwise good stow of concealed, dangerous cargo. The second was that if, contrary to that submission, the vessel was unseaworthy, the Judge correctly found that it was not as a result of any lack of due diligence by NSC; DSR or its agents, not NSC, had stuffed the containers; NSC was responsible only for its role as a carrier, not for that of the shipper.

81. Bad stowage which endangers a ship may render it unseaworthy. ***Ingram & Royle Ltd. v. Services Maritimes Du Treport*** [1913] 1 KB 538, per Scrutton J at 543. Bad stowage endangering a ship may take the form of stowing an otherwise harmless cargo in a place which renders it dangerous, say, because of its weight and the effect of that on the stability of the ship or because of its nature which may be adversely affected by the place of stowage, or simply because it is dangerous wherever and however it is stowed. Uneaworthiness is a physical state. The shipper's knowledge or ignorance of characteristics of the cargo which make it dangerous if stowed in the wrong place or anywhere on its ship cannot determine that state, as suggested by Mr. Macdonald. But it is material to the question whether the carrier has exercised due diligence and, therefore, of his responsibility for the unseaworthiness. Thus, in ***Elder Dempster & Co, Ltd. v. Paterson Zochonis & Co. Ltd*** [1924] AC 522 , HL, Viscount Finlay, at 535, cited with approval the following words of Lord Blackburn in *Steel v. State Line Steamship* Co. (1877) 3 App Cas, 72 and 86:

"… where there is a contract to carry goods in a ship …there is a duty on the part of the person who furnishes or supplies that ship … unless something be stipulated which should prevent it, that the ship shall be fit for its purpose. That is generally expressed by saying that it shall be seaworthy; and I think also in marine contracts, contracts for sea carriage, that is what is properly called a 'warranty' not merely that they do their best to make the ship fit, but that the ship should really be fit."

82. And Lord Sumner, in the same case, at 561 said: *"Unseaworthiness is a quality of the ship, however arising … Bad stowage, which endangers the safety of the ship, may amount to unseaworthiness.*"

83. An apt illustration is ***Ingram & Royle Ltd. v. Services Maritimes Du Treport***, in which Scrutton J held, at 543-5, that the careless stowage and inadequate packaging of sodium saturated with petrol, resulting in the sodium exploding on contact with water, rendered the ship unseaworthy, notwithstanding that the crew were unaware of that dangerous characteristic of sodium or of the aggravating feature that it was saturated with petrol. This and earlier decisions are instances of the former absolute duty at common law to provide a seaworthy ship in the absence of contractual exceptions. However, the distinction between such duty and that since imposed by the Hague Rules, as qualified by the due diligence rule and the specific exceptions set out in Article IV, Rule 2, "*may be a fine one*", as Lord Keith observed in ***Riverstone Meat Co v. Lancashire Shipping Co.***, at 871.

84. The Judge, on my reading of his judgment, clearly found it beyond argument that the vessel was unseaworthy because of the dangerous and undeclared cargo on deck. On the evidence before him and on the authorities to which I have referred, I consider that he was right to do so.

85. As to the separate question of due diligence, which it is for the carrier to prove, Article III, Rule 1 provides:
"The carrier shall be bound, before and at the beginning of the voyage, to exercise due diligence to - (a) make the ship seaworthy
(b) properly man, equip and supply the ship
(c) make the holds, refrigerating and cool chambers and all other parts of the ship in which goods are carried, fit and safe for their reception, carriage and preservation."

86. Lord Keith, in ***Riverstone Meat,*** at 871, described the duty as "*an inescapable personal obligation*". However, it is plain from the context of the case - disrepair of a ship - and of his reasoning in the passage from his speech I have set out, that he did not extend it to a responsibility for the conduct of manufacturers or exporters, or of shippers in their stuffing of containers and description of their contents; see also ***Maxine Footwear Co. Ltd. v. Canadian Government Merchant Marine Ltd.***, per Lord Somervell at 602. In my view, there is no warrant in the facts of those cases or the rationes of them for extending a carrier's duty of due diligence as to the structure and stowage of its ship to a physical verification of the declared contents of containers or other packaging in which cargo is shipped, unless put on notice to do so. As Mr. Macdonald observed, in the case of shipper-packed containers - the norm nowadays - the containers are, in any event, closed with a customs seal and are not capable of internal examination by the carrier or his agents.

87. In addition, to impose such a responsibility under Article III, Rule 1, on a carrier for the shipment of undeclared dangerous cargo in a sealed container would run counter to the scheme of Article IV, Rule 2 which excepts him in general terms from liability in a number of respects, including:
"(b) Fire, unless caused by the actual fault or privity of the carrier;
.....
(p) Latent defects not discoverable by due diligence;
(q) Any other cause arising without the actual fault or privity of carrier, or without the fault or neglect of the agents or servants of the carrier, but the burden of proof shall be on the person claiming the benefit of this exception to show that neither the actual fault or privity of the carrier nor the fault or neglect of the agents or servants of the carrier contributed to the loss or damage."

88. Mr Milligan sought to overcome that difficulty by submitting that the Article IV, Rule 2, exceptions are concerned with the carrier's responsibility for the careful handling of cargo under Article III, Rule 2, not its obligation to provide a seaworthy ship under Article III, Rule 1. His argument, therefore, was that where the issue is one of due diligence in providing a seaworthy ship, as distinct from one of the careful handling of cargo, the carrier has an absolute duty rendering it responsible for the misconduct of shippers and others over whom it has no control and whether or not it is on notice of such misconduct. The difficulty in that submission, as he acknowledged, involves an open ended extension of ***Riverstone Meat,*** itself an unseaworthiness case, the ratio of which was that a carrier cannot absolve itself from its personal duty of due diligence by delegating its responsibility *as a carrier* to an independent contractor. The shipper's and the carrier's respective orbits of responsibility are normally quite distinct and neither is agent of the other outside its own orbit; cf per Lord Radcliffe in ***Riverstone Meat,*** at 863. Those responsible for the manufacture, stuffing and shipping of containers are plainly not carrying out any part of the carrier's function for which he should be held responsible. I can find nothing in the Hague Rules or at Common law to make a carrier responsible for the unseaworthiness of its vessel resulting from a shipper's misconduct of which it, the carrier, has not been put on notice. Nor can I see any reason in principle or logic why a carrier should be exposed to such an infinite liability in time, place and people. It is not liable for latent defects in a vessel before it acquired it; see ***Riverstone Meat***, per Lord Radcliffe at 867 and cf. ***W. Angliss & Co. (Australia) Pty v. Peninsular & Oriental Steam Navigation Co.*** [1927] 2 KB 456. So why, as a matter of unseaworthiness, should it be liable for latent defects in cargo shipped on it?

89. On the facts found by the Judge - a shipper-packed and sealed container containing undeclared dangerous cargo - he was clearly justified in finding that NSC could not, with the exercise of reasonable skill and care have detected the presence of that cargo. Accordingly, I am of the view that he was justified in holding that NSC had exercised due diligence in this respect.

90. For all those reasons, I would: 1) dismiss NSC's appeal against the Judge's finding that it had failed to exercise due diligence to make the ship seaworthy in respect of the stowage of isopentane; 2) dismiss DSR's appeal against the Judge's finding that the initial explosion and fire occurred in one of its containers on the forepart of hatch 3; and 3) dismiss CYL's appeal against the Judge's finding that NSC exercised due diligence in respect of DSR's shipment of undeclared and dangerous cargo.

LORD JUSTICE BROOKE:

91. I agree, and I am adding a short judgment of my own by way of a supplement to the judgment of Auld LJ on two matters. The first relates to the evidence before the judge on the first issue - the probable source of the original explosion - and the second relates to questions of due diligence in connection with the stowage of the isopentane in unventilated conditions below deck.

92. The first issue the judge had to decide related to the probable source of the explosion. On the judge's findings, 17 40-foot containers were originally stowed on deck above No 3 hatch in three tiers, with six on the first two tiers and five on the third tier, where space had to be left for the crane boom on the port side. The six containers on the deck were heavier than the others, and the five on the top tier were the lightest of all. There was evidence that the five light containers on the top tier, and the second tier container on the starboard side were lifted off by the blast and landed in the sea. The lowest tier container on the starboard side remained intact, but at an awkward angle.

93. Of the remaining 10 containers, the evidence showed that the two containers on each of the first and second tiers on the port side could be eliminated as the likely source of the explosion. Container No 6 had gone, and Containers Nos 7, 12 and 13 were seen to be damaged but recognisable.

94. The two witnesses who could speak with most confidence about the probable explosion site were Third Engineer Zavartsev and Second Officer Dudnikov, both of whom gave evidence to the judge. The former stood on No 2 hatch cover fighting the fire, with the wall of containers piled on No 2 hatch behind him. He could see a 15cm fracture on No 3 hatch cover from fore to aft for the whole of its visible length in the centre of the cover. The hatch cover itself was set about half a metre down at its centre.

95. Mr Zavartsev said there was just mangled debris in the centre part. The top of this pile of debris was about 6-7 metres from the starboard edge of the vessel, and it sloped down towards the edge. Although he could not say definitely in which container the explosion took place, he considered that it was most likely either No 14 or No 15. These were the containers stowed in the middle of the bottom tier on No 3 hatch. If the bay plan had been followed, they would have been INKU 277277 2 and SENU 450699 4. He considered it less likely that the explosion would have started in one of the two containers immediately above them (CYLU 900141 0 and TEXU 510856 9, if the bay plan was followed).

96. Mr Dudnikov gave evidence to similar effect. He was absolutely certain that the explosion occurred above deck, because he could see no flames or smoke coming from below deck. From the nature of the destruction, he thought it took place closer to the centre, a bit closer to the starboard side, in the area of Containers Nos 14 and 15. The debris covered the width of 3 or 4 containers (Mr Zavartsev believed they were each a little more than 2 metres wide). Mr Dudnikov drew sketches (at pages G2043 and 2044 of the court papers) which illustrate what he saw. Mr Zavartsev's sketches are at G1947 and G2048.

97. Two other members of the ship's crew, Third Officer Pyatak and AB Kotsofan, both saw a number of containers fly into the sea, or thrown overboard, by the force of the explosion. At least one of these containers, which contained artificial flowers and plants, seems to have been burst open, because Mr Pyatak saw artificial flowers on top of the containers on No 4 hatch when the dense smoke cleared, and Mr Dudnikov and Mr Zavartsev both saw artificial flowers among the debris on No 3 hatch.

98. The judge summarised the effect of Mr Zavartsev's evidence on pages 47-52 of his judgment, He formed the view that Mr Zavartsev, like the other witnesses from the ship, was an honest witness and that his evidence was reliable. He summarised Mr Dudnikov's evidence on pages 52-55, and formed a similar view about this witness. He said that although, as one would expect, there were differences in their evidence and it could not be correct in every particular, a reasonably clear picture emerged from their evidence, when taken together. The judge then made a finding at page 55, against which there was no appeal, that the explosion occurred at the forward end of No 3 hatch, about on the centre line of the vessel, and probably a little to starboard of it. At this stage of his judgment, the judge did not make an explicit finding as to whether the explosion probably took place in one of Containers 14 and 15 (on the lower tier) or Nos 8 and 9 (on the second tier).

99. After deciding the probable site of the explosion, the judge then had to decide whether the containers were stowed in accordance with the bay plan prepared at the Khor Fakkan container terminal by Gulftainer Limited, the terminal operators. Gulftainer provided stevedoring and terminal handling and storage facilities to a number of shipping lines, including DSR-Senator, and the preparation of stowage plans is part of the service they provide for customers. The ship's officers will either approve their plan or require amendments to be made to it. On this occasion two changes were required, although neither is relevant to the issues in this case.

100. Gulftainer's crane log shows that loading started at 11.24pm on 2nd July 1993 and continued until 4.36am the following morning. 34 20-foot containers had been discharged from Bays 09-11, and 17 40-foot containers were loaded in their place. It was suggested at the trial that the bay planning was altered, so that 20-foot containers were put on top of hatch No 3 instead. The terminal manager, Mr Madin, said that if this had happened, the relevant crane movements would have been recorded and the customer would have been charged for them. Neither of these events occurred.

101. Mr Dudnikov, as Second Officer, was directly responsible for supervising the loading of the containers. He said that once he had approved the revised bay plan, he personally observed the loading taking place. He and his men paid most attention to each container being stowed in its place according to the bay plan. They also checked to see if any of the containers was damaged.

102. Once the loading was completed, the agent gave the final bay plan to the ship's master, Captain Smirnov, and he gave it to Mr Dudnikov to check. It would take him about 10 minutes to walk round the vessel and check the containers. Mr Dudnikov said that if Gulftainer's stowage proposal had been altered, he would have known. He

explained that the High Cube 40-foot containers, which were on deck level on hatch No 3, were about 35-40cm higher than ordinary 20-foot containers.

103. Mr Dudnikov also said that there was a hatchman who worked with the stevedores. It was his duty to make sure that the loading was correct in each section. He would mark his copy of the bay plan with a circle as each container went on board.

104. Captain Smirnov said that they would want the heaviest containers below deck as a general rule, and the 20-foot containers were usually heavier. He remembered requiring one change in the proposed stowage, and he thought he would have known if there had been any other changes.

105. The judge accepted the accuracy of the crane log, and the statement made by Mr Madin about the effect of any changes during loading. He said that the effect of the evidence was that 15 40-foot containers were first stowed in the forward part of No 3 hold. The hatch covers were put in place at about 1am, and during the next half hour 17 40-foot containers were stowed on deck. The evidence of the crane log was consistent with that of the bay plan.

106. The judge thought that although Mr Dudnikov was an honest witness, he was inclined to exaggerate the effectiveness of his inspection of the cargo as it was loaded. On the other hand, he could see no reason why Gulftainer and their men should not have been doing their best to follow the latest version of the bay plan at any given time, or why Mr Dudnikov should not have been doing the same. There was evidence before the judge that at least one container (in the top tier on the starboard side on hatch No 2) was stowed in a position other than that shown on the bay plan.

107. It follows from this finding, which was not challenged on the appeal, that Containers Nos 14 and 15 were in fact INKU 277277 2 and SENU 450699 4 respectively, and that the less likely candidates for the source of the explosion, Containers Nos 8 and 9, were CYLU 900141 0 (Vacuum Bottles and Electrical Houseware) and TEXU 510856 9 (Hospital Furniture) respectively. The relevance of this conclusion is that the first, second and fourth of these were DSR containers. Only Container No 8, as its number implied, was a CYL container.

108. Nobody has suggested that there was anything suspicious about the vacuum bottles and electrical houseware in the CYL container. The documents relating to this shipment were disclosed on discovery. Five similar containers were being shipped from Osaka, Japan to Dammam, Saudi Arabia on freight pre-paid bills of lading. Two of the other containers in this shipment were among those on the top tier of containers on hatch No 3 which went into the sea following the explosion, and one of the others was stowed in hold No 3 below the hatch cover.

109. It follows that unless the three DSR containers in this area had equally immaculate pedigrees, the judge would have been entitled to find, on the balance of probabilities, that the undeclared dangerous cargo was in one of them. In the event one of them had what Mr Macdonald QC rightly called a distinctly suspicious shipment history. SENU 450699 4 purported to contain rubber water hoses. Mr Macdonald accurately summarised its history in these terms:

"SENU 450699 4 was originally stuffed in China, but there was no evidence of the manufacturer of the 'hose', point of origin or movements of the container from there to Hong Kong. The goods were sold C & F Dammam by Zaiza International of Hong Kong who were to be paid by a Letter of Credit requiring shipment by 27th April 1992 and expiring on 12th May 1993. The container may or may not have been put in a feeder vessel in China by 27th April 1993; it was not shipped on DSR's ocean vessel 'Arabian Senator' at Hong Kong until 13th June 1993. In any event no claim for payment was made by Zaiza under the Letter of Credit; and they gave no notice to the buyer (Al Shabibi Trading Establishment; agent Bin Shehbi Trading Establishment) to allow him to insure.

The goods were therefore either shipped in time for the Letter of Credit to be operated (but it was not operated); or they were not (in which case Zaiza would never have been paid). Either way the apparent legitimate buyer would never know of the shipment or the eventual loss (which would allow an illicit 'notify party' to impersonate Mr Al Shabibi at the discharge port). Inquiries made of the sellers and their forwarding agents (China Sun) after the event were unavailing because they were either elusive or unco-operative or both. The apparent legitimate buyer, Mr Al Shabibi, was unco-operative and refused to sign even a moderately explicit witness statement."

110. These matters are summarised by the judge on pages 82-87 of his judgment. Although he declined to draw any adverse inference from Mr Al Shabibi's refusal to sign a statement, and although he accepted that all these matters fell far short of evidence that would in itself support the conclusion that there was probably dangerous cargo in this container, the judge considered that the fact that there remained unanswered questions in relation to this container was of significance.

111. The judge was careful to direct himself that he should consider the evidence in the case as a whole, so that if his findings on one part of the case were flatly inconsistent with his findings on another part of the case, he would be bound to reconsider the soundness of one or other of those sets of findings.

112. In my judgment, however, he was fully entitled to conclude on this evidence that on the balance of probabilities the source of the explosion was a dangerous undisclosed cargo in one of the three DSR containers in the centre of the 40-foot containers stowed on No 3 hatch on the lower and middle tiers, and that it was probably in SENU 450699 4.

113. It appears to me that the judge had so many other competing issues to deal with (most of which had fallen away by the time this appeal reached us) that he did not stand back and take the opportunity of stating his conclusions of fact on these matters with his customary clarity. If he had, it is doubtful whether the time of this court need have

been taken up with interesting arguments about competing improbabilities and the effect of the *Popi M*, because the judge would have made unassailable findings of fact which this court, which does not have the advantage of seeing the witnesses, would have been most unlikely to have disturbed.

114. On the second issue I wish to address in this judgment, I agree with Auld LJ , for the reasons he gives, that the stowage of containers of isopentane under deck in the circumstances clearly contravened SOLAS, the IMDG and MOPOG and was not permitted by the technical certificate. The question then arises whether NSC was entitled to resist the judge's finding of a lack of due diligence because Mr Dudnikov and Captain Smirnov had consulted MOPOG and the technical certificate and genuinely misunderstood the effect of both these instruments. With the assistance of Hale LJ, Mr Macdonald found some comfort in a dictum of Parker LJ in ***Richardson v London County Council*** [1957] 1 WLR 751 at p 761.

115. In that case the plaintiff had been detained for over 30 years in institutions of one kind or another as a person of defective mentality under the Mental Defective Acts. He sought the leave of the court pursuant to what was then Section 16 of the Mental Treatment Act 1930 which provided, in effect, immunity from suit to a person who was involved in any way with the admission of mental patients under that Act unless he had acted in bad faith or without reasonable care. Leave was not to be given unless the court was satisfied that there was substantial ground for the contention that the prospective defendant had acted in bad faith or without reasonable care.

116. In interpreting the words "*without reasonable care*" Parker LJ said at p 761 that they spoke for themselves in an ordinary case:

"... but what is the position when a person concerned has in good faith misconstrued the words of the statute? For myself, I take it to be the law that in such a case, provided the statute could, in the mind of that person, who is not a lawyer, reasonably be thought to bear that construction, it cannot be said that he had acted without reasonable care.

Of course, if the words of the statute are so clear and precise that they are incapable, even in the mind of a layman, of bearing the construction in question, then that would be evidence of lack of reasonable care, if not of bad faith."

117. Each case will turn on its own facts, and whether a court today would be so charitable to a professional person involved in depriving someone with mental incapacity of their liberty through a misunderstanding of the extent of his/her statutory powers is not a matter we need to decide now. In my judgment, however, such considerations are a long way away from issues concerned with Russian ships' officers, MOPOG, and the risks involved in stowing isopentane below deck.

118. As Auld LJ has recorded the judge found that although the tank containers were supposed to be sealed, there was always the risk of leakage, any vapour would not be readily dispersed because of lack of ventilation, and there was a risk of ignition, however unlikely it was to occur. Moreover, an explosion could, the judge said, have disastrous consequences. One of the express purposes of MOPOG was to minimise the risk of disastrous consequences when dangerous cargo was carried in container-tanks by sea.

119. It is a well known principle of law that the more serious the potential consequences the greater the degree of care which the law requires. In an employer-employee context, Lord Morton of Henryton said in ***Paris v Stepney Borough Council*** [1951] AC 367 at p 385 that he thought that the more serious the damage that would happen if an accident occurred, the more thorough were the precautions which an employer must take. In the earlier case of ***Glasgow Corporation v Muir*** [1943] AC 448, a case concerned with the safety of shop premises for members of the public, Lord Macmillan said at p 456:

"The degree of care for the safety of others which the law requires human beings to observe in the conduct of their affairs varies according to the circumstances. There is no absolute standard, but it may be said generally that the degree of care required varies directly with the risk involved. Those who engage in operations inherently dangerous must take precautions which are not required of persons engaged in the ordinary routine of daily life."

120. In the present case we are concerned with the application of Article III, Rule 1 of the Hague Rules and not with principles of English, or even Scottish, common law. On the other hand, principles of common law very often coincide with principles of common sense and the present case affords no exception. Given the potential scale of the catastrophe if, as a result of a breach of MOPOG, vapour from isopentane stored below deck in unventilated conditions catches fire, I can see no ground for sparing the ship's officers from a finding of a lack of due diligence merely because they had done their honest but incompetent best to understand what MOPOG and the technical certificate required or permitted them to do.

121. On all the other issues that arise for decision on this appeal I agree with Auld LJ for the reasons he gives. I also agree with the orders he proposes.

LADY JUSTICE HALE: I also agree

Order: Appeals dismissed each appellant bearing their own costs of the appeal but to pay the respondents' costs. All appeals to the House of Lords refused. (Order does not form part of the approved judgment)

Mr. Charles Macdonald QC & Mr. Nigel Jacobs (instructed by Messrs Lawrence Graham, London EC3A 8JN) for the claimant
Mr. Julian Flaux QC & Mr. Robert Bright (instructed by Messrs Jackson Parton, London, E1 8AA) for the 1st and 2nd Defendants
Mr. Ian Milligan QC & Mr. Laurence Akka (instructed by Messrs Holman Fenwick & Willan, London, EC3N 3AL) for the 3rd Defendants