

Marine Guidance Note 35 (M+F)

ACCIDENTS WHEN USING POWER OPERATED WATERTIGHT DOORS

Guidance to shipowners, masters, safety officers and safety representatives of merchant vessels and owners and skippers of fishing vessels

This Note supersedes Merchant Shipping Notice No. M.1326

Summary

This Note sets out guidance regarding the safe use of power operated watertight doors.

Key Points

- Procedure when passing through power operated watertight doors.
- Procedures when carrying loads through power operated watertight doors.
- Initial and continuation training in the safe use of power operated watertight doors.

1. BACKGROUND

1.1 A number of lives have been lost and serious injury caused by the incorrect operation of power operated watertight doors.

1.2 In order to reduce the risk of injury to personnel passing through watertight doors some ships have central control units located on the navigating bridge which have two operating positions, one marked "local control" and the other "doors closed". Under normal conditions and potentially hazardous situations the operating condition is set to "local control". The "doors closed" position is only used in emergencies and for drill or testing periods.

1.3 When the bridge central control unit is set at "local control", any watertight door can be locally opened and locally closed without automatic closure of the door. Since closure of the door requires deliberate action the risk of a person being trapped is very much reduced.

1.4 The "doors closed" mode will also permit doors to be opened locally, but the doors

automatically reclose upon release of the local control mechanism.

1.5 Accidents have occurred when crew members were using the controls provided at the doors to pass through watertight doors which had been closed from the navigating bridge. Under these circumstances if the control at the door is released the door closes automatically with a force sufficient to injure anyone caught in its path.

2. PROCEDURES

2.1 It is essential therefore that when using a watertight door which has been closed, irrespective of the mode of closure, that both the local controls – one on each side of the bulkhead – are held in the "open" position while passing through the door. That can be done by first fully opening the door using the nearside control with one hand, reaching through the opening to the control on the far side and using the far side control to keep the door fully open until passage is complete.

2.2 A person, when unaccompanied, must have both hands free to operate the controls and should never attempt to carry any load through unassisted. Accordingly supervision

should be exercised over any work requiring movement of tools, parts or materials through a door. This will effectively make it a two man operation - one man to operate the door and another to carry the load.

2.3 To avoid potentially fatal slips, the accumulation of oil leakage in the vicinity of the watertight doors should not be permitted.

2.4 Written instructions need to be provided for the ship on the safe operation of the doors and it is essential that all crew members who may use the doors :-

- a) know what type of control system is fitted;
- b) are well trained in the correct operating Procedure for the system; and
- c) fully appreciate the crushing power of watertight doors.

This crushing power, together with expeditious closing, is necessary to ensure that watertight doors fulfil their primary purpose of ensuring maximum safety of the ship and its crew but if accidents to personnel are to be avoided it is essential that the operating instructions are strictly observed. Permanent notices clearly stating the correct operating procedure must be prominently displayed on both sides of every watertight door.

3. TRAINING

3.1 Under Health & Safety legislation it is required that on all seagoing vessels fitted with power operated watertight doors there are procedures for training personnel in their use when joining a vessel. Also that training is repeated at regular intervals in order to remind personnel of the dangers of these doors.

3.2 For Passenger Ships attention is drawn to Merchant Shipping (Passenger Ship Construction: Ships of Classes I, II and II(A)) Regulations 1998 and Merchant Shipping (Passenger Ship Construction: Ships of Classes III to VI(A)) Regulations 1998.

3.3 Attention is also drawn to MGN 71(M) section 8.

3.4 Records of training should be kept as part of the vessels Safety Management System for inspection at a later date.

3.5 Under the International Safety Management Code ship owners and managers are required to establish safeguards

against all identified risks (para 1.2.2.2) and to investigate and analyse non-conformities, accidents and hazardous situations (para 9.1). Then to ensure that training is provided for all personnel concerned (para 6.5). Documentation of such training is kept in accordance with section 11 of the Code. They should also take into account guidelines, etc. recommended by Administrations (para 1.2.3.2).

MSP1A
The Maritime and Coastguard Agency
Spring Place
105 Commercial Road
Southampton
SO15 1EG
Tel: 01703 329100
Fax: 01703 329161
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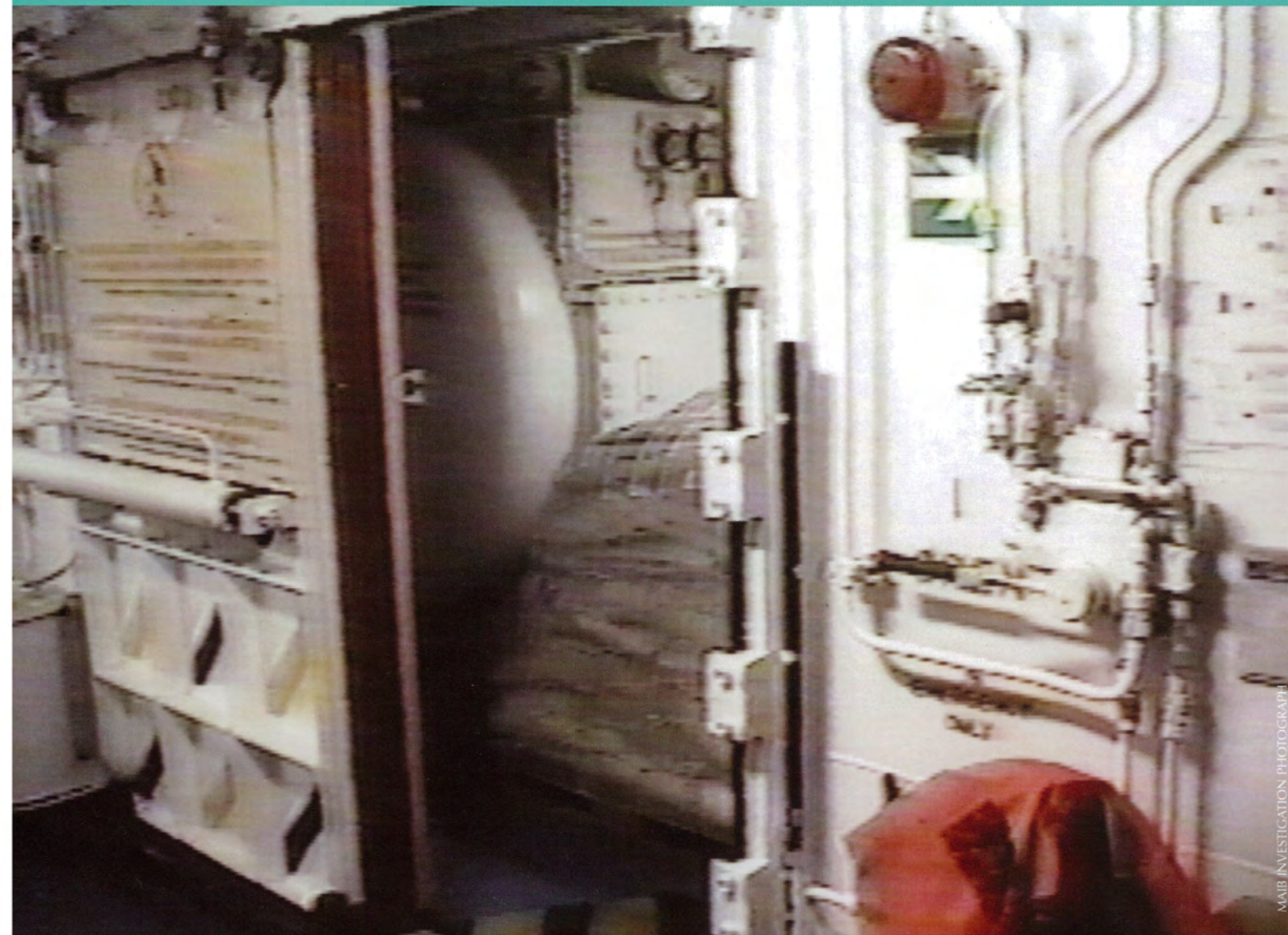
An executive agency of the Department for
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Watertight Doors Safety Posters

Hydraulically operated self-closing

WATERTIGHT DOORS

can **kill** or **maim**



MAIB INVESTIGATION PHOTOGRAPH

“Have **YOU** been trained to
operate them
IF NOT don't use them”

Hydraulically operated self-closing

WATERTIGHT DOORS

Experienced Seafarer loses arm in watertight door accident

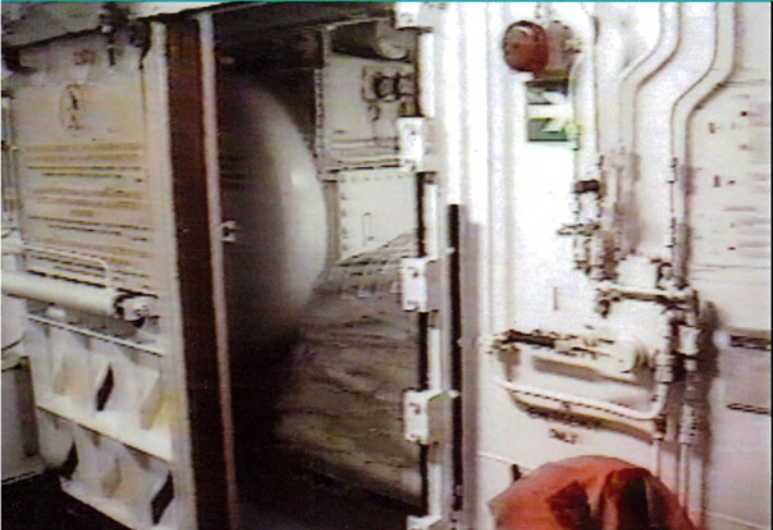


Watertight doors can **kill** or **maim**

"If it's moving, YOU don't"

Hydraulically operated self-closing

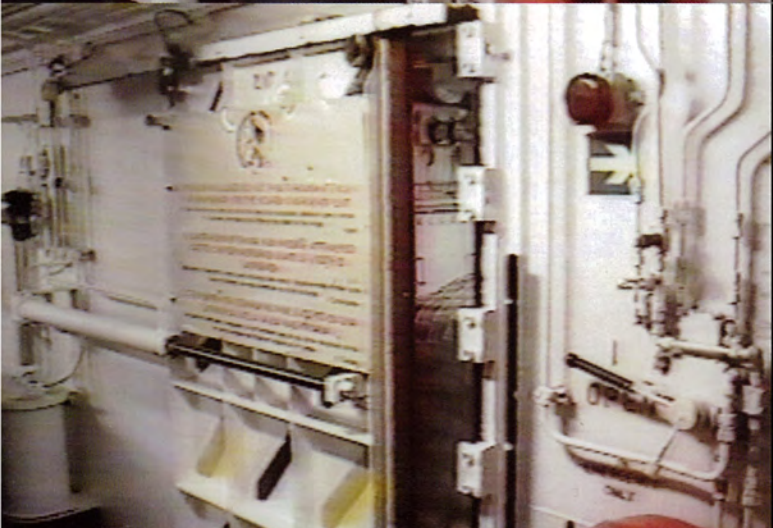
WATERTIGHT DOORS



If it's fully opened
and stopped



GO



If it's moving



NO GO



TRAGICALLY
Accidents do happen
YOU could be the
next victim