MARINE GUIDANCE NOTE



## MGN 291 (F)

# FIRE DETECTION AND ALARM SYSTEMS ON FISHING VESSELS

Notice to all Owners, Skippers, Operators, Crew, Equipment Suppliers of Fishing Vessels

This notice supersedes MGN 154 (F)

#### Summary

- All fishing vessels should have a means of detecting and extinguishing a fire in an enclosed machinery space.
- This MGN advises on the selection of fire detection and alarm equipment.
- All vessels of 15m Length Overall (LOA) to less than 24m Registered Length are required to have automatic fire detection and alarm systems covering the machinery, galley and accommodation spaces.

#### 1 Introduction/Background

- 1.1 All fishing vessels with enclosed machinery spaces should have means of detecting and extinguishing a fire. These should detect a fire as early as possible in order to provide an alarm allowing safe escape and fire-fighting activity.
- 1.2 The Maritime and Coastguard Agency (MCA) strongly recommends that more than one type of detector should be fitted in the machinery space. A smoke detector combined with a heat or other type of detector should be fitted to provide the best chance of early detection and extinguishing of the fire with minimum damage to the vessel and risk to the crew.

#### 2 Fire Detection

- 2.1 Detectors can be operated by
  - Heat (Detects a rise in temperature in the space)
  - Smoke (Detects smoke particles)
  - Infrared (Detects smoke obscuring a beam of light)
  - Flame (Detects Infrared or Ultraviolet radiation given off by flames)
  - Oil Mist (Detects oil droplets in the atmosphere caused by spray from a failed lube or hydraulic oil pipe and should provide a warning before ignition occurs)
- 2.2 Detectors should be located in the positions best suited to their type, taking into account the machinery layout, areas where the risk of fire is highest and ventilation flow within the space. This should allow them to set the alarm off as early as possible in the event of a fire. The equipment manufacturer and installer should be able to provide guidance on the most suitable combination and arrangement of detectors.

- 2.3 When a fire is detected the system should sound an alarm which must be distinct from any other alarm and it should also provide a visual warning.
- 2.4 The fire detection system on all vessels of 15m LOA and over must be connected to two sources of power, one of which shall be an emergency source.

#### 3 Vessels over 24m Registered Length

- 3.1 Vessels of 24m Registered Length and over should have a fixed fire detection and fire alarm system and/or an automatic sprinkler, fire detection and fire alarm system protecting the accommodation, service spaces and control stations.
- 3.2 The fire detection and fire fighting systems required depend on the vessel's internal arrangement and whether non combustible materials have been used in the internal outfit.

#### 4 Vessels of 15m LOA to less than 24m Registered Length

4.1 All vessels of 15m LOA to less than 24m Registered Length are required to have fire detection and alarm systems fitted in their machinery, service and accommodation spaces.

#### 5 Vessels of less than 15m LOA

- 5.1 Small fishing vessels should install a smoke alarm in their machinery and accommodation spaces, these will notify the crew of a fire as early as possible.
- 5.2 Domestic battery powered detectors are acceptable provided they are audible outside the space protected.

#### **Further Information**

Further information on the contents of this Notice can be obtained from:

Fishing Vessel Safety Branch Bay 1/27 Maritime and Coastguard Agency Spring Place 105 Commercial Road Southampton SO15 1EG

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