



**REPORT OF THE
INVESTIGATION INTO A
FATALITY THAT OCCURRED ON
BOARD A RO/RO CARGO SHIP
"MERCHANT BRAVERY"
DURING MOORING OPERATIONS
AT DUBLIN PORT ON
SATURDAY EVENING
25th JANUARY 2003.**

The Marine Casualty Investigation Board was established on the 25th March, 2003 under The Merchant Shipping (Investigation of Marine Casualties) Act 2000

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1. SYNOPSIS

Ro/Ro cargo ship "Merchant Bravery" departed from Heysham port, North West England at 12.30 hours Saturday on 25th January 2003. Later that evening while berthing at Dublin port a 55-year-old Spanish sailor was fatality injured following a mooring accident.

2. FACTUAL INFORMATION

2.1 Description of the Ship.

Name:	<i>"Merchant Bravery"</i>
Flag:	Bahamas
IMO Number:	7724253
Port of Registry:	Nassau
Call Sign:	C6LV4
Official Number	723448
Type of ship	Ro/Ro Cargo ship with stern door ramp
Year of Build:	1978
Built:	Nylands Versted - Oslo, Norway
Classification Society:	DNV (Det Norske Veritas)
Gross Tonnage:	9,368 gt
Length Over All (LOA):	134.75 meters
Beam:	21.34 meters
Engines make:	Mak Maschinenbau GmbH
Engines type:	6,620kW (9,000bhp) twin screw Controllable pitch propellers (cpp)
Bow thrusters	Two cpp in forward tunnels; 1x 500 hp 1 x 800 hp.
Ship Managers under the ISM Document of Compliance:	BLUEWATER Marine Management Ltd., 6, James Whatman Court, Turkey Mill, Ashford Road, Maidstone, Kent, England ME 14 5EE (See Appendix 9.1)

2.2 Bridge and Machinery equipment on board *"Merchant Bravery"*.

The ship was well equipped with operational bridge instrumentation and navigational equipment. Main engines and bow thrusters were in operational readiness throughout berthing.

2.3 Meteorological and tidal conditions.

The wind was West by South at an average speed of 19 knots and High Water at Dublin was 22.23 hours. There was some light precipitation.

2.4 Manning, certification and qualification of personnel.

- (i) The ship was manned in compliance with the Safe Manning Document issued by Bahamas administration on 13/05/1993.

- (ii) All officers and ratings held appropriate certificates of competency or qualifications in compliance with Safe Manning Document and STCW 78/95 requirements. (See Appendix 9.2)
- (iii) The declared official working language on board the ship is English which is in accordance with Bahamas administrative requirements.

2.5 Status of Convention and ISM Certificates.

All applicable certificates (Safety Construction, Safety Equipment, Safety Radio, Load Line, International Oil Pollution Prevention, International Safety Management Certificates issued by Class) were in force and issued by the relevant authority or recognised organisation.

3. EVENTS PRIOR TO THE INCIDENT

3.1 Brief history of "*Merchant Bravery*".

The vessel was built in Norway in 1978 as a container and Ro/Ro cargo ship. There have been flag, name and classification society changes. There were also a number of modifications made to the structure of the ship throughout the period of operation. These changes and modifications were for commercial and operational reasons and approved by the respective flag or classification society.

3.2 Mooring arrangements aft.

- (i) The ship is usually secured port side alongside with stern onto a linkspan. The stern ramp/door controls are set on the port side of the raised platform. The normal method for securing the vessel alongside aft is a stern line, breast line and forward leading backspring. (See Appendices 9.3, 9.4, 9.5, 9.6, 9.7, 9.8)
- (ii) There are two mooring winches with a warp end fitted to each. One winch is on the starboard side of the trailer deck and the other on a raised platform on the port side of the fore and aft centreline. The winches are rated at 8 tons with a securing screw down band brake. (See Appendix 9.9)
- (iii) The area has five sets of bitts, three on the starboard side of the weather deck and two on the port side of the raised mooring platform. Panama leads which are of suitable construction are positioned to take the mooring ropes.
- (iv) The backspring mooring wire has a breaking load of about 34 tonnes and the mooring multiplait rope has a breaking strength of 55 tonnes. Mooring ropes were in good condition and of adequate size.
- (v) "U" shaped round steel is connected to the outside of the cylindrical post of each set of bitts at a height of approximately 0.3 meters from the deck. The connection is made by welding the ends of the "U" shape round steel to the post. It is common to see the arrangement at the base support of the bitts close to the deck and approximately half way up the bitts another fitting usually a flat plate or, as in this case, a "U" shaped round steel welded on. The function is to assist in controlling a mooring wire or rope with figure of eight turns on the bitts so that it will not ride up and jump off the bitts.

3.3 Description of Berth 53, Dublin Port.

The berth is lying at 90 degrees to the River Liffey with three obsolete container cranes along the quayside (See Appendix 9.10). It is a solid concrete wall protected by three Yokohama type fenders. A linkspan is in position at the north end of the berth known as Ro/Ro Ramp No. 8.

3.4 Trial berthing at Berth 53, Dublin Port.

- (i) On Wednesday 23rd the Chief Mate was informed by the master that "*Merchant Bravery*" would go to Dublin on Saturday 25th January with a trial cargo and as a proving voyage to ensure that the stern ramp/door fitted correctly onto the linkspan at Berth 53 and to paint in highlight position marks on the quayside level with the navigating bridge and ship's stern for future reference during berthing operations.
- (ii) The mooring parties generally consist of three ratings aft and two ratings forward. They muster at their stations with the Chief Mate and Bosun (petty officer) as the respective supervisors. The Master, who has a Pilot Exemption Certificate for Dublin port, takes the conn and manoeuvring controls on the bridge. There was no other certified Deck Officer on the bridge for berthing.
- (iii) The Master stated that it was the first time "*Merchant Bravery*" intended to use this berth and so a risk assessment was carried out. Instead of the normal mooring port side to the berth as in Belfast and Heysham (See Appendix 9.11) it was decided for this proving berthing to use a once off arrangement using the offshore starboard mooring winch. The wire backspring with a rope tail was run through a snatch block to act as a lead block in order to clear obstructions. This block was to be shackled to a wire strop that was to be placed around one of the cylindrical shaped posts to a set of mooring bitts. The mooring wire would then be taken from the mooring winch through the snatch block at an acute angle and then upwards through a Panama lead on the starboard side of the raised mooring deck. It was then taken across that raised mooring deck and out through another Panama lead on the port side leading down and forward to a shore bollard.
- (iv) The Chief Mate stated that the positioning of the stern ramp/door had to be very accurate for this first landing on the linkspan. It was stated that if the ship fell back astern of the required position, possibly by just inches, it would be necessary to use winch power to warp the ship ahead to the correct position instead of using the ship's engines. When the vessel was correctly positioned alongside in Dublin the highlight marks would then be painted on to the quayside for future reference.

- (v) The Chief Mate stated that the system using the snatch block was carried out on the master's instruction and that no alternative was considered. He also stated that the vessel's mooring arrangement was unsuitable for mooring port side alongside and using the starboard winch, as the officer in charge of aft mooring station has no direct line of sight with the seaman operating the starboard winch.
- (vi) At approximately 13.00 hours on Saturday afternoon 25th January the Chief Mate en route to Dublin briefed the available mooring crew for arrival berthing at Dublin. The rating that operated the starboard winch on berthing was off duty and not present. A rough sketch of the proposed arrangements was made with the Bosun acting as an interpreter to the Spanish ratings for the English speaking Chief Mate. (The stated proposal was as shown in Appendix 9.12).
- (vii) During the briefing session the Chief Mate, Bosun and the A.B seamen went down to the deck to look at the proposed arrangement. The Chief Mate stated that he connected, for simulation purposes, the snatch block with a shackle directly to the "U" connection. (See Appendix 9.13).
- (viii) The Chief Mate stated that he went to stations at 21.45 hours on Saturday evening and found the snatch block and shackle still rigged as he had connected it earlier that afternoon. (See Appendix 9.13).

3.5 Location of relevant working personnel immediately before and at the time of the incident.

- (i) Captain N. Barningham, Master on the navigating bridge in command was engaged in manoeuvring "*Merchant Bravery*" stern first onto Berth No. 53.
- (ii) Mr. David Monk, Chief Mate in charge of aft mooring station was positioned at the ramp/door controls on the port side of the raised mooring deck.
- (iii) Snr. Jose Angel Nunez Villar (deceased) A.B. seaman 4 had been working on the raised mooring platform but at the time of the accident had descended the steel ladder to the weather deck in order to relay instruction to the starboard mooring winch operator. (See Appendix 9.14).
- (iv) Snr. Jose Manuel Martinez Boo, A.B. seaman 2 was at the controls of the starboard mooring winch.
- (v) Snr. Emilio Vilas Maneiro, A.B. 3 was at the controls of the winch on the raised mooring platform.
- (vi) The Bosun and other deck crew were on the forward mooring station and clear of the accident scene.
- (vii) Mr. Pat Corr the Norse Merchant Ferries supervisor and two shore mooring operatives, Mr. Willy Seery and Mr. Damien Ellard were on the quayside handling mooring lines as required.

4. THE INCIDENT

4.1 Incident.

- (i) During berthing the Chief Mate was adjusting the level of the ramp/door with the control lever and at the same time instructing Snr. Vilas Maneiro that the ship had to inch forward when the weight came on the back spring violently. The Chief Mate was unable to sight the weather deck people and was unable to determine if anyone was standing in the danger area.
- (ii) Immediately prior to the accident the deceased, Snr. Jose Nunez (A.B. 4), left the raised platform and went down to the weather deck to relay instructions to the winch operator A.B. 2 to apply the brake to the starboard winch.
- (iii) The deceased was said to be on the weather deck and in the danger zone area for less than one minute when the force of the snatch block and mooring wire, which was set at an acute angle, failed at its anchor point and acted as a catapult. A witness stated that the deceased was lifted about two meters off the deck and thrown with considerable force against the parked cargo trailer unit.

4.2 The sequence of events leading to the incident: -

- (i) The snatch block was connected to an unapproved weak link instead of implementing the stated agreed safe procedure. (See Appendices 9.13 and 9.15).
- (ii) The line of sight between personnel on the raised mooring deck and the starboard mooring winch operator was obscured by a cargo trailer;
- (iii) The supervision on the aft mooring operation was at an inappropriate level for this out of the ordinary mooring operation.
- (iv) Communication was difficult because of serious language difficulties and the noise from the mooring winches in the vicinity of the operation.
- (v) The deceased entered the danger zone of a dynamically loaded mooring line set up at an acute angle;

4.3 Other matters associated with the incident: -

- (i) Because of different opinions expressed the precise movement of the ship or mooring winches cannot be accurately determined at the time of or immediately preceding the accident.

- (ii) There was a rotational system operating for mooring duties. For a period up to the day of the accident "*Merchant Bravery*" had been operating regularly on the Belfast - Heysham route with an 8.5 hours passage and 3.5 hours at each end to discharge and load. This would involve approximately 5/6 normal mooring/unmooring operations within each 24-hour period. However, the Chief Mate stated that the operation was hampered by the crew's lack of competence and language difficulties. Minutes of a safety meeting dated 5/01/2003 note that the Chief Mate was advised to instruct deck crew on the proper operation of aft winches following two recent failures caused by operator error.
- (iii) The "U" bolt connection was not an approved or certified piece of anchoring or lifting equipment.
- (iv) No lifting appliance certificates were available for the heavy wire strop, the "D" shackle and snatch block.
- (v) There is no evidence to suggest that any person involved in this accident was affected by alcohol.

5. EVENTS AFTER THE INCIDENT

- (i) When Snr. Vilas Maneiro A.B.3 saw the incident he ran down from the raised mooring deck to where Snr. Jose Nunez was lying on the deck on his back face upwards.
- (ii) Snr. Vilas informed the Chief Mate to call for assistance and returned to check for a pulse but could not find any.
- (iii) The ambulance arrived within 20 minutes and transferred the body of Snr. Nunez to hospital where he was pronounced dead.

6. CONCLUSIONS

The incident was caused by the following:

- (i) The snatch block was connected to an unapproved "U" connection on the mooring bitt (See Appendices 9.16 & 9.17). When dynamic tension was put on the mooring line the weld in the "U" ring failed (See Appendix 9.17) causing the immediate release of the rope, which struck Snr. Jose Nunez.
- (ii) There is no evidence that the Company's internal audits, (required under the ISM Code), monitored the effectiveness of the Code of Safe Working Practices for Merchant Seamen with particular application to formal and recorded Risk Assessment on mooring operations. (See Appendix 9.18)
- (iii) Notwithstanding the failure of the U ring the deceased was standing in a danger zone on the wrong side of a mooring rope.
- (iv) The wearing of head protection was not enforced on board "*Merchant Bravery*" although in this type of incident it is unlikely that the design of a hard hat is intended to protect against the level of impact experienced.

Note: Section 12.7.12 of the Code of Safe Working Practices for Merchant Seamen regarding mooring operations states "Mooring and unmooring operations provide the circumstances for potentially serious accidents. Personnel should never stand in the bight of a rope under tension, and should treat ropes on drums and bollards with utmost care". Section 25.3.5 states "Careful thought should be given to the layout of moorings, so that leads are those most suitable without creating sharp angles" etc. etc. and "Pre planning of such operations is recommended".

7. RECOMMENDATIONS

- 7.1 The Code of Safe Working Practices for Merchant Seamen for ships should be followed at all times and a Marine Notice should issue in this regard.
- 7.2 The Company/Operator should ensure that there is effective communication in the English language on board ship. The policy and assessment requirement should be contained within the Company International Safety Management (ISM) Code.

8. GLOSSARY

A.B:	Able Bodied. It applies to deck ratings that completed certain sea service requirements and a practical examination.
Backspring:	A mooring line that may lead forward and aft to reduce the fore and aft movement of the ship when alongside the berth.
BIMCO	Baltic and International Maritime Council. A large international shipping and ship-owners organisation.
Bitts	Set in pairs and utilised to turn up mooring ropes when the ship is secured alongside. They are specially designed and fitted to take maximum loads expected including excessive loads in strong winds.
Bollards	Similar to bitts but generally applied to single cast fittings on the quayside to take the eye or the bight of the mooring line leading from the ship.
Bosun	A petty officer or leading rating with responsibility for the deck ratings.
Chief Mate	A qualified deck officer who is second in command on board.
COSWPMS	Code of Safe Working Practices for Merchant Seamen is a requirement by the Company and a requirement under the ISM Code. It is concerned with improving health and safety on board ship.
IMO Number	This is a unique number allocated to each merchant ship throughout the world by the International Maritime Organization. While the name, flag and Class may change during lifetime of a ship the IMO No. should always remain with the ship.
ISM Code	International Safety Management Code was compulsory for this type since 1st July 2002. The objectives of the Code are to ensure safety at sea, prevention of human injury or loss of life, and avoidance of damage to the environment.
Linkspan	This is a bridge between the ships stern door/ramp and the quayside to permit trailers etc. to transit on or off the ship. The ship end of the linkspan is floating and fitted with ballast chambers. The shore end is hinged to the head of the north end of the quay.
Panama Lead	Specially designed to take mooring lines.

- Rating** A general operative grade or position of a seafarer on board ship.
- Risk Assessment** It is a careful and recorded examination of what could cause harm so that decisions can be made as to whether enough precautions have been taken or whether more should be done to prevent harm. Chapter 1 of COSWPMS gives guidance on Risk Assessment.
- Ro/Ro** A system of loading and discharging a purpose built ship whereby the cargo is driven on and off ramps from the ship to the quayside. A ship designed to handle cargo this way is known as a Ro/Ro or Roll Off. A Ro/Ro cargo ship may carry up to 12 passengers who are usually lorry drivers.
- Snatch block** A single block so fitted that the bight of a rope may be passed through it without reeving or unreeving. The iron strap is hinged one side and the shell is divided to allow the rope to be shipped into the sheave and used as a lead block.
- STCW** International Convention on Standards of Training, Certification and Watchkeeping for Seafarers.1978 as amended. (STCW 78/95).

9. APPENDICES

- 9.1 Owners, Operators and Manning Agents for "*Merchant Bravery*"
- 9.2 Crew List with addresses and qualifications held.
- 9.3 Sketch of the aft deck mooring arrangement at the time of the accident.
- 9.4 Plan of the aft section of "*Merchant Bravery*" with captions to the aft mooring deck area.
- 9.5 Side view of the aft part of "*Merchant Bravery*"
- 9.6 Photograph showing the view from the head of the linkspan looking onto the stern of "*Merchant Bravery*"
- 9.7 Photograph showing the backspring leading forward and the breast and stern lines secure.
- 9.8 Photograph looking down on the aft mooring area.
- 9.9 Photograph showing the port winch.
- 9.10 Dublin Port Map indicating Berth 53.
- 9.11 Berthing arrangements operating at Belfast and Heysham ports.
- 9.12 Sketch used during the crew briefing early afternoon 26/01/ 2003.
- 9.13 Photograph showing method used to connect the snatch block to the mooring bits.
- 9.14 Sketch made by master of the incident area.
- 9.15 Photograph showing the method that had been stated during the briefing session.
- 9.16 Photograph showing the set of bitts.
- 9.17 Photograph showing close up of the failed "U" bolt.
- 9.18 Formal Health and Safety system stated to be operating on board.
- 9.19 Copy of defects noted to the ship on 27/01/2003 and close out note from Bluewater Management Ltd. received 21/05/2003.

Appendix 9.1

Owners, Operators and Manning Agents for “Merchant Bravery”

Owners, Operators and Manning Agents for “Merchant Bravery”

Proofband Limited, a subsidiary of Cencargo International PLC is the owner of this vessel. The registered office of this company is: -

Puttenham Priory,
The Street,
Puttenham,
Surrey GU3 1AR
England.

Bluewater Marine Management Ltd. is the manager of the ship appointed by Cencargo International under a standard management agreement, which commenced 1st March 2002. The address of the registered office for Bluewater is: -

Prentice Chambers,
Earl Street,
Maidstone,
Kent ME14 1PF
England

The day-to-day management of the “Merchant Bravery” is carried out from: -

Bluewater Marine Management Ltd.
C/o Norse Merchant Ferries
12 Quays Ferry Terminal,
Tower Road,
Birkenhead CH41 1FE
England.

There is an ISM (International Safety Management) Code requirement for a designated Person who is a Captain Keith Edwards at the following address: -

Bluewater Marine Management Ltd.
6 James Whatman Court,
Turkey Mill,
Ashford Road,
Maidstone,
Kent. ME14 5EE

Bluewater Marine Management has a contract with Dobson Fleet Marine of Cyprus for the provision and the management of the crew throughout the fleet of ships owned by Cencargo. This contract is based on a BIMCO standard crew management form, which commenced 1st March 2002. The address of the registered office is: -

Dobson Fleet Management -
Dobson House,
PO Box 54809
Limassol
3728 Cyprus

The deceased was employed directly by the crewing agency under a contract of employment dated 31/10/2002 expiry dated 20/04/2003 on a 3 month on board rota with followed by one months leave. Mr. Nunez (Seaman's book No. 473021064 and Passport No. 76833608) was on his fourth contract on "Merchant Bravery"

Norse Irish Ferries Co. Ltd. is a silent company and is said to have no connection with the operation of "Merchant Bravery". The address of the registered office is: -

Norse Irish Ferries Ltd.
Ridgeway House,
Ridgeway Street,
Douglas,
Isle of Man, IM99 1PY

Norse Merchant Ferries is the trading name of Merchant Ferries PLC, which has the same address as Cenargo above. Cenargo is the primary owner but is presently under UK High Court Administration, the administrators being Ernst & Young since 8th February 2003.

The ship is on the Bahamas flag and for the purpose of ship Registry, Bluewater Marine Management Ltd. has a registered office in Nassau, Bahamas.

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Appendix 9.2

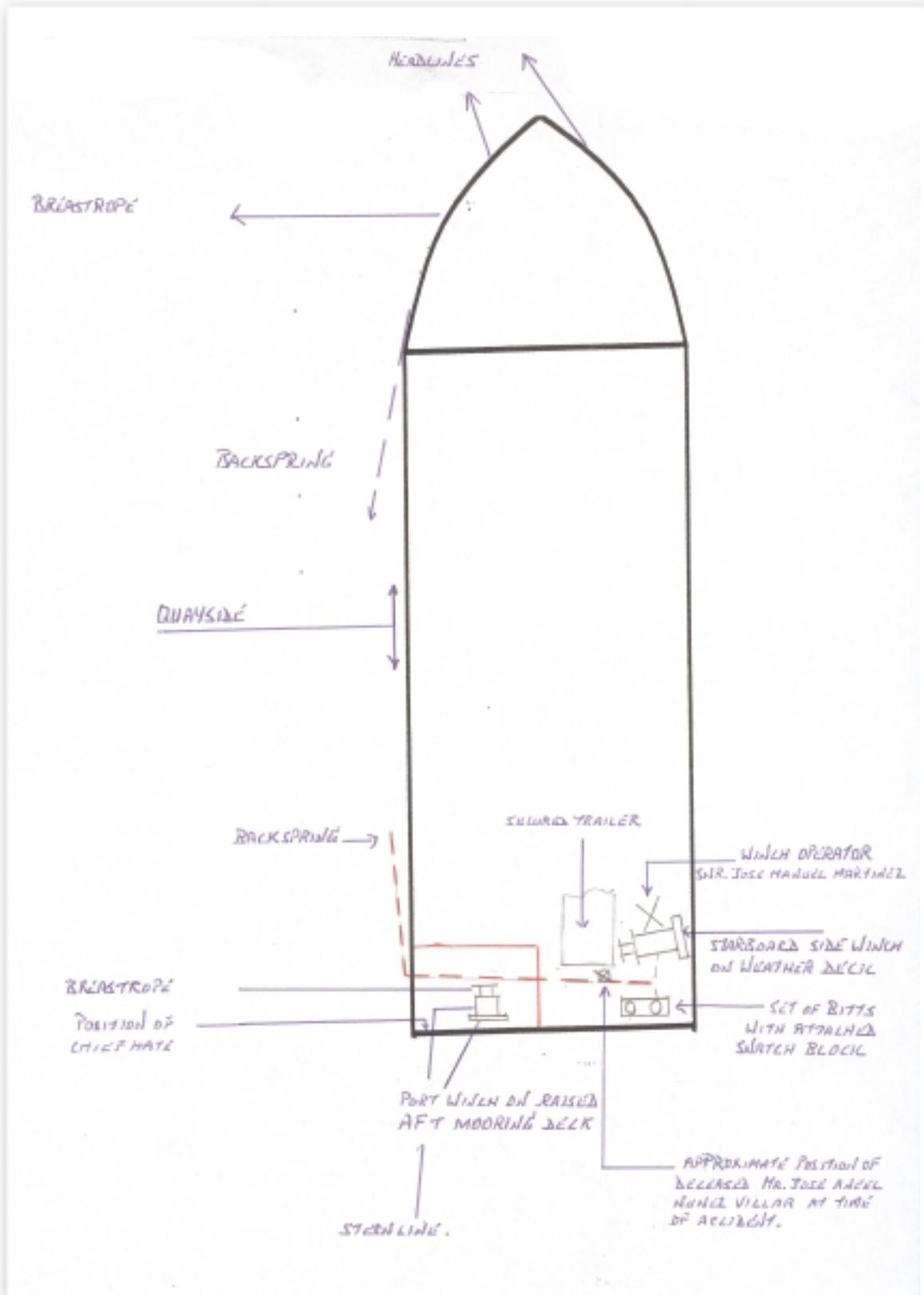
Crew List for the “Merchant Bravery”

Crew List for the “Merchant Bravery”

<u>Name:</u>	<u>Rating:</u>	<u>Nationality:</u>
Nigel Barningham	Master	British
David Monk	Chief Officer	British
Robert Sawyers	2 nd Officer	British
John Gilligan	Chief Officer	Canadian
William Patterson	2 nd Engineer	British
Allan Hill	3 rd Engineer	British
Antonio Ribiero	Bosun	Spanish
Manuel Esteves	A.B. 1	Spanish
Jose Martinez	A.B. 2	Spanish
Emilio Vilas	A.B. 3	Spanish
Angel Nunez	A.B. 4	Spanish
Ramon Freire	A.B. 5	Spanish
Benedicto Bua	A.B. 6	Spanish
Juan Perez	Fitter	Spanish
Fernando Clemente	Motorman	Spanish
Francisco Boullosa	Motorman	Spanish
Antonio Arribas	Cook	Spanish
Yolanda Mugica	Stewardess	Spanish
Antonio Pena	Steward	Spanish

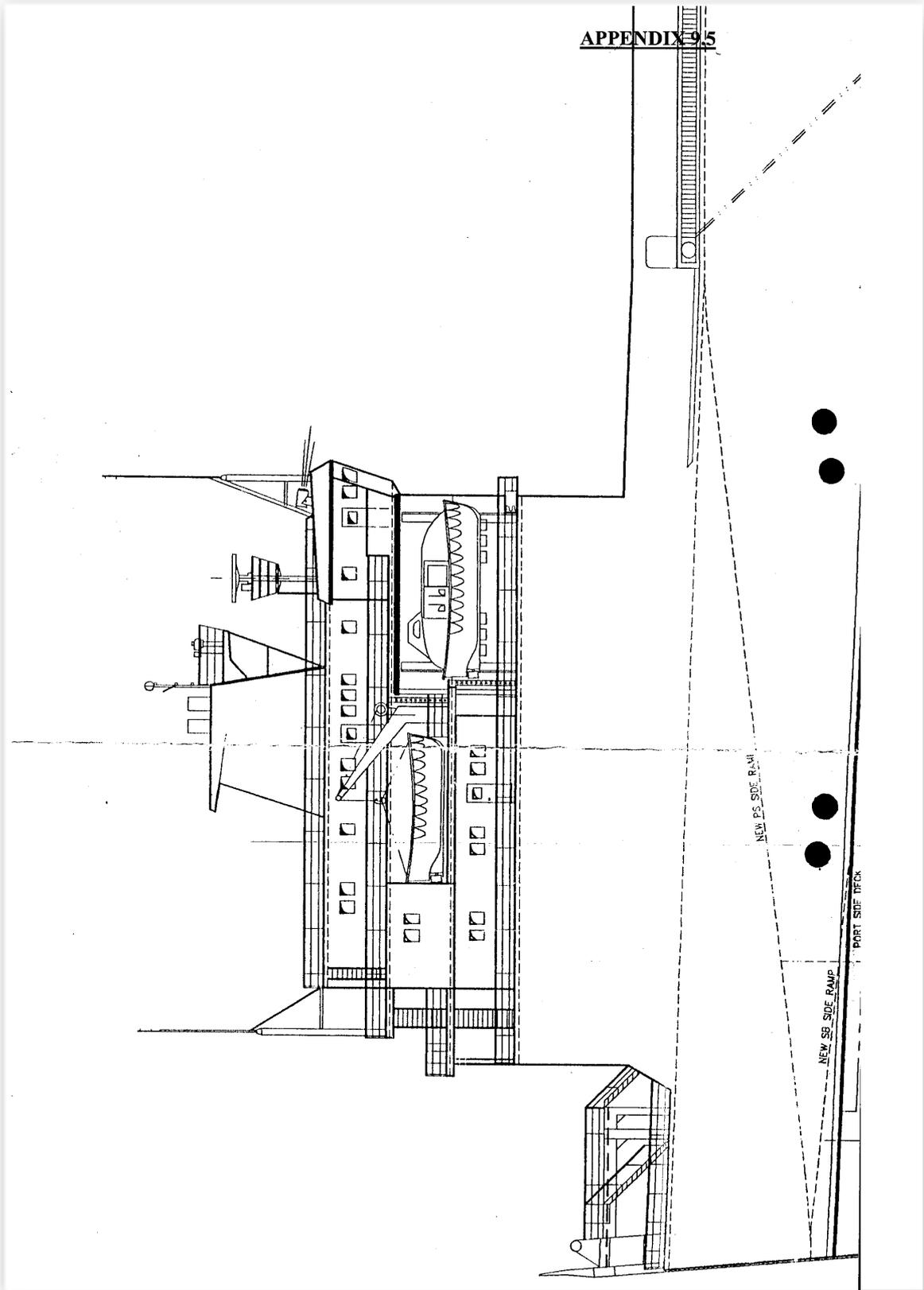
Appendix 9.3

Sketch of the aft deck mooring arrangement at the time of the accident.



Appendix 9.5

Side view of the aft part of "Merchant Bravery"



Appendix 9.6

Photograph showing the view from the head of the linkspan looking onto the stern of "Merchant Bravery"



A view from the head of the linkspan looking onto the stern of "Merchant Bravery". The raised aft mooring deck can be seen over the port stern opening leading up to the weather deck. Personnel can be observed walking on the ship's ramp/door that is resting in position on the linkspan.

Appendix 9.7

Photograph showing the backspring leading forward and the breast and stern lines secure.



"Merchant Bravery" secured port side to Berth 53. Seen in the photograph is the backspring leading forward and the breast and stern lines secure onto shore bollards.

Appendix 9.8

Photograph looking down on the aft mooring area.



Looking down on the aft mooring area. On the right side of the photo is the control for the stern ramp/door. In front of the controls is the set of bitts that the backspring multiplait rope is turned up under normal mooring. To the left of the bitts is the port side mooring winch, which has the breast rope leading from the winch warp end and out through a Panama lead. The stern line is leading off the main drum of the winch. To the left of centre can be seen the stern ramp/door resting in position of the linkspan.

Appendix 9.9

Photograph showing the port winch.



This photograph shows the port winch to the right of the photo. The stern ramp/ door is in the raised position. The ladder down to the weather deck can be seen in the centre of the photograph. The deceased descended this ladder to pass instructions to the starboard side winch operator. The starboard winch can be seen to the left of the photograph. At the time of the incident a trailer was positioned in the marked off area just forward of the aft marking. The person seen standing on deck is in the approximate position where the deceased was standing on deck is the set of mooring bitts used as a lead for the back spring.

APPENDIX 9.10

Appendix 9.10

Dublin Port Map indicating Berth 53.



Not to be used for navigating purposes.

Appendix 9.11

Berthing arrangements operating at Belfast and Heysham ports.

Berthing arrangements operating in Belfast and Heysham

The ship is manoeuvred so that it approaches the shore linkspan stern first. Painted position marks are already on the quayside from the first proving voyage to these ports. These marks are to assist the master to position the ship exactly in relation to the stern and the shore ramp. The chief mate will also monitor another mark on the quayside and in line with the ship's stern.

With reference to the quayside marks it will permit the mooring ropes to be easily deployed and allow the ship to fall astern while veering out the stern back spring leading forward from the port side set of mooring bits. The backspring used during this berthing operation is a man made fibre and relatively easy for one person to veer out by hand and without the use of a winch.

When the ship is just on the marks the backspring is turned up and then secured. This operation makes the offshore (starboard) winch redundant during mooring operations in **Belfast and Heysham**. The winch on the raised mooring platform to the port of the fore and aft centre line is used for the stern line and the warp end takes the breast line to finally secure the ship. This procedure facilitates ease of operation and ensures that the aft mooring party is contained to the raised mooring deck where supervision is possible.

Safety system operating on board "Merchant Bravery"

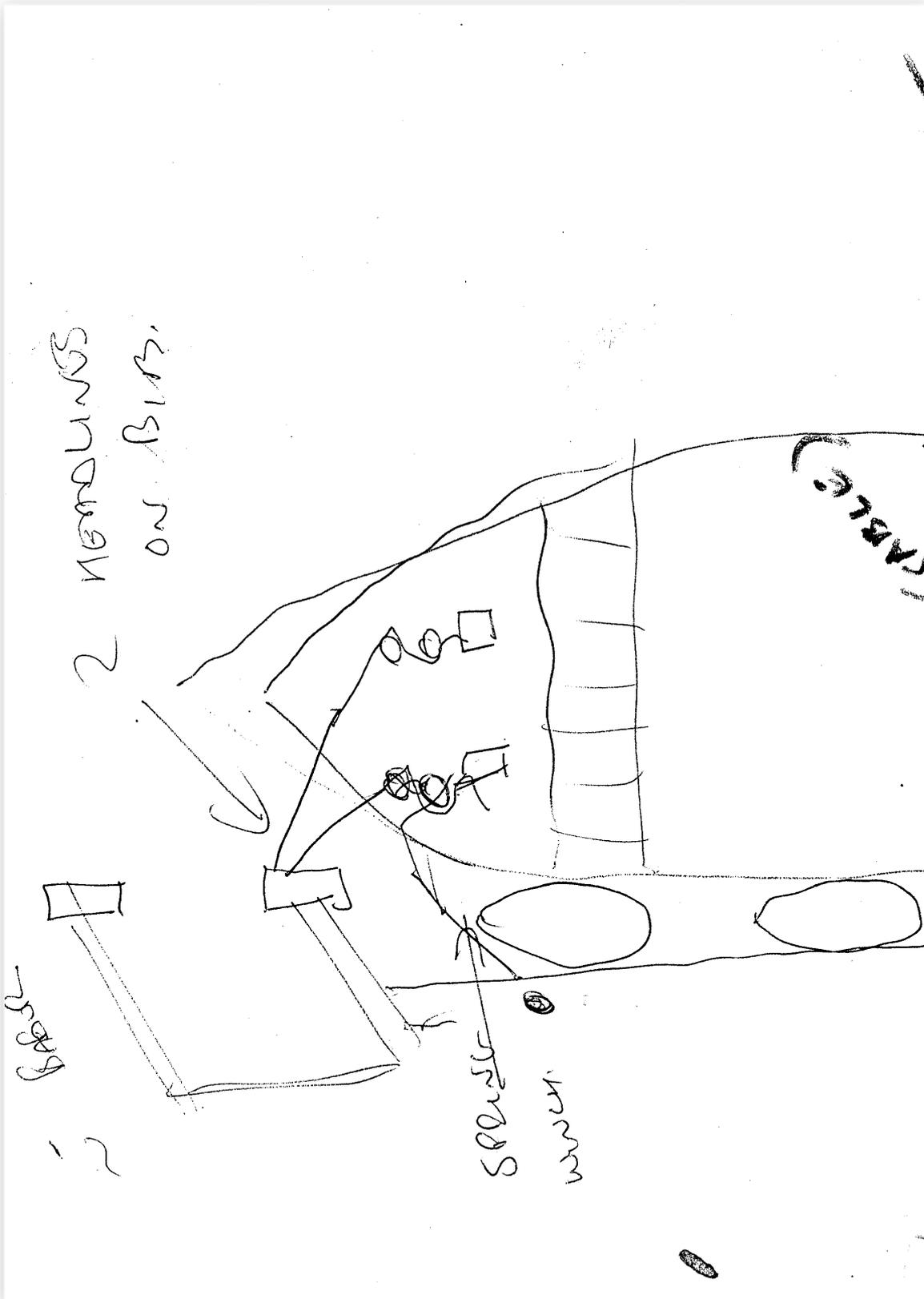
The operating company has a Health, Safety and Environmental policy, which is contained within the ISM Code and includes the following: -

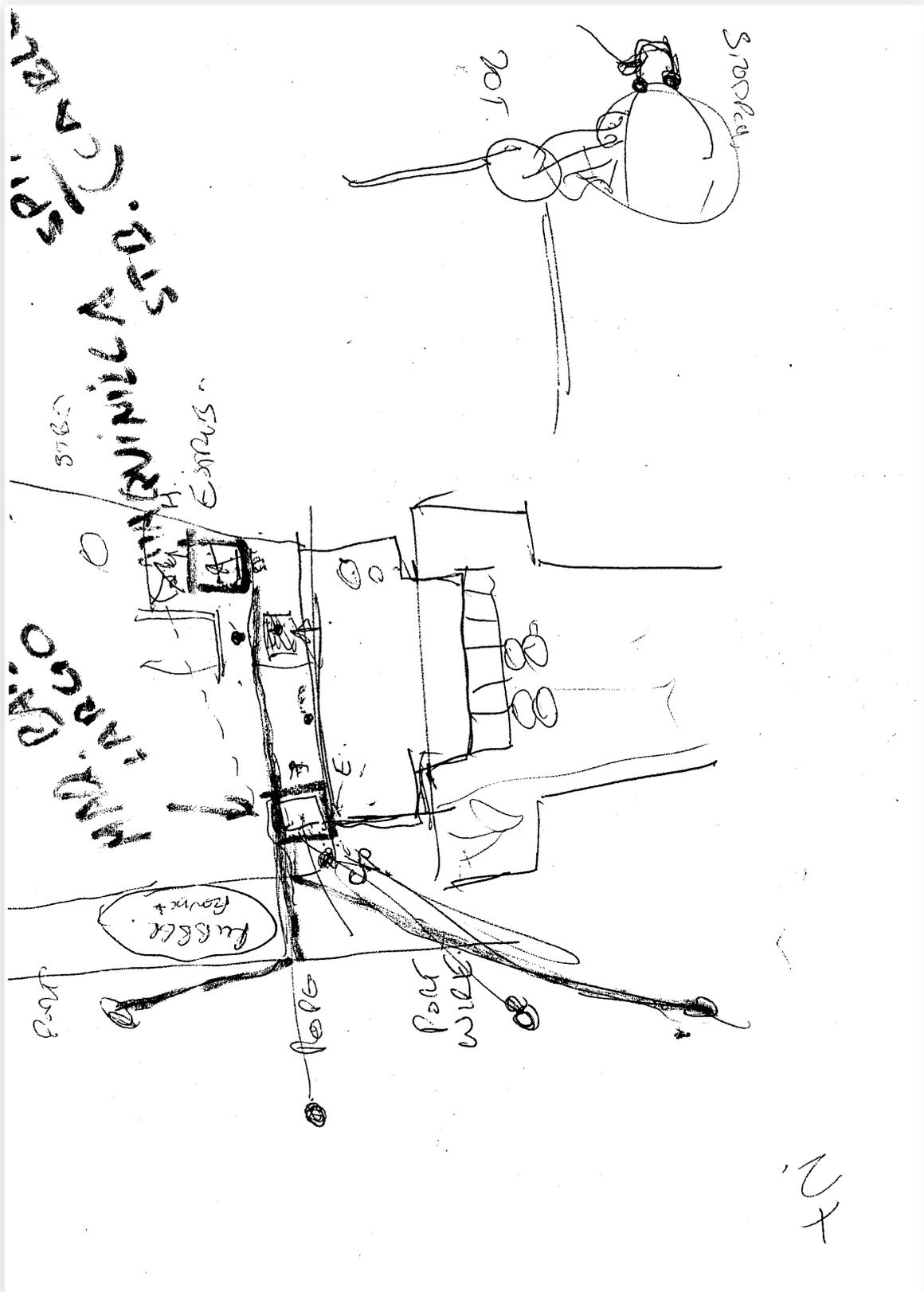
- (i) A Health and Safety Statement of Policy is posted on the crew notice board and signed by the Managing Director.
- (ii) Master's End of Month (EOM) letter is sent to the shore office. This letter draws the operating company's attention to any deficiencies that may have arisen during the current month. January 2003 EOM had repeated a previous comment regarding the standard of English of the deck and engine room ratings.
- (iii) Incident/Emergency Reporting and Communication procedure with Emergency Response Chart.
- (vi) Procedure for Berthing and Unberthing Operations which includes a requirement for crew to receive instruction in accordance with the Code of Safe Working Practice for Merchant Seamen.
- (vii) Procedure for Wearing of protective Clothing and Equipment.
- (viii) Ship familiarisation forms to be completed by new crewmembers and a general summary of on-board training/familiarisation.

APPENDIX 9.12

Appendix 9.12

Sketch used during the crew briefing early afternoon 26/01/ 2003.

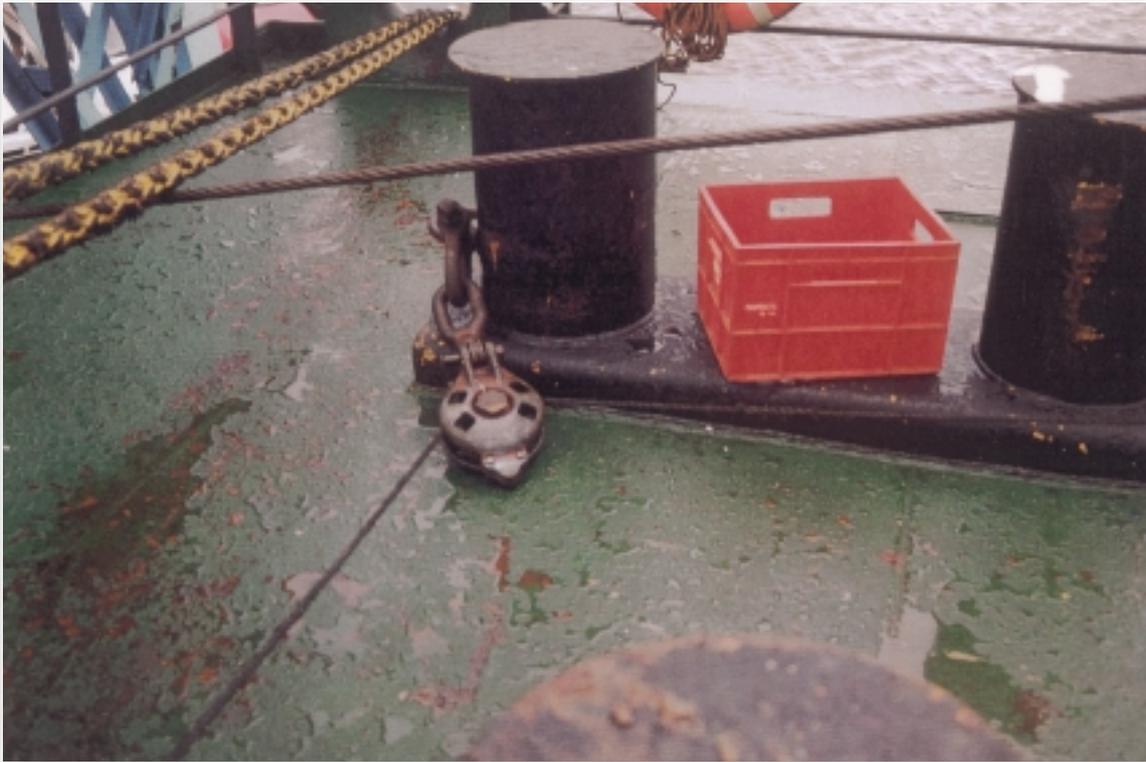




APPENDIX 9.13

Appendix 9.13

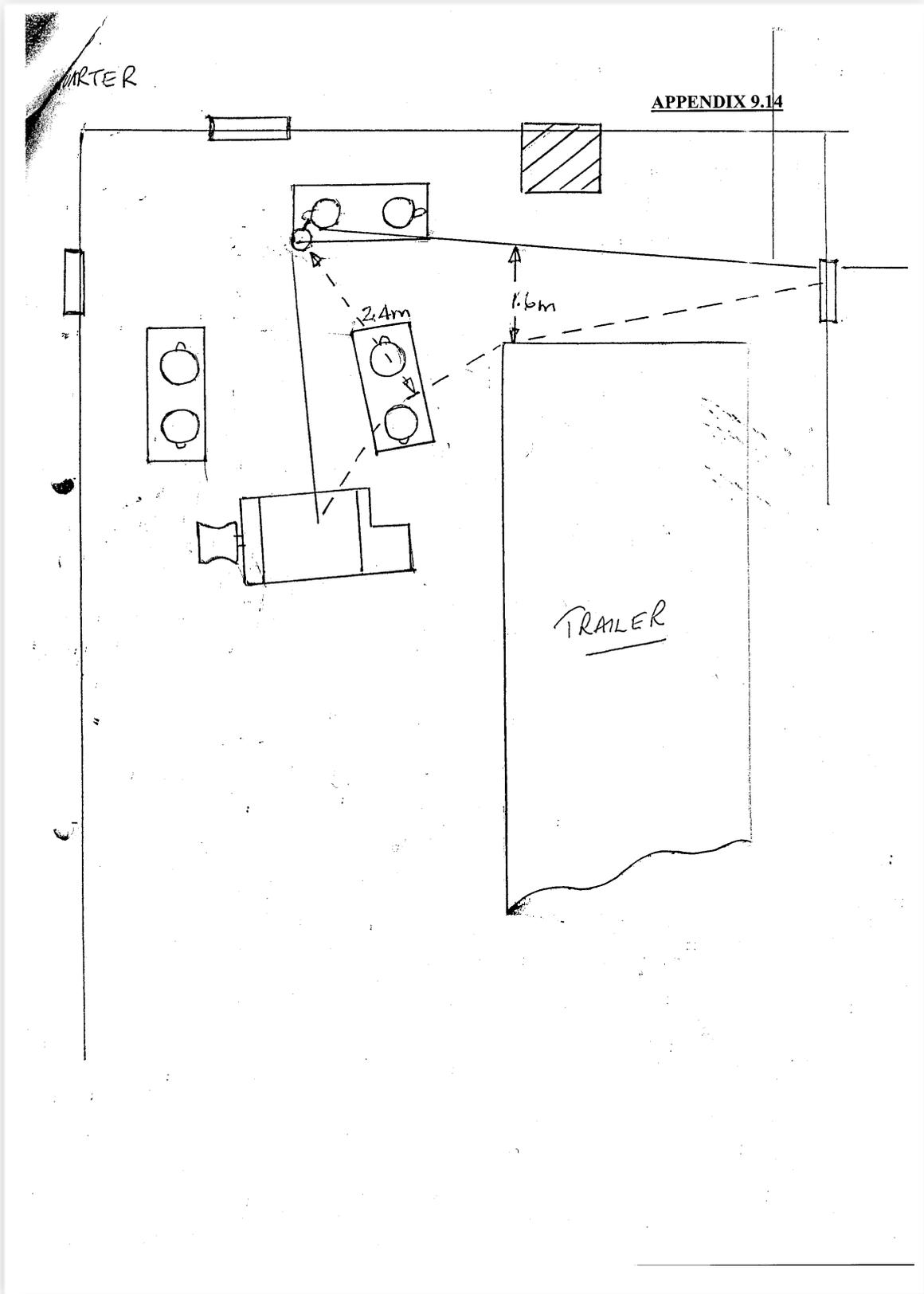
Photograph showing method used to connect the snatch block to the mooring bits.



The actual method used to connect the snatch block to the mooring bits.

Appendix 9.14

Sketch made by master of the incident area.



APPENDIX 9.15

Appendix 9.15

Photograph showing the method that had been stated during the briefing session.



The method that had been stated as proposed during the briefing session early afternoon on Saturday 26th January 2003 to connect the snatch block and heavy-duty wire stop around the cylindrical post.

Appendix 9.16

Photograph showing the set of bitts.



Appendix 9.17

Photograph showing close up of the failed "U" bolt.



Appendix 9.18

Formal Health and Safety system stated to be operating on board.

2.20 - HEALTH AND SAFETY**Statement of Policy**

It is the policy of the company to conduct its business in such a way as to ensure the health, safety and welfare of employees and of third parties, and to comply with all statutory and other requirements applicable to the business of the Company.

The Company considers that Health and Safety are management responsibilities ranking equally with finance, marketing, commercial and quality assurance related matters.

It is the responsibility of Departmental Managers and Masters to implement the Company's policy, to issue their employees with specific safety rules applicable to local activities, and to ensure that they are properly trained, experienced, instructed and supervised in the work allotted to them.

Aboard the managed ships, the Master has responsibility for the safety of personnel and is charged with the responsibility of ensuring that any unsatisfactory aspect relating to the general welfare and safety of the crew or vessel is immediately reported to the Designated Person Ashore who is responsible for occupational Health and Safety.

The Managing Director in his role as Designated Person Ashore, provides the link between the ship and the Board of Directors on all matters relating to Occupational Health and Safety.

Prime responsibility rests with each employee to co-operate with management in implementing safety rules and to conduct their activities in such a way that does not expose themselves or others to danger through careless or ill-considered action. To assist in this aim we will provide information, instruction, training and supervision as appropriate. In particular we will :-

- a) provide and maintain work systems that are safe and without risks to health;
- b) maintain the place of work, including access and exits under our control, in a condition that is safe and without risks to health;
- c) provide and maintain a working environment which is safe and without risks to health

It cannot be emphasised too strongly that, whilst responsibility rests with the Company in providing safe and healthy conditions at work, it is incumbent upon employees at all levels to be constantly vigilant and aware of their own and colleagues safety at work, to report any unsatisfactory conditions through the appropriate channels, to be aware of the relevant codes of practice and to be pro-active in the development of safe working practices in order to achieve the aims of this policy.

This policy is reviewed annually, or in circumstances where significant change is noted.


.....
MANAGING DIRECTOR

01.01.2000
.....
DATE

Safety system operating on board “Merchant Bravery”

The operating company has a Health, Safety and Environmental policy, which is contained within the ISM Code and includes the following: -

- (i) A Health and Safety Statement of Policy is posted on the crew notice board and signed by the Managing Director.
- (ii) Master’s End of Month (EOM) letter is sent to the shore office. This letter draws the operating company’s attention to any deficiencies that may have arisen during the current month. January 2003 EOM had repeated a previous comment regarding the standard of English of the deck and engine room ratings.
- (iii) Incident/Emergency Reporting and Communication procedure with Emergency Response Chart.
- (vi) Procedure for Berthing and Unberthing Operations which includes a requirement for crew to receive instruction in accordance with the Code of Safe Working Practice for Merchant Seamen.
- (vii) Procedure for Wearing of protective Clothing and Equipment.
- (viii) Ship familiarisation forms to be completed by new crewmembers and a general summary of on-board training/familiarisation.

Appendix 9.19

Copy of defects noted to the ship on 27/01/2003 and close out note from Bluewater Management Ltd. received 21/05/2003.

Bluewater Marine Management Ltd

**RECTIFICATION SURVEY REPORT ^{APPENDIX 9.19}
PORT STATE CONTROL (PSC)**

Name of ship Merchant Bravery

Port of Inspection Dublin

Date of Inspection 27/1/03

Master, N.Barningham A.F. URE

PSC Def Code	Description of Deficiency	Corrective Action Taken	Date closed by vessel
Q	Unsafe system of work during mooring operation	Procedure reviewed, new Master's W.I issue	14.02.03
L	Difficulty with crew communicating adequately in English language	Management Company changed Crew to Polish	06.04.03
Q	Formal risk assessment not carried out in accordance with Code of safe working practices	BMM File 41 Risk Assessment placed on board vessel	07/02/2003
O	Improper use of stopper U bolt to mooring bits - attaching directly	Plates welded over eyes to prevent improper use.	
Q	shackle and snatch block to take back spring mooring rope	BMM Fleet circular 08/03 issued	27/01/2003
E	Code of safe working practices to be updated in accordance with amendment 3	Amendment 3 received, COSWP up-dated	12.04.03
D	Mooring crew member identified as never having received instruction in mooring operation as per C.S.W.P. 25.3.8	All deck crew instructed in mooring operations. BMMform Pers 18 completed for each crew man	28/01/2003
E	Record crew hours worked (or rested) to be available	Record of hours worked for all crew in file 22D	03/02/2003

Quality Manager to send copy of report to :

Port State Control Inspector
Flag State if they were notified of deficiencies
Secretariat of the Paris Memorandum on Port State Control

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Mr. Antonio Ribeiro
C/r. Do Barrantes
Ed. O'Lagar Portal I
Puebla del Caramiñal
La Coruña
Spain

20th October 2003

Mr. Dick Heron
Secretary
Marine Casualty
Investigation Board
Leeson Lane
Dublin 2,
Ireland



Dear Mr. Dick Heron,

I am writing to you because you sent me a copy of the Draft Report of the investigation into a fatality that occurred on board a Ro/Ro cargo ship "Merchant Bravery" during mooring operations at Dublin Port on Saturday evening 25th January 2003. So, I want to thank you for sending me it.

All I have to say about the incident is when it happened I was working with other two deck crew on the forward mooring station, so as I was staying away from the place where the accident happened I could see nothing.

As I have said in my official statement, I had told Mr. David Monk, chief mate, I was not in agreement with him because of the moorings and its danger. So in that way, I did not touch nor the snatch block nor the wire.

Yours sincerely

A handwritten signature in blue ink, appearing to be 'Antonio Ribeiro', written over a horizontal line.

Antonio Ribeiro

MCIB RESPONSE TO MR. ANTONIO RIBIERO'S LETTER OF 20th OCTOBER, 2003.
The MCIB notes the contents of this letter.

The Old Vicarage,
The Green,
Nawton,
YORK.
YO62 7SW.
England.

3rd November 2003.

Ref: MCIB 63
FAO Mr Dick Heron.

Dear Sir,

With reference to the above investigation I wish to point out the following observations in the statement.

Section 3.5 (iii) third line had "descended" the steel ladder not ascended.

Section 7.3. This statement is incorrect. The bridge is manned by two Deck Officers from EOP North Burford "C" inbound until a point west of North Bank light just prior to the vessel swinging in the river when the Chief Officer goes aft to relay distances off the buoys whilst turning and to supervise the mooring operation. At this point only is there one Officer on the bridge.

I thank you for the opportunity to comment on the Draft Report.

Yours faithfully,



Nigel Barningham.



MCIB RESPONSE TO MR. NIGEL BARNINGHAM'S LETTER OF 3rd NOVEMBER, 2003.
The MCIB notes the content of this letter and has deleted paragraph 7.3 of its draft report.

15th January, 2003



Calafort Átha Clath



Marine Casualty Investigation Board,
29-31 Adelaide Road,
Dublin 2.

Attention: *Mr. John G. O'Donnell B.L.*
Chairman.

Dublin Port Company

Port Centre, Alexandra Road, Dublin 1

Telephone (353 1) 887 6000, 855 0888

Fax (353 1) 855 1241

Web www.dublinport.ie

Re: "Merchant Bravery" incident on January 25th 2003

Dear Mr. O'Donnell.

I refer to your letter of October 8th 2003 regarding the draft MCIB report into the above incident which, tragically, resulted in the loss of the life of one of the crewmembers of the vessel.

In general, Dublin Port Company has no objections to the contents of the report. However, I am concerned at part of the recommendation 7.3 which suggests that the matter relating to bridge manning and procedures should be referred to Dublin Port Company because the master of the vessel held a Pilotage Exemption Certificate (PEC) issued by the Company. This implies that manning and bridge procedures are relevant to the functions and duties of a pilot and consequently, the holder of a PEC.

You will be aware that the functions of a pilot are strictly confined to advising the master in relation to safely navigating and manoeuvring the vessel in and out of the Port. The relevant examinations for the granting of a Pilot's licence or a PEC are confined to these areas and have nothing to do with the manning of a vessel, bridge operating procedures, mooring procedures or the adequacy or otherwise of mooring equipment. It is clear from the draft report that the accident resulted from a combination of failure of the mooring equipment/arrangements and the mooring procedures in use on board the "Merchant Bravery".

These issues are not related to the duties and functions of a pilot and accordingly, I consider that the need to refer these matters to Dublin Port Company is irrelevant and unnecessary and should be expunged from the draft report. I am concerned that the retention of this recommendation could be construed as implying that Dublin Port Company could be regarded as having some liability for this accident.

Yours sincerely,

Enda Connellan,
Chief Executive.

Irish Port of the Year 2003

Directors: J. Burke (Chairman),
K. Brady, C. Byrne, E. Conellan (Managing), B. Daly, T. Donohue, T. Henry,
B. W. Kerr, J. Keegan, S. Martin, E. O'Brien, J. Sta-Paul
Secretary: M. Sheehy

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MCIB RESPONSE TO DUBLIN PORT'S LETTER OF 15th JANUARY, 2003

The MCIB notes the content of this letter and has deleted paragraph 7.3 of its draft report.



THE BAHAMAS MARITIME AUTHORITY

Latham House
16 Minories
London EC3N 1EH
England

Telephone + (44) 20 7264 2550 (switchboard)
Fax: + (44) 20 7264 2589 (Registration & General)
Fax: + (44) 20 7264 2579 (Technical)
Telex 892617 BAHREG G
www.bahamasmartime.com

22nd October 2003

Mr Dick Heron,
Secretary,
Marine Casualty Investigation Board,
Leeson Lane,
Dublin 2
EIRE



Dear Mr Heron

RE: MCIB draft Report of the investigation into a fatality that occurred on board the Bahamas registered RO/RO "Merchant Bravery" at Dublin on 25th January 2003

The Bahamas Maritime Authority would like to express its thanks for being given the opportunity to review the MCIB's draft report on the above incident.

I confirm that the report, including the resultant conclusions and recommendations broadly agree with the results of our own investigation into this unfortunate accident however I note under section 7.3 of the report you make reference to the make up of the Bridge Team at the time of the accident. Whilst this Authority understands the principle behind the comments made we believe the manning on the bridge at the time of the incident is not relevant with respect to the specific accident under investigation. The attending Bahamas Inspector wrote the following in his report:

...The vessel was berthing portside to the quay at a linksan berth, therefore, the Master would have been manoeuvring the vessel from the portside bridge wing controlstation. As the fatality occurred to the starboard side of the centre line of the vessel the Master would not have had a clear view of what happened....his evidence in regard to the actual fatality would, therefore, be limited to that which he obtained from witnesses subsequent to the incident.

I have noticed some minor editing errors which I hope you will not mind me drawing to your attention. Additionally I enclose for your consideration some of the recommendations made during The Bahamas' preliminary investigation which might be of interest to the MCIB.

Turning first to the editorial changes, for consistency I would suggest that the heading of section 4 (Incident and sequence of events leading to the incident) should be in bold capitals. There also appears to be a "typo" at Appendix 9.1 and the address of the registered office (not clear whether this is Cenargo's or Dobson Fleet Marine's) appears to be missing.

As indicated in the foregoing, recommendations made as a consequence of the Bahamas' investigation largely agree with those made by the MCIB. Additional recommendations made in the Bahamas report are as follows:

- Reliance (*on the ability of crewmembers to communicate in English*) should not be placed upon certificates issued in a crewmember's home country but should be based on independent verification and feedback from the Master.
- Reliance also should not be placed upon the use of one individual crewmember as an interpreter for others.
- When both port and starboard mooring stations are being used lorries should not be parked in the vehicle lane adjacent to the starboard mooring platform. This area should be kept clear so that crewmembers can see each other.
- Portable radio sets should be provided to enable personnel working at the aft port and starboard mooring stations to communicate with each other.
- Unusual mooring operations need to be planned well in advance, thoroughly discussed and any additional equipment required for the operation rigged and verified by a responsible officer before the operation is commenced.

I trust you will find the above comments useful. If you require any further information or clarification please contact the undersigned.

Yours sincerely,



S D Clinch
Deputy Director

MCIB RESPONSE TO BAHAMAS MARITIME AUTHORITY'S LETTER OF 22nd OCTOBER, 2003

The MCIB notes the points made in this letter and specifically comments on the five recommendations made in the second page of this letter as follows:

1. See Recommendation 7.2
2. See Recommendation 7.2
3. Agreed
4. Agreed. It is hoped that this recommendation is acted upon by the Bahamas Maritime Authority and that they notify the Operators of all vessels flying under their flag to implement and adhere to this recommendation.
5. Agreed. See conclusion 6(ii) and the footnote thereto and Recommendation 7.1.

