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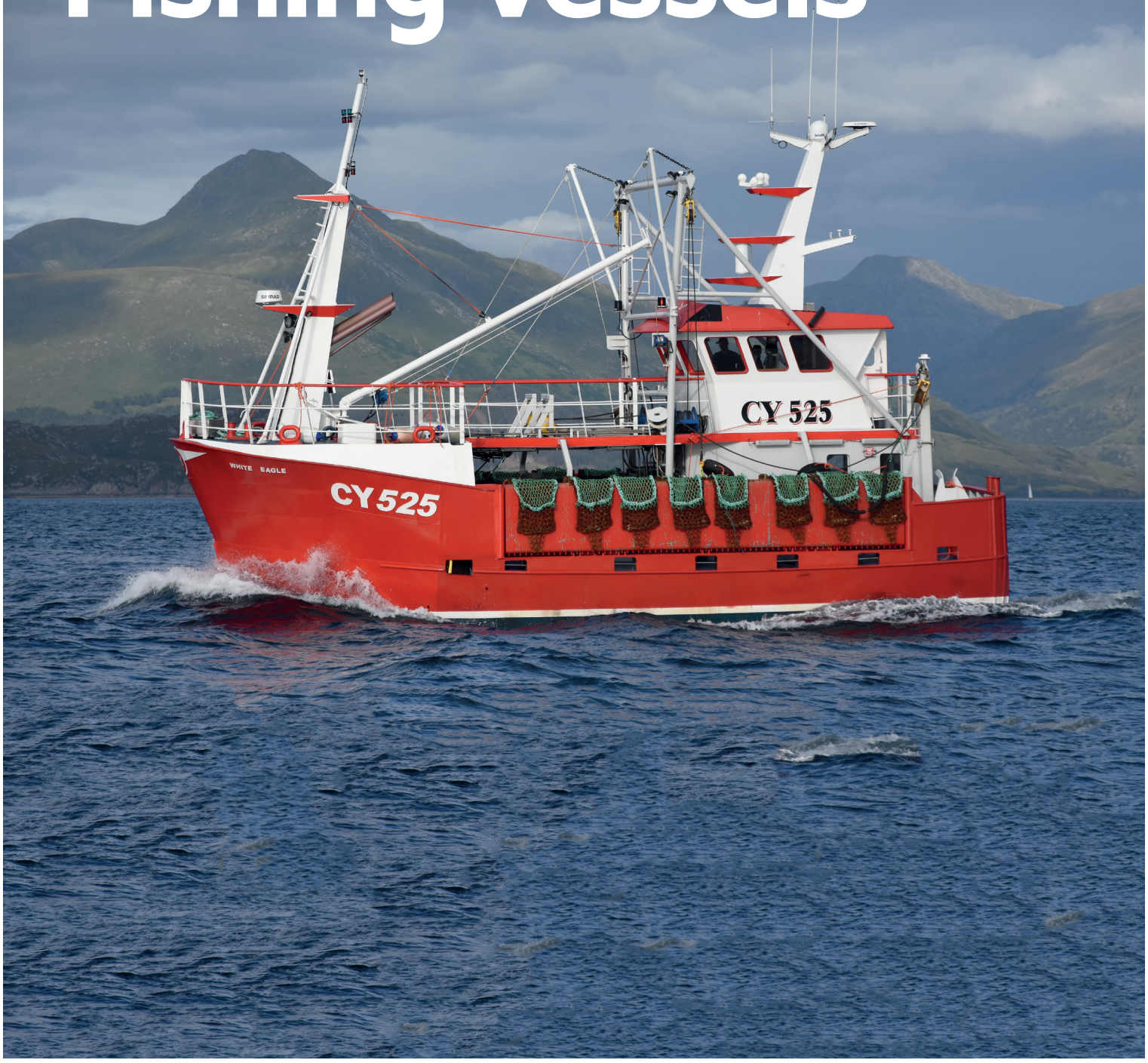
Simple Safety Management for Fishing Vessels



Simple Safety Management for Fishing Vessels

Contents

Introduction

Fishing vessel safety continues to evolve. In the past, the attention was on lifesaving equipment. Then when the attention shifted to the human element, safety training programs for crew were created.

With the introduction of ILO c.188 Work in Fishing Convention, there is now recognition that safety management systems have a key role. It is expected that safety management systems will become mandatory in a number of countries.

This briefing aims to help fishermen create their own effective safety management systems by providing things to think about and what to avoid.

Sunderland Marine: Our Experience

As an insurer of fishing vessels, the vast majority of Sunderland Marine's P&I claims relate to crew injuries. The most common injuries were through being struck, by falling or becoming entangled. Injuries to hands, limbs and back/shoulders were most prevalent. Hull claims include engine failures, groundings and foundering.

Could effective safety management systems have prevented these? In many cases, the answer is yes.

The focus of safety initiatives has often been on how to react after something has gone wrong. Equal, if not more, attention is needed on preventing things from going wrong in the first place.

Safety Management

In the simplest of terms, safety management is about providing **safe working practices in a safe working environment on a safe vessel.**

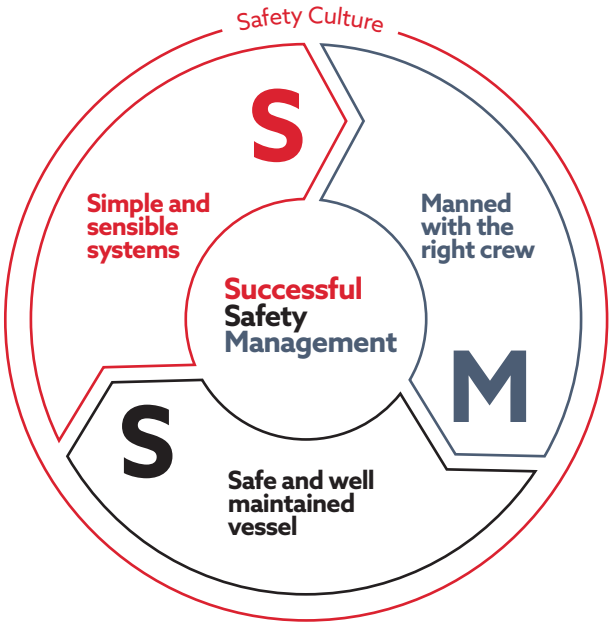
Aims

The scope of safety management can be wide, but some basic examples of what should be achieved include:

- The safe condition of the vessel, its machinery and its equipment (including any catching equipment, refrigeration and/or processing plant) and its proper maintenance.
- The vessel remains seaworthy at all times – stable and watertight/weathertight and never overloaded.
- The vessel is manned by a motivated crew with the required competence and experience.
- Hazards identified, risks assessed and safeguards put in place - such as restrictions on work, use of safety equipment, guards and working interlocks.
- Safe working procedures are in place and they are correctly followed by the people carrying out the task.
- Emergency, firefighting and lifesaving equipment is inspected, maintained and within expiry dates.
- Good health, hygiene and welfare.
- People know how to respond in an emergency.

Successful Safety Management

The success of safety management depends on a system that is workable, having the right people and having the right attitude to safety:



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Simple and Sensible Systems

Safety management needs a structure – the 'Safety Management System' or 'SMS' for short.

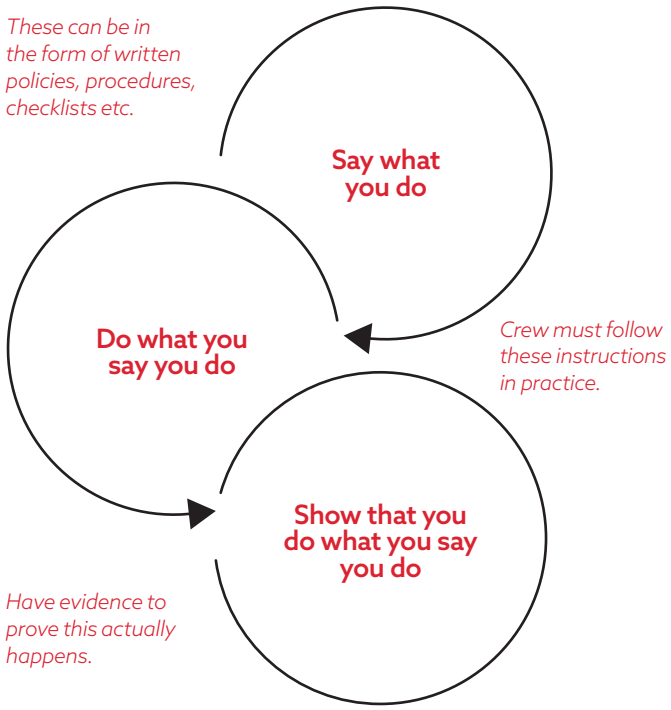
Safety Management System (SMS)

The SMS provides information on how things are to be done on the vessel:

- Who does what: responsibilities, tasks and duties are carried out by persons with the required training, competence and experience.
- How to do it: policies and procedures based on risk assessments, past experience and best practice.
- When it should be done: tasks and maintenance carried out at the right time under the right conditions.
- How to record it: there needs to be a means of proving a system is in place and it is effective. This requires evidence and is usually associated with proper record keeping but can also include the ability to demonstrate safe working.

The system has to be workable - keep it concise and relevant. A simple and sensible system is more likely to be understood and followed. Complex or confusing systems will be ignored, incorrectly followed or worked around.

With this in mind, the fundamental process for creating a system is:



The content and scope of a safety management system depends on the type of vessel and its operation. Different vessels present different risks. For example, the risks when working on the deck of a pelagic trawler differ from those on a crab catcher or potter. This is why it is important that the SMS is vessel-specific.

From a legal and insurance point of view, documented safety and maintenance systems are very important. In the event of an allegation of negligence or unseaworthiness, proof of safety systems in place is valuable evidence.

What makes a SMS?

The vessel may be subject to rules and regulations that will dictate the scope and format of a safety management system. It is influenced by the vessel's size, country of registration or operating area. But the main components of an effective safety management system can be summarised as follows:

SMM – Safety Management Manual

- It must be a vessel specific manual – tailored to the needs of the individual vessel and company.
- Contains policies and procedures: what to do and how to do it as well as what not to do.
- Policies are the principles to be followed by everyone. They do not include fine detail but clearly state what is expected. e.g. "smoking is only allowed in [....]" or "the wearing of PFDs on deck is compulsory."
- Procedures provide the detail on how to safely carry out work. They can be based on recognised best practice, risk assessments and the lessons learnt from previous tasks (what went right) and incidents (what went wrong).
- These documents must be controlled – this means that only the newest versions are in use, old versions are removed and no-one can alter them without authorisation.
- Properly designed, readable and relevant manuals will be frequently used and consulted by the crew. Overcomplicated manuals will be ignored and remain unread.
- Policies and procedures must be consistent with any statutory regulations – they must not break the law!
- People's roles and responsibilities should be clearly defined.
- Training and competence requirements for each role is clearly defined and training records kept.
- Have a clear reporting structure to remove ambiguity and prevent information becoming lost.
- If the vessel is managed from ashore, there should be an established means of communication between the ship and shore. State which person ashore is the main point of contact (aka 'designated person').

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PMS - Planned Maintenance System

- The vessel, its equipment and its machinery must be maintained in accordance with the manufacturers' instructions and any relevant regulations .
- When creating the PMS, look at equipment manuals and the relevant regulations. They will specifiy what has to be done and how often. If in doubt, consult the manufacturer and/or Flag.
- As a minimum, the scope should include the inspection, testing, maintenance and repair of:
  - all essential machinery and equipment,
  - all emergency/lifesaving systems and appliances,
  - pollution prevention equipment.
- A planned maintenance system can:
  - keep a record of past inspections and details of previous maintenance for each component/equipment
  - alert when the due date for inspection or maintenance approaches and when overdue,
  - provide a 'job description' for each task,
  - act as an inventory of safety equipment, complete with expiry dates,
  - ensure there are sufficient and suitable tools, manuals and spares are available.

Risk Assessments

- There is a need to identify the risks and put in place safeguards.
- Look at each of the tasks carried out by the crew, both routine and non-routine:
  - think about what could go wrong – these are the hazards,
  - think about how likely it is to happen and how severe it would be if it did happen,
  - assess the level of risk (combination of likelihood and severity of consequences). Is the risk acceptable?
  - think about what can be done to reduce the chance of it happening and how to make it less harmful if it does go wrong. These are known as control measures and they can form the basis for policy and procedures.
- Consider the need for a new procedure or the amendment of an existing procedure based on the findings of the risk assessment.

Incident Investigation

- Valuable lessons can be learnt from the past.
- Accidents and near-misses must be reported and properly investigated.
- A near miss is an incident or a potentially hazardous situation that had no actual consequences but could have reasonably had serious consequences; or where the consequences were minor but could reasonably have been much greater.
- In the event of an accident or a near-miss, it is important to establish:
  - who was involved?
  - what actually happened?
  - why did it happen?
- A proper investigation that identifies the root causes will help form future policy and procedures to prevent it and similar incidents happening again.
- Reporting of incidents and near-misses must be encouraged. But refain from stipulating reporting targets that might introduce the wrong behaviour. For example, do not insist on a minimum number of near-misses per month to be reported – it demeans the process and does not provide any benefit.

Emergency Response

- Crew need to be able to respond effectively to an emergency situation.
- An emergency response management plan should consider:
  - procedures to be followed in an emergency for a range of scenarios (for example: fire, man overboard, abandon ship, oil spill),
  - crew members know their specific duty and responsibility in an emergency,
  - crew training and fitness to be able to carry out their emergency duties,
  - periodic drills to exercise the crew in the different scenarios,
  - the importance of carrying out a debrief after each drill and document it accordingly.

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Audit and Review

- An audit is different to a safety inspection. An audit checks that you can show that you do what you say you do.
- An important part of the audit process is to check that there is evidence that shows policies and procedures have been followed.
- If it is found that a regulation has not been complied with or a policy or procedure has not been followed (sometimes called a 'non-conformity'), find out why and put it right.
- Close the loop – if a problem has been found, make sure it has been put right and document the fact.
- Periodically review the policies, procedures and risk assessments – get feedback from the crew to make sure they are realistic and efffective – always look to continually improve.

Getting the Best Out of the SMS

- ✓ Get the crew involved – they are the people carrying out the work and perhaps best understand the risks. Seek their input when creating and reviewing policies and procedures.
- ✓ Take time to explain to the crew why a policy or procedure is in place. If they do not appreciate the need or understand the rationale, there is less chance of compliance.
- ✓ The system should encourage the crew to properly plan their work – this might require a formal written risk assessment or simply an informal undocumented 'toolbox talk' just prior to starting the task.
- ✓ Fishing is a fast-moving operation in harsh environments - identify and remove pressure from unrealistic targets that could promote or result in improper behaviour and a failure to follow the set procedure.
- ⊗ The system must not become an excessive administrative burden.
- ⊗ The system must not create a 'tick-box' culture.
- ✓ Policies and procedures are only effective if the crew know about them and understand them. Make sure the crew read and understand these when joining the vessel for the first time and after any amendments have been made.
- ✓ Think how the policies and procedures can be enforced – what action should be taken if violated?
- ✓ Have regular safety meetings – both on board the vessel and with owners and/or shore managers. Ensure there is some means of crew representation at safety meetings. Everyone should have a voice.
- ✓ Keep it simple – a system that is too complicated or is unreasonable in its demands on the crew will not work. Consider the following examples:

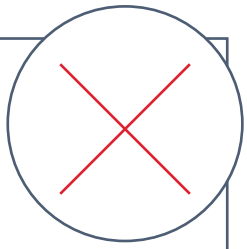
FV STOKOE: SAFETY MANAGEMENT MANUAL

SECTION 23: SAFE OPERATIONS (ELECTRICAL POWER SUPPLIES)

23.15 Working on electrical systems

Work on electrical systems should only be carried out by trained personnel

1. Before work is carried out, written authorisation must be given by skipper and duty watchkeeper.
2. Final authorisation must be given via email by manager ashore prior to commencing work.
3. Shut down vessel electrical system at the main breaker on main switchboard.
4. Record full list of isolations in the isolations book, deck log book and engine log book.
5. Etc.....



An over-complicated procedure that places too many demands. It is likely that the crew will bypass this procedure in order to get the job done.

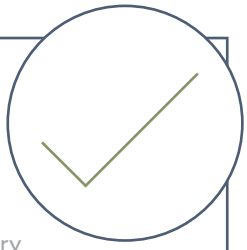
FV STOKOE: SAFETY MANAGEMENT MANUAL

SECTION 4: SAFE OPERATIONS (MACHINERY & ELECTRICAL)

4.1 Working on electrical systems and the electrical isolation of machinery

Work on electrical systems should only be carried out by trained personnel

1. Confirm with duty watchkeeper and duty engineer of intention to isolate system.
2. Isolate the system by opening the relevant breaker.
3. Padlock the breaker and place a 'Do not use' tag to prevent accidental operation.
4. Record the isolation in the work book.
5. Check the circuit is dead by testing with multimeter – ensure no voltage present.
6. Etc.....



An example of an easy to follow, common sense procedure. It should be sensible and able to work in real life situations.

The procedure must help the crew work safely. If the requirements are not reasonable and over-the-top, it then becomes an obstruction to efficient working. Remember, people are not robots and will not blindly and obediently follow any command!

For more information, please visit www.sunderlandmarine.com

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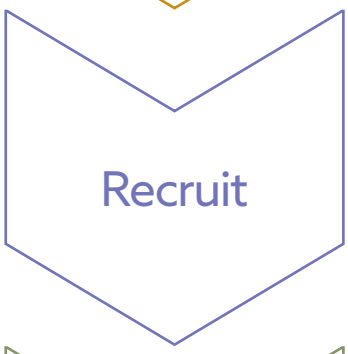
Manning: The Right Crew

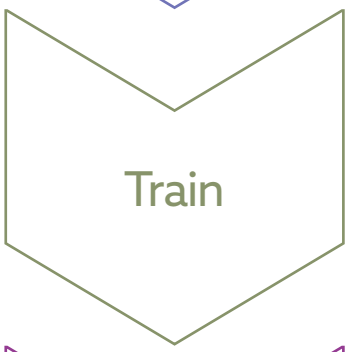
It is generally recognized that human error is instrumental in the vast majority of incidents and accidents. Systems, policies and procedures will only get you so far. The quality and the attitude of the crew is hugely influential.

If you want the right crew, think: **Attract** – **Recruit** – **Train** – **Retain**:

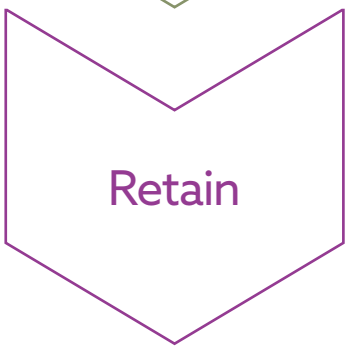
- The best people want to work on the vessel.
- Attractive conditions and high standards of welfare.
- Perceived as being a safe and reliable operator and/or employer.
- Safe working conditions on board.
- Safe, habitable and hygienic living conditions.



- The recruitment process helps in getting suitable crew who are motivated and reliable.
- Make sure the crew have the required competence and certification according to role.
- The crew have the required experience according to role.
- The crew have the required health and fitness.



- The crew attend the appropriate training programs.
- The crew receive the required onboard role-specific training.
- The crew receive vessel-specific familiarisation upon joining.
- The crew are trained and prepared for emergencies.
- The crew should have the ability to carry out effective job hazard analyses and risk assessments.



- Recognise the importance of retaining the best crew.
- A program for crew evaluation will:
  - identify crew development needs such as further training,
  - identify crew unsuitable for re-emploment,
  - identify crew suitable for promotion,
- A motivated crew will feel valued.
- The manning should be such that they are able to cope with the workload – fatigue and stress must be recognised and managed.

Supervision and management of the crew is very important. Those in charge must have the required expertise to safely and effectively manage a vessel.

For more information, please visit www.sunderlandmarine.com

Simple Safety Management for Fishing Vessels (cont.)

Safety Culture

The success of a safety management system is supported by a competent and motivated crew and is strongly influenced by the safety culture in your organisation.

Safety culture can be quite hard to define and several definitions exist. In basic terms it is the real collective attitude to safety and risk, i.e. what is the normal behaviour when no-one is looking?

Safety is complex, and culture even more so. There is often talk about "building a strong safety culture", but what does that mean?

It is said that safety culture isn't 'created' or 'built'; it emerges within your organisation or group after a long period of working. Furthermore, individual people don't have a 'safety culture'; this is a group thing.

There is no easy 'fix' for safety culture. However, a 'better' culture can emerge by changing the ways that people and your systems interact.

Top Down Committment

- The owner, shore manager and skipper must 'buy-in' into the process.
- The message from the top must be clear and unequivocal – safety is taken seriously.
- If the crew think that the senior staff are merely paying lip service to safety or there is a "do as I say – not as I do" attitude, it will result in failure.

Identify Key Influencers

- A crew member's safety behaviour and attitude to risk is influenced by those immediately around him or her.
- Particularly so if it is the persons they most want to impress or be accepted by.
- These 'key influencers' might be supervisors or old hands and the effect of any negative attitudes towards safety should not be underestimated.
- It is therefore important to identify the key influencers and gain their 'buy-in'.

Crew Buy-in and Gaining Trust

- Trust and open communication between crew and managers is vital in making safety a success.
- The crew must feel that they can raise concerns on safety and be confident that it will be made right.
- They must not feel that they might face some sort of retribution or be seen as a 'trouble-maker' for reporting safety issues.
- People should not be punished for making unintentional mistakes. However, gross negligence, wilful violations and destructive acts are not acceptable.

Know What Actually Happens

- Owners, managers and skippers must be fully aware of the realities of what the crew are doing.
- If the people at the top think everyone is obediently following policies and procedures when in fact the opposite is happening – perhaps through ignorance, poor attitude or an unworkable system – then the system will fail.
- Listen to the crew and seek to understand why they work in the way that they do.
- Your audit system shouldn't just focus on checking that people are doing what the procedure says they should be doing - maybe the procedure should also be reviewed to reflect what is actually done, provided the risk is assessed to be acceptable.

For more information, please visit www.sunderlandmarine.com

Simple Safety Management for Fishing Vessels (cont.)

Changing Attitudes

Resistance to change is common. One of the reasons why it can take several years to reach a reasonably mature safety culture is that some people do not see why things have to change.

"Why do I need a checklist to do my job? They're just for people who can't do their job properly."

Some of the more experienced crew may question why procedures and checklists are being imposed on them. But a standardised method of carrying out a task – whether it is based on recognised best practice, risk assessments or lessons learnt – has significant advantages. Consider this:

- If 10 people are asked to do the same job without any instruction they would probably do it in 10 different ways. This increases the risk of an accident:
  10 people + 1 job = 10 ways = increased risk
- If a risk assessment is completed for the same job which is then used to write a procedure and the 10 people are trained to use the procedure:
  10 people + 1 job + 1 safe risk-assessed procedure = 1 way = reduced risk

By following the set procedure, 10 people will now do the job the same way and the chances of an accident are reduced.

Also, when you next board an aeroplane just think if the pilot felt the same way and considered the pre-flight checklist for 'people who don't know how to do their job properly'.

"It is just more paperwork."

Introducing policies, procedures and checklists will of course increase the administrative burden if no system existed before. But a simple and sensible system with well thought out procedures should not generate an excessive burden. If the system is generating too much paperwork and a 'tick-box' culture emerges, then re-think the system.

Some simple and effective measures - such as a toolbox talk before starting a job – do not have to generate additional paperwork.

In isolation, procedures and checklists do not reduce risk – it is people that reduce the risk and procedures help them achieve this.

"This is just a way of finding someone to blame"

Proper incident investigation that identifies the root causes, along with a prevalent just culture, will not result in people being made scapegoats when something goes wrong. There is no place for a 'blame culture' in modern safety management.

However, people must be made accountable for their actions. A 'no-blame' culture in which people feel that they can act with impunity and without any repercussions is not the answer.

"I've been doing this for years and never had an accident"

Thankfully, accidents are rare - unsafe actions and conditions don't always result in an incident.

Ask them to think about the times things nearly went wrong, but it was their actions that prevented it.

It is these learnings that are so valuable to the next generation coming through who have not yet gained the same level of experience to lean on.

For more information, please visit www.sunderlandmarine.com

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Useful Links

Sunderland Marine loss prevention publications – free downloads
www.sunderlandmarine.com/latest/publications/

See our briefing on **Risk Made Simple**

See our briefing on **Incident Investigation**

Safety guide for new joiners **Safe Out Safe Home**

The following are links to websites of regulators, federations and service providers. Sunderland Marine does not formally endorse any of the companies listed or their products, but aims to provide an example of the systems available.

United Kingdom

Safety Folder:
www.safetyfolder.co.uk/

New Zealand

Maritime Operator Safety System (MOSS):
www.maritimenz.govt.nz/commercial/safety/safety-management-systems/MOSS/

Australia

AMSA domestic vessel safety management systems:
https://www.amsa.gov.au/domestic/vessels-operations-surveys/certificates-of-operation/

Ocean Time Marine:
https://www.oceantimemarine.com/

South Africa

Sea Safety Training Group:
http://www.sstg.co.za/maritime-services/risk-services/safety-management-systems/

United States

Overboard Solutions, LLC
overboardsolutions.io

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