



**REPORT TO: ECONOMIC DEVELOPMENT & INFRASTRUCTURE SERVICES
COMMITTEE ON 11 JUNE 2019**

SUBJECT: MARINE SAFETY ANNUAL PERFORMANCE REVIEW 2018/19

**BY: CORPORATE DIRECTOR (ECONOMIC DEVELOPMENT,
PLANNING & INFRASTRUCTURE)**

1. REASON FOR REPORT

- 1.1 To inform the Committee with regard to matters of Marine Safety and compliance with the Port Marine Safety Code (PMSC) for 2018/19.
- 1.2 This report is submitted to Committee in terms of Section III (F) (25) of the Council's Scheme of Administration relating to the functions of Council as Statutory Harbour Authority (SHA).

2. RECOMMENDATION

- 2.1 **Committee is asked to consider and note the safety performance for 2018/19, fulfilling their function as Duty Holder under the Port Marine Safety Code.**

3. BACKGROUND

- 3.1 A report was submitted to the meeting of this committee on the 20 March 2018, with the subject Port Marine Safety Code (PMSC) (para 6 of the minute refers).
- 3.2 The meeting agreed to instruct officers to report quarterly to this Committee, as the Duty Holder, on matters of marine safety.

4. COMMITMENT TO THE PMSC

- 4.1 Moray Council, in its capacity as a Statutory Harbour Authority, is committed to undertaking and regulating marine operations to safeguard all its harbour areas, the users, the public and the environment.
- 4.2 The aim of the harbour team is to manage operations safely, efficiently, sustainably and as a benefit to all of the users and wider communities.

4.3 The team are committed to:

- a) full compliance with all legal requirements in harbour operations while seeking to meet the changing needs of all harbour users.
- b) ensuring that all personnel are well trained, engaged and committed to improving safety in all processes. Competent skilled personnel backed by an active safety culture are key to a positive safety record.
- c) undertaking hazard identification and risk assessments when required and implementing improvement measures where necessary.

4.4 The team expect that all harbour users recognise the effect that they can have on the harbours operation and reputation and must work to our standards as a minimum. A Permit to Work system is in place to maintain control over hazardous work. The team will ensure that any contractors or other management systems fully support the same commitment to health, safety and environmental performance.

5. **VESSEL MOVEMENTS**

5.1 In the four quarters of 2018/19 there were 76 cargo movements (arrival and departure) at Buckie. These movements included 44 acts of pilotage.

	Q1	Q2	Q3	Q4	Total
Cargo movements	18	24	18	16	76
Acts of Pilotage	9	16	8	11	44

5.2 At the peak of the squid season in the first half of September, there were 28 fishing vessels working from Buckie. Through the rest of the season the number of boats varied between 15 and 20, depending on weather conditions.

6. **CONSERVANCY**

6.1 Dredging took place in Burghead and Buckie from April to July 2018, along with work carried out in external harbours, before personnel issues forced the vessel to be tied up for the rest of the year.

6.2 Following formal risk assessments, Statutory Sanctions were granted by the Northern Lighthouse Board to allow improvements to the provision of navigation lights at Portknockie and Cullen.

7. GENERAL SAFETY IMPROVEMENTS 2018/19

Buckie

- 7.1 In response to the formal advice letter of 8 May 2018 from the Health & Safety Executive following a visit to Buckie harbour, a number of actions were taken including development of a 'Mooring Manual', the establishment of monthly visual inspections of bollards, life- saving equipment and ladders, the establishment of an annual inspection of bollards and ladders by engineers, and the creation of a safe area on Pier 1 for visitors (in progress). Details of this visit and letter were reported to this Committee on 14 August 2018 in the Marine Safety Report Quarter 1 2018/19, section 5.
- 7.2 Significant work has been carried out on the pilot boat to extend the working life of the vessel and improve safety on board including overhaul of the engines, new silencers, new navigation lights, new fuel tank hatches, safety rail service, instrument gauges repaired, chart plotter fitted and Man Overboard Board equipment serviced.
- 7.3 Work was undertaken to upgrade the harbour office including a full rewire, new heating and lighting, and a new fire detection system. Further work to replace windows and flooring was planned for the end of the year. All this work is now complete and the building is now a safer and more comfortable place to work. Meetings can be held with clients and customers in a more professional setting.
- 7.4 Two additional spot lights were installed on the seaward side of the Buckie Fishmarket building, to improve conditions for the safe landing of catches during the hours of darkness.
- 7.5 Following the fatal incident on the North Quay, Buckie in August 2018, it was decided at the debriefing session that the style of lifejackets currently in use are great life savers, but inferior when assisting in a rescue. The incident was reported to this Committee on 4 December 2018 in the Marine Safety Report Quarter 2, section 8, paragraph 4. It was agreed a better solution would be to use the Crewfit Evolution 250 Manual lifejackets, which were developed along with the Maritime & Coastguard Agency. We now have two of these jackets which are used routinely by the Buckie Pilot and safety man. The lifejackets have 90N of flotation at all times with an additional 160N should the jacket be activated.
- 7.6 Eight new manual roller doors were fitted to the Buckie Fish Market building, four on each side. Access and egress at the building is now considerably safer for staff and customers alike.

Burghead

- 7.7 The new marine gasoil tank was installed and commissioned at Burghead at the beginning of October 2018, with the support of the Scottish Whitefish

Producers Association and funding from the Moray Fisheries Local Action Group . The harbours team worked closely with the all concerned to ensure that all safety and environmental measures had been considered and that the appropriate mitigations were in place for potential hazards.

- 7.8 In preparation for Burghead Boxing Day Swim all the risk assessments were reviewed, assurance was sought that appropriate liability insurance was in place and a site inspection was carried out before the Christmas break and on Boxing Day morning.
- 7.9 Work continues in Burghead to improve berthing arrangements by relocating vessels into better positions. The aim is to improve the safety of vessel movements within the harbour and make it easier for all vessels to enter and exit their berths.

Portknockie

- 7.10 Two new navigation lights were fitted at Portknockie harbour by our colleagues in Street Lighting.

General

- 7.11 Minor problems developed at the west pontoon installation in Findochty, where fixings for the ladder structure fitted earlier in the year started to fail. The contractor was recalled by Consultancy and the problem was quickly remedied. Further adjustments to the structure were subsequently carried out.
- 7.12 Work was carried out by Consultancy to several pier walls including rebuilding the end of the parapet in Cullen and minor repairs to other areas, dealing with surface cracks in Portknockie and Burghead, and repairing the concrete around a ladder in Findochty. All this work was carried out by rope access technicians eliminating the need for scaffolding.
- 7.13 Considerable time was spent in the fourth quarter of 2018/19 working on the pontoon systems, particularly after the Christmas winter weather. This work continued as we investigated ways to carry out repairs to the pontoons in house. The current hinge arrangements require the services of a welder to carry out repairs.
- 7.14 Replacement rope ladders were fabricated by the harbours team, and most of the ladders cleaned or changed at Buckie, Burghead and Findochty, with plans to do the same at Hopeman and Cullen later in the year.

People

- 7.15 All harbour personnel completed manual handling training. Five personnel completed RYA (Royal Yachting Association) First Aid training at North58° in Findhorn and four undertook the RYA Sea Survival course in Elgin. One of the Assistant Harbourmasters successfully completed the RYA Advanced Powerboat Assessment and Examination, which has since been commercially endorsed. Four personnel completed the RYA Powerboat Level

2 course, while working towards the RYA Advanced Powerboat qualification required for Pilot Boat coxswain duties.

7.16 Following the Sea Change article in the November 2018 issue of Connect magazine , one of the Unison Union Safety Representatives expressed concern about safety around pier edges. He was invited to the harbour office where the management of staff working near the edge of the pier and on boats was discussed. Copies of our Risk Assessments relating to this subject were readily provided and no further action was deemed necessary.

8. INCIDENT STATISTICS

8.1 There were no injuries to our personnel in 2018/19 at any of the harbours.

8.2 Reported incidents are summarised below:

	Incident	Description	Lessons	Actions
5 April	Small volume of fuel lost from fishing vessel in Buckie harbour	Unintentional release by crew member who accidentally knocked a handle	Skipper and crew to review deck operations	Monitor natural dispersal
3 August	Fall from breakwater Buckie	Angler lost balance and slipped (non-harbour activity)	None	Nil
6 August	Fatality Buckie entrance	Angler lost balance and slipped (non-harbour activity)	None	Nil
30 October	Contact with North pier Buckie by cargo vessel	Vessel thrusters not fully functional	Greater emphasis on planning and communication to help mitigate risks from errors by others	Pilot to continue to emphasise communication from Master
4 December	Contact with North Pier Buckie by cargo vessel	Slow reaction of Master to Pilot instruction	Greater emphasis on planning and communication to help mitigate risks from errors by others	Pilot to continue to emphasise communication from Master
8 February	Excessive	Navigating	Consequences	Debrief and

	speed by lifeboat in Buckie harbour	through the harbour too fast in an emergency	of wash on other harbour users	review of procedures
--	-------------------------------------	--	--------------------------------	----------------------

All these incidents were fully reported and the reports are available on request.

9 KEY PERFORMANCE INDICATORS

9.1 Pilotage

Pilotage is not compulsory at Buckie harbour, and therefore not all cargo movements require the services of a pilot. Pilotage services are offered by the Statutory Harbour Authority and the shipping agent will inform the Harbourmaster in advance if a vessel requires a Pilot. If the Master is a regular visitor to Buckie, it is unlikely that the service will be required, unless the vessel in question is new to the Master. Generally, the service is required for entry to rather than exit from the harbour, unless the vessel is loaded at Buckie, there are vessels on both Piers 1 and 2 or if the size of the vessel limits its ability to manoeuvre.

9.2 Aids to Navigation

As a Local Lighthouse Authority, Moray Council is required to report the availability of all its navigational lights to the Northern Lighthouse Board in March of each year. The following table gives the detail that is reported on an annual basis. This is the table submitted in March 2019

Table 1: Availability of Navigation Lights

IALA Category	No Of Aids	Total Hours	No Of Failures	OOS Hours	MTTR	MTBF	Availability	Target Availability
Moray Council								
CAT 1	1	26,256	0	0:00	0:00	0:00	100.00 %	99.80 %
CAT 2	15	393,840	5	19576:04	3915:13	74852:47	95.03 %	99.00 %
CAT 3	4	105,024	1	13104:00	13104:00	91920:00	87.52 %	97.00 %
No Category	0	0	0	0:00	0:00	0:00	0.00 %	0.00 %
Totals		20						

Criteria:

Date Range from [01/04/2016 00:00:00 to 31/03/2019 00:00:00]
 Third party Organisations are not included.
 Organisations [Moray Council].
 Filter [LLA AtoN].
 User [DBremner] belonging to Organisation(s) [Moray Council]

Key to headings:

IALA International Association of Marine Aids to the Navigation and Lighthouse Authorities
 OOS hours Out of service
 MTTR Mean Time To Repair
 MTBF Mean Time Between Failures

Availability	Objective	Definition
Category 1	99.8%	AtoN considered to be of primary navigational significance

Category 2	99.0%	AtoN considered to be of navigational significance
Category 3	97.0%	AtoN considered to be of less navigational significance

The 'Availability Objective' is calculated over a rolling 3-year period. This means that over this period a Cat 1 AtoN needs to be functional for 99.8% of the time.

10 GENERAL COMMENTARY

10.1 The Harbours team is always striving for safer methods of working. The safety performance at the harbours is improving continuously and there were no injuries to personnel in 2018.

10.2 The incidents detailed in Section 8 fall into two categories: those involving commercial shipping and those involving members of the public.

10.3 Commercial Shipping

Even when a Pilot is not on board, the harbours team has ultimate control over commercial traffic in the harbour and the Master must clear his entry or exit with the harbour office and any movements within the harbour. When a Pilot is on board there is representation on the bridge of the ship and clear communication between the Pilot and Bridge team is paramount. However, despite detailed local information which is passed to the ship prior to arrival and real time guidance on the bridge, it is possible for navigational errors to be made. These may occur due to language issues and faulty equipment such as bow thrusters. The response by the Master to instructions from the Pilot is also key, as is the response of the ship to the use of the controls by the bridge team. When navigating the narrow entrance channel the ship can be subject to cross currents at certain states of tide and in certain weather conditions. At these times it is crucial that the Master responds quickly to guidance from the Pilot and that the ship responds quickly to the controls. If there is any delay for whatever reason the ship can be pushed close to the structures risking damage to the hull and piers. Even though the speed at this point is low, in order to steer effectively the Master must maintain a certain level of movement through the water, which differs from ship to ship and cargo to cargo. Each vessel has a different suite of equipment and will behave differently due to a whole range of factors. Newer vessels tend to have much more effective control and positioning capabilities. The Pilot at Buckie harbour does not take the controls of the ship, and cannot know how each ship will behave or react in the same way that the Master does.

10.4 Members of the public

Every year there are countless incidents involving members of the public getting into difficulty around the coast of the U.K. Harbours are a draw for people for all sorts of reasons including just looking at boats, getting involved in activity on the water, and going crabbing and fishing. However, the structures that protect the harbours and facilitate harbour activity can be

extremely dangerous. Risks include falls from height, slips and trips, hidden underwater hazards, commercial and leisure traffic movements and cold water. A certain level of risk management will include measures such as warning signage, barriers and gates. However, many incidents result from the public ignoring such measures and taking unnecessary risks without any consideration for the consequences. Considering the number of visitors that enjoy all our harbours every year and the risks that are inherent at each location, the level of incident recorded is remarkably low.

10.5 Pontoons

The aged pontoon systems at Portknockie and Findochty continue to be of concern. Much work has been carried out over the years to try and maximise their lifespan but the work scope is beginning to get to the stage where there is a limit to the effective actions that harbours team can take without specialist assistance. It is hoped that further pontoon sections and fingers can be procured from Lossiemouth Marina and elsewhere, so that a rolling programme of removing and replacing sections, boards, hinges and floats can be established. However, it must be accepted that the current arrangements cannot continue indefinitely and a fully costed plan for replacement of the structures must be considered as soon as is practicable. If no action is taken, the risk is that further periods of closure due to safety concerns will increase.

11 FUTURE OBJECTIVES AND PLANS

11.1 Objectives identified for 2019 and beyond include the following:

- Monitor consistent incident reporting, including potential incidents
- Implement new KPIs
- Undertake further reviews of Marine Policy, SMS and training requirements Maintain momentum of Pilot training and accreditation

11.2 Discussions have been held with the team regarding incident reporting, in particular to consider near misses and how they can be used to indicate trends and inform safety improvements to operations.

11.3 A review of the training requirements for all staff has been completed and a new training matrix is under development which includes a mix of internal and external training courses. Pilot and Coxswain training continues 'on the job' with training opportunities being taken whenever possible.

12 SUMMARY OF IMPLICATIONS

(a) **Corporate Plan and 10 Year Plan (Local Outcomes Improvement Plan (LOIP))**

Sustainable harbours maintained to operate safely and efficiently contribute to the economic development of Moray

(b) Policy and Legal

Non-compliance with the Port Marine Safety Code could have legal implications as it would likely be a breach of Health & Safety Legislation

(c) Financial implications

Non-compliance with the Port Marine Safety Code may have financial implications in relation to cost of remedial actions and any fines related to this.

(d) Risk Implications

Prosecution of the authority may result from the failure to comply with the Port Marine Safety Code.

(e) Staffing Implications

Key personnel are to be trained, qualified and experienced.

(f) Property

There are no property implications arising from this report.

(g) Equalities/Socio Economic Impact

There are no specific equalities matters, however, the Equalities Officer has been consulted and comments incorporated into this report.

(h) Consultations

Head of Direct Services, Corporate Director (Economic Development Planning and Infrastructure), Legal Services Manager, Principal Accountant, Committee Services Officer (L Rowan), and Equalities Officer have all been consulted and their comments incorporated into this report.

13 CONCLUSION

13.1 The council is currently deemed to be compliant with the PMSC, however, there is still work to be done to stabilise our position in relation to marine safety. This will be evidenced through future reports to this Committee, and scrutinised by this Committee as Duty Holder.

Author of Report: Duncan Brown, Development & Operations Manager,
Harbours

Background Papers:
Ref: