SHERIFFDOM OF GRAMPIAN, HIGHLAND AND ISLANDS AT LERWICK

[2019] FAI 43

Case No: LER-B47-18

DETERMINATION

BY

SHERIFF IAN HAY CRUICKSHANK

UNDER THE INQUIRIES INTO FATAL ACCIDENTS AND SUDDEN DEATHS ETC (SCOTLAND) ACT 2016

into the death of

SCOTT JAMES RENNIE

For the Crown: Cook, Procurator Fiscal Depute
For West Coast Sea Products Limited: Hastie

Lerwick, 1 October 2019

The Sheriff having considered the information presented at the inquiry determines in terms of section 26 of the Inquiries into Fatal Accidents and Sudden Deaths etc. (Scotland) Act 2016 (hereinafter referred to as "the 2016 Act") that:-

(1) In terms of section 26(2)(a) of the 2016 Act Scott James Rennie, born 3 February 1985, formerly of 3 Princes Street, Newton Stewart, died at or about 11.00 hours on 23 June 2016 at Gilbert Bain Hospital, Lerwick, Shetland.

(2) In terms of section 26(2)(b) of the 2016 Act, an accident resulting in the death of the said Scott James Rennie occurred at or about 09.40 hours on 23 June 2016 on the fishing vessel King Challenger. The FV King Challenger was fishing for scallops approximately 12 nautical miles south west of Scalloway, Shetland.

(3) In terms of section 26(2)(c) of the 2016 Act the cause of death was:

I. (a) Immersion in sea water

due to (or as a consequence of):

(b) an incident whilst working onboard a fishing vessel.

The mechanism of death was drowning.

(4) In terms of section 26(2)(d) of the 2016 Act the cause of the accident resulting in the death of the said Scott James Rennie was that whilst the said Scott James Rennie was standing on the port side tipping door of the FV King Challenger for the purposes of effecting a repair to a dredge bag the boat rolled in a swell. This caused the unsecured port side tow bar to swing striking Scott James Rennie on the body or legs leading to the said Scott James Rennie losing balance and falling off the tipping door into the sea.

(5) In terms of section 26(2)(e) of the 2016 Act, a number of precautions could reasonably have been taken. Had these precautions been taken, they might realistically have resulted in death, or any accident resulting in death, being avoided.

The precautions which could reasonably have been taken that might realistically have resulted in the accident resulting in death being avoided were:

(a) a system of work which avoided the need for Scott James Rennie to stand on the tipping door of the vessel in order to carry out the task of repairing the dredge bag, or standing on the said tipping door for any other purpose whilst the vessel was at sea.

(b) in the event that the task of repairing the dredge bag had to be done while standing on the tipping door, the system of work employed should have included a requirement to wear a safety harness or safety line.

(c) the system of work employed should have included a requirement to ensure that the port side tow bar was secured by the safety chains which were installed and available for use.

The precaution which could reasonably have been taken that might realistically have resulted in the death being avoided was:

(a) a requirement for crew members to wear a lifejacket or a personal flotation device (hereinafter referred to as "PFD") whilst on the deck of the vessel.

(6) In terms of section 26(2)(f) of the 2016 Act, defects in the system of working which contributed to the death or the accident resulting in the death were:

(a) a failure on the part of the owners of the FV King Challenger, namely West Coast Sea Products Limited, to adequately risk assess the dangers of working on a tipping door whilst at sea.

(b) a failure on the part of West Coast Sea Products Limited to risk assess and identify safe working practices in relation to the repair of dredge bags whilst at sea.

(7) In terms of section 26(2)(g), other factors relevant to the circumstances of death in this case are:

(a) there is a lack of appreciation or understanding amongst fishermen about the effects of cold water shock and how difficult it can be to recover a casualty, particularly an unconscious casualty, from the water.

(b) a requirement to keep detailed records of the nature and extent of emergency drills carried out on fishing vessels; including man overboard ("MOB") drills. Such drills should be as realistic as possible in order to enhance their effectiveness.

(c) significant efforts have been made to encourage fishermen to wear a lifejacket or PFD. Many fishermen have elected not to wear these.

(d) it is necessary for ongoing efforts to be made to help effect cultural change amongst fishermen in relation to the wearing of a lifejacket or PFD.

(e) it is necessary for the wearing of a lifejacket or PFD to be mandatory whilst working on the deck of a fishing vessel.

RECOMMENDATIONS

In terms of section 26(1)(b) of the 2016 Act the court recommends:

I. that fishermen involved in this type of scallop dredger fishing should avoid standing on the tipping door of the vessel whilst at sea to carry out repairs to dredge bags or for any other reason. A system of work should be devised to avoid the need for fishermen to stand on the tipping door.

II. that if fishermen involved in this type of scallop dredger fishing should require to stand on a tipping door, either at sea or in port, then they should wear a safety harness and safety line.

III. all fishermen should be aware of the terms of Marine Guidance Notes, MGN 570 (F), MGN 571 (F) and MGN 588 (F).

IV. all fishermen, being involved in scallop dredging or involved in commercial fishing more generally, should wear PFDs at all times when working on the open deck of a fishing vessel.

V. that, in so far as it has not already been implemented by statute or regulation, the wearing of a lifejacket or PFD, whilst working on the deck of a fishing vessel, should be a mandatory requirement throughout the fishing industry.

NOTE

Introduction

[1] This is a Fatal Accident Inquiry in terms of section 2(2)(b) of the Fatal Accidents and Sudden Deaths etc. (Scotland) Act 2016 as Stuart James Rennie (hereafter referred to as "Mr Rennie") was acting in the course of his employment or occupation as at the date of his death.

[2] Mr Rennie's death was reported to the Crown Office and Procurator Fiscal Service on 5 July 2016.

[3] The date of the preliminary hearing in relation to this inquiry was 26 September 2018. Matters were continued to 2 days assigned for the hearing of evidence on 17 and 18 October 2018. On the second day of evidence, there was an unexpected change in position of a witness giving evidence as to factors which caused Mr Rennie to fall from the vessel into the sea. The Crown considered that it was necessary to make further investigation into this matter. Accordingly, there being no objection from the representative of West Coast Sea Products Limited, and on being satisfied that it was in the public interest to allow for further investigation, I adjourned the hearing of evidence to a date to be afterwards fixed and assigned a further preliminary hearing. After considerable investigation, and further preliminary callings, a day was assigned for concluding evidence. This took place on 23 August 2019. Upon conclusion of the evidence parties were content to lodge written submissions and they were allowed 4 weeks in which to do so.

[4] The Crown was represented at the inquiry by Miss Cook, Procurator Fiscal depute. West Coast Sea Products Limited, the Company who owned and operated the FV King Challenger, was represented at the inquiry by Mr Hastie, Advocate. No other interested parties were present or represented.

[5] The following witnesses were called and gave oral evidence:

1. Douglas White, an experienced fisherman and skipper also performing an onshore health and safety role for West Coast Sea Products Limited.
2. Derek Smith, mate on the FV King Challenger at the time of the accident.
3. Darren Rennie, member of the crew of the FV King Challenger.
4. Captain Andrew Phillips, investigator employed by the Maritime and Coastguard Agency.
5. Paul Jones, member of the crew of the FV King Challenger.
6. Craig Hastings, member of the crew of the FV King Challenger.
7. Robert Johnson, skipper and fisheries technician employed by the North Atlantic Fisheries College and Marine Centre based at Scalloway.

Mr White, Mr Smith, Captain Phillips and Mr Johnson attended at Lerwick Sheriff Court to give their evidence. Mr Rennie, Mr Jones and Mr Hastings gave evidence via video conference link from Dumfries and Stranraer.

[6] In addition to the above witnesses, the statement of John Nithavrianakas was presented. Mr Nithavrianakas had been the skipper of the FV King Challenger at the time of the accident but he had died in 2018. Accordingly, the parties agreed by joint minute the terms of the statement taken from Mr Nithavrianakas on 23 June 2016 (Crown Production 7).

[7] In terms of the said joint minute, the parties further agreed that the statements of Graham Humphries, Frans Porrenga, Alistair Drummond, Michael Cross (being the pilot, co-pilot, winchman and winch operator respectively of the Search and Rescue Helicopter which attended on the FV King Challenger) and Dr James Unsworth (being a consultant physician at the Gilbert Bain Hospital, Lerwick), which statements were appended to the said joint minute, could be considered equivalent to parole evidence.

[8] The crown initially lodged 12 productions. A further 3 productions were lodged during the inquiry. The provenance of all 12 initial productions was agreed by joint minute which further, and helpfully, agreed that the contents of many of the productions could be considered as equivalent to parole evidence of the contents thereof.

[9] On the last day of the inquiry the Crown asked Mr Johnson to speak to a YouTube video which showed a scallop dredger similar to the FV King Challenger engaged in fishing operations. This video was useful as a means of demonstrating how the fishing gear operated.

[10] An inventory of productions was lodged on behalf of West Coast Sea Products Limited. This comprised the updated safety folder for the FV King Challenger. No witnesses were cited by the Company.

The Legal Framework

[11] This inquiry was held under section 1 of the 2016 Act. Mr Rennie died in the course of his employment or occupation. Accordingly, in these circumstances, the inquiry was a mandatory inquiry in terms of section 2 of the 2016 Act.

[12] The inquiry is governed by the Act of Sederunt (Fatal Accident Inquiry Rules) 2017.

[13] In terms of section 1(3) of the 2016 Act, the purpose of this inquiry is to establish the circumstances of the death of Mr Rennie, and to consider what steps (if any) might be taken to prevent other deaths in similar circumstances. Section 26 of the 2016 Act sets out what must be determined by the inquiry.

[14] Miss Cook, Procurator Fiscal depute, represented the public interest in this inquiry. Mr Hastie represented the interests of West Coast Sea Products Limited as operators and owners of the King Challenger.

[15] A Fatal Accident Inquiry is an inquisitorial process and it is not the purpose of the inquiry to establish civil or criminal liability.

[16] The manner in which evidence may be presented to an inquiry is not restricted. Information may be presented to an inquiry in any manner and the court is entitled to reach conclusions based on that information.

Summary

[17] I found the following facts admitted or proved :

Scott James Rennie

1. Scott James Rennie (formerly known as Scott James Weatherill) (hereinafter "Mr Rennie") was born on 3 February 1985. He latterly resided at 3 Princes Street, Newton Stewart DG8 6ES.
2. As at the time of his death Mr Rennie worked as a self-employed share fisherman. Between May and 23 June 2016 he worked as a share fisherman and was a member of the crew of the FV King Challenger. He had been called upon by the boat's skipper to help crew the boat on an ad hoc basis over the 6 to 9 month period prior to May 2016. He was a deckhand on the vessel.

The FV King Challenger and method of fishing

3. The King Challenger was built at MacDuff in 2005. It is registered under BA 87.
4. The FV King Challenger has an overall length of 21.30 metres and a registered length of 19.85 metres. The vessel has a net tonnage of 66.23 tonnes and a gross tonnage of 192 tonnes. The vessel entered into service on 28 February 2006. Crown Production 8 is the transcript of registry of the FV King Challenger. The certificate of registry

was issued on 20 November 2015 and expires on 25 February 2021. For the purposes of registration the vessel has 64 shares of ownership. In terms of the said certificate of registry all 64 shares of ownership are vested in the name of West Coast Sea Products Limited, Dee Walk, Kirkcudbright DG6 4DQ.

5. The FV King Challenger operates as a scallop dredger. Crown Production 9 is a series of photographs taken of the vessel.

6. On both the port and starboard sides of the FV King Challenger there is a metal tow bar which is 12 metres in length. Attached to each tow bar there are 12 dredge bags. During fishing the tow bars swing out from the vessel to allow the dredge bags to be towed along the sea bed on each side of the boat. The tow bar is controlled from the wheelhouse. The tugger winch which helps control and secure the tow bar can also be operated by crew members on deck. The tow bar can also be secured by safety chains which can be used to shackle the tow bar at each end.

7. The FV King Challenger was fitted with hydraulically activated tipping doors for emptying the scallop dredges. The tipping door is a rotating bulwark that is used to invert the dredge bags to empty the catch. Steel rings at the bottom of the dredge bags hook onto teeth on the end of the door. In operation the door has three positions, namely, vertically down, horizontal and vertically up.

8. The FV King Challenger was fitted with two tipping doors, one located on the port side and the other located on the starboard side of the vessel. The doors are controlled from the bridge.

9. Whilst being trawled over the sea bed, the bottom of a dredge bag, known as the belly, wears and can become holed. Any damage to a dredge bag will be seen at the end of a tow when the bags have been retrieved. It can be a routine task for crew to

have to repair the bags in order to prevent the catch from being lost. The frequency of repairs will depend on the grounds being fished.

10. As at the date of the accident there was no policy operated on the FV King Challenger regarding the wearing of a lifejacket or PFD. Although lifejackets were available their use was a choice at the discretion of each individual fisherman.

Events leading up to the accident

11. At or about 09.00 hours on 22 June 2016 the FV King Challenger sailed from Scalloway, Shetland Islands. On board was a crew of seven comprising the skipper, John Nithavrianakus, the mate, Derek Smith, and five deckhands, namely, Darren Rennie, Paul Jones, Ian Bell, Craig Hastings and Mr Rennie.

12. On leaving Scalloway the crew started fishing for scallops at approximately noon on 22 June 2016. Each towing operation took about one hour with stowage of the catch taking a further 30 minutes.

13. On 23 June 2016 the vessel continued to fish and maintained a south-easterly course. The crew were asked by the mate to be ready to haul in the tow by 09.30 hours. At this time the vessel was approximately 12 nautical miles south west of Scalloway. As the crew began this operation Mr Rennie was responsible for handling the port side fishing gear. Paul Jones was responsible for the starboard side fishing gear. Craig Hastings was on deck available to assist both Mr Rennie and Paul Jones as required. The mate, Derek Smith and Ian Bell were both in the wheelhouse where they were controlling the starboard and port towing winches respectively. The skipper, John Nithavrianakus, and crewman Darren Rennie were below deck in the sleeping accommodation.

14. On 23 June 2016 weather and sea conditions were good. The sea temperature is believed to have been approximately 10.5 degrees centigrade.
15. During the hauling operation all members of crew on deck were wearing oil skins and wellington boots. None of the crew members on deck wore a lifejacket or PFD.
16. As the port dredges came up Ian Bell noticed a hole in the belly of the fifth dredge bag. Ian Bell discussed this with Mr Rennie through the open porthole of the wheelhouse. Ian Bell and Mr Rennie agreed that the dredge bag would require to be repaired before commencing the next tow.
17. The tipping doors were brought to a vertically up position to allow the dredge bags to be emptied. Once emptied Ian Bell brought the port side tipping door to a horizontal position. Mr Rennie climbed onto the tipping door to commence effecting repairs on the damaged bag.
18. Prior to climbing onto the tipping door neither Mr Rennie nor any other crew member fastened the safety chains onto the port side tow bar.
19. Mr Rennie did not don a lifejacket or PFD prior to climbing onto the tipping door. Mr Rennie was not secured by a safety line or harness.
20. Whilst Mr Rennie was standing on the tipping door the boat rolled gently. During this rolling motion Mr Rennie was standing but crouched over the damaged bag. Whilst in this position, as the boat rolled, Mr Rennie was struck on the body or legs by the tow bar which swung against him.
21. As a result of being struck by the tow bar Mr Rennie lost his balance and fell from the tipping door into the sea.
22. Mr Rennie went overboard the FV King Challenger at approximately 09.40 hours on 23 June 2016.

Man overboard recovery operation by crew

23. On seeing Mr Rennie falling from the tipping door Ian Bell shouted "man overboard". On hearing this shout the mate, Derek Smith, pulled the engine into neutral. Derek Smith then sounded the vessel's general alarm.

24. Mr Rennie was sited approximately 20 metres astern of the vessel. He was seen trying to swim towards the FV King Challenger. The vessel began to drift away from Mr Rennie. Derek Smith put the engines into reverse. The skipper arrived in the wheelhouse and took charge of the vessel. Derek Smith then left the wheelhouse and threw a lifebuoy towards Mr Rennie but could not reach him. The skipper stopped the vessel when Mr Rennie was spotted close to the vessel's stern on the port side.

25. Derek Smith then went to get the man overboard recovery harness ("Moby") which was located at the stern of the vessel. By the time Derek Smith returned with the Moby Mr Rennie had disappeared from view. Mr Rennie was then spotted on the surface off the vessel's port shoulder. A lifebuoy was thrown towards Mr Rennie. Derek Smith threw the Moby towards Mr Rennie. Mr Rennie got hold of the Moby but let go of it seconds later.

26. Darren Rennie, with the reluctant permission of the skipper, donned a life jacket and jumped into the water. He managed to put the Moby around Mr Rennie who was by this time apparently unconscious. Members of the crew then lifted Mr Rennie onto the deck with the assistance of the vessel's crane. Darren Rennie swam and re-boarded the vessel by the ladder built into the vessel's hull and located at the aft of the vessel.

27. The time between Mr Rennie falling into the sea and being recovered was approximately 10 minutes.

28. During the recovery operation the skipper, John Nithavrianakas, sent a "mayday" call to Shetland HM Coastguard.

Attendance of Search and Rescue Helicopter

29. At or about 09.50 hours the Search and Rescue Helicopter attached to HM Coastguard, based at Sumburgh, was called to attend the fishing vessel. The Search and Rescue Helicopter was crewed by pilot Graham Humphries, co-pilot Frans Porrenga, winch operator Michael Cross and winchman Alistair Drummond. The helicopter was airborne at or about 10.00 hours.

30. The Search and Rescue Helicopter located the FV King Challenger approximately 8 minutes after becoming airborne. The FV King Challenger was located between 15 and 20 nautical miles north-west from Sumburgh. Alistair Drummond was winched onto the vessel. He observed crew members carrying out CPR (cardiopulmonary resuscitation).

31. Alistair Drummond directed the crew to manhandle Mr Rennie to the rear port quarter of the vessel to allow for Mr Rennie's evacuation. Alistair Drummond inserted an Oeropharangeal Airway and Hypothermic Strops. Mr Rennie was unresponsive to any stimulus.

32. Once winched aboard the Helicopter both Alistair Drummond and Michael Cross continued CPR. Mr Rennie was connected to a defibrillator. Alistair Drummond delivered two shocks at 10.21 hours and a further shock at 10.25 hours. As the helicopter was landing Alistair Drummond observed that the defibrillator was showing Mr Rennie's heart rhythm to be asystole (cardiac standstill or arrest).

Arrival at Lerwick and transfer to Hospital

33. On leaving the FV King Challenger the Search and Rescue Helicopter took approximately 10 minutes to reach the emergency landing site at Clickimin, Lerwick.

34. On landing in Lerwick Mr Rennie was transferred to an ambulance. CPR was continued on the ambulance on route to the Gilbert Bain Hospital.

35. The ambulance arrived at Gilbert Bain Hospital at approximately 10.42 hours. CPR was taken over by Accident and Emergency nurses. Mr Rennie was taken to the resuscitation room. He was attended there by James Unsworth, consultant physician, and Dr Broydon Pulton, consultant anaesthetist, and nursing staff. Dr Pulton inserted an endotracheal tube to support breathing. Adrenaline, Nalexone, Calcium Gluconate and an infusion of 8.4% Bicarbonate was administered.

36. At or about 11.00 hours, following the administration of four cycles of adrenaline, the team caring for Mr Rennie concluded there was no prospect of recovery. Mr Rennie was pronounced life extinct at about 11.00 hours on 23 June 2016.

37. As at the date of his death Scott James Rennie was 31 years of age.

Post mortem examination

38. A Post Mortem was carried out by Matthew Lyall and James Grieve at Aberdeen on 29 June 2016. Crown Production 2 is a copy of the post mortem report signed by Dr Lyall and Dr Grieve dated 5 July 2016 and a toxicology report compiled by Dr Duncan Stephen and Dr Kevin Deans also dated 5 July 2016. The post mortem report concluded that the cause of death was as a result of immersion in seawater following an accident on board a fishing vessel. The mechanism of death was drowning.

39. The toxicology analyses found there to be a low level of methadone in the blood together with prescription pain killers.

40. Crown Production 12 is an addendum to the post mortem and toxicology report and is signed by Dr Matthew Lyall and dated 14 September 2014. The addendum states there were three separate and recent surface injuries on the deceased's body which were not obviously due to efforts at resuscitation. These were described as follows:

    a. A sizeable area of patchy bruising, 5 x 12 cm, on the lower half of the left shin.

    b. A small bruise, 1x1 cm, on the front/inner aspect of the middle part of the right thigh, and

    c. An area of grazing and bruising, 3 x 2 cm, on the back of the right shoulder, overlying the shoulder blade.

Marine Accident Investigation Branch ("MAIB")

41. Following the accident an investigation was carried out by the MAIB. An accident report was published following that investigation in March 2017 under Report No 5/2017. Crown Production 3 is a copy of said report.

42. In terms of said report the MAIB identified the following :

    1. The crew regularly worked on open tipping doors without securing themselves with a lifeline or wearing a lifejacket.

    2. Mr Rennie had been a strong swimmer but was incapacitated within 4 minutes of falling into the cold water.

    3. The crew were unprepared for the rescue of an unconscious casualty from the water.

43. The MAIB report commented that the type of tipping door system installed in the FV King Challenger had been installed on between 30 and 40 other scallop dredgers registered in the United Kingdom. This system eliminated the need for a tipping bar and Gilson to invert the dredge bags when emptying the catch.

44. The MAIB report, at page 5 thereof, referred to an earlier report, being MAIB Report 6/2010, this being a person overboard report from 3 named scallop dredgers and the subsequent loss of 3 lives. The said report of 2010 had included the following statement:

> "The tipping rail system is a recent innovation, and it is possible that as the industry gains experience of its use it will find new hazards which have not yet been identified."

45. The MAIB Report, at page 9, under the heading "Unsafe Working practices" endorsed the above statement and also went on to add as follows:

> "Neither Seafish generic risk assessment nor the guidance from the MCA discuss the risk of falling overboard from tipping doors. However, it is likely that those responsible for developing these documents were unaware that fishermen were occasionally proceeding on to the doors to work."

46. The MAIB report acknowledged that, following the accident, West Coast Sea Products Limited had (1) prohibited crew on its vessels from climbing onto the tipping doors without the use of a harness and lifeline, (2) instructed their skippers to conduct man overboard drills on a monthly basis and (3) purchased specialist equipment and implemented a fleet-wide procedure for recovery of an unconscious casualty from the water.

47. As part of their investigation, the MAIB gave consideration to the toxicology report on Mr Rennie which had revealed traces of various drugs. They sought advice from a forensic pharmacologist, Dr Edward Bliss, who concluded that Mr Rennie's

judgement would not have been impaired at the time of the accident. Dr Bliss further concluded that Mr Rennie's survivability would not have been affected by the drugs in his system (see report page 5).

48. Following the conclusion of their investigation the MAIB issued a safety flyer to the fishing industry outlining the circumstances of Scott James Rennie's death. Crown Production 4 is a copy of the safety flyer. The safety flyer outlined the dangers of cold water shock and stated that the wearing of lifejackets while working on deck could save lives in man overboard situations.

Maritime & Coastguard Agency (MCA) and the Fisherman's Safety Guide

49. The MCA is an executive agency and has its Headquarters in Southampton. The MCA has the role of a regulator and to oversee safety in the Merchant Navy and commercial fishing fleet. They promote legislation and issue guidance on maritime matters and provide certification to sea farers.

50. The MCA co-sponsored the publication entitled "Fisherman's Safety Guide". Crown Production 10 is a copy of the guide published in August 2016. The Guide is divided into various sections. Section 4 relates to Emergencies including a Man overboard emergency. The guidance states that "wearing a PFD or lifejacket at all times on deck will significantly increase your chances of survival if you go overboard" (page 42).

51. Section 5 of the Guide (page 51) confirms the basic training all fishermen must undergo as from 1 January 2005. New entrants, defined as a person who is for the first time gainfully employed or engaged as a crew member on a commercial fishing vessel registered in the United Kingdom, must have completed the following course:

- a one day course in basic sea survival.

Within 3 months of starting work all new entrants must complete the following additional courses:

- a one day basic fire-fighting and prevention course,
- a one day basic first aid course, and
- a one day basic health and safety course.

52. The Guide (also at page 51) confirms that an experienced fisherman, defined as a fisherman who has been working as a fisherman for two years or more, must complete a one day course in safety awareness and risk assessment.

53. Upon completion of these courses fishermen are recommended to apply to the Sea Fish Industry Authority ("Seafish") for either a "new entrant" or "experienced fishermen" photo identification card verifying their compliance with these requirements.

MAIB – Lifejacket Review

54. Crown Production 11 is a review carried out by MAIB. It is entitled "Lifejackets : a review". It was published in November 2016. The purpose of the document was to evaluate the success of initiatives aimed at encouraging commercial fishermen to wear PFDs on the working decks of fishing vessels whilst at sea. The summary contained at page 11 of the review states:

> "Although the MCA committed to legislating mandatory PFD wear by December 2012, later postponed to 2015 and then June 2016, it has now stated that the earliest this could be achieved would be December 2020."

55. The review contains MAIB statistics from its database of cases where marine accidents led to persons falling into the water from fishing vessels between 2000 and 2015. The summary on page 5 of the review states:

> "The casualty statistics show that an MOB incident is between five and eight times more likely to result in a fatality when the casualty is not wearing a PFD. This is further corroborated by the findings of the MCA-led Casualty Review Panel establishing that 148 lives could have been saved in a 7-year period had the casualties used some form of buoyancy aid."

56. The review acknowledged that a number of organisations have attempted to alter behaviour in the fishing industry by encouraging commercial fisherman to wear PFDs while working on deck. These included campaigns by the RNLI, SEAFISH and MCA.

MCA – MSNs, MGNs and MINs

57. The MCA is involved in the production of Merchant Shipping Notices ("MSNs"), Marine Guidance Notes ("MGNs") and Marine Information Notes ("MINs").

58. The Fisherman's Safety Guide, at page 53, defines MSNs, MGNs and MINs as follows:

> "Merchant Shipping Notices (MSNs) contain the technical information that is associated with the Regulations (Statutory Instruments) laid down by Parliament.
>
> Marine Guidance Notes (MGNs) provide guidance on safety and pollution prevention matters.
>
> Marine Information Notes (MINs) provide information about the MCA's business arrangements on matters which are time limited or subject to regular updates.
>
> Identifying letters on these publications show whether it is addressed to merchant shipping (M), the fishing industry (F) or both (M + F)"

59. MSNs, MGNs and MINs are available on the MCA website.

Merchant Shipping Notice (MSN) 1770(F) and MSN 1872(F)

60. Crown Production 5 is a Merchant Shipping Notice, being MSN 1770 (F). The notice is entitled "The Fishing Vessels Code of Safe Working Practice for the Construction and Use of 15 metre length overall (LOA) to less than 24 metre registered length (L) Fishing Vessels". The MSN was effective from 23 November 2002. The MSN is to be read in conjunction with the Fishing Vessels (Safety of 15-24 Metre Vessels) Regulations SI 2002.

61. MSN 1770 (F) does not contain specific guidance on the wearing and use of PFDs.

62. Crown Production 6 is a Merchant Shipping Notice, being MSN 1872 (F). The notice is entitled "The Code of Safe Working Practice for the Construction and Use of Fishing Vessels of 15m Length Overall to less than 24m Registered Length". Section 3.1 of MSN 1872 (F) confirms that the code contained within the said MSN "sets out the full text of the revision to the previous code set out in MSN 1770". MSN 1872 (F) came into force on 23 October 2017.

63. MSN 1872 (F) contains a recommendation on the wearing and use of PFDs for fishermen working on open decks of a fishing vessel whilst at sea (see paragraph 6.1.1.3).

64. As at the date of Mr Rennie's death the wearing of a lifejacket or PFD whilst working on the deck of a fishing vessel was not a mandatory requirement.

MCA – Provisional Guidance on Implementation of ILO work in Fishing Convention (ILO 188).

65. Crown Production 15 is a copy of the MCA's provisional guidance on implementation of ILO (International Labour Organisation) work in Fishing Convention. The provisional guidance states:

> "When regulations implementing the Work in Fishing Convention come into force later this year, new requirements for health and safety will apply to all fishermen regardless of employment status.
>
> This note provides provisional guidance provision and wearing of PFDs. this information is subject to change as the Regulations are finalised. It is the responsibility of the fishing vessel owner to check final requirements".

66. The provisional guidance relates to the compulsory provision and wearing of PFDs on fishing vessels. Paragraph 6 of the provisional guidance states:

> "6.1 In view of the evidence in section 1 above of the risk of falling overboard, and the increased risk of drowning when a PFD is not worn, the MCA requires that, unless measures are in place which eliminates the risk of fishermen falling overboard, all fishermen must be provided with and must wear PFDs or safety harness. The measures preventing Man Overboard must be documented in a written risk assessment.
>
> 6.2 The MAIB in their Safety Digest 1/2017 published the following advice: Always wear a lifejacket when working on the open decks. If you end up in the water it can save your life by:
>
> - Reducing the load on your heart as you won't have to struggle to swim.
> - Keeping you afloat and your face clear of the water, allowing you to breathe.
> - Assisting those recovering you by providing them with something to grab onto.
> - Increasing your visibility in the water, helping your rescuers find you."

67. The MCA's provisional guidance was published in October 2018.

MGN 570 (F) and MGN 571 (F)

68. Crown production 13 is a copy of MGN 570 (F) which is entitled "Fishing Vessels: Emergency Drills". It was published in October 2017.

69. MGN 570 (F) provides guidance on the prevention of MOB situations. The Note discusses why cold water shock and hypothermia can affect MOB casualties. Guidance is provided on the assessment of risks of a MOB and how to prevent it. The MGN provides guidance on the wearing of PFDs and safety lines.

70. Crown production 14 is a copy of MGN 571 (F) which is entitled "Fishing Vessels: Prevention of Man Overboard". It was published in October 2017.

71. MGN 571 (F) provides guidance on different types of emergency drills. The dangers of cold water shock and hypothermia are acknowledged.

MGN 588 (F)

72. MGN 588 (F) was published in November 2018. It is entitled "Compulsory Provision and Wearing of Personal Flotation Devices on Fishing Vessels". It is to be read in conjunction with MGN 570 (F) and MGN 571 (F).

73. Section 6 of MGN 588 (F) states as follows:

> "6.1 In view of the evidence in section 1 above of the risk of falling overboard, and the increased risk of drowning when a PFD is not worn, the MCA requires that, unless measures are in place which eliminate the risk of fishermen falling overboard, all fishermen must be provided with and must wear PFDs or safety harness. The measures preventing Man Overboard must be documented in a written risk assessment.
>
> 6.2 The MAIB in their Safety Digest 1/2017 published the following advice:
>
> Always wear a lifejacket when working on the open decks. If you end up in the water it can save your life by:

- Reducing the load on your heart as you won't have to struggle to swim.
- Keeping you afloat and your face clear of the water, allowing you to breathe.
- Assisting those recovering you to by providing them with something to grab onto.
- Increasing your visibility in the water, helping your rescuers find you."

74. MGN 588 (F) is the current Marine Guidance Note which reflects the provisional guidance which was contained in Provisional Guidance on Implementation of ILO work in Fishing Convention (ILO 188).

75. Following publication of MGN 588 (F), the failure to ensure the provision and wearing of PFDs and/or fall restraint harness by all fishermen where there is a risk of falling overboard will be considered by the MCA to be a breach of health and safety legislation. In terms of MGN 588 (F) the only exception to the wearing of a PFD and/or fall restraint harness is where the fishing vessel owner can demonstrate, through a documented risk assessment, that the risk of falling overboard has been eliminated by other measures.

Current Safety Policy operated by West Coast Sea Products Limited

76. Since the date of the accident which occurred on 23 June 2016, West Coast Sea Products Limited carried out an extensive review of working practices upon the vessels which they operate.

77. In relation to scallop dredgers, including the FV King Challenger, the Company has revised its working practices. Revised practices include employing a different method of repair to dredge bags and a prohibition against any crew member going onto the tipping doors whilst at sea. In the event that it is necessary for a crew

member to access the tipping door then the Company now insists on the wearing of a safety harness.

78. West Coast Sea Products Limited now requires the crew of their vessels to undergo a MOB drill once per month. In 2018 the Company set up a "WhatsApp" group to encourage the skippers of their vessels to submit, and share, photographic proof of the policy being adhered to and carried out in practice.

79. West Coast Sea Products Limited now ensures that there are immersion suits for every crewman on their fishing vessels.

80. The first inventory of productions lodged on behalf of West Coast Sea Products Limited is a copy of the safety folder for the FV King Challenger. At page 4/51 there is contained the Company's PFD wear policy which is stated in the following terms:

> "It is a requirement of this vessel to wear a Personal Flotation Device (PFD) at all times whilst working on or around the areas of the vessel where an overboard accident could occur. This includes but is not limited to the working deck, aloft and whilst working in the harbour or port.
>
> All crew, contractors and visitors are required to comply with this policy except where the vessel's risk assessment explicitly states that a PFD is not required in that location and lists the control measures that reduce the risk of falling overboard beyond what could be reasonably expected. In general terms this means that in the specific area being assessed the predictable risk of falling overboard has been reduced to zero due to the control measures in place."

Cold water shock, survival training and cultural attitude to the wearing of PFDs.

81. Various Crown Productions refer to cold water shock and the effects it can have on a person entering the water (Crown Productions 3, 4, 10, 13, 14 and 15). Cold water shock is the first reaction of falling into water below 15 degrees centigrade.

82. Cold water shock is rapidly followed by cold water incapacitation. Death by drowning can occur.

83. A PFD can assist in keeping a casualty's face clear of the water. It can potentially reduce the load on the casualty's heart as it helps the casualty stay afloat whilst exerting less energy.

84. Current mandatory survival courses for fishermen are unlikely to allow participants to experience the conditions of cold water shock other than in simulated circumstances and ordinarily in heated swimming pools. The RNLI has in the past conducted realistic cold water shock courses. These courses are not regularly conducted because of the risks involved in realistic training. In Shetland, survival courses used to involve participants jumping into Lerwick Harbour. The former practice in Shetland has been discontinued due to health and safety concerns.

85. As at the date of the accident on 23 June 2016 no members of the crew of the FV King Challenger elected to wear a PFD. Many fishermen have hitherto preferred not to wear PFDs during the course of their employment. There has been a culture whereby fishermen have elected to work without wearing lifejackets or PFDs.

86. The MAIB database of marine accidents between 2000 and 2017 recorded 153 fatal drowning accidents from UK registered fishing vessels. Of these, 104 of the fatalities were not wearing PFDs, 20 were wearing PFDs and in 29 cases it is unknown whether PFDs were worn at the time of the accident (Crown Production 15).

Submissions

[18] Both Miss Cook and Mr Hastie provided me with detailed written submissions. I am grateful to them for their efforts in this respect.

[19] The conclusions which both Miss Cook and Mr Hastie invited me to draw from the evidence were similar but for one aspect. That related to the facts which I should find

proved in connection with the mechanism by which Mr Rennie fell from the tipping door. In Mr Hastie's submission he argued that I should accept the conclusions of the MAIB investigation, namely, that Mr Rennie lost his footing and fell as a result of the swell and roll of the vessel. He submitted that I should accept the evidence of Ian Bell. He asked me to find the evidence of Ian Bell as being both credible and reliable. He submitted I should prefer Mr Bell's version of events over the evidence given by Paul Jones and Craig Hastings. He questioned their credibility and reliability given the fact that both these witnesses had given evidence in court which was inconsistent with their prior signed statements taken immediately after the accident. In her submissions, Miss Cook asked me to prefer the evidence of Paul Jones and Craig Hastings over that given by Ian Bell. In so doing, Miss Cook submitted that the Crown was not suggesting that Ian Bell caused the tow bar to move or that he had contributed to the accident in any way. The Crown's position was that the tow bar had moved, or swung, as a result of it not having been secured by safety chains.

[20] In their respective submissions, Miss Cook and Mr Hastie reached similar conclusions as to what I should find by way of precautions which could reasonably have been taken and, had they been taken, might realistically have resulted in the death or accident, or any accident resulting in death, being avoided. The only divergence in their submissions in this respect again related to the involvement of the tow bar. My findings reflect my assessment of the evidence relating to the involvement of the unsecured tow bar.

[21] Furthermore, both Miss Cook and Mr Hastie addressed the issue of the use and practice of the wearing of life jackets and, in particular, the use of what is known as a personal flotation device (PFD). Both considered this to be an important aspect of this inquiry. Miss Cook submitted that evidence, and documentation produced, was unclear in relation to the current position in relation to whether the wearing of PFDs was a statutory or

mandatory requirement when it came to fishing vessels. The Crown submitted that a more simplified procedure may be preferable when it comes to the MCA imparting information on this matter to the fishing community. Mr Hastie also submitted that it was not entirely clear from the evidence whether the wearing of PFDs was now mandatory as a matter of law. He reminded me of his client's position, namely, that as a Company their policy was clear that PFDs had to be worn where there was a risk of an overboard accident. Given that position he argued it was not necessary for me to make any recommendation so far as West Coast Sea Products Limited is concerned. Mr Hastie recognised that it remained a matter for me if I wanted to make wider recommendations in this respect.

[22] The use and requirement to wear PFDs is an important matter and something I address in detail in the discussion and conclusions to follow hereon.

[23] In the course of my own researches I became aware of two recently published determinations following FAI's which gave detailed consideration to the issue of PFDs, and their use, on commercial fishing vessels. The determinations are made by a brother and sister Sheriff sitting in the Sheriffdom of Grampian, Highland and Islands. The first is the determination of Sheriff Eilidh MacDonald, sitting at Portree, into the death of Alasdair Finlay MacLeod [2019] FAI 11. The second determination is that of Sheriff Christopher Dickson, sitting at Lochmaddy, into the death of Gerard Gillies [2019] FAI 3. I have found the conclusions in these determinations helpful in assisting me to understand the current legal footing relating to the use of PFDs.

[24] The above determinations led me to discover the existence of MGN 588 (F). Both Sheriff MacDonald and Sheriff Dickson had been addressed in relation to this MGN. I refer to this MGN in the following discussion and conclusion.

[25] Although I was not addressed on the existence of this MGN by either participant in the inquiry I have no doubt that it is the formal guidance which followed on from the provisional guidance lodged as Crown Production 15. The fact I was not made aware of this MGN implies no criticism of the participants. It was confirmed that the provisional guidance had only been published on or about the first day that the inquiry sat to hear evidence. Indeed, the MGN was published following the first two days of evidence but prior to the last. In these circumstances, whilst not having been addressed upon this MGN, I do not consider it inappropriate to have referred to MGN 588 (F) in my formal findings in fact as its existence has an impact on the recommendations I have made. Without reference to MGN 588 (F) this determination would not take account of the current legislative position in relation to the wearing of PFDs as I now understand it to be.

Discussion and Conclusions

Section 26(2)(a) of the 2016 Act (when and where death occurred)

[26] In this inquiry there was no dispute as to when and where the death of Mr Rennie occurred. Scott James Rennie died at approximately 11.00 hours on 23 June 2016 at Gilbert Bain Hospital, Lerwick.

Section 26(2)(b) of the 2016 Act (when and where any accident resulting in death occurred)

[27] Again, there was no dispute in relation to this matter. The evidence supported the finding that an accident resulting in the death of the said Scott James Rennie occurred at or about 09.40 hours on 23 June 2016 on the fishing vessel King Challenger approximately 12 nautical miles south west of Scalloway, Shetland.

Section 26(2)(c) of the 2016 Act (the cause or causes of death)

[28] The evidence of the eye witnesses to the accident, as supported by the post mortem examination led to the finding that the cause of death was immersion in sea water following an incident whilst working on board a fishing vessel. The mechanism of death was drowning.

Section 26(2)(d) of the 2016 Act (the cause or causes of any accident resulting in death)

[29] As referred to in their submissions, parties invited me to reach different conclusions as to the cause of the accident which resulted in Mr Rennie falling into the sea from the tipping door. I refer to the parties submissions as outlined above.

[30] On considering this chapter of evidence, my conclusion was that the evidence of Paul Jones and Craig Hastings was to be preferred to that of Ian Bell. Both were firm in their views. They both gave an explanation why they had not mentioned the involvement of the tow bar when they had given their original statements. Each had had their statements taken almost immediately after the accident. Both spoke to having been in shock as a result of being involved in the recovery of Mr Rennie. Both were affected by the sad loss of their friend and colleague. I accepted their explanations in this respect. Furthermore, in reaching my conclusion that Mr Rennie was struck by the swinging tow bar, I also gave consideration to the evidence of both Derek Smith and Douglas White. According to my note of the evidence, Derek Smith stated, and conceded, that Mr Rennie "could have been banged by the bar". He did not see this, and it could be argued that his view was merely speculative, but it is clear that Mr White had reservations about the proposition that Mr Rennie had simply lost balance and fallen. He stated that no one had told him that the bar had hit Mr Rennie. He stated that the "Boat was doing a roll" but added, having 25 years of

experience as a fisherman, that "you get used to the roll". According to my note of the evidence, Douglas White stated he had spoken with Derek Smith afterwards. Mr White stated that "Derek was not comfortable with the situation which caused Scott to fall over the side". I also noted Mr White to be very sceptical of the suggestion that Mr Rennie had simply fallen off the boat during a roll. He stated "no one would just fall over the side". Again, Mr White had lengthy experience as a fisherman and skipper. He had in fact been the skipper of the FV King Challenger for a period of 6 years. I accept that Mr White also gave evidence to the effect that the tow bar would swing no more than a foot either way but that, he said, was dependent on the degree of slackening of the tugger winch. I could not determine from the evidence the extent to which the tugger winch had been slackened. Accordingly weighing all of this evidence together, on the balance of probability, I concluded that the unsecured tow bar did swing and strike Mr Rennie. The unsecured tow bar, in my judgement, contributed to the accident.

Section 26(2)(e) of the 2016 Act (any precautions which could reasonably have been taken, and had they been taken, might realistically have resulted in death, or any accident resulting in death, being avoided)

[31] There was no dispute that reasonable precautions could have been taken which might realistically have resulted in the death or accident being avoided. The only divergence in parties' submissions related to the issue of, and the involvement or otherwise, of the unsecured tow bar.

[32] There was no dispute that there had been defects in the system of work which contributed to Mr Rennie's death. West Coast Sea Products Limited accepted they had failed to assess the dangers of working on a tipping door whilst at sea. In fairness to the

Company, it is noted that in the MAIB report into the accident (Crown Production 3), it was acknowledged that tipping doors were a relatively new innovation and there was little guidance on the risks associated with them. In particular, the MAIB report stated that "Neither the Seafish generic risk assessment nor the guidance from the MCA discuss the risk of falling overboard from tipping doors" albeit this statement was qualified by the observation that those responsible for developing these documents were likely to have been unaware that fisherman would occasionally proceed onto the doors to work (see Crown Production 3 at page 9).

[33] The reasonable precautions which could have been taken to avoid the accident were therefore clear. The reasonable precaution which could have resulted in death being avoided was a matter of wider discussion. This involved consideration of the policy and practice, and consideration of the legal basis, of the requirement to wear lifejackets or PFDs both at the time of Mr Rennie's death and at the present time.

Section 26(2)(f) of the 2016 Act (any defects in any system of working which contributed to the death or accident resulting in death)

[34] The Company also accepted that they had failed to assess and identify safe working practices relating to the repair of dredge bags whilst at sea. This had since been addressed and new working practices were now in place. The new practices employed by the Company are detailed in the findings in fact.

[35] West Coast Sea Products are therefore to be commended for what was described at the inquiry by Captain Phillips as a "root and branch" overhaul of the working practices they now employ.

Section 26(2)(g) of the 2016 Act (any other facts which are relevant to the circumstances of the death)

[36] In terms of section 26(2)(g) of the 2016 Act I am entitled to make findings which are relevant to the circumstances of the death. Both Miss Cook and Mr Hastie on behalf of the participants in the inquiry provided me with their submissions in this respect.

[37] Miss Cook provided me with submissions relating to possible confusion in respect of MCA guidance regarding the wearing of PFDs and that there may be a lack of clarity in the dissemination of MCA guidance.

[38] Mr Hastie submitted that relevant factors to consider would be emergency drills and the acceptance by West Coast Sea Products Limited that prior to the accident MOB drills were not being carried out as frequently as they should have been. He submitted there had been significant changes to this policy by the Company. Mr Hastie further submitted that it may be a relevant factor that Darren Rennie did not don an immersion suit prior to entering the sea to recover the casualty. Again, he pointed to the Company's change of policy in this respect.

[39] In my judgement, I have wide scope, in the public interest, to make findings under section 26(2)(g) of the 2016 Act. Speculation must be avoided. Any findings made must be based on the evidence that has been presented to me.

[40] Taking account of the evidence presented, and having considered the submissions of the participants of the inquiry, whilst the variety of MCA guidance can appear complicated and confusing I did not hear evidence to the effect that fishermen found there to be a lack of clarity in the dissemination of that guidance. Similarly, there was no direct evidence that confusion existed over MCA guidance regarding the wearing of PFDs. For that reason, whereas the use of MSNs, MGNs and MINs is undoubtedly complicated, and might benefit

from a simpler framework, I cannot conclude on the evidence presented that this is a matter upon which I could make a formal finding or recommendation.

[41] I also heard limited evidence about the benefits and use of immersion suits therefore I could make no finding or recommendation in relation to this matter.

[42] What was very clear from the evidence was that there was a lack of appreciation or understanding amongst fishermen about the effects of cold water shock and how difficult it can be to recover a casualty, particularly an unconscious casualty, from the water. The evidence of this came from various Crown productions. There was also evidence given by Derek White who had taken part in an RNLI course where he had been exposed to an exercise conducted in cold water. His experiences on the course led to him change his views on the wearing of a PFD. Prior to the course he had never worn a lifejacket or PFD whilst working at sea – now he did. There was also the evidence of Mr Johnson who had experienced survival training conducted in Lerwick harbour.

[43] Linked to appreciation and understanding of the effects of cold water shock was the evidence relating to the requirement to keep detailed records of the nature and extent of emergency drills carried out on fishing vessels, including man overboard ("MOB") drills. Such drills should be as realistic as possible in order to enhance their effectiveness.

[44] It was accepted that, prior to the accident, there had been a lack of adherence to carrying out regular MOB drills on the FV King Challenger. Derek Smith gave evidence to the effect that it may have been months before the accident that a MOB drill had taken place. The evidence of the change in Company policy showed that West Coast Sea Products Limited now took this very seriously and were doing all they could to monitor and obtain proof that the crews of the fishing vessels they operated were carrying out regular drills in as life like a manner as possible.

[45] The MAIB report into the accident had concluded that the crew had been unprepared for the rescue of an unconscious casualty from the water. Whereas there may have been some confusion I accepted that, in general terms, the members of the crew did their very best to recover Mr Rennie as quickly as possible. The testament to their concerted efforts is the fact that Mr Rennie appears to have been recovered from the water in no more than 10 minutes.

[46] Evidence before the inquiry also confirmed that significant efforts had been made to encourage fishermen to wear a lifejacket or PFD. Mr White gave evidence confirming that there had been provision of PFDs given free to fishermen over a number of years. This was also confirmed by information contained in Crown production 11, being the MAIB Lifejacket review. The information contained therein (at page 5) confirmed that since 2013 various organisations had been involved in the distribution of heavily subsidised or free constant wear lifejackets to fishermen in the United Kingdom.

[47] Crown Production 15, being the provisional guidance on the compulsory provision and wearing of PFDs states at paragraph 5.2 that "despite a safety campaign and the distribution of approximately 8,000 free PFDs, there is evidence that on many vessels the risk of man overboard has not been eliminated and harnesses and PFDs are still not being worn". Many fishermen have elected not to wear these aids in the past. This was confirmed by the evidence given by all members of the FV King Challenger who stated at the time of the accident they were not wearing any PFDs. The statistics presented to the inquiry of fatalities following man overboard accidents confirmed that in the vast majority of cases a PFD had not been worn.

[48] The evidence, in my judgement, overwhelmingly supports the fact that it is necessary for ongoing efforts to be made to help effect cultural change amongst fishermen in

relation to the wearing of a lifejacket or PFD. Whereas I cannot conclude that Mr Rennie's life would have been saved had he been wearing a PFD, evidence gathered from the many tragic accidents which have occurred at sea supports the fact that there is a markedly greater likelihood of survival when a casualty is wearing a PFD. A PFD substantially lessens the risk of drowning.

[49] As I have commented, I was not referred to the existence of MGN 588 (F) but I have no doubt that this is the current guidance regarding requirements to wear a PFD on fishing vessels. Had I not become aware of this MGN I would have unhesitatingly determined that the wearing of PFDs should be made a mandatory requirement. MGN 588 (F) appears to make the wearing of a PFD a mandatory requirement – or at least that is how the MGN reads at first blush. Closer inspection of the MGN might cast doubt on that initial conclusion.

[50] A closer reading of MGN 588 (F) confirms that, from date of publication, being November 2018, the MCA requires that "unless measures are in place which eliminate the risk of fishermen falling overboard, all fishermen must be provided with and must wear PFDs or safety harnesses"(at paragraph 6.1). It should be noted that paragraph 6.1 describes the "and/or" alternative – namely PFD or safety harness. MGN 588 (F) makes it clear that, following the introduction of the International Labour Organisation Convention on Working in Fishing (ILO 188), the MCA "will now enforce the use of safety harness and/or PFDs as a mandatory requirement where there is a risk of falling overboard" (at paragraph 5.3). Again it will be noted the "and/or" alternative of the wearing of safety harness or PFD. There is therefore some force in the Crown submission, when they referred to the provisional guidance, that it was not technically accurate that the mandatory requirement to wear a PFD has been achieved. What is clear is that a breach of MGN 588 (F) will be regarded as a

breach of health and safety legislation. Any discovered breach could therefore have legal consequences for boat owners, skippers and fishermen.

[51] The inquiry heard some evidence that fishermen found lifejackets difficult to wear in certain working conditions. Mr Johnston gave evidence of his own experience of nearly being pulled over when the buckle of his PFD became caught whilst he was engaged in shooting a net. Darren Rennie stated that wearing PFDs in tight spaces could cause problems. Ian Bell stated that, in his experience, PFDs could be quite restrictive. It would appear, however, that modern PFD design now makes the aid less cumbersome. Derek Smith gave evidence that whilst PFDs were not the comfiest to wear they did not cause any real problems when carrying out duties at work. Clearly West Coast Sea Products Limited now considers that their fishermen can carry out their duties on deck in a safe manner whilst wearing a PFD.

Recommendations

Section 26(1)(b) of the 2016 Act (recommendations (if any) as to (a) the taking of reasonable precautions, (b) the making of improvements to any system of work, (c) the introduction of a system of working and (d) the taking of any other steps which might realistically prevent other deaths in similar circumstances)

[52] Given the efforts of West Coast Sea Products Limited to overhaul their working practices I accepted Mr Hastie's submission that no formal recommendations need to be made in relation to the Company.

[53] Having reviewed and considered the evidence, based on the conclusions I have reached, I recommend:

I. that fishermen involved in this type of scallop dredger fishing should avoid standing on the tipping door of the vessel whilst at sea to carry out repairs to dredge bags or for any other reason. A system of work should be devised to avoid the need for fishermen to stand on the tipping door.

II. that if fishermen involved in this type of scallop dredger fishing should require to stand on a tipping door, either at sea or in port, then they should wear a safety harness or safety line.

III. all fishermen should be aware of the terms of Marine Guidance Notes (MGN) 570 (F), (MGN) 571 (F) and MGN 588 (F).

IV. all fishermen, being involved in scallop dredging or involved in commercial fishing more generally, should wear PFDs at all times when working on the open deck of a fishing vessel.

V. that, in so far as it has not already been implemented by statute or regulation, the wearing of a lifejacket or PFD, whilst working on the deck of a fishing vessel, should be a mandatory requirement throughout the fishing industry.

[54] In making the above recommendations I considered that it remained necessary to include recommendation V. Standing the existence of MGN 588 (F), and my observation that the MGN allows for situations where a safety harness "and/or" a PFD requires to be worn, the use of a grammatical conjunction indicates that use of either satisfies the requirement of the MGN. It remains a matter for the owner of a fishing vessel to carry out a documented risk assessment of the situation. If a risk assessment in the owner's opinion eliminates the risk of falling overboard then the use of a PFD or safety harness is not required. Accordingly, I consider that mandatory wearing of a PFD has not been fully achieved by MGN 588 (F). I consider that, whether a safety harness is worn or not, PFDs

should be worn as a mandatory requirement expected of all fishermen working on the decks of fishing vessels.

Publication and distribution of this determination

[55] Section 27(1)(a) of the 2016 Act provides that The Scottish Courts and Tribunals Service ("SCTS") must publish, in such manner as it considers appropriate, each determination made under section 26(1). In terms of section 27(1)(b) of the 2016 Act, SCTS must give a copy of each such determination to:

(i) The Lord Advocate,

(ii) each participant in the inquiry,

(iii) each person to whom a recommendation made in the determination is addressed, and

(iv) any other person who the sheriff considers has an interest in a recommendation in the determination.

[56] Accordingly, a copy of this determination will be published as SCTS considers appropriate, including publication on their website. Furthermore, SCTS will give a copy of this determination to the Lord Advocate and the participants of the inquiry.

[57] Section 27(1)(b)(iv) of the 2016 Act allows for a copy of the determination to be given to "any person", which includes in my judgement any Association or professional body, which I consider would have an interest in any recommendation made in the determination. I therefore consider this gives me a wide discretion when it comes to making an order in this respect.

[58] I consider that both the MCA and the MAIB have an interest in the recommendations I have made and ought to be given a copy of this determination. Further, a copy of this

determination should be given to Seafish who are based in Edinburgh given their involvement and promotion of fishermen's safety.

[59] Finally, from a local perspective, it is hoped that this determination will assist in the future education and training of fishermen. The fishing industry is the most valuable industry in monetary terms that the Shetland Islands has. Through ongoing education and training it is hoped that there will be a cultural change in the industry to one where the use of PFDs on the decks of fishing vessels is the norm, and accepted by all as a mandatory requirement. Promoting such culture change is to be encouraged. In those circumstances, given the fact that Shetland plays an important part in the education and training of fishermen, I consider that a copy of this determination should be given to the North Atlantic Fisheries College (NAFC) Marine Centre based at Scalloway. The NAFC is part of the University of the Highlands and Islands (UHI). It provides courses in basic sea survival and health and safety amongst other courses. It is appropriate that the NAFC Marine Centre is made aware of this determination so that it can to be used in such manner, or referred to, in their training courses as they consider would help promote awareness and continue to assist in education and culture change in young fishermen regarding the use of PFDs.

Postscript

[60] I would wish to record the fact that, in my judgement, all members of the crew of the FV King Challenger did all that they could to recover Mr Rennie from the water as quickly as possible. In particular, the actions of Darren Rennie are to be acknowledged. Mr Darren Rennie displayed incredible selfless bravery in the action he took in order to try to save the life of Scott James Rennie.

[61] Both Miss Cook and Mr Hastie extended their condolences during the inquiry and in their written submissions. I also wish to record my condolences to the family, friends and former work colleagues of James Scott Rennie.