MAIB
MARINE ACCIDENT INVESTIGATION BRANCH

ACCIDENT REPORT

VERY SERIOUS MARINE CASUALTY | REPORT NO 3/2016 | FEBRUARY 2016

Fatality of shore worker while disembarking from *OLDENBURG* Ilfracombe Harbour 3 August 2015

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SUMMARY

At 1410 (UTC[1]+1) on 3 August 2015, a shore worker was fatally injured in Ilfracombe harbour when he became trapped between the hull of the passenger vessel *Oldenburg* and a vertical fender as he attempted to disembark from the vessel.

The deceased man, Nick Perrin, had been employed by *Oldenburg*'s owner, the Lundy Company Limited, as a shore-based rope handler and had gone on board the vessel to socialise with the crew before its departure from Ilfracombe.

Image courtesy of Lundy Company Limited

Oldenburg

[1] UTC = Universal Co-ordinated time (all times in the report are UTC + 1 hour).

Oldenburg was alongside the Outer Face berth, which was close to the harbour entrance and, after Nick had boarded, the vessel's gangway had been withdrawn due to the vessel's movement in the prevailing moderate swell.

The accident occurred as Nick attempted to return ashore by walking through a main deck shell door, which had been left open and unguarded, and along the vessel's external belting to a platform and steps on the quayside. The vessel's crew were not aware that Nick had intended to return ashore at that time or by that route, as no-one had previously attempted to do so.

Following the accident the crew went to Nick's aid but, due to his injuries, they were unable to recover him onto the vessel and he was lowered into the water to facilitate his retrieval by a lifeboat. Tragically, Nick died of his injuries shortly after arriving at a local hospital.

The vessel's owner undertook an internal investigation of the accident and has fitted barriers and signage to the vessel's shell door openings to prevent unauthorised use. The owner has also introduced a procedure for monitoring visitors to the vessel.

No recommendations have been made in this report.

FACTUAL INFORMATION

Background

Oldenburg was a passenger/cargo vessel permanently engaged on a summer service between the island of Lundy, in the Bristol Channel, and the ports of Ilfracombe and Bideford in North Devon. The Lundy Company Ltd purchased the vessel in 1985 to provide a passenger and cargo service for the island's residents and tourists.

Oldenburg made three voyages per week, carrying passengers to Lundy from Ilfracombe or Bideford between 1 April and 31 October, as well as occasional cargo-only voyages. The majority of its officers had been employed by the owner for a number of years.

The vessel was fitted with shell doors in the hull on its port and starboard sides at main deck level. A ship's side belting or rubbing strake, with handrails above, was also fitted on each side **(Figure 1)** to protect its hull while lying against harbour walls.

On the day of the accident there was no scheduled passenger sailing as the vessel had been due to passage from Ilfracombe for Bideford before proceeding to Lundy the following day.

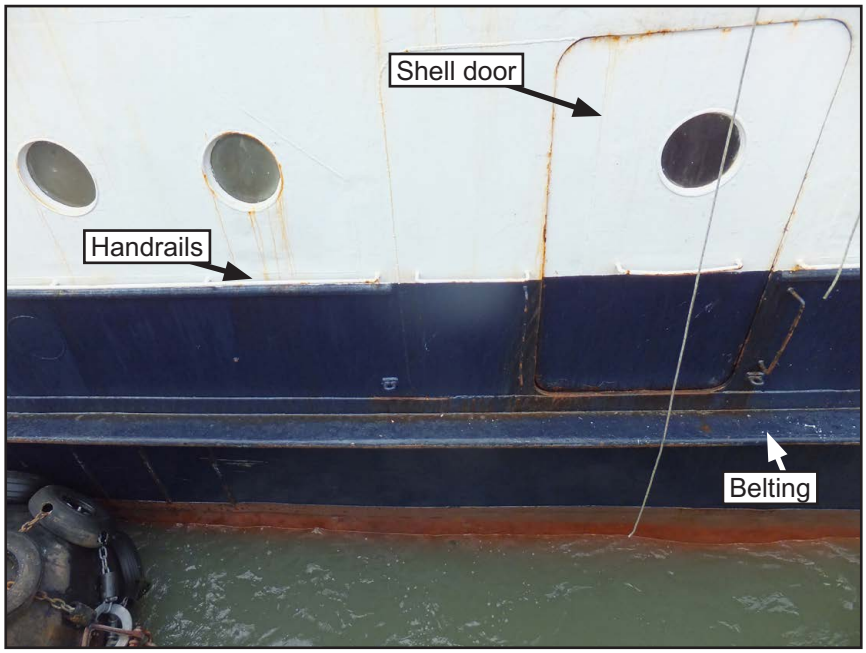

Figure 1: Shell door, ship's side belting and handrails

Environment

Wind: SW Force 5; Visibility: good; Weather: fine and clear

Sea state: moderate swell in outer harbour

Temperature: Air 20°C, sea water 18°C

Tides: High water 0849, 9.6m; Low water 1451, 0.5m (spring[2] tides)

Narrative

Oldenburg arrived in Ilfracombe at 1715 on 2 August and remained alongside the Inner berth overnight **(Figure 2)**. The bosun and a crewman remained on board to maintain safety, security and mooring watches; the master and remainder of the crew went home.

At 0640 on 3 August the master telephoned the bosun and informed him that he would return at 1400 and that the vessel would depart from Ilfracombe at 1430. Another crewman and the chief officer returned to the vessel at about 0800.

Image courtesy of Ilfracombe Harbourmaster

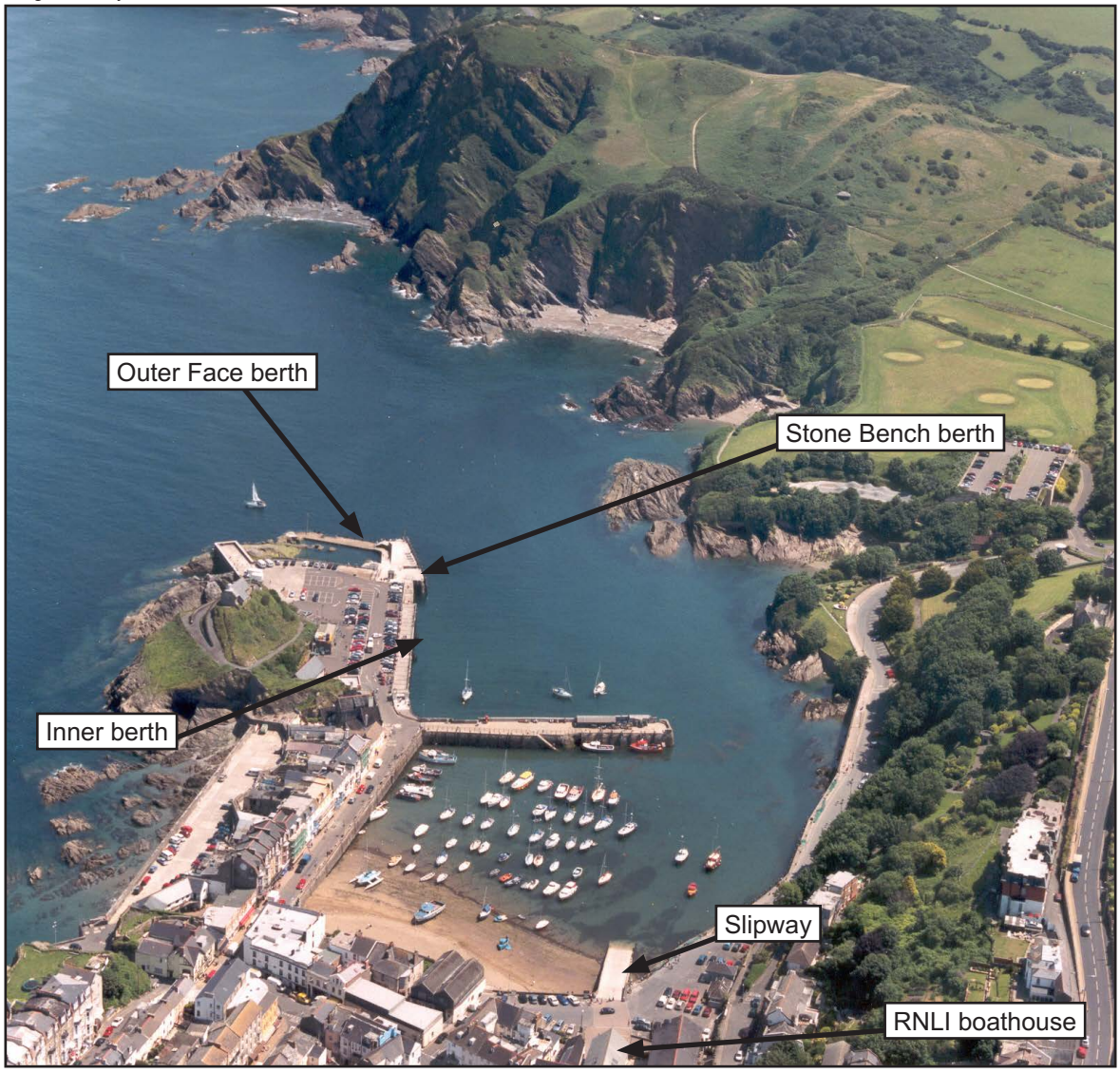

Figure 2: Ilfracombe harbour

[2] Spring tides: tides which occur just after a full or new moon, when the difference between the height of high and low water is at its greatest.

At 1030 *Oldenburg* was shifted to the Stone Bench berth to prevent it from drying out on the Inner berth as the tide was ebbing. While on this berth, due to the height of tide the gangway was rigged through the vessel's starboard shell door.

At 1145 the vessel was shifted again and was berthed starboard side alongside the Outer Face berth **(Figure 3)**. This move was undertaken at the request of the harbour authority to allow small commercial craft, which operated charter trips from the harbour, to use the Stone Bench berth due to low water at the Inner berth.

Figure 3: Outer Face berth

The Outer Face berth was close to the harbour entrance and exposed to the open sea. The vessel was moving up to 1.0m fore and aft and 0.5m transversely off the berth due to the influence of the prevailing swell.

At 1230 the chief officer left the vessel and drove the owner's minibus to Bideford to pick up the master and collect provisions.

At 1330 the bosun telephoned Nick Perrin and advised him that *Oldenburg* was due to depart at 1430, and he would be required to attend the quayside to let go the vessel's mooring ropes.

Nick arrived on the quayside at about 1340 and the gangway was deployed to enable him to board while he waited, with the crew, for the unberthing operation to commence. The gangway was then withdrawn due to the vessel's movement at the berth.

Once on board, Nick drank tea with some of the crew in the main deck saloon, as he had on numerous previous occasions.

At 1400 the master telephoned the bosun and advised him that the minibus would arrive on the quayside in about 5 minutes. The crew then left the saloon, went to the upper deck, deployed the gangway and the bosun went ashore to open a gate to enable the minibus to access the quayside.

The two remaining crew recovered the gangway and went to the starboard bridge wing, from where they had a view of the quayside, to await the arrival of the minibus.

The accident

The crew had left Nick in the saloon area, adjacent to the starboard shell door **(Figure 4)**. This door had been left open and unguarded following its use as an access point for the vessel's gangway at the Stone Bench berth.

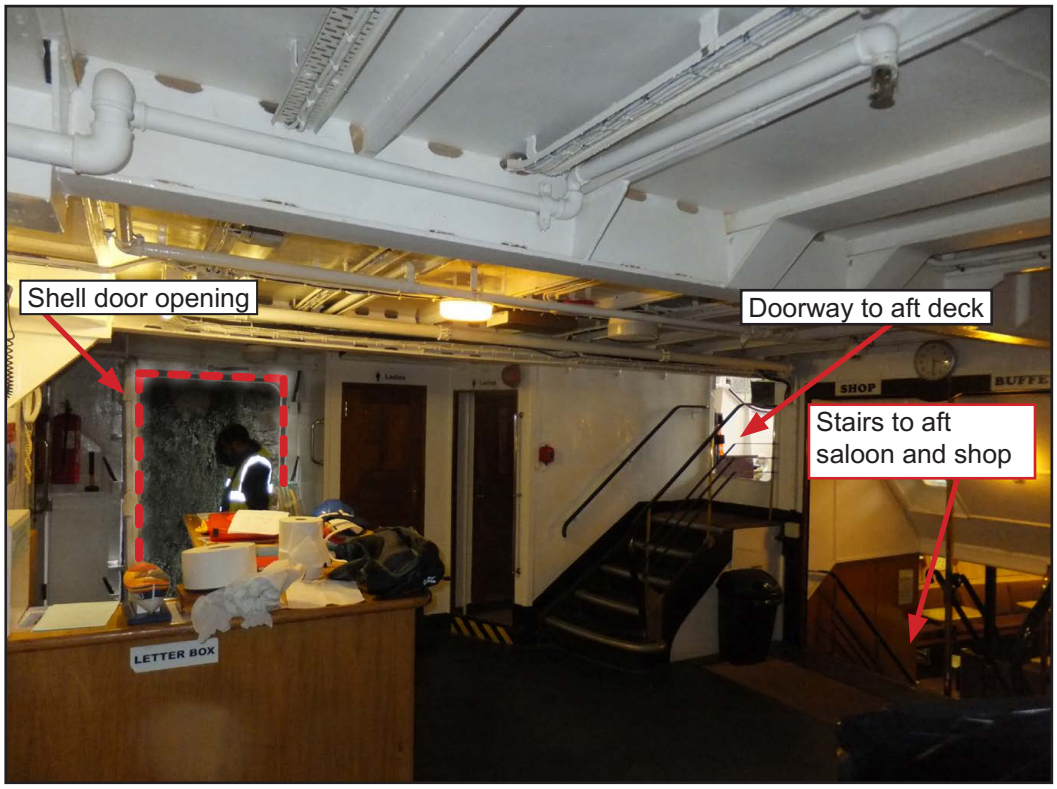

Figure 4: Starboard shell door opening, from saloon area

The two crewmen had been on the starboard bridge wing for a few minutes when they heard a cry from that side of the vessel. They looked down and saw Nick trapped between the vessel's side and one of the quayside vertical pile fenders **(Figure 5)**.

The two crewmen went immediately to Nick's aid and stepped out onto the belting through the starboard shell door opening. One of them held onto Nick while the other pushed on the fender in an unsuccessful attempt to free him.

At 1413 members of the public, who had been on the quayside and had witnessed the accident, telephoned the emergency services to request assistance. Police, ambulance and the coastguard services were then alerted.

The bosun, who had been on the quayside, descended the set of steps close to the vertical pile and stepped across onto the vessel's belting to assist Nick. While the bosun held onto Nick, the two crewmen slackened some of the vessel's mooring ropes in order to open a gap between the hull and the fender. They then returned to assist Nick.

Nick was a man of large build, and his injuries prevented him from moving off the belting. The crew attempted to support Nick by securing a rope around him because they found it difficult to hold his weight as he became increasingly immobile.

The crew then lowered Nick into the water, a distance of about 1.4 metres, and a crewman jumped in to assist him. The crewman put a lifebuoy over Nick's head and shoulders and held onto a rope, one end of which was held by members of the public and the chief officer ashore, who had arrived with the master at 1418. The other end was held by the remaining crew on the vessel.

Nick and the crewman in the water were then pulled to an open area of water close to *Oldenburg*'s stern but clear of the quayside steps.

At 1422 paramedics arrived on the quayside but they were unable to assist Nick at that time as he was still in the water. At 1424 the Ilfracombe lifeboat crew was mobilised by the coastguard.

Image courtesy of Devon and Cornwall police

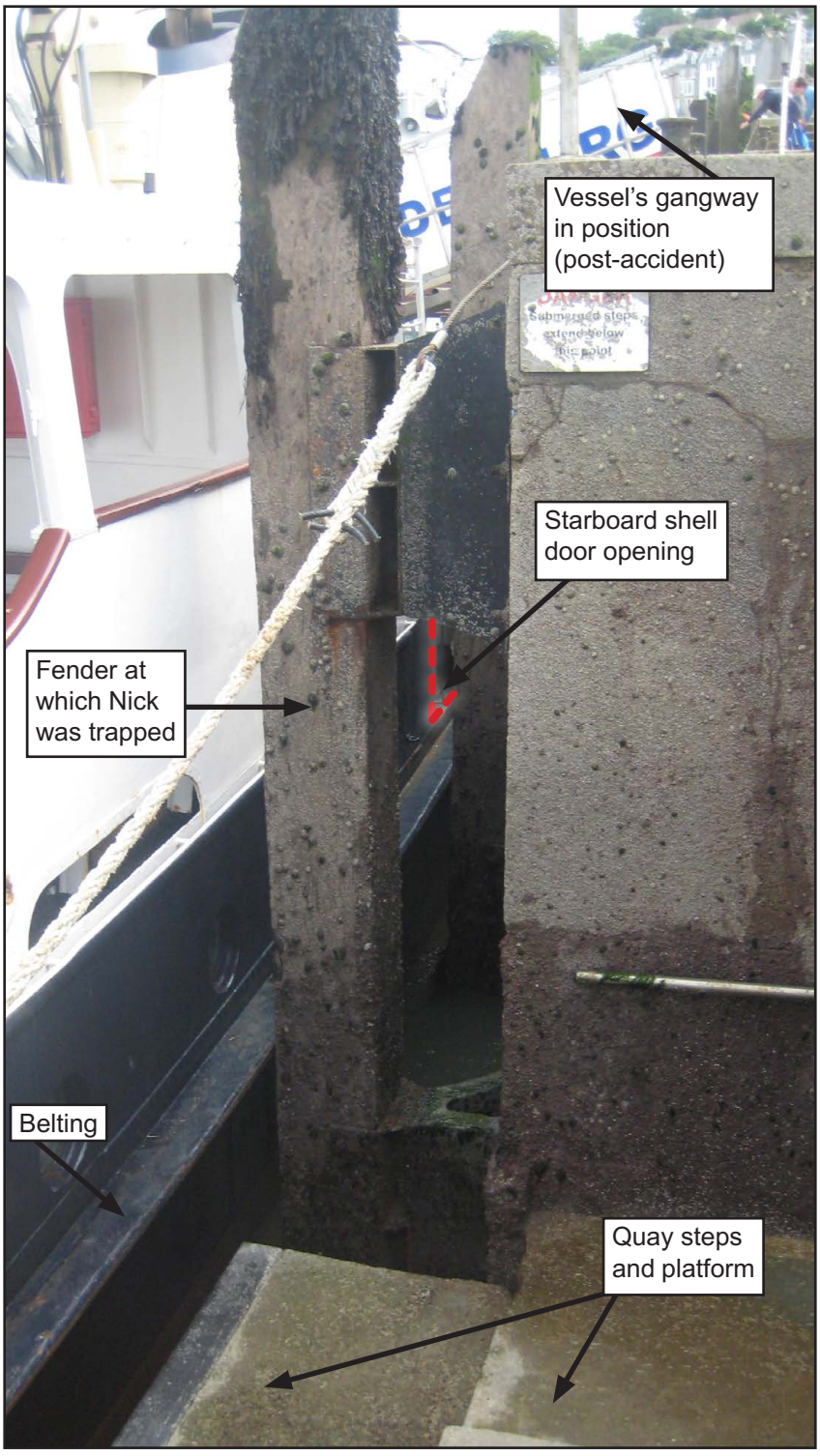

Figure 5: Location of entrapment

The crewman in the water held Nick's face clear of the water and kept talking to him in order to keep him conscious. However, Nick, who had initially told the crewman that he was in pain, gradually became unresponsive.

At 1430 the Ilfracombe inshore lifeboat arrived on scene and its crew, with assistance from the crewman in the water, pulled Nick into the lifeboat and began CPR[3] as the lifeboat was returned to its base.

[3] CPR: Cardiopulmonary resuscitation (CPR) is a first-aid technique that is used if someone is not breathing properly or if their heart has stopped.

At 1438 the paramedics met the lifeboat on its return and continued CPR with advanced life support while Nick was taken to hospital by ambulance. Nick died of his injuries at 1601.

Nick Perrin

Nick Perrin was 58 years old at the time of his death. He had been a postal worker in Ilfracombe for many years until retirement, and had begun employment with the Lundy Company Limited in April 2014. He was a keen recreational angler and had owned small boats and fished out of Ilfracombe harbour, where he was well known to the local community.

Nick was said to be a safe and conscientious worker who liked to progress tasks.

Rope handler's duties

Nick was employed as a shore-based rope handler under a contract of employment for a "periodic worker".

The contract stated that Nick's place of work was Ilfracombe Pier and that the duties of a rope handler were to:

- Be on hand for the vessel's departure and arrival (as required) to secure and release mooring lines.
- Have prepared a heaving line.
- Have prepared safety barriers and a cordoned off area for cargo operations.
- Assist with the gangway.
- Assist with cargo handling.

There was no reference in the contract to shore-based rope handlers going on board the vessel in connection with their duties.

Before commencing his duties Nick was given Health and Safety and practical training; no records were made of the scope or effectiveness of this training.

Shell door and ship side belting

Oldenburg's shell door openings, which were 1.95m high and 1.28m wide, were located on the port and starboard sides of the reception area. The openings were occasionally used as access points for the gangway to ensure it remained at a safe angle through all states of the tide.

To improve ventilation to the saloon and the lower deck areas, the shell doors were frequently left open when the vessel was in port with no passengers on board. In addition, the crew also used the shell door openings to gain access to the ship's side belting for maintenance tasks such as exterior window cleaning and painting.

The 240mm wide belting ran from forward to aft along most of the hull sides. Handrails of 15mm diameter had been fitted to the hull 1.20m above the belting for the crew to hold on to while carrying out maintenance. The outer edge of the handrails protruded 75mm from the hull side, so when the vessel was tight alongside a vertical face the gap between the handrail and the face was 165mm.

International Safety Management Code

The International Safety Management (ISM) Code required that companies set safety management objectives to provide a safe working environment in which risks to its ships and personnel were identified and appropriate safeguards established.

The Lundy Company Limited had elected to comply with the ISM Code as opposed to the less onerous Safety Management Code for Domestic Passenger Ships. A Document of Compliance had been issued to the owner by the Maritime and Coastguard Agency (MCA) in March 2015 and was valid until 2020.

A Safety Management Certificate, which confirmed that *Oldenburg*'s Safety Management System (SMS) complied with the ISM Code, had also been issued by the MCA in March 2015 and was valid until 2020.

The owner had undertaken risk assessments for passenger embarkation and disembarkation, control measures for which included:

- The securing and use of the gangway
- Checking weather conditions and ship's movement
- Crew in attendance
- Passenger control (boarding pass system).

There were no procedures in place for the use of the shell doors or for the control of visitors to the vessel.

Survey and Inspection

The vessel's annual survey was undertaken by the MCA in February 2015 when its passenger certificate was endorsed.

The MCA carried out an inspection of the vessel on 4 August 2015, which found no deficiencies and undertook an investigation which made the following recommendations to the owner:

- Undertake an internal investigation into the accident.
- Review its risk assessments and ensure safe means of access are maintained.
- Under risk assessments for use of shell doors and belting.
- Safety familiarisation training for crew and rope handlers to be reviewed and refreshed and SMS documentation to be updated accordingly.

Lundy Company Limited investigation

The owner conducted an investigation into the accident, which concluded that its cause was that Nick Perrin did not use the recognised method (gangway) when he disembarked from the vessel.

Following from the investigation, the owner has taken a number of actions to prevent a recurrence (see Actions Taken).

Ilfracombe harbour

Ilfracombe is a tidal harbour with an entrance that faces northwards into the Bristol Channel.

Commercial vessels can berth in the outer part of the harbour at the Stone Bench and Inner berths. At low water, when the majority of the harbour dries out, commercial vessels are restricted to berthing at the Outer Face berth, which is also known locally as the Face or East Face berth.

The inner part of the harbour accommodates fishing vessels, small commercial craft, recreational craft moorings and a public slipway adjacent to the Royal National Lifeboat Institution (RNLI) boathouse.

The RNLI had two lifeboats stationed in its Ilfracombe boathouse. The lifeboats, an all-weather lifeboat and an inshore lifeboat, are launched by trailer to provide operational availability at all states of the tide.

Harbour authority

The harbour authority for Ilfracombe harbour is the North Devon District Council, which had established a Harbour Board to oversee the management of the harbour. The Board had appointed a harbourmaster and assistant harbourmaster to manage harbour operations.

The council produced an SMS for harbour operations in Ilfracombe harbour in 2002, in accordance with the requirements of the Port Marine Safety Code[4]. The SMS was reviewed in May 2015 and adopted by the Harbour Board in August 2015.

Outer Face berth

The harbour authority had undertaken a berthing assessment in 2001, which stated that the Outer Face berth "*is in a position within the harbour area that has no shelter, except when Westerly to South Easterly weather systems occur. If there is any swell, it is normally funnelled around and along the face making its use difficult".*

On the day of the accident, the prevailing swell was causing *Oldenburg* to move approximately 1.0m fore and aft, and 0.5m transversely off the berth.

The fenders installed at the berth were 500mm x 500mm hardwood piles that were positioned vertically on rubber core mountings. The spacing between the fenders was 3.0m and the fender at which Nick became entrapped was 4.30m from the shell door opening and 1.0m from the quay steps and platform **(Figure 5)**.

Actions by the crew following the accident

The actions of the crew in attempting to free Nick from between the fender and the ship's side were commendable. In particular, the actions of the crewman who entered the water and supported Nick until help arrived were selfless and worthy of note.

[4] Port Marine Safety Code, issued by the Department for Transport, was developed to improve safety in UK ports and to enable harbour authorities to manage their marine operations to nationally agreed standards: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/415007/Port_marine_Safety_Code.pdf

ANALYSIS

Summary

It has not been possible to establish why Nick chose to egress through the shell door opening and move along the side belting in an attempt to get ashore. No evidence was found to indicate that this route had been previously used for access or egress in this manner.

However, Nick was an individual who was reported to like to progress tasks; it is conceivable that, once he knew the vessel would soon be departing, he chose to leave via the shell door to get ashore quickly to be ready to release the mooring lines.

The vessel was moving up to 0.5m laterally away from the quayside due to the prevailing swell, such that the gap between the fenders and the ship's side might have appeared, at times, to be wide enough to reach the quayside platform and steps. Nick had succeeded in getting past the first fender before becoming trapped at the second fender, probably when the gap closed to just 165mm as *Oldenburg* was pushed back alongside by the swell.

Shell door

Oldenburg's starboard shell door was open and the opening was unguarded at the time of the accident.

The shell doors were frequently left open when the vessel was alongside, without passengers embarked, to improve ventilation through the saloon and lower deck areas. However, no risk assessment had been undertaken for this situation and the hazard created by the unguarded openings had not been recognised.

Had the risks associated with leaving the shell doors open in port been appropriately assessed, the dangers of an unguarded opening would have been realised and suitable control measures - such as barriers and signage – could have been put in place.

Rope handlers' training

When Nick joined the Lundy Company Limited, it was not envisaged that he would go on board *Oldenburg*; he was given induction training for his role, which was based exclusively on the quayside. The training given was not recorded, but it did not include shipboard-related topics such as safe access and safe movement around the vessel.

When Nick boarded *Oldenburg* to have tea with the crew, as he had done on numerous previous occasions, he was essentially a visitor to the vessel. However, because they knew Nick well the crew regarded him as a co-worker who was familiar with the vessel and did not recognise the need for him to be supervised when he was on board.

Had *Oldenburg*'s safety management procedures required the crew to designate Nick as a visitor, they might have recognised the need to more closely supervise his movements while he was on board and ensure he used the gangway for egress.

Safety Management System

Despite the owner's positive approach to safety, evidenced by its decision to comply with the ISM Code, the hazards associated with leaving the shell doors open and unguarded when the vessel was alongside with no passengers embarked had not been recognised.

This omission, together with the absence of a procedure for monitoring visitors and the limited scope of the training given to its rope handlers, highlight previously unrecognised shortcomings in the SMS.

The Lundy Company Limited was fortunate to have a core of longstanding permanent staff who were familiar with both the vessel and the company's SMS. However, any vessel's SMS needs to be regularly reviewed to ensure that shipboard operations are conducted safely and efficiently. Reviews of this nature can be difficult to achieve where a company has one vessel and there are few 'fresh eyes' through which to critically examine the SMS.

Had the hazard of an unguarded opening in the ship's side and the need to supervise visitors been recognised in the SMS, this accident might have been avoided.

CONCLUSIONS

- Despite the owner's positive approach to safety, the hazards associated with leaving the shell doors open and unguarded when the vessel was alongside with no passengers embarked had not been recognised.
- The crew regarded Nick as a co-worker who did not need to be supervised on board.
- Had a procedure for supervising visitors been in place, Nick's movements around the vessel might have been more closely supervised and controlled.

ACTION TAKEN

The **Lundy Company Limited** has:

- Installed barriers and signage in way of the shell doors to prevent unauthorised use of the doors.
- Introduced a code of practice for visitors to the vessel.
- Revised rope handlers' training to incorporate a record of training provided, and to include means of access and egress to/from the vessel.
- Reviewed its risk assessments for means of access and for maintenance tasks involving use of the shell doors and ship side belting.
- Undertaken crew training relating to the above actions and to emphasise the crew's responsibilities for supervision of visitors to the vessel.
- A ship safety committee meeting was held to consider the above actions.

RECOMMENDATIONS

In view of the actions taken by the owners following the accident, no recommendations have been made

SHIP PARTICULARS	
Vessel's name	MS *Oldenburg*
Flag	United Kingdom
Classification society	DNV GL
IMO number	5262146
Type	Passenger Class B and general cargo
Registered owner and Manager	Lundy Company Limited
Year of build	1958
Construction	Steel
Length overall	43.57m
Registered length	40.29m
Gross tonnage	294
Minimum safe manning	8
Authorised cargo	Passengers and general cargo
VOYAGE PARTICULARS	
Port of departure	Not applicable
Port of arrival	Not applicable
Type of voyage	Not applicable
Cargo information	General cargo
Manning	Not applicable
MARINE CASUALTY INFORMATION	
Date and time	3 August 2015, 1410
Type of marine casualty or incident	Very serious marine casualty
Location of incident	Ilfracombe harbour, Devon
Place on board	Overside
Injuries/fatalities	1 fatality
Damage/environmental impact	Nil
Ship operation	Alongside the Outer Face berth
Voyage segment	In port
External environment	Wind: SW force 5, Sea state: moderate
Persons on board	3