



**Marine Safety Management System
Annual Audit 2009
for
Fowey Harbour Commissioners
Harbour Office, Albert Quay
Fowey Harbour
Cornwall
PL23 1AJ**

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1 Executive Summary

At the request of Captain M. J. Sutherland, Chief Executive and Harbour Master, Heath Lambert Risk Management carried out the annual independent audit of the marine safety management system for the port of Fowey on 15th and 16th October 2009. This audit report is prepared for presentation to the FHC Board.

The marine safety management system confirms the policies and procedures of the Fowey Harbour Commissioners within the structure of an integrated safety management system. It was introduced in 2001 and annual audits have found effective implementation and a continuing programme of review.

Over the past year, safety management systems were found to be applied in accordance with the standards as published, documented by the port marine operations manual, port marine emergencies plan and risk assessments.

Findings of this audit are detailed in this report, related to specific aspects of the marine safety management system and having reference to the revised Port Marine Safety Code and Guide to Good Practice on Port Marine Operations.

2 Findings and observations

Thanks are due to Capt. M. J. Sutherland, Capt. M. K. Hodson, John Burgess, Capt. W. Mitchell, Janet Ford and others who were involved in this audit and review process.

2.1 Legal background

Fowey Harbour Commissioners are the Statutory Harbour Authority presently legislated by the Pier and Harbour Order (Fowey) 1937 and 1960. The Harbour Revision Order 1980 and Harbour Byelaws 1996 apply. A Harbour Revision Order in 2001 reconstituted the Board. The Commissioners' role is conservancy and regulatory, ensuring that the harbour safe and controlled for both commercial and leisure users, with appropriate environmental controls.

2.2 Accountability of the duty holder

The Commissioners are collectively and individually duty holders accountable for compliance within the terms of the Port Marine Safety Code. Roles and duties of the Fowey Harbour Commission are published in the FHC objectives and strategies document of August 2009 and annual report of September 2009. The Board's commitment to high standards of governance is clearly stated in the port marine safety code safety management system, which is reviewed annually, and other publications.

Copies of the draft revised Port Marine Safety Code and Guide to Good Practice have been circulated to all members of the Board in advance of publication of the final document, to enable each member to be properly briefed.

The Board meets ten times per annum. Monthly meetings, with the exception of August and December, provide a structure to receive regular health and safety and marine safety reports. There is a standing arrangement for additional meetings to be held as required to deal with specific situations.

It is understood that there have been no queries on responsibilities as assigned by the marine safety management system. Capt. M. J. Sutherland takes responsibility for overseeing the port marine safety management system and for ensuring that Fowey harbour meets the principles set out in the Port Marine Safety Code. Mr M. Pemberton is nominated as Commissioner with responsibility for oversight of health and safety.

The Chief Executive/Harbour Master is the designated person to provide assurance about the effectiveness of the FHC marine safety management system using internal and independent external audit. Statements of compliance are published annually.

Financial management is audited by Phillips Frith, Chartered Accountants, of St. Austell. Audited accounts are published in the FHC Annual Report.

2.3 Consultation

A statutory consultation group established under the Harbour Revision Order meets twice per year, the latest meeting being on 10th September 2009. Under this umbrella, other non-statutory working groups are active, with harbour users that include Imerys, commercial, leisure and sailing clubs.

There are quarterly liaison meetings and other periodic meetings of FHC management, pilots and boatmen.

It is Board policy to re-adopt the marine safety management system following receipt of the independent audit report each year. Any changes are communicated to relevant consultees.

Issues which may arise under the port marine safety management system are discussed at health and safety management meetings, which are held on a 4-6 week basis and which are attended by pilots and boatmen. Additional meetings with pilots and tug crews are arranged when needs require.

The risk assessment process incorporates appropriate consultation when undertaking the assessment and then communicating its findings to the relevant persons and organisations.

Formal and informal meetings with FHC staff, pilots and boatmen provide good channels for consultation and communication of information. Communication with Trinity House continues over time.

The Commissioners publish and distribute the annual performance report, accounts, statistical analysis and environmental report.

The objectives and strategies five year plan is published annually, detailing plans for future port services and operations, together with other briefing documents. These documents are available on the Commissioners' web site (www.foweyharbour.co.uk) and are forwarded to MCA, MAIB and Department for Transport together with copies of this audit.

Waste management is overseen by the MCA, in consultation with the Environment Agency.

Oil spill contingency planning is overseen by the MCA. Information is also circulated to the Environment Agency, County, Borough and District Councils and other interested bodies.

FHC remains the lead body for environmental management under the Estuary Management Plan, published by the Fowey Estuary Partnership, linking the Consultation Group, the Environment Agency and Natural England. The next meeting is planned for 2nd November 2009.

Energy use within FHC is monitored, with the target to achieve reductions in usage. Port operations reports now include statistics on monthly energy use.

2.4 Risk assessment & safety management systems (SMS)

2.4.1 Risk assessments

There is a clear policy to reduce risk in marine operations to a level as low as reasonably practicable (the ALARP principle). The risk assessment programme is well established and effective. Risk assessments are reviewed annually and more often if circumstances change.

A range of generic risk assessments forms the basis for specific risk assessments which are carried out for planned events and activities, and for dynamic risk assessments if the need arises.

Records of generic and specific risk assessments are kept. Records show recent assessments for individual events as well as routine activities.

2.4.2 Review and communication of the marine safety management system

The marine safety management system was published initially in October 2001 and last reviewed in October 2008. It meets the principles of the PMSC and is re-adopted annually by the Board following independent audit of performance.

The health and safety policy for marine operations and the environmental policy are considered formally and adopted by the Board annually.

There is a rolling programme of review to keep documents updated within the safety management system. Any changes in conditions or procedures result in amendments to the relevant documents.

The Port Marine Operations Manual is well established and is subject to ongoing review. The manual provides the formal structure to support the marine safety management system. Procedures are confirmed as safe systems of work. The manual is kept available to FHC staff for reference, and is used for training and guidance of new staff. The manual also enables the demonstration of well-structured safe systems of work to external bodies.

2.5 Emergency preparedness

2.5.1 Port marine emergencies plan

The port marine emergencies plan had been circulated for consultation at the time of this audit, following recent review. It is kept current, is circulated to all relevant port users, and is available on the website. Contact details are kept under regular review and updated accordingly.

As with the pollution contingency plan, any minor incidents are taken as the opportunity for in-house drills, to maintain readiness for a more serious event.

Liaison with Cornwall County Fire Brigade has been maintained, to support emergency preparedness. FHC arranged a liaison exercise on 18th August 2009, when seven Fire Officers from the Fowey and Polruan crews toured the cruise ship Columbus to study the particular hazards and factors involved if a response on board is required. Subsequently, the Fire Brigade commented that a fire on board a cruise liner in Fowey Harbour would present unique hazards to their crews, and that awareness training such as this is vital.

A full-scale multi-agency port emergency exercise took place on 23rd May 2006. A further full joint exercise is planned for late autumn 2009. Plans in the last year were deferred due to lack of availability by the Fire Brigade.

2.5.2 Pollution contingency plan

An oil spill contingency exercise took place on 20th May 2009, with the Environment Agency, Natural England, the MCA, IMERYS, Cornwall County Council and other agencies participating. Records and response by participants show the exercise to have been effective and successful. Selection of the area near the Town Quay for boom deployment caused significant positive public interest.

No major incidents were reported in the last year. Records showed eight incidents. One led to a beach clean-up exercise, to deal with spots of tar/oil on the sand. Three were caused by refuelling spillage, when absorbent booms were deployed. One was caused by a leaking fuel tank valve on a boat and others were minor incidents causing an oily sheen on the water, when dispersion was aided by propeller action.

There was a major review of the oil pollution contingency plan in January 2007 followed by MCA approval in July 2007. The low-impact incidents which have arisen in the last year have been used to keep the plan active and current.

A programme of inspections and exercises spaced through each twelve month period is established to support effective action under the oil pollution contingency plan. All equipment is inspected regularly, there is an annual desktop exercise, refresher training in procedures and use of equipment is scheduled every six months and an oil spill response exercise simulating an incident is scheduled every six months.

The Harbour Master attended an MCA 4/5p refresher course for oil spill operations response in 2009. The Deputy Harbour Master Capt. Matt Hodson and Capt. Will Mitchell, Pilot, attended the same course in March 2008.

MCA Oil Pollution Training was provided in January 2007 for all FHC staff, pilots and pilot boatmen by MCA accredited trainers.

2.5.3 Dangerous vessels

No dangerous vessels have been received into the port during the last year.

2.5.4 Port security

The Deputy Harbour Master is designated as PFSO for the harbour, having qualified on the Port Facilities Security Officers course in July 2007. He works in liaison with the PFSO for Imerys in line with the linked security plans.

Linked plans have been established under the Port Security Act for Fowey and Imerys as other bulk cargos (OBC) ports. Arrangements under the plan include provision for joint port security meetings, to meet the requirements of the Act, currently on a 6-monthly basis.

A table-top port security exercise took place in September 2009, involving FHC, IMERYS, the Police, agents and TRANSEC.

Security risk control procedures have been established on the basis of risk assessments and have received approval. Names are checked by ships' security controls. FHC records include numbers of passengers and crew landed, cruise ship crew and passenger lists, breakdown by nationality, pre-arrival declarations and declarations of security between port and ship.

The port emergency plan and other plans under which personnel may enter the docks take account of security controls on access

2.6 Conservancy

2.6.1 Hydrography and dredging

Currently annual surveys are arranged, to provide information to tailor the dredging programme to best effect. There is a programme of winter dredging by the Padstow Harbour Commissioners' small dredger "Mannim", followed by a re-survey. The Board policy is for bi-annual full sidescan survey.

FHC and the pilots have copies of the latest charts. Ships agents and Imerys Ports also receive copies and these are published and available to Harbour users. The Hydrographic Office receives all data for updating Chart 31.

2.6.2 Promulgation of information

There is an effective system for Notices to Mariners and Harbour Master's notices to be issued to a specified circulation list. The Harbour Master, Deputy Harbour Master and pilots consult, and the Deputy Harbour Master oversees promulgation of notices. Records are maintained.

FHC makes available a forecast with detailed information such as predicted wave heights. During office hours, printed copies are freely available at the Harbour Office desk and a daily bulletin is posted outside the Harbour Office.

A video screen has been installed outside the Harbour Office, displaying real-time information on meteorological conditions and wave height.

Storm warning navigation notices are issued. The storm signal visual station is under the control of the National Coastwatch Institute (NCI).

2.6.3 Aids to navigation

Aids to navigation are inspected by Trinity House Lighthouse Service in May and June each year, in addition to weekly inspections by the FHC Lighthouse Keeper and inspection by the Harbour Master. A system is established for quarterly reporting of performance via PANAR within the Trinity House system. More detailed FHC records are kept.

Management objectives for service standards include the continued provision of aids to navigation including repair and replacement,

2.6.4 Waste management plan

Fowey Harbour waste management plan was reviewed in March 2008 and approved by the MCA.

Means of reporting and recording waste transfer are in place. Waste Management Plan declarations by vessels are checked by FHC and records are kept. Designated bins are provided for international catering waste.

Recycling skips and bins for cans and glass are located on the pontoons and are taken by contractors to the waste recycling centre. Records of waste disposal are maintained in accordance with the Waste Management Plan. Activities are summarised in the annual report.

As part of the Environmental Management System, FHC staff undertake regular cleaning to prevent weed from growing on slipways and quays. Appropriate action is taken to restrict access for public safety during this process.

2.7 Management of navigation

2.7.1 Traffic management, vessel traffic services & passage planning

The harbour authority has a well established framework for regulating navigation. A rolling programme of review of the safety management system is used to ensure that it remains current.

A vessel information system (VIS) provides radar and CCTV coverage of the harbour mouth and the most congested areas. An automatic identification system (AIS) has more extensive coverage and gives an overlay of information on the VIS display screens. The system has proved to be a valuable part of the harbour systems for safety of vessel movement. A CCTV camera has the capability to extend visual coverage to Bodinnick. FHC staff and pilots have direct Internet access to the Imerys voyage information system Virtual.Agent.

Passage plans are completed for every voyage, signed by the pilot and master of the vessel.

FHC continue to have live access to the system operated by ships agents Denholm Barwell using Voss/Virtual.Agent software.

Imerys has commercial operations from the jetty area within Fowey harbour.

Vessel movements are copied to agents, the Harbour Office and each of the pilots.

Records are kept to a good standard. Computer records are backed up off-site including copies by pilots individually. Towage guidelines, the revised marine code and other documents are sent and kept electronically as well as in hard copy.

There are regular harbour patrols each day, maintaining a visual presence and undertaking duties as required at the time.

Risk assessments and management of navigation and moorings are applied to leisure as well as commercial vessels.

Robust systems are established to manage regattas and other events, based on risk assessments and extensive consultation.

Seven cruise ships entered the harbour in 2009; eight are booked for 2010.

2.7.2 Maintenance & inspection of moorings and berths

Inspections and maintenance activities are carried out under the control of the Deputy Harbour Master. The established policy is for every rented mooring to be inspected annually. At the time of this survey there were five commercial mooring buoys of which four are currently in commercial use and one is designated for leisure use, and 865 FHC-owned leisure moorings, including visitors.

Large commercial moorings have a system for a visual inspection by diver, with photographs, every 2 years or more frequently. All were inspected in 2008. A video camera with underwater housing and extension arm enables additional inspections to be made from a boat.

Records of mooring inspections and maintenance are on a computer-based system and review of a sample of records indicated that they were all inspected within the programme year. The system has the facility to identify the action that will be required on the next inspection and to issue it as a work list. Sample review of the records demonstrated that required changes had been completed at the time of the following inspection.

2.7.3 Subsea pipelines

It is understood that there are no subsea pipelines within the harbour area exposed to the potential for damage by a dragging anchor. Those in the area are buried below the surface and therefore protected.

2.8 Pilotage

Pilotage services are provided to FHC by Fowey Pilots' Association. Contractual arrangements include authorisation and conditions of work. Pilotage is fully integrated with other port safety services under FHC control.

There is close communication between the pilots' office and the Harbour Office regarding tug orders, expected moves and vessels in port. Working details from the pilots' vessel movement log are kept at the Harbour Office, to enable traffic flow, timing and manning requirements to be analysed.

There is a good system for MCA Marine Guidance Notes to be communicated to pilots, to each FHC vessel and to the Harbour Office.

2.9 Ship towage operations

Towage guidelines were reviewed in July 2009. Guidelines are published and made available on the FHC web site. These guidelines and regulations define the number of tugs related to vessel length. The system for exemption makes reference to individual circumstances and conditions, based on risk assessment in each case. The tug Morgawr is equipped with a towing winch and will tow on tug's gear.

2.10 Marine services

The FHC safety management system covers the use of harbour craft and the provision of moorings. Activities such as commercial and recreational diving are closely controlled by permits.

The MCA surveys the pilot boats Penleath and Gribbin on an annual basis. This was in progress at the time of this audit. The Morgawr is on the Lloyds Register and subject to biennial surveys. At the time of this survey, the Morgawr was in dry dock. The Voyager has a certificate under the workboat code. Tregeagle is inspected by the MCA as a Class XIA vessel.

Arrangements for monitoring were seen to be well structured, with inspection records, defect report sheets and comment sheets confirming that programmes of inspections are kept current. There is an effective system for tracking the inspection programmes for lifejackets, liferafts and flares, using colour coding to highlight forthcoming action points.

An inspection programme is included in the liferaft rental agreement. Lifejackets are serviced by Ocean Safety, Plymouth.

A register is kept of all lifting equipment. One member of staff is qualified to undertake statutory examination of lifting equipment. 6-monthly inspections are undertaken alternately by this member of staff and by Cosalt:Marlift.

A written scheme of examination of compressed air pressure systems has been drawn up and thorough examination of pressure systems on vessels is undertaken.

Monthly inspections of lifebuoys are undertaken and records are maintained.

Gangways are removed for maintenance and storage during the winter. They are inspected by FHC during the season and annually by Cosalt:Marlift. This includes physical weight tests.

2.11 Professional qualifications and competence

2.11.1 Training plan & records – FHC Staff

It is stated Board policy to train staff to the highest level, with qualifications as available, and FHC maintains close liaison with government and professional bodies as standards are established and reviewed. A training plan has been established and targets monitored.

Staff and training courses are summarised in matrix form for ease of reference and as an aid to planning. Renewal and refresher dates are logged where appropriate. Slinger/banksman and barge-mounted hydraulic crane refresher training are due for renewal, and planned to take place shortly.

All masters of vessels are qualified. FHC management oil pollution response training is confirmed as up to date at the appropriate levels. Detailed records are maintained and were reviewed during this audit.

Regular MOB drill exercises are carried out by FHC staff and pilot crews. Records are kept.

Basic fire safety, first aid and environmental awareness training courses have recently been provided.

2.11.2 Training plan & records – Pilots

At the time of this audit there were three pilots in the Fowey Pilots' Association. The Port Marine Operations Manual and Pilotage Arrangements include the training policy and training specification for pilots, structured to meet national standards. Training includes oil pollution response, sea safety, sea survival and radio qualifications.

The formal training plan of the Fowey Pilots' Association provides for refresher and renewal training. The training matrix showed that listed elements of training for professional competence were up to date.

A programme is in place for pilots to undertake periodic trips with tug masters, and tug masters with pilots, to exchange skills. Records show compliance.

2.11.3 Training plan & records – Boatmen

The Fowey Boatmen's Service has four partners and is now contracted to and licensed by FHC. Certificates held include radar, fire, sea survival, VHF and first aid. Those who work as tug crew have had familiarisation training on the tugs.

2.12 Accident and incident investigation

The Harbour Master leads the investigation of major incidents and any incidents involving commercial craft, and carries out an overall review of every incident. The Deputy Harbour Master investigates leisure incidents. Established systems provide for thorough investigation of an incident if appropriate.

Safety incidents are detailed in the monthly port operations report to the Board by the Harbour Master. The format incorporates positive reporting on progress and initiatives as well as current issues.

Records of incident reports were reviewed during this audit and found to be kept effectively. Records were fewer than in the previous year and related to contact or minor damage on moorings and one boat adrift near the harbour mouth, which was recovered back to moorings.

Incident reports are categorised and records filed. In all cases, a FHC report is prepared. Records of all reports from owners and the lifeboat are kept. A formal system is established for reporting to the Marine Accident Investigation Branch (MAIB). There were no significant navigational incidents in the year since the last audit.

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