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BRAER INCIDENT

Note by the Director

1 Introduction

As instructed by the Executive Committee, the Director has been studying, with the assistance of the IOPC Fund's lawyers and technical experts, whether the Fund should challenge the shipowner's right to limit his liability. The Director has also examined whether the IOPC Fund should take legal action against the owner or any other person in order to recover the amounts paid by it in compensation (document FUND/EXC.34/9, paragraph 3.3.4). This document sets out the results of the Director's studies of these issues.

2 Official enquiries into the cause of the incident

2.1 The Marine Accident Investigation Branch (MAIB) of the Department of Transport of the United Kingdom carried out an enquiry into the cause of the *Braer* incident. The report of this enquiry (hereinafter referred to as the "MAIB Report") was published on 9 December 1993.

2.2 The MAIB Report contains the following summary (pages 1 and 2):

The motor tanker BRAER loaded with a full cargo of 84,700 tonnes of light crude oil sailed from Mongstad, Norway on 3 January 1993 for Quebec. The planned route would take the vessel through the North Fair Isle Strait towards Canada. Adverse weather was experienced as soon as BRAER cleared Mongstad and for the whole passage there were severe southerly gales. On the morning of 4 January four spare steel pipe sections, which had been secured on the port side of the after deck, broke loose and were rolling between the port side of the engine casing and the ship's port rails.

During the evening of 4 January, after routine adjustments to the auxiliary boiler, difficulty was experienced in re-igniting it. The auxiliary boiler provided steam for the necessary pre-heating of the heavy oil for the main engine and, pending the resumption of normal steam pressure, the main engine was changed from heavy oil to diesel oil.

Shortly after midnight, seawater contamination was discovered in the diesel oil supply line to the boiler and attempts were made to drain it. Some three hours later seawater contamination had also been discovered in the diesel oil service supply to the main engine and the generator. Attempts to drain the water from the diesel oil tanks continued, but at 0440 hrs the main engine stopped, followed by the failure of the generator.

The vessel was ten miles to the south of the Southern tip of Shetland and her Master advised the Coastguard of the loss of power and the vessel's position. BRAER was drifting to the north and her Master then requested towage assistance. Approximately two hours after stopping, BRAER had drifted to within four miles of Sumburgh Head and helicopter evacuation of non-essential crew was commenced. In the engine room, efforts to drain the water contamination and restore power continued. Tugs from Sullom Voe were already on the way and the tug/supply vessel STAR SIRIUS left Lerwick Harbour to go to BRAER's assistance. A further one and a half hours later BRAER was half a mile south-east of Horse Island and thought to be in imminent danger of grounding. The decision was made to abandon the vessel and the final evacuation of the crew was completed safely.

As the vessel then ceased to drift inshore it was decided to attempt to land volunteers on the forecastle head of BRAER to release her anchors. This plan had to be abandoned due to the proximity of the foremast, which precluded safe helicopter operations over the bow. STAR SIRIUS arrived on scene by which time BRAER was a mile south of Horse Island and drifting slowly to the west, influenced by the west going tidal stream. After passing Horse Island she again drifted to the north. Attempts were made to assemble a party, one of the volunteers of which was the Master of BRAER, with the aim of boarding the vessel at the stern and trying to set up a tow with STAR SIRIUS. The volunteers were landed on the stern and although a valiant attempt was made to take a messenger rope from STAR SIRIUS this failed and BRAER grounded on the west side of Garths Ness at 1119 hrs. The volunteers were safely evacuated.

The immediate cause of the accident was the contamination of the diesel oil supply by seawater entering the storage tanks from damaged air pipes. The damage was caused by one or more of the spare steel pipe sections which had broken loose in the severe weather conditions.

2.3 The findings of the MAIB Report are reproduced at Annex I.

2.4 An investigation into the cause of the incident was also carried out by the authorities of the flag state. The decision of the Commissioner of Maritime Affairs, Republic of Liberia, and the Report of Investigation were published on 17 January 1994. The conclusions are reproduced at Annex II,

3 Particulars of the *Braer*

The *Braer* (44 989 GRT) was flying the Liberian flag. The registered owner was Braer Corporation, Monrovia (Liberia). The *Braer* was entered in Assuranceforeningen Skuld (Gjensidig) (Skuld Club). The Skuld Club has informed the IOPC Fund that the managers of the ship were Navinvest Marine Services U.S.A Inc., trading as B & H Shipmanagement Co, Stamford, Connecticut (USA) ("B & H").

4 Opinion by the IOPC Fund's technical experts

4.1 The Director instructed the two experts on navigation and marine engineering to present technical opinions on the cause of the *Braer* incident.^{<1>} These opinions can be summarized as follows.

<1> Captain Samuel Pollock, Extra Master, Marine Consultant; Mr Alan Stanley, Marine Engineer, Murray Fenton & Associates Limited.

Fuel system - Heating and ventilation

4.2 Heating of fuel oil stored in the bunker tanks or the settling tanks requires steam, from the exhaust gas economiser or the oil fired boiler, to pass through heating coils in the tanks. The exhaust gas economiser recovers waste heat from the main engine exhaust gases and produces steam for auxiliary services, including fuel heating. Fuel oil is pumped from the settling tanks to the service tanks through purifiers. Again steam is required from the economiser and/or the oil fired boiler to heat the fuel oil to assist the separation of water, sludge and sediment from the fuel oil. In order to provide the oil at the correct viscosity for burning in the main engine and the fuel oil boiler burners, steam heaters are fitted in the piping systems between the tanks and the machinery in order to raise the temperature to the required level for proper combustion.

4.3 All fuel oil bunker tanks settling and service tanks are fitted with air pipes led to the upper deck spaces outside the engine room. The pipes allow air to enter or escape as the level of fuel in the tank changes. The pipe heads are fitted with float type closing devices to prevent the ingress of water should the pipe heads become submerged in bad weather.

Fuel consumption

4.4 During the ballast voyage from New York to Mongstad (according to figures reported by the ship's staff) the ship used 611 MT (metric tonnes) fuel oil and 89 MT diesel oil. Calculations of expected fuel consumption, taking into account the time of year, prevailing conditions and ship's speed, indicated that for a voyage of this length only 577.6 MT fuel oil and 45.2 MT diesel oil would normally be required.

4.5 The actual fuel consumption figures are very high. In particular the diesel oil must have been consumed by the main engine or the oil fuel fired boiler. This indicates problems with the economiser and with the oil fired boiler, as diesel would only be used when steam was not available for fuel oil heating.

Deficiencies in the steam generating plant

4.6 The ship had known problems with her steam generating plant, which is used for heating the heavy fuel oil. On joining the ship in November 1992, the Chief Engineer had written to B & H and detailed the essential repairs he required to be carried out, but this letter has not been made available. A Vessel Manager who had also been appointed in November 1992, visited the ship in December 1992 and a decision was made by him to defer some of the repairs, including the chemical cleaning of the oil fired boiler, until after the voyage from Mongstad to Quebec.

4.7 During the voyage to Mongstad a crack developed on the pressure side of the oil fired boiler. A temporary welded repair was carried out by the crew in Mongstad.

4.8 A test of the boiler water at 1000 on 3 January, prior to departure, showed levels of chloride of five times the maximum recommended limit. High chloride levels lead to the deposit of scale which, if not controlled, causes inefficient operation and the eventual failure of the oil fired boiler tubes.

4.9 As set out in paragraph 4.5, problems were experienced with the steam plant on the ballast passage. At Mongstad there was a problem of salt water contamination of the feed water system of the boiler and economiser which were known to be dirty, requiring chemical cleaning. Due to continual contamination of the feed water system, reliable operation of the steam plant could not be guaranteed.

4.10 If the steam plant failed completely when the ship was in Mid Atlantic, there would not have been sufficient diesel oil on board the ship to reach a bunkering port.

4.11 On sailing from Mongstad further problems, which could have been anticipated, were experienced with the boiler, which cut out automatically and the high/low level alarms were sounding continuously. The boiler was shut down by the Third Engineer at 2100 on 4 January, at which time the contamination of the diesel in the settling tank was not known, while the ship was proceeding at normal speed. At about 2230 the boiler could not be restarted with diesel oil from the settling tank which was by then contaminated.

During this time the economiser unit of the steam generating plant failed to produce sufficient steam to maintain fuel heating with the result that the heavy fuel oil cooled down and the main engine had to be changed over to diesel oil.

4.12 Diesel oil for the main engine was supplied from the service tank through the purifier from the settling tank. At latest 2230 the diesel oil in the settling tank was already mixed with sea water and it was difficult for the purifier to cope with the increasing level of contamination. Efforts were made by the engineering staff and the Vessel Manager who joined the ship in Mongstad to draw water from the diesel oil service and setting tanks but the source of the sea water in the diesel oil was not investigated.

4.13 The ship was still operating on diesel oil at normal speed until the diesel oil in the service tank became so contaminated that the main engine stopped at 0440 GMT on 5 January 1993, with the ship in a position some 10 miles south of Sumburgh Head. The electrical generator stopped shortly afterwards.

Damage caused on deck by loose pipes

4.14 Pipes stowed on deck broke loose at 0900/1000 on 3 January and caused damage to the after air pipe for the port double bottom diesel oil storage tank and possibly other tank air pipes. The damage to the air pipe for the port double bottom tank caused this storage tank to become contaminated with sea water at some time after 1600 on 4 January 1993. The contaminated diesel was transferred to the diesel oil settling tank shortly after 2000 that day.

Reasons for not heaving to

4.15 It would be considered normal practice for the ship to reduce speed and heave to in order to allow the pipes to be resecured or jettisoned. The Master claimed that he took no action as he was "waiting for the weather to subside", "that the speed was already reduced to a minimum and to turn the vessel would have made the situation worse" and later he stated that he considered it "too dangerous for the crew to go on deck". These reasons are not acceptable from a seamanship point of view.

4.16 In our expert's opinion there is another possible reason why the Master did not heave to. He may have been influenced by the need to operate such a manoeuvre on diesel oil. The deficiencies in the steam generating plant were such that reliable operation of the engine at reduced speed could not be guaranteed using fuel oil.

Cause of the grounding

4.17 The immediate cause of the casualty was the main engine failure and the loss of all main power through sea water contamination of the diesel oil in the settling and service tanks. This contamination occurred because of the failure to heave to to attend to the pipes loose on deck which decision was possibly influenced by the unseaworthy condition of the ship.

4.18 The owner was aware of the conditions which caused the unseaworthiness, viz the deficiencies of the steam generating plant and the lack of sufficient diesel oil on board to complete a safe passage to Quebec in the event of complete steam plant failure.

5 Relevant provisions in the Civil Liability Convention, the Fund Convention and the United Kingdom legislation

The Civil Liability Convention and the Fund Convention

5.1 The shipowner's right of limitation of liability is governed by Articles V.1 and V.2 of the Civil Liability Convention (as amended by the 1976 Protocol thereto) which read:

1. The owner of a ship shall be entitled to limit his liability under this Convention in respect of any one incident to an aggregate amount of 133 units of account for each ton of the ship's tonnage. However, this aggregate amount shall not in any event exceed 14 million units of account.
2. If the incident occurred as a result of the actual fault or privity of the owner, he shall not be entitled to avail himself of the limitation provided in paragraph 1 of this Article.

5.2 It should be noted that if an action is brought directly against the shipowner's insurer, the insurer may avail himself of the limits of liability laid down in Article V.1 irrespective of the actual fault or privity of the owner (Article VII.8 of the Civil Liability Convention).

5.3 Reference should also be made to Articles III.4 and III.5 of the Civil Liability Convention which read:

4. No claim for compensation for pollution damage shall be made against the owner otherwise than in accordance with this Convention. No claim for pollution damage under this Convention or otherwise may be made against the servants or agents of the owner.
5. Nothing in this Convention shall prejudice any right of recourse of the owner against third parties.

5.4 Articles 9.1 and 9.2 of the Fund Convention read:

1. Subject to the provisions of Article 5, the Fund shall, in respect of any amount of compensation for pollution damage paid by the Fund in accordance with Article 4, paragraph 1, of this Convention, acquire by subrogation the rights that the person so compensated may enjoy under the Liability Convention against the owner or his guarantor.
2. Nothing in this Convention shall prejudice any right of recourse or subrogation of the Fund against persons other than those referred to in the preceding paragraph. In any event the right of the Fund to subrogation against such person shall not be less favourable than that of an insurer of the person to whom compensation or indemnification has been paid.

Merchant Shipping (Oil Pollution) Act 1971

5.5 The above-mentioned provisions in the Civil Liability Convention concerning the shipowner's right to limitation of liability have been implemented into United Kingdom law in Section 4.1 of Merchant Shipping (Oil Pollution) Act 1971 which reads:

Where the owner of a ship incurs a liability under section 1 of this Act by reason of a discharge or escape which occurred without his actual fault or privity -

- (a) section 503 of the Merchant Shipping Act 1894 (limitation of liability) shall not apply in relation to that liability; but
- (b) he may limit that liability in accordance with the provisions of this Act, and if he does so his liability (that is to say, the aggregate of his liabilities under section 1 resulting from the discharge or escape) shall not exceed 133 special drawing rights for each ton of the ship's tonnage nor (where that tonnage would result in a greater amount) 14 million special drawing rights.

5.6 The position of the servants and agents of the owner is governed by Section 3 as follows:

Where, as a result of any occurrence taking place while a ship is carrying a cargo of persistent oil in bulk, any persistent oil carried by the ship is discharged or escapes then, whether or not the owner incurs a liability under section 1 of this Act,-

- (a) he shall not be liable otherwise than under that section for any such damage or cost as is mentioned therein; and
- (b) no servant or agent of the owner nor any person performing salvage operations with the agreement of the owner shall be liable for any such damage or cost.

5.7 Reference should also be made to Section 7 which reads:

Where, as a result of any discharge or escape of persistent oil from a ship, the owner of the ship incurs a liability under section 1 of this Act and any other person incurs a liability, otherwise than under that section, for any such damage or cost as is mentioned in subsection (1) of that section, then, if-

- (a) the owner has been found, in proceedings under section 5 of this Act, to be entitled to limit his liability to any amount and has paid into court a sum not less than that amount; and
- (b) the other person is entitled to limit his liability in connection with the ship by virtue of the Merchant Shipping (Liability of Shipowners and Others) Act 1958;

no proceedings shall be taken against the other person in respect of his liability, and if any such proceedings were commenced before the owner paid the sum into court, no further steps shall be taken in the proceedings except in relation to costs.

5.8 The insurer's right to limitation is dealt with in Section 12.3 which reads:

The insurer may limit his liability in respect of claims made against him by virtue of this section in like manner and to the same extent as the owner may limit his liability but the insurer may do so whether or not the discharge or escape occurred without the owner's actual fault or privity.

5.9 As regards recourse actions, Section 16 of the 1971 Act provides:

Nothing in this Act shall prejudice any claim, or the enforcement of any claim, a person incurring any liability under this Act may have against another person in respect of that liability.

Merchant Shipping Act 1974

5.10 Sections 8.1-8.3 of Merchant Shipping Act 1974 read:

- 1. In respect of any sum paid under section 4(1) (b) of this Act (default by owner or guarantor on liability for pollution damage) the Fund shall acquire by subrogation the rights of the recipient against the owner or guarantor.

2. The right of the Fund under subsection (1) above is subject to any obligation of the Fund under section 5 of this Act to indemnify the owner or guarantor for any part of the liability on which he has defaulted.
3. In respect of any sum paid-
 - (a) under paragraph (a) <2> or paragraph (c) <3> of section 4 (1); or
 - (b) under section 5 <4>,

the Fund shall acquire by subrogation any rights of recourse or subrogation which the owner or guarantor or any other person has in respect of his liability for the damage in question.

Merchant Shipping Act 1979

5.11 As regards limitation of liability in certain cases reference is made to Articles 1.1, 1.2, 2, 3 and 4 of the Convention on Limitation of Liability for Maritime Claims which has been incorporated into United Kingdom law by Merchant Shipping Act 1979 (see Schedule 4 to that Act). The relevant parts of these Articles read:

ARTICLE 1

Persons entitled to limit liability

1. Shipowners and salvors, as hereinafter defined, may limit their liability in accordance with the rules of this Convention for claims set out in Article 2.
2. The term "shipowner" shall mean the owner, charterer, manager or operator of a seagoing ship.

ARTICLE 2

Claims subject to limitation

1. Subject to Articles 3 and 4 the following claims, whatever the basis of liability may be, shall be subject to limitation of liability;
 - (a) ---
 - (b) ---
 - (c) ---
 - (d) ---
 - (e) ---
2. Claims set out in paragraph 1 shall be subject to limitation of liability even if brought by way of recourse or for indemnity under a contract or otherwise. -----

<2> Cases where the shipowner is exempt from liability.

<3> Cases where the aggregate amount of the damage exceeds the liability of the shipowner as limited under the Act.

<4> Relates to indemnification of the shipowner.

ARTICLE 3

Claims excepted from limitation

The rules of this Convention shall not apply to:

- (b) claims for oil pollution damage within the meaning of the International Convention on Civil Liability for Oil Pollution Damage dated 29th November 1969 or any amendment of the Protocol thereto which is in force:

ARTICLE 4

Conduct barring limitation

A person liable shall not be entitled to limit his liability if it is proved that the loss resulted from his personal act or omission, committed with the intent to cause such loss, or recklessly and with knowledge that such loss would probably result.

*Schedule 4, Part II*Provisions having effect in connection with ConventionClaims excluded from limitation

- 4.-(1) The claims excluded from the Convention by paragraph (b) of article 3 are claims in respect of any liability incurred under section 1 of the Merchant Shipping (Oil Pollution) Act 1971.^{<5>}

6 Action by the IOPC Fund in the United Kingdom to recover the amounts paid by the Fund in compensation; legal opinions obtained by the Director

6.1 The Director has obtained opinions from two Scottish Queen's Counsel^{<6>} on the question of whether the shipowner is entitled to limit his liability and on the possibilities for the IOPC Fund to take legal action in the United Kingdom (viz in Scotland) to recover the amounts paid by the Fund in Compensation. They have had access to the reports of the IOPC Fund's technical experts and have also been made aware of the position taken by the shipowner and the Skuld Club as regards the right to limitation.

Shipowner's right to limit his liability

6.2 Counsel indicate that a number of critical issues of both fact and opinion remain to be resolved; however, on the information available the case against limitation of liability is at present reasonably stateable with at least some prospect of success. The advice from Counsel can be summarised as follows.

- (a) The onus is upon the party seeking to establish limitation of liability to prove that the pollution event was not caused or contributed to by actual fault or privity on his part. Privity in this connection means prior knowledge and therefore concurrence in the wrongful act of another. For limitation to be breached it is not necessary that the actual fault etc of the shipowner was the sole cause of the event.

<5> There is no corresponding provision in the 1976 Convention

<6> Mr Nigel Emslie QC and Mr Colin Campbell QC.

(b) Shipowners cannot ensure a successful limitation by delegating all managerial functions to another. If a person or corporation is entrusted with the management of the vessel on behalf of the owners their fault or privity will be treated as that of their principals.

(c) It is necessary to consider on an objective basis what action if any a prudent and conscientious shipowner/ manager would have taken in all the circumstances. If some action should have been taken, and was not taken, limitation will not apply if this factor contributed to the accident. In this context it is not sufficient for a shipowner to appoint a competent master. It should be appreciated that certain issues demand detailed consideration at boardroom level and thereafter a clear communication of policy to the vessel and supervision of its implementation. In other words a safe system should be instigated, maintained and enforced. All of this should proceed appreciating that on occasions masters and other employees will be careless.

(d) It is necessary to identify fault on the part of someone who is the directing mind or alter ego of the legal entity which owns or has been delegated control of the vessel all subject to what is said in paragraph (c) above. Fault must be identified on the part of a director of the owners or of the management company.

(e) The expectations of shipowners and insurers that liability could be limited in most circumstances were not fulfilled. The case Richard Irvin & Sons Ltd v Aberdeen Near Water Trawlers Ltd 1983 SLT 26 may be a good illustration. Many examples of what had previously been regarded as purely navigational errors were laid at the door of shipowners. Perhaps as a result the law was changed in a manner which made it more difficult for limitation to be breached, by imposing a stricter test, albeit the limitation fund was increased. However the test in the 1971 Act relating to oil pollution was not altered.

(f) It has been argued that only the water contamination of the diesel storage tank was an effective or legal cause of the incident and that anything which occurred before that can be disregarded as something which played no legally operative part in what happened. However, in many if not all cases, the damage complained of can be traced back to a number of factors which acted either concurrently or consecutively to cause the harm. Whether any particular factor is to be regarded as an effective or proximate cause giving rise to legal liability as a contributory factor is not a question which can be resolved by resort to any simple formula. The most that can be taken from court cases is that a common sense standpoint is to be adopted as the man in the street would understand it. A broad view is taken, not a microscopic analysis. If no reasonably prudent shipowner would have allowed a situation to develop whereby the vessel foreseeably became dependent upon the diesel fuel system for manoeuvrability - a matter upon which the Fund must be advised by the technical experts - there is little logic in ignoring the management company's defaults in this regard simply because the precise mechanism by which the diesel system became contaminated and failed was unforeseen.

(g) On the available information there may be difficulty in arguing that the master's failure to secure the pipes on the deck would amount to fault or privity.

(h) In the reports of the IOPC Fund's technical experts the view is expressed that the most senior personnel in the management company must have been aware of serious defects in the steam generating plant aboard the Braer. Superficially it may be tempting to regard this as irrelevant to the direct cause of the accident, namely the detachment of pipes on deck and the consequent damage to air intake valves leading to water contamination of diesel storage tanks. However it was the drop in steam pressure and the resultant lowering of the temperature of the fuel oil which caused the decision to switch the main engine to diesel. In turn this decision can be traced to the owner's willingness to risk a situation in which there was complete reliance on the diesel fuel supply thus reducing the margin of safety.

Action for recovery

6.3 The opinion contains the following general conclusion:

"In essence, our advice is that the Fund faces considerable difficulties in recovering its outlays. To a large extent this is attributable to the scheme and intention of the Conventions and UK legislation. It is envisaged that claims against those directly involved in merchant shipping will be directed to shipowners and their insurers, even in circumstances where a third party is negligent. There is an express prohibition against the pursuit of certain other Defenders. The Act provides for shipowners and their insurers to be able to limit their liability, and thereafter the scheme appears to be that unsatisfied claims up to an overall maximum will be met by the Fund rather than by ultimate recourse to insurers of those involved in the merchant shipping industry.

In all the circumstances we regret that we are unable to identify any particular ground of action where the Fund's prospects of securing a worthwhile return could be described as good."

6.4 As regards action against the shipowner, a consequence of breaking limitation would, according to the opinion, be that the IOPC Fund would lose any subrogated rights of recourse under Section 8(3) of the Merchant Shipping Act 1974. It is stated that this is so because Section 8(3) only comes into play if Section 4.(1)(c) applies, ie when the shipowner is entitled to limit his liability. It is pointed out that, on present information, it seems unlikely that the shipowner would be financially able to meet any significant claims. Attention is drawn to the fact that under Section 3(a), the shipowner shall not be liable otherwise than under the Act. In other words, a common law claim against the shipowner based on negligence is barred.

6.5 With regard to an action by the IOPC Fund against the management company, the authors of the opinion express the view that Section 3(b) of the 1971 Act bar such an action, since in their view it is difficult to imagine that the management company would not be held to be the shipowner's agents in this case. They also take the view that - if it were nevertheless possible to take recourse action against the management company - it is likely that the management company would be able to limit its liability under Schedule 4 of the Merchant Shipping Act 1979, albeit the limitation amount would be higher than under the 1971 Act. This follows from Section 4.1 of Part II of Schedule 4 to Merchant Shipping Act 1979. They draw attention to Section 7 of the 1971 Act, which would bar action against the management company if the shipowner were entitled to limit his liability.

6.6 Concerning an action against the Skuld Club in a situation where the shipowner is deprived of his right of limitation of liability, the authors of the opinion state that there is no realistic prospect of persuading the House of Lords to reverse the position taken in the *Fanti and Padre Island* case^{<7>}. In their view, this decision is in conformity with ordinary principles of contract law, and a similar approach was taken in a Scottish case which went to the House of Lords sixty years ago (*McGillivray v. Hope*, 1935 AC1). A possible argument in law would according to the authors of the opinion be along the lines that a "pay to be paid" clause should be held invalid where the insurance is mandatory and conceived in favour of third party victims; some support for this view is to be found in a statement by two of the Law Lords in the *Fanti* case. However, such an argument would in the Counsel's opinion not be of benefit to the IOPC Fund in relation to any insured other than the shipowner, or indeed in the context of payments above the level of compulsory insurance under the 1971 Act.

<7> *Firma - Trade S.A. v. Newcastle Protection and Indemnity Association (The "Fanti") and Socony Mobil Oil Co Inc and Others v. West of England Ship Owners Mutual Insurance Association (London) Ltd (The "Padre Island")*. The effect of these decisions is as follows: Where there is a contract of insurance or indemnity between A (the insurer) and B (the insured), which provides that A is not liable to indemnify B unless B has paid the claimant (C), then if B has not paid C, C cannot sue A because C cannot get a better right than B.

7 Action against the Skuld Club in Norway; opinion by Norwegian expert

The Director has obtained an opinion from a Norwegian expert^{<8>} in the field as to the IOPC Fund's possibilities to take legal action against the Skuld Club in Norway to recover the amounts paid by the Fund in compensation. The expert addressed the three questions set out below.

(a) Jurisdiction of Norwegian Courts

7.1 If the IOPC Fund were to take legal action against the Skuld Club in Norway, the first question to consider is whether the Norwegian Courts would take jurisdiction. The expert's opinion on this point can be summarized as follows.

7.1.1 In principle, under Norwegian law actions against a legal person may be taken in the Court where the defendant's head office is located, ie in the case of the Skuld Club in Oslo. However, this does not apply if there are special mandatory rules specifying a different competent court. As regards actions in tort, action can normally be taken in the court of the place where the damage occurred.

7.1.2 The provisions on jurisdiction referred to above have been elaborated to govern the distribution of jurisdiction as between Norwegian courts. The relationship between the jurisdiction of Norwegian courts and that of foreign courts is not explicitly dealt with. It has been generally assumed, however, that the rules governing internal Norwegian jurisdiction are to a large extent applicable by analogy also to the question of whether Norwegian courts have jurisdiction to deal with a certain matter. If a Norwegian statute, directly or by reference to a Convention to which Norway is a party, states that actions of a certain type must be taken before foreign courts, this would be a mandatory provision which precludes the application of the normal Norwegian rules on jurisdiction.

7.1.3 Under Article IX.1 of the Civil Liability Convention, actions for compensation may only be brought in the courts of the State or States in which pollution damage has occurred. This provision lays down a mandatory rule on jurisdiction as between States.

7.1.4 The words "actions for compensation" in Article IX.1 appear to cover only actions which the injured parties bring against the shipowner or the person who has provided financial security for the owner's liability, or against the IOPC Fund. This applies whether the claims in respect of which the action is brought can be covered within the limitation amount or exceed that amount.

7.1.5 When the IOPC Fund pays compensation for pollution damage, it acquires the right of the injured party against the shipowner or guarantor for compensation for the same damage (Article 9.1 of the Fund Convention). A recourse claim made by the IOPC Fund is not from a legal point of view an "action for compensation", and Article IX.1 of the Civil Liability Convention is therefore not directly applicable in respect of such an action. However, the IOPC Fund acquires by subrogation the claim of the person compensated. These rights acquired by subrogation are subject to the limitations of a substantive or procedural nature which apply to the claims themselves. The restrictions in respect of jurisdiction laid down in Article IX.1 will therefore apply also to recourse actions against the shipowner and his insurer.

7.1.6 The Norwegian Maritime Code contains in Section 203.1 (previously Section 279.1) a provision corresponding to Article IX.1 of the Civil Liability Convention which reads:

<8> Professor Sjur Braekhus, former Professor of law, University of Oslo, and former Director of the University's Institute of Maritime Law; former Chairman of the Royal Committee for Revision of the Maritime Code

"Actions against the ship's owner or insurer concerning liability for loss, damage or expenses as mentioned in Section 191 fall within the jurisdiction of a Norwegian court, if the loss or damage occurred in this country, or measures have been initiated to prevent or limit the loss or damage in this country."

- 7.1.7 Section 191 applies only to liability for loss, damage or expenses which have occurred in Norway or in another State which is party to the Civil Liability Convention.
- 7.1.8 The jurisdiction of the Norwegian courts in respect of recourse actions taken by the IOPC Fund is governed by Section 204.1, which reads:

Claims for compensation or refund under the Fund Convention may be brought in a Norwegian court only in such cases as mentioned in Section 203.1.----

- 7.2 The expert states that the conclusion must clearly be that Norwegian courts do not have jurisdiction to hear a recourse action brought by the IOPC Fund against the Skuld Club to recover the amounts which the Fund has paid in compensation for pollution damage in connection with the *Braer* incident; such an action would be dismissed.

(b) Direct action against the Skuld Club in Norway.

- 7.3 The expert has also dealt with the question whether, in the event that the Norwegian courts were to have jurisdiction, a direct action by the IOPC Fund against the Skuld Club based on Norwegian law (e.g. the Norwegian insurance legislation) would succeed. His views on this matter can be summarized as follows.

- 7.3.1 The development in Norwegian insurance law has gone further than in United Kingdom law in respect of the victim's right against the insurer. Under Section 95.3 of the Norwegian Insurance Act of 1930, the injured party was entitled to claim directly from the insurer if the insured had instituted composition proceedings or had gone bankrupt, and the insurer would then be obliged to pay the claim in full. The injured party's right was subject to any limitations laid down in the insurance contract, but provisions in the contract which directly or indirectly blocked the right to direct action would be set aside..

- 7.3.2 In a case brought by the Skuld Club, the Norwegian Supreme Court held in 1954 ("Skogholm, Rt 1954.1002, ND 1954.445) that P & I insurance was subject to the provision in Section 95.3 of the 1930 Act concerning direct action, which was mandatory. For this reason, the Supreme Court decided that the "pay to be paid" clause in the Skuld Club's Rules could not exempt the Club from liability against third parties.

- 7.3.3 The right to direct action was extended in the Norwegian Insurance Act of 1989. In principle, the right of direct action for various groups of injured parties may not be excluded or restricted by the insurance contract. Section 7.6 of the 1989 Act reads:

"If the insurance covers the insured's third party liability, the injured party may claim damages directly from the insurer. ----"

It should be noted that this provision only applies if the action is brought in Norway.

- 7.3.4 As regards liability insurance relating to major business activities the position of the injured party is somewhat weaker. In such a case, which includes P & I insurance, the injured party may take direct action against the insurer only if the insured is insolvent (Section 7.8). This provision is mandatory.

7.4 In conclusion, the expert states that, in the event that Norwegian courts were to accept jurisdiction over a recourse action taken by the IOPC Fund against the Skuld Club, the Fund would have a right of direct action against the Club within the parameters of the insurance contract, provided that the Fund could show that the shipowner was insolvent.

(c) The Skuld Club's right of limitation of liability

7.5 The third question examined by the expert is the following: "If the Norwegian courts were to accept jurisdiction and if a direct action by the Fund against the Skuld Club were to succeed, would the Club be entitled to invoke limitation of liability to the amount laid down in the Civil Liability Convention?" The expert has made the following observations on this point.

7.5.1 As regards liability for oil pollution damage, the Skuld Club acts in two capacities, as guarantor in accordance with Article VII of the Civil Liability Convention and as normal P & I insurer of the shipowner. In the former capacity, the Skuld Club is entitled to limit its liability even if the shipowner is not entitled to do so (Article VII.8).

7.5.2 The Civil Liability Convention does not prevent the shipowner from contracting insurance cover over and above that required by the Convention. The shipowner may have several reasons to take out additional insurance cover. For example, he may wish to cover the situation where he loses the right of limitation, because the courts consider that the incident resulted from the actual fault or privity of the shipowner. The scope of such additional cover is laid down in the insurance contract. In certain cases the acts or omissions of the shipowner may result in him losing the additional insurance cover, but this would normally require a higher degree of fault on the part of the owner than that which will result in his losing the right of limitation of liability. In the Skuld Club's Rules (Rule 22.2.1), it is stated that the insurance does not cover "liability for loss caused intentionally, or by a reckless act or omission by the member."

7.5.3 The relevant provisions of the Skuld Club's Rules read:

10.1 The insurance shall cover the member's liability, loss and cost arising out of oil pollution or other pollution or threat of pollution---

21.2.1 When a member has a right to limit any liability for which he is insured, there shall be no recovery in respect of such liability for more than that limited amount.

21.4.1 Unless Rule 21.2.1 is applicable, the Association's cover for owners' liability for oil pollution or threat of pollution shall always be limited to USD 500 million for any one occurrence.

7.6 In conclusion, the expert takes the view that in the situation set out in this third question, the IOPC Fund would be able to make the Skuld Club liable for pollution damage over and above the limitation amount laid down in the Civil Liability Convention if

- (a) the shipowner is deprived of his right of limitation under Article V.2 of the Civil Liability Convention,
- (b) the shipowner does not lose his insurance cover pursuant to Skuld Rule 22.2.1, and
- (c) the total liability does not exceed USD 500 million.

- 7.7 In view of the importance of this issue, advice has also been taken from a firm of Norwegian lawyers^{<9>}. These lawyers expressed the same opinion as Professor Brækhus, and in particular that the Norwegian courts would not have jurisdiction in an action by the IOPC Fund against the Skuld Club.

8 Actions in the United States

Detailed advice has been taken from an American law firm on whether the IOPC Fund could take legal action in the USA to recover the amounts paid by it in compensation. A number of potential defendants have been identified. The advice is to the effect that any action in the United States would give rise to very complex legal proceedings, possibly in several States, and that the outcome of any such litigation is uncertain. It has been mentioned that were the IOPC Fund to decide to take proceedings in the United States, its position might be stronger if the owner did not establish his right to limit. The information available suggests that none of the potential corporate defendants have significant assets, although the possibility of their having liability insurance cover cannot be ruled out.

9 The Director's assessment

9.1 The Executive Committee has taken the view that the policy of the IOPC Fund should be to take recourse action whenever appropriate and that the Fund should in each case consider whether it would be possible to recover any amounts paid by it to victims from the shipowner or from other parties on the basis of the applicable national law. The Committee has stated that if matters of principle were involved, the question of costs should not be the decisive factor for the Fund when considering whether to take legal action. The IOPC Fund's decision of whether or not to take such action should, in the Committee's view, be made on a case by case basis, in the light of the prospect of success within the legal system in question (document FUND/EXC.42/11, paragraph 3.1.4).

9.2 On 10 October 1995, the owner of the *Braer* presented a summons to the Court of Session (Edinburgh) requesting an order that it should be entitled to limit his liability. The shipowner has agreed not to pursue this action until after the Executive Committee's 46th session.

9.3 On the basis of the technical assessment made by the IOPC Fund's experts and the legal advice obtained, the Director takes the view that the IOPC Fund has a reasonable case to challenge the right of the shipowner, Braer Corporation, to limit its liability under Merchant Shipping Act 1971. In the Director's opinion, the decision taken by the master not to deal with the loose pipes might not by itself be a ground for a successful challenge of that right, since it could be argued that this decision was taken for reason of crew safety. However, in the Director's view, the incident was contributed to by the deficiencies in the steam generating plant. He considers that the problems with the steam generating plant were known, or should have been known, to the management of the shipowner. The ship was nevertheless allowed to sail in spite of these deficiencies. The legal advice obtained by the Director indicates that there is sufficient proximity between the deficiencies in the steam generating plant and the engines failure which lead to the incident.

9.4 Braer Corporation was dissolved in March 1994. The investigations made by the IOPC Fund's American lawyers do not indicate that there are any assets against which a judgement against the owner could be enforced. For this reason, the Director considers that it would not be a worthwhile exercise to challenge the shipowner's right of limitation in order to recover the amounts paid by the IOPC Fund in compensation from him.

9.5 The Director has also investigated whether the IOPC Fund should take legal action against the company managing the *Braer* (Navinvest Marine Services U.S.A. Inc., trading as B & H Shipmanagement Co). It should be noted that such an action would fall outside the scope of the Civil Liability Convention

<9> Advokatfirmaet Hauge & Co, Oslo.

and would therefore be based on the general law of torts. For this reason, in order for the IOPC Fund to succeed in this action, it would in the Director's view be sufficient to show that the incident was caused by the negligence of that company. In the Director's opinion, the reports on the cause of the incident indicate that there was such negligence. The legal advice obtained by the Director shows that a number of difficult legal issues would arise if the IOPC Fund were to take legal action against the management company in the United Kingdom. Effectively, it appears that the United Kingdom legislation would bar any such action, since the management company would be considered as belonging to the category of "servants or agents of the shipowner" and actions can not be brought against those belonging to this category.

9.6 Another option would be for the IOPC Fund to take legal action in the United States where the provisions in the Merchant Shipping Act 1971 barring actions against the servants or agents of the owner and the provisions of the 1976 Convention on Limitation of Liability for Maritime Claims would not apply to the B & H Group of companies. The investigation made by the IOPC Fund's American lawyers show that, in any event, it is very unlikely that these companies have assets of any significance against which a judgement could be enforced. However, it is possible that the management company has general liability insurance. If legal proceedings were taken against the management company in the United States, the company would have to disclose the existence of any insurance and the terms thereof. It might be possible to take action against individual Directors of the various companies involved in the management of the *Braer*. However, the corporate structure of the B & H Group of companies is very complex. Any such actions in the United States, against companies or individuals, would give rise to complex legal issues and would be very costly, and the outcome is uncertain. In addition, the IOPC Fund would have to submit to the jurisdiction of the courts of a non-member State, ie United States. For these reasons, the Director is not in favour of taking action in the United States against any company within the B & H Group, nor against any individual Directors referred to above.

9.7 Another issue is whether the IOPC Fund should take action against the shipowner's P & I Club insurer (the Skuld Club) to recover the amounts paid by the Fund in compensation. As stated above, the Merchant Shipping Act 1971 contains a provision to the effect that the insurer is entitled to limit his liability even if the shipowner is not. Another option would be to bring action against the Skuld Club in the United Kingdom outside the Merchant Shipping Act 1971 (ie on the basis of the law of torts). The Skuld Club Rules contain the so-called "pay to be paid" clause, ie that the Club is only under an obligation to indemnify the shipowner for compensation actually paid for him to the injured party^{<10>}. The House of Lords has in 1990 upheld such a clause (cf paragraph 6.6 above). In the Director's view, there is no realistic prospect that the House of Lords would reverse its position on this point if the IOPC Fund were to take action against the Skuld Club. For this reason, the Director does not think that it would be meaningful to take legal action against the Skuld Club in the United Kingdom.

9.8 In this situation, the only remaining option appears to be to take legal action against the Skuld Club in the State where the Club has its main office, namely in Norway. In his opinion, Professor Braekhus states that the conclusion must clearly be that the Norwegian courts do not have jurisdiction to hear a recourse action brought by the IOPC Fund against the Skuld Club to recover the amounts which the Fund has paid in compensation for pollution damage in connection with the *Braer* incident. In view of this very firm conclusion, the Director takes the view that the IOPC Fund should not take legal action against the Skuld Club in Norway.

<10> Rule 27.2 of the Skuld Club Rules reads:

The Member's Right of Indemnity. Payment first

The Association shall not be obliged to pay any claim unless the liability, cost or expense has first been effectively discharged or paid by the member pursuant to:

- a) a final judgement or court order of a competent court of law;
- b) an award of an Arbitration Tribunal appointed either with the consent of the Association or in accordance with an arbitration agreement entered into prior to the dispute, or
- c) a settlement approved by the Association.

10 Indemnification of the shipowner

10.1 Under Article 5.1 of the Fund Convention, the IOPC Fund shall indemnify the shipowner or his insurer for a portion of his liability under the Civil Liability Convention. In the *Braer* case that portion would be 25% of the limitation amount, viz 1 447 500 Special Drawing Rights (£1 359 250).

10.2 The IOPC Fund is not obliged to pay indemnification to the shipowner or his insurer if the pollution damage resulted from the wilful misconduct of the owner himself (Article 5.1). The IOPC Fund may be exonerated, wholly or partially, from its obligation to pay indemnification if the Fund proves that, as a result of the actual fault or privity of the owner, the ship did not comply with the requirements of certain international instruments and that the incident or damage was wholly or partially caused by such non-compliance (Article 5.3). The instruments in question are (cf document FUND/A.17/28, paragraph 6):

- (i) the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78);
- (ii) the International Convention for the Safety of Life at Sea, 1974, as modified by the Protocol of 1978 relating thereto (SOLAS 74/78);
- (iii) the International Convention on Load Lines, 1966; and
- (iv) the Convention on the International Regulations for Preventing Collisions at Sea, 1972.

10.3 The provisions of Article 5.3 have been implemented in United Kingdom law in Sections 5.4 and 5.5 of the Merchant Shipping Act 1974.

10.4 The Director considers that the IOPC Fund cannot prove that the pollution damage resulted from the wilful misconduct of the shipowner himself. In his view, the Fund would not therefore be able to invoke Article 5.1 as a ground for refusing to pay indemnification.

10.5 The Director has examined, with the assistance of technical experts, whether at the time of the incident the *Braer* did not comply with the requirements of the above-mentioned instruments. He has been advised that there is no evidence to suggest that the ship did not comply with the requirements of MARPOL 73/78, the 1966 Convention on Load Lines or the 1972 Collision Regulations.

10.6 There is no evidence to suggest that the *Braer* did not comply with the requirements of SOLAS 74 in respect of its construction or equipment. There is, however, one regulation of SOLAS 74 which may be relevant to the cause of the incident, viz Chapter I, Regulation 11 relating to maintenance conditions after survey. This provision reads:

Maintenance of conditions after survey

- (a) The condition of the ship and its equipment shall be maintained to conform with the provisions of the present regulations to ensure that the ship in all respects will remain fit to proceed to sea without danger to the ship or persons on board.
- (b) After any survey of the ship under regulations 6, 7, 8, 9 or 10 of this chapter has been completed, no change shall be made in the structural arrangement, machinery, equipment and other items covered by the survey, without the sanction of the Administration.
- (c) Whenever an accident occurs to a ship or a defect is discovered, either of which affects the safety of the ship or the efficiency or completeness of its life-saving appliances or other equipment, the master or owner of the ship shall report at the earliest opportunity to the Administration, the nominated surveyor or recognized organization responsible for issuing the relevant certificate, who shall cause investigations to be initiated to determine whether a survey, as required by regulations 6, 7, 8, 9 or 10 of this chapter, is necessary.

If the ship is in a port of another Party, the master or owner shall also report immediately to the appropriate authorities of the port State and the nominated surveyor or recognized organization shall ascertain that such a report has been made.

10.7 In the Director's view, the deficiencies in the steam generating plant may provide grounds for maintaining that the ship was not fit to proceed to sea without danger to the ship and that the ship therefore did not comply with Chapter I, Regulation 11 of SOLAS 74/78.

10.8 The Executive Committee is invited to consider whether the IOPC Fund should be considered exonerated from its obligation to pay indemnification to the shipowner and his insurer.

11 Action to be taken by the Executive Committee

The Executive Committee is invited to

- (a) take note of the information contained in the present document;
- (b) consider whether the IOPC Fund should challenge the shipowner's right of limitation;
- (c) consider whether the IOPC Fund should take legal action against
 - (i) the shipowner;
 - (ii) the shipowner's P & I insurer (the Skuld Club); or
 - (iii) the company managing the *Braer* (Navinvest Marine Services U.S.A. Inc., trading as B & H Shipmanagement Co) or any other company or individual involved in the management of the *Braer*,for the purpose of recovering the amounts paid by the Fund in compensation; and
- (d) consider whether and, if so, to what extent the IOPC Fund is exonerated from its obligation to pay indemnification to the shipowner and his insurer.

* * *

ANNEX I

**Report of the Chief Inspector of Marine Accidents
into the engine failure and subsequent grounding of the
Motor Tanker *Braer* at Garth Ness, Shetland,
on 5 January 1993**

**Marine Accident Investigation Branch
Department of Transport**

PART IV CONCLUSION**18. FINDINGS**

The Inquiry carried out by the Inspectors has covered great detail. It is unfortunate that they were never able to get on board BRAER but they received complete co-operation from the owners of sister ships to BRAER and from many others. In particular the Inspectors received the full co-operation of the flag state of the vessel; the Liberian Authorities carried out an investigation of their own in parallel with the Inspector's Inquiry.

The Inquiry only covered the period up to the time the vessel went aground: it did not cover the pollution and its aftermath which was the subject of separate inquiries by other Government bodies.

To reach their findings the Inspectors had to rely to some extent on supposition, but this was consistent with good, unbiased investigatory work. I consider that the findings given in this section of the Report are a true reflection of the actual events which occurred and I support their conclusions.

The main findings of this Inquiry are as follows:

18.1 The stopping of the main engine at approximately 0440 hrs on 5 January, followed shortly afterwards by the loss of all main electrical power, was due to serious sea water contamination of the common diesel oil supply to both main engine and generator.

18.2 The initial contamination occurred after the entry of sea water to the port double bottom diesel oil storage tank. The sea water entered the tank from the upper deck through the damaged after air pipe to the tank. During the subsequent topping up of the diesel oil settling tank on the 2000 hrs to 2400 hrs watch on the evening of 4 January, an indeterminate amount of water would have been transferred from the double bottom tank to the settling tank.

18.3 The damage to the after air pipe of the port double bottom diesel oil tank was caused by one or more of the spare steel pipe sections which had broken adrift on deck sometime during the morning of 4 January, when the vessel was rolling heavily in a severe southerly gale and frequently shipping water on deck.

18.4 A second source of direct sea water contamination to both settling and service diesel oil tanks, was probably from the starboard side of the upper deck, by way of the common air pipe to those tanks. It is not possible to say when water first gained entry by this means. It may be that the initial failure of the air pipe was sometime during the late evening of 4 January, followed by a second and more serious failure around 0400 hrs on 5 January.

18.5 The failure of the air pipe to the diesel oil settling and service tanks was probably due to damage at deck level, adjacent to the deck penetration piece. This would have been caused by the loose pipe sections, one of which is known to have been on the starboard side of the deck. Alternatively, the float valve in the head of the air pipe was damaged either by the loose pipe sections or at some time prior to the final voyage.

18.6 When it was reported to the Master on the morning of 4 January that the pipe sections had broken loose he failed to take any action to try to have them re-secured or jettisoned or simply to observe them to see the damage they may have been causing. This was a serious dereliction of the Master's duty to preserve the seaworthiness of his vessel and the safety of her crew. The danger that these loose pipes posed to the integrity of the fuel tank air pipes was not appreciated by him or by anybody else on board, either at this time or later.

18.7 The Superintendent, the Chief Engineer, the senior Assistant Engineers and also the Master failed to realise the cause of the sea water contamination. In particular, an earlier intervention by the Superintendent and an analytical approach by him might have resulted in discovery of the source of the water entry.

18.8 The repairs to the control system of the auxiliary boiler, the resultant lowering of steam pressure and the changing of the main engine operation from heavy fuel oil to diesel oil all fell within normal watchkeeping duties. The failure of the boiler to re-ignite was due to the presence of sea water contamination in the boiler supply line from the diesel oil settling tank.

18.9 Towage assistance was requested by the Master at 0526 hrs, approximately 45 minutes after the loss of power. It was not possible for towage assistance to be given to BRAER before the decision to abandon her was made three hours later. That decision was a correct one, as the vessel was by that time in imminent danger of grounding.

18.10 Access to the anchors by the crew of BRAER, prior to the abandonment, posed a risk due to the extreme weather conditions. However, a safety rail was fitted on the lee side of the deck and access could have been successfully accomplished, if it had been attempted by competent seamen.

18.11 It was not possible to land personnel on the forecastle head of BRAER to release her anchors; the close proximity of her foremast posed a risk to safe helicopter operations.

Further findings are as follows:

18.12 BRAER had valid Convention Certificates when she sailed from Mongstad on 3 January 1993. At that time she was structurally sound with no known significant deficiencies.

18.13 The Master and Officers held valid Licences of Competence issued by the Republic of Liberia, the flag state authority.

18.14 The route as planned was a normal route, commonly followed.

18.15 The securing arrangements of the spare steel pipe sections carried on deck, although they failed, had proved to be adequate during previous Atlantic crossings in adverse weather.

18.16 The condition of the machinery, according to the available evidence, suggests that although a back log of repair and maintenance work had built up, this was being rectified by the use of 'riding crews' and organised off hire repair periods. There was no evidence of neglect or lack of maintenance.

18.17 During the passage from Mongstad, the Master was at fault in allowing the navigation officers and ratings to spend their entire periods of bridge duty inside the wheelhouse. This was an unseamanlike practice, particularly in heavy weather conditions when it was essential to be aware of what was happening on deck areas not within sight of the wheelhouse. Checks of most of the outside deck areas aft could have been made from the bridge and captain's deck or from within the accommodation, with no risk to crew safety. Had this been done, the breaking loose of the spare pipes might have been noticed earlier.

18.18 The Master's decision to make for a sheltered anchorage in the Moray Firth was the right one, on the advice given to him. He did not call for a tug as soon as the power failure occurred because BRAER was at that time in open water and he believed that power could be restored under the direction of the Superintendent, a highly qualified and experienced marine engineer.

18.19 The Master's decision to request towage assistance at 0526 hrs was the correct one. However, he should have supplemented his request to Coastguard with a request for towage to 'all stations', using the appropriate Urgency prefixes.

18.20 The Master made no effort to ascertain the direction and rate of drift of his vessel, even after being asked to do so by Coastguard. Means to do this were available to him.

18.21 The decision to evacuate non-essential crew was timely and correct.

18.22 The Superintendent, the Engineers and the ratings who remained in the engine room of BRAER to continue efforts to restore power until the last possible moment did so with little regard for their own safety.

18.23 Shetland Coastguard failed to relay the Master's request for towage assistance as soon as possible and by all available means; the telephone calls they made after his initial request lacked urgency. However, even if the available tugs had been despatched with the minimum of delay, none of them could have reached BRAER before the final abandonment commenced.

18.24 BRAER did not ground as soon as had been expected because an outflow of water from West Voe, set up by the severe onshore gales, halted the vessel's drift and set her to the south and into the wind. She was then set to the west and passed Horse Island by the west going tidal stream. Once past Horse Island BRAER was again predominantly influenced by the southerly gale and drifted in a north by west direction until she finally grounded on the west side of Garths Ness.

18.25 Shetland Coastguard were not given a clear and urgent mandate to plan and organise efforts to avoid the grounding of BRAER, after her abandonment. In particular, with the tug STAR SIRIUS on the way, there should have been early contingency planning to prepare for her arrival. This was needed in parallel with the planning which was made to attempt to land volunteers at the forward end of the vessel to release the anchors. However, there is no evidence that the lack of this forward planning contributed to the grounding.

18.26 The co-ordination of the evacuation of the crew from BRAER was competently organised. The crews of Rescue Helicopters 117 and 137 carried out their duties in a most exemplary manner in very adverse and dangerous conditions. The evacuation of all the crew of BRAER without injury was carried out competently and with great skill, as was the landing and evacuation of the volunteers.

18.27 The Master and crew of STAR SIRIUS displayed excellent seamanship and did all that they possibly could to establish a tow.

18.28 The tugs SWAABIE and TIRRICK and the Lerwick Lifeboat put out to sea without hesitation when asked to do so. This was in the best traditions of the sea.

18.29 Those who volunteered to return to BRAER, especially the four who were landed on the stern, displayed bravery and determination in a very dangerous situation.

* * *

ANNEX II

**Report of investigation into the matter of the loss by grounding
of the Motor Tanker *Braer* ON 7703
On the South Coast of Shetland Island 5 January 1993**

**Bureau of Maritime Affairs
Republic of Liberia**

Conclusions

1 The proximate cause of the grounding of BRAER stems from a loss of both electrical and propulsion power at about 0440 hours on 5 January 1993 due to salt water contaminated diesel oil.

2 The cause of the loss of propulsion and electrical power can be attributed to the breaking adrift of the pipelines stowed on the port side of the poopdeck which damaged the air pipes (vents) serving at least the portside double bottom diesel oil tanks.

3 The practice of good seamanship and housekeeping would have checked security of pipelines stowed on deck and have plugged their ends to keep out seawater. Regular soundings of tanks in engine room may have detected water ingress.

4 The casualty was not caused by lack of professional skills, ability to communicate, or technical knowledge of BRAER personnel, but basically by the failure to notify others in the Chain of Command and the **inability** to prioritise the information available, or to examine the consequence of events as noted below:

a)	Pipes rolling on deck	No warnings taken and allowed to continue.
b)	Ventilator bent	No discussion of consequences of further damage to ventilators.
c)	Unable to fire boiler and changing main engine to diesel oil	Although advised of this problem, Chief Engineer did not realize the necessity to notify the Bridge or Master when advised by 3rd Asst.Engineer.
d)	Continued inability to fire boiler	Engineers and Superintendent Khan were blinded by the need to remove the water from service and settling tanks and failed to take action to discover the source of contamination or extent of the problem. The bridge/Master was not advised until about 4 $\frac{1}{2}$ hours into the power loss.
e)	Power failure consequences	Even after the power failure, it appears that neither the Master nor Superintendent were aware of the seriousness of the situation. No attempt was made to estimate drift and the problem was still seen as contaminated diesel oil and not that of a disabled vessel drifting onto a lee shore.
f)	Communication with operator (B+H; USA)	Discussion concentrated on providing equipment; diesel oil and compressor rather than the vessel's plight overall.

5 It is also concluded that a concerted professional evaluation of the problem may have prevented the eventual stranding of the vessel. The following actions could have been taken after recognizing that

the pipes on deck had broken loose and caused damage to one more vents on the port side of the poop:

- i) Re-secure pipes.
- ii) Examine plans to verify spaces served by the vent pipes in question.
- iii) Regular monitoring of oil tanks for water ingress once aware of problem of seawater ingress.
- iv) Insert spade flange in vent pipe below deck level to prevent ingress of further sea water to port diesel double bottom tank, and then:
- v) Break vent piping in engine room below spade blank to permit tank to breathe.
- vi) Shut off port side double bottom diesel oil tank and replenish settling tank from starboard double bottom diesel oil tank until able to check for sea water contamination of port side diesel oil double bottom tank.
- vii) Take regular soundings of diesel oil tanks and fuel oil tanks. Soundings at commencement and completion of transfer may have indicated water ingress and alerted engineers to the contamination problem earlier.
- viii) Take similar action to close off venting system temporarily until weather abates on any other tanks found to be taking on sea water.

6 The stranding of BRAER may have been avoided prior to the loss of power if the engine room Officers, and especially Mr. Khan, had advised the Bridge and the Master of the problem in the engine room, and the seriousness of the vessel's position had been analysed.

7 The delay in summoning towage assistance by HM Coastguard following the Master's request at 0530 hours had no direct effect on the casualty on the basis that immediate action could not have brought a suitable towing vessel to the scene before the crew were taken off the vessel. This removal of the crew by Coastguard was considered of paramount importance at the time and the lives of the crew were saved.

8 The comments by HM Coastguard on the Master's indecisiveness were, to say the least, of questionable accuracy as were subsequent discussions with Master regarding payment which resulted in a distorted image of events on board BRAER and in Sumburgh Coastguard Centre during the incident.

9 The passage plan as described by the Master and Deck Officers was sensible and acceptable. There was no reason not to pass south of Sumburgh Head and, in fact, to pass north of Shetland Island would probably have taken the vessel into even more inclement weather and the locality of more drilling rigs.

10 An early initiation of towage assistance by Coastguard, after the Captain's request, may have placed the tugs in a position where some action could have been taken to secure a towline to the vessel once it was apparent that it would not ground in the Horse Island locality.

11 In a similar manner to Conclusion N°4 of this report, a similar analysis of events by HM Coastguard and preparation in advance may have rendered the stranding of the vessel less likely, as follows:

- a) HM Coastguard Lerwick should have been familiar with drift characteristics of large vessels and the tidal effects around the coast which would have enabled them to predict with some certainty the set and drift expected of the vessel.
- b) This would have assisted their planning the abandonment of the vessel and prediction to some extent of the expected grounding position in the Horse Island locality.

- c) Care was required in listening to messages and ensuring their understanding. Without the transcript it would have been very difficult to prove that Captain Gelis requested towage assistance as early as 0530 hours on 5 January 1993.

12 All Port States should have an emergency plan in place, adequately tested, that can be initiated immediately in order to minimise pollution risk without taking precedence over life saving priorities.

13 It is not believed that lowering the vessel's anchors would have had much effect; nevertheless it was the Master's opinion that it was unsafe to proceed forward to let go anchors prior to the evacuation. This reflects on Regulation 25(4) of Loadline Convention 1966.

14 The decisions to down man and subsequently abandon the vessel were correct and timely.

15 Captain Gelis was in a position to estimate the vessel's drift, and it should have been carried out and reported to HM Coastguard and Owners.

16 The monitoring of the vessel by deck watchkeepers was inadequate and little attempt appears to have been made to go outside the wheelhouse by the deckwatch officers.
