MSN 1786 (F), Annex 1 - Fishing Industry Code of Practice on Working Time Standards

ANNEX 1

FISHING INDUSTRY CODE OF PRACTICE ON WORKING TIME STANDARDS

Preamble

Fishing is a hunting activity. It deals with a highly perishable commodity and operates in an unpredictable working environment. These require that work activities must be prioritised to ensure the safety of the vessel, the effective prosecution of fishing operations and the rapid initial processing, icing and refrigeration of the catch.

1. Purpose

In recognition of Europeanl Directives 93/104/EC and 2000/34/EC, the purpose of this *Code of Practice* is to apply common standards of working time throughout the fishing industry, to ensure that the crews of fishing vessels receive adequate rest, thereby minimising risk to health and safety arising from fatigue.

2. Self-employed Fishermen

This *Code* recognises that the limits in the Working Time Directive cannot be enforced against self-employed fishermen. However they should regard the *Code's* limits on working hours as useful benchmarks to avoid excessive hours.

3. Skippers

Insofar as the masters of fishing vessels meet the conditions set out in article 17(1) of Council Directive 93/104/EC of 23 November 1993[1] it is for the individual master/skipper to determine his/her own compensatory rest and compensatory leave periods, within the context of the principles of the protection of health and safety and the overall safety of the vessel,

4. Working Time Standards

This Code acknowledges the merit of applying working time standards to all personnel aboard fishing vessels. Directive 2000/34/EC recognises the distinctive characteristics of the sea-fishing sector and provides that, in accordance with the general principles of the protection of the health and safety of workers, Member States may allow exemptions from daily and weekly rest periods within it. It is in line with the spirit of the Directive that this Code complies with the standards laid down in the Directive as far as practically possible.

5. Scope for Compensatory Rest

Within the pattern of activity of most fishing vessels, there is considerable scope for compensatory rest and relaxation when the vessel is steaming to and from the fishing grounds, between operations and when the vessel is in port. The application of compensatory rest periods to offset those occasions when the standards set out in Clause 7 below are not met for operational or technical reasons or for reasons having to do with the organisation of the work, is, therefore, a central feature of this Code.

[1] Article 17(1) "1. With due regard to the general provisions of the protection of the safety and health of workers, member States may derogate from Articles 3, 4, 5, 6, 8 or 16 when, on account of the specific characteristics of the activity concerned, the duration of the working time is not measured and/or predetermined or can be determined by the workers themselves, and particularly in the case of ...managing executives or other persons with autonomous decision-taking powers,"

6. Definitions

For the avoidance of doubt and for the purposes of this *Code* working time shall be as defined in regulation 2 of the Fishing Vessels (Working Time: Sea-fishermen) Regulations 200X.

7. Working Time Standards

Subject to the exceptions and compensatory arrangements, the following working time standards shall apply:

Minimum Daily Rest

10 hours rest in any 24 hour period

Minimum Weekly Rest

77 hours in a 7 day period

Annual Limits

A maximum of 2304 hours

Rest Periods

Rest periods may be divided into no more than two rest periods, one of which shall be at least six hours in length and the interval between consecutive periods shall be at least six hours in length.

8. Annual Leave

Under the Working Time Directive employed fishermen are entitled to paid annual leave. The normal patterns of work and remuneration in the fishing industry incorporate both minimum requirements for annual leave and payment for such, into the usual operational patterns of the vessels and the system of remuneration by trip.

9. Exceptions and Compensatory Leave

For objective or technical reasons or for reasons having to do with the organisation of the work, the standards in Clause 7 above may not be able to be met. In such cases, while the standards will remain as a benchmark, exceptions to the limits may be allowed provided that the general principles of the health and safety of the workers are respected. Such exceptions should take account of more frequent or longer leave periods or the granting of compensatory leave.

The degree and regularity to which the standards laid down in Clause 7 will be met and compensatory rest required will vary according to the type of fishing vessel, method of fishing and area of operation. However there are constraints to the strict application of limits on working time which arise from the nature of fishing as an occupation. For example, operational parameters and working patterns are, to a considerable degree, dictated by external factors such as weather, seasonal fishing, quota constraints, tidal conditions and daylight hours.

10. Fleet Specific Constraints

The table in ATTACHMENT A illustrates common working patterns within some specific fisheries. The table describes some of the objective technical/operational circumstances in which exceptions from the standards laid down in Clause 7 may be required and for which compensatory rest/leave may need to be made available.

11. Endorsement

This Code of Best Practice is recognised and commended by

The National Federation of Fishermen's Organisations
The Scottish Fishermen's Federation
The Northern Ireland Fishermen's Federation

and other sea-fishermen represented on the Fishing Industry Safety Group.

ATTACHMENT A

OBJECTIVE TECHNICAL/OPERATIONAL CIRCUMSTANCES IN WHICH EXCEPTIONS FROM THE STANDARDS MAY BE PERMITTED IN SPECIFIC FISHERIES

FLEET SEGMENT	OPERATIONAL AND TECHNICAL FACTORS	COMPENSATORY REST FACTORS
GILL NETTERS	Gill netters' operational patterns are to a large degree dictated by tides. It is not possible to work static nets during spring tides. Work time is therefore concentrated on the two weeks in the month when the neap tides occur.	Compensatory rest is available during the two weeks when the vessels are unable to work their gear. Due to the tidal nature this type of fishing and extreme weather conditions it is not uncommon for this class of vessel to lose up to 170 working days per year.
BEAM TRAWLERS	Beam trawlers target prime species in the main. It is not possible to tow the gear for long periods of time, as the catch will be subject to damage and spoilage due to abrasion in the net. Long tows would result in increased debris (sand/stones) in the gear damaging catch and increasing weight in the gear. This would risk the safety of the vessel. Work time is therefore concentrated around regular hauls throughout the trip.	Compensatory rest is available in periods steaming to and from the grounds, between hauls and between trips. Short tows, small quantities of prime fish result in relatively short time on deck and longer overall periods of rest. Due to extreme weather conditions it is not uncommon for this class of vessel to lose up to 130 working days per year.
WHITE FISH TRAWLERS	Work time is concentrated around the hauling operations and working the catch. Heavy fishing will routinely result in a requirement for prolonged periods of intensive work in order to gut, ice, stow and process the catch (which might include freezing). Snagging of gear and subsequent repair could also result in periods of intensive work.	Compensatory rest is available in periods steaming to and from the grounds, between hauls and between trips. A system of crew rotation is also common (in particular on the larger vessels operating longer trips) Although dependant on the size of vessel and area of operation due to extreme weather conditions it is not uncommon for this class of vessel to lose up to 130 working days per year.

FLEET SEGMENT	OPERATIONAL AND TECHNICAL FACTORS	COMPENSATORY REST FACTORS
NEPHROP TRAWLERS	**Traditional single net:** Operational parameters are generally set by natural phenomena such as daylight and tide. Work time is concentrated on favourable weather and tidal conditions. **Twin rig:** Vessels tend to be bigger and more powerful and as result tows are generally longer. Work time is concentrated between tows working the catch and preparing the decks ahead of the next haul.	Compensatory rest is available throughout the year due to unfavourable weather and tidal conditions. This may be concentrated on spring tides or periods of prolonged poor weather. It is not uncommon for this class of vessel to lose up to 160 days per year because of the factors outlined above. Compensatory rest is available throughout the year due to extremes of tide and weather. It is not uncommon for this class of vessel to lose up to 120 days per year because of the factors outlined above.
CRABBERS	Larger crabbers at sea for more than one day often work from first light. Work time is then concentrated for the period of time taken to haul and re-shoot the gear.	Compensatory rest is available in periods steaming to and from the grounds. It is uncommon for hauling to continue through the hours of darkness. Compensatory rest is often available on the basis of crew rotation. Due to extreme weather conditions it is not uncommon for this class of vessel to lose up to 120 working days per year.
INSHORE DAY BOATS	Diversity in mode of fishing characterises the inshore fleet. Work time is dictated by weather, season and tide and is, therefore, concentrated on periods of good weather and suitable tides/seasons.	Compensatory rest is available through out the year due to factors such as weather, season or tide. This may be concentrated during seasonal extremes. It is not uncommon for this class of vessel to lose up to 170 days per year because of the factors outlined above.

Extract from the Fishermen’s Safety Guide, Page 19

Equipment: recommended thorough examination/inspection frequency

Work equipment	*BU*	*M*	*Q*
Trawl winch and seats			●
Trawl blocks, gantries, towing points		●	
Fishing blocks and leads			●
Rope reels and net drums			●
Haulers			●
Net stacker			●
Power block/crane			●
Conveyors			●
Gutting machines		●	
Tipping doors (clammer)			●
Auto hooks and baiter (long liner)		●	
Riddler		●	
Cod end derrick		●	
Derricks and cranes		●	
Booms (beam trawler)		●	
Scotch poles (clammer)		●	
Hand blocks and pulleys		●	
Other lifting gear eg. Chain blocks	●		

BU: Before use M: Monthly Q: Quarterly

● *PUWER inspection*

● *LOLER thorough examination and PUWER inspection*

Make sure that machinery/equipment is regularly serviced; in line with the manufacturer's instructions.

MGN 311 (F), Annex 1 - Working and Protective Gear for Fishermen

Annex 1- For Crew of Smaller Fishing Vessels (Under 24 metres Registered Length)
A Guide to Personal Working Gear and Protective Gear for Fishermen – Basic Checklist to Protect Against Injury *

		WORKING GEAR				PROTECTIVE GEAR							SPECIALIST PROTECTION	
ACTIVITY	LOCATION	Oilskins *(and partial)*	Boiler Suit	Work Boots	Gloves	Hard Hat	Ear Protection	Safety line/ Harness	Lifejacket/ Buoyancy Equipment	Safety Goggles	Rubber gloves/ Apron	Insulated Jacket & trousers	Breathing Apparatus	Oxygen Meter
Fishing Watch	Working deck	•	•	■	•	■			■					
Any	Engine Room		■	■	•	•	■							
Any	Aloft	•	•	■	■	■		•						
Any	Outboard	•		■	■	•		•	■					
Grinding & cutting	Engine Room		■	■	■	•	•			■				
Grinding & cutting	Working deck		■	■	■	•				■				
Exposed work Including Shooting and hauling	Working deck	■		■	■	■		•	■					
Mooring	Working deck			■	■	■			■					
Stowage/ handling	Fish Room			■	■									
Stowage	Refrigerated Fish Room			■	■	•						■		
Battery maintenance	Engine Room		■	■			•			■	■			
Battery maintenance	Wheelhouse		■	■		•				■	■			
Loading/un-loading Fish Boxes & lifting Gear	Working deck			■	■	■								
Any	Enclosed space			■									■	■
Vessel maintenance	Inside Outside			■ ■	■ ■	■			•	• •				

*You may find this checklist helpful in considering what you need to do to protect against injury in hazardous situations. It may also help you to comply with regulations. MSN 1731 (M+F) identifies a fuller range of work activities, the PPE required and sets out the standards required for those items of protective clothing.

■ means a high priority item/essential

• means a priority dependant upon the local circumstances and the location

Annex D

Comments on the fatality that occured on FV *Maggie Ann* - Professor Mike Tipton

COMMENTS ON THE FATALITY THAT OCCURRED ON THE FV MAGGIE ANN, 12/02/09

Professor Mike Tipton M.Sc., Ph.D

Background

The details of this incident are presented as received from the MAIB at Annex A. The question I have been asked to address is: "Would a lifejacket have helped prevent the fatality?"

Comment

This immersion death occurred in approximately 8 minutes. This fact alone rules out hypothermia as a cause of death. The short survival time probably also removes the possibility of death being due to incapacitation caused by the cooling of superficial nerves and muscles. Death is most likely therefore due to some component of the "Cold Shock" response (CSR) – the cardio-respiratory responses initiated by rapid cooling of the skin on initial immersion that can act as precursors to drowning or cardiac problems. The water was cold enough to produce a CSR and the clothing worn by the deceased will have done little to attenuate this response. Although the head of the deceased was above the water, witnesses report that "sometimes waves were covering his face" and his "head was bobbing in the wake"

Although the deceased was thrown lifebuoys and urged to get hold of them, it appears that he was not able to do this.

Possible causes of death are therefore:

a. Drowning – I have no specific data (e.g. post mortem) to support drowning as the cause of death, although the description of the deceased as having a dark red/blue face could have resulted from right heart failure as a consequence of water in the lung. Assuming that the use of the phrase "suddenly disappeared" by an eye witness means "sunk below the surface" rather than drifting out of sight, this may also indicate flooding of the lungs and a consequent loss of buoyancy. Sudden disappearance due to sinking would also suggest that a large part of any air trapped in the deceased clothing took about 8 minutes to escape.
b. Cardiac arrest – I have no specific data (e.g. post mortem or medical information from his own medical records) to support cardiac problems as the cause of death. However, given that the deceased was relatively young and a non-smoker it is unlikely that he had pathological problems with his heart (myocardial ischaemia). The evidence seems more supportive of a pathophysiological cardiac problem as a consequence of immersion in cold

water with periodic face immersion; this has been reported to produce cardiac arrhythmias (Tipton et al, 1994).

To some extent, with regard to addressing the question of the potential value of a lifejacket, the cause of death is somewhat academic as in both cases a lifejacket would have helped. A lifejacket with a light, splash guard, webbing and a crotch strap fulfils several functions, these include:

a. Buoyancy: provided a lifejacket is correctly fitted it should help keep the airway and face clear of the water.
b. Decreased cooling: due to insulation provided by the jacket (small effect) and the reduced requirement for exercise and fewer periods of head immersion (larger effect) in the water that accelerate core cooling.
c. Decreased cardiac workload: due to reduced requirement to exercise to stay afloat.
d. Increased visibility: colour of the lifejacket and the light.
e. Greater ease of rescue: due to hand holds provided by a lifejacket.
f. Improved chance of body recovery: due to the buoyancy provided by a lifejacket helping the body remain at the surface of the sea if the lungs flood and the body becomes negatively buoyant.

Conclusion

The survivability of the crewman on the FV Maggie Ann would have been significantly improved had he been wearing a lifejacket.

Reference

Golden F. & Tipton M. (2002) Essentials of Sea Survival. Human Kinetic, Il, USA.

Tipton M, Kelleher, P & Golden F (1994) Supraventricular arrhythmias following breath-hold submersions in cold water. Undersea & Hyperbaric Medicine 21(3): 305-13.

ANNEX A

FV Maggie Ann

Narrative

Maggie Ann was engaged in scallop dredging. The vessel was in the process of lifting her dredges from the sea on to her deck at about 1300. As the deceased leaned over to empty the contents of the dredges, the lifting becket on the dredge parted and he lost his balance and fell into the sea at approximately 1308. He was not wearing a lifejacket.

The incident was witnessed by another deck hand who raised the alarm and threw a lifebuoy into the sea. The skipper reacted by putting the engines astern. As the vessel went astern, a second lifebuoy was thrown into the sea and the crew members urged the deceased to grab on to the lifebuoy.

The vessel and lifebuoy were probably a few metres away from the deceased when he disappeared from the surface at approximately 1316. Despite an extensive search and rescue operation which lasted over more than two hours, he was not found.

Weather/Environmental conditions

Location: Cardigan Bay, Wales

- Wind SW 3-4
- Sea <0.5M (said to be 1 foot), choppy at the time the deceased fell in water as the wind had picked up.

Weather data captured from a nearby weather monitoring buoy:

- Wind direction SSW/ Speed 13 knots
- Wave height 3 feet
- Wave period 6 seconds
- Air temp 42.3 F (6.0º C)
- Sea temp 43.9 F (6.5º C)
- Wind chill 34.7F (1.5º C)
- Civil twilight 1805

Details on Deceased

Romanian national
DOB: 30.12.1970 Age 38 Years, and said to be of good health – non smoker
(Copy of seaman's book attached)

Reported to be wearing trousers, sweat shirt (or a shirt and sweater), wellingtons and oil skin on top.
Discarded wellingtons in the water.
Experienced fisherman but had been working onboard for only a month when the accident happened.

Description of deceased in water by witnesses

- Describe him to be conscious-as he was trying to stay afloat
- When he fell, he initially was facing away from the boat
- His head was above the water
- Sometimes the waves were covering his face
- Head bobbing in the wake
- Looked towards them with eyes wide open- could see the white of his eyes
- Colour of face described as dark red/blue
- Did not communicate back to them despite constant urging to hang on
- Only one witness describes the deceased of placing his hand over his ears before he disappeared from the surface.
- It was as if he suddenly lost his strength to grab the lifebuoy
- He turned, face down in the water, he suddenly disappeared.

Annex E

Analysis of UK Fishing Vessel Safety Study 1992 to 2006 -
‘Section 7 - Recommendations’

SECTION 7 - RECOMMENDATIONS

The **Maritime and Coastguard Agency** is recommended to:

2008/173 In developing its plan to address the unacceptably high fatality rate in the fishing industry, identified in its study of statistics for the years 1996 to 2005, in addition to delivering the actions outlined at 6.2, the MCA are recommended to consider the findings of this safety study, and in particular to:

- Clarify the requirement for risk assessments to include risks which imperil the vessel such as: environmental hazards; condition of the vessel; stability etc.
- Work towards progressively aligning the requirements of the Small Fishing Vessel Code, with the higher safety standards applicable under the Workboat Code.
- Clarify the requirements of The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997 to ensure that they apply in respect of all fishermen on board fishing vessels, irrespective of their contractual status.
- Ensure that the current mandatory training requirements for fishermen are strictly applied.
- Introduce a requirement for under 15m vessels to carry EPIRBs.
- Review international safety initiatives and transfer best practice to the UK fishing industry with particular reference to the use of PFDs and Personal Locator Beacons.
- Conduct research on the apparent improvement in safety in other hazardous industry sectors, such as agriculture, construction and offshore, with the objective of identifying and transferring best safety practice from those industries to the fishing industry.

The **Department for Transport** and the **Maritime and Coastguard Agency** are recommended to:

2008/174 Agree the coherent resourced plan for reducing the fatality rate in the fishing industry (see Recommendation 2008/173).

The **DfT/ MCA/ Defra/ DARDNI/ Scottish Government Directorate for Marine** are recommended to:

2008/175 Work closely together and with fishing industry safety representatives, to ensure pragmatic safety concerns are integrated into conservation policy measures.

2008/176 Review the provision and allocation of grant funding for both mandatory and non-mandatory safety equipment and training, to ensure that the funding achieves maximum impact on safety.

The **Maritime and Coastguard Agency** and **Seafish** are recommended to:

2008/177 Review the current requirements for safety training with particular reference to training assessment and refresher training.

Seafish is recommended to:

2008/178 Conduct research into the present methods of potting with a view to identifying improvements in technology and procedures to reduce the current high incidence of accidents and fatalities within this sector.

Marine Accident Investigation Branch
November 2008

Safety recommendations shall in no case create a presumption of blame or liability

MAIB fishing accident flyer

MAIB

MARINE ACCIDENT INVESTIGATION BRANCH

FLYER TO THE FISHING INDUSTRY

MAGGIE ANN:

FATALITY DUE TO MANOVERBOARD

At about 1308 on 12 February 2009, a deckhand on board the UK registered scallop dredger *Maggie Ann* fell overboard as he was emptying a dredge bag. He had been standing on the port dredge beam, which was suspended and almost level with the gunwale, when the dredge bag lifting becket parted.

Despite the quick reactions of the skipper and crew, the deckhand sank below the sea surface before he could be rescued. Although an extensive search and rescue operation followed, his body was not recovered. Analysis of evidence based on eye witness accounts suggests that death was most likely due to cold water shock, leading to drowning or cardiac arrest.

The deckhand was a seasoned fisherman but was new to scallop dredging and had worked on board *Maggie Ann* for only 5 weeks. He had signed the Seafish Fishing Vessel Safety Folder to confirm that he had received a safety induction from the skipper, which included maintaining a secure hold of a suspension chain while attending to the dredge bags. However, he had not attended a safety awareness course and the risk assessment form neither identified any significant risk nor recorded any control measures against falling overboard. He is therefore unlikely to have had a full appreciation of the actual risks involved.

The deckhand was not wearing a personal flotation device or a safety harness when he stepped onto the elevated dredge beam, and it was not the practice for deckhands to do so. On this occasion, he let go of the suspension chain **(Figure 1)** to facilitate his emptying one of the dredge bags. As he grasped the dredge bag with both hands, the lifting becket parted, causing him to fall forward and with no protection from the bulwark, to continue to fall overboard.

The bulwark height had previously been increased to allow the scallop dredges to be taken on board in a more controlled manner. However, this meant that when the dredge bags were full, the dredge beam could not be readily lowered into a secure position before the dredge bags were emptied.

Figure 1

Safety Lessons

1. The lifting becket parted at a point of attachment to the dredge bag which was prone to wear. A robust inspection and maintenance regime for the working gear might have identified the wear and have prevented the failure. Ensure you have a regime that does so.

2. Risk assessments for the bag lifting/dredge discharge activity had failed to identify the danger, because the assessment process was not fully understood. Risk assessment is an important tool in keeping fishing safe; make sure you understand how to conduct one, or else ask for assistance.

3. The fitting of a 'tipping bar', commonly used on scallop dredgers, would have enabled all the dredge bags to be inverted at the same time and have avoided the need for deckhands to step onto the dredge beam or to lean over the gunwale. The best way to control a risk is to remove the hazard altogether.

4. The wearing of a lifejacket would have significantly improved the deckhand's survivability. Develop a habit of always wearing one when working on deck.

5. Although the crew responded rapidly to the man overboard, they were ill-prepared to mount a successful recovery. Equipment required to assist the recovery of a person from the water was not available on board and no emergency drills had been conducted which might have ensured that correct equipment was available and well rehearsed procedures were followed.

This accident was the subject of an MAIB Investigation, which can be found on MAIB's website at: www.maib.gov.uk

A copy of the report and/or the flyer will be sent, on request, free of charge.

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September 2009