

**SUPPLEMENT No. 226**

**Extract from M/S ESTONIA Safety Manual**

# M/S ESTONIA

## Safety Manual

**FOLLOWING PERSONS ARE CONNECTED TO THE PERSONAL CALLING SYSTEM,  
PROGRAMMED FOR THE 333-ALARM**

<b>Cabin Tel</b>	<b>Rank</b>	<b>Action</b>
800	Master	To bridge - bring VHF
801	Chief Engineer	To bridge - bring VHF
700	Chief Officer	To bridge - bring VHF
701	2:nd Officer	To bridge - bring VHF
702	2:nd Officer	To bridge - bring VHF
711	Chief Purser	To bridge - bring VHF
705	Purser	To Information
713	1:st Engineer	To engine control room
716	Electrician	To lifeboat 1
719	Engine Repairman	To lifeboat 1
721	Boatswain	To lifeboat 1 - bring VHF
727	Doctor	To lifeboat 1 - bring VHF
724	Deck Repairman	To lifeboat 1 - bring VHF

**MAN OVER BOARD BOAT (MOB).  
MOB CREW.**

Officer on duty  
Watch on duty  
716 Electrician  
719 Engine Repairman  
724 Deck Repairman  
727 Doctor

**STANDBY - ON DECK**

721 Boatswain  
727 Doctor

## CONTENTS

1. Introduction
  - 1.1 Objective
  - 1.2 Means
2. Organisation
  - 2.1 Introduction
  - 2.2 Alarm number
    - Alarm number list
  - 2.3 Alarm
  - 2.4 Alarm list, supplement
  - 2.5 Equipment
3. Safety Group responsibilities
  - 3.1 Command centre
  - 3.2 Other safety groups
  - 3.3 Communication (information)
  - 3.4 Training
4. Alarm signals
  - 4.1 Introduction
  - 4.2 Alarm signals for personnel only
  - 4.3 General alarm signals
5. Command Centre
  - 5.0 Alarm list
  - 5.1 Assembly point
  - 5.2 Composition
  - 5.5 Duties
  - 5.6 Clothing
  - 5.7 Training
  - 5.8 Special instructions and check lists
    - 5.81 Collision, grounding, leakage
      - Collision, general instructions
      - Groundings, general instructions
      - List sounding pipes for the ballast water, dry- and bunkertanks
      - List of scuppers
      - List of openings in vessel's side
      - Tank information
    - 5.82 Black Out
    - 5.83 Fire
    - 5.84 Evacuation
    - 5.85 Saving of person in distress
    - 5.86 Man over board/MOB-boat emergency call
    - 5.87 Helicopter assistance readiness
    - 5.88 Environmental damage
    - 5.89 Illness
    - 5.802 Criminal threat
    - 5.803 Salvage
    - 5.804 Reviewing "Damage Control"
  - 5.9 Instructions for information personnel
    - 5.91 Collision
    - 5.92 Grounding
    - 5.93 Black out
    - 5.94 Fire
    - 5.95 Partial evacuation
    - 5.96 Evacuation

5.97 Illness

6. Fire group 1

- 6.0 Alarm list
- 6.1 Assembly point
- 6.2 Composition
- 6.3 Equipment
- 6.4 Assembling
- 6.5 Duties
- 6.6 Clothing
- 6.7 Training
- 6.8 Special instructions for group members
- 6.81 Check list for closing scuppers

7. Fire group 2

- 7.0 Alarm list
- 7.1 Assembly point
- 7.2 Composition
- 7.3 Equipment
- 7.4 Assembling
- 7.5 Duties
- 7.6 Clothing
- 7.7 Training
- 7.8 Special instructions for group members
- 7.81 Checking list closing scuppers

8. BB-boat group

- 8.0 Alarm list
- 8.1 Assembly point
- 8.2 Composition
- 8.3 Equipment
- 8.4 assembling
- 8.5 Duties
- 8.6 Clothing
- 8.7 Training
- 8.8 Special instructions for group members

9. SB-boat group

- 9.0 Alarm list
- 9.1 Assembly point
- 9.2 Composition
- 9.3 Equipment
- 9.4 Assembling
- 9.5 Duties
- 9.6 Clothing
- 9.7 Training
- 9.8 Special instructions for group members

10. Fire aid group

- 10.0 Alarm list
- 10.1 Assembly point
- 10.2 Composition
- 10.3 Equipment
- 10.4 Assembling
- 10.5 Duties
- 10.6 Clothing
- 10.7 Training
- 10.8 Special instructions for group members

- 11. Machine control group
  - 11.0 Alarm list
  - 11.1 Assembly point
  - 11.2 Composition
  - 11.3 Equipment
  - 11.4 Assembling
  - 11.5 Duties
  - 11.6 Clothing
  - 11.7 Training
  - 11.8 Special instructions for group members
- 12. Guard group
  - 12.0 Alarm list
  - 12.1 Assembly point
  - 12.2 Composition
  - 12.3 Equipment
  - 12.4 Assembling
  - 12.5 Duties
  - 12.6 Clothing
  - 12.7 Training
  - 12.8 Special instructions for group members
- 13. Zone leaders
  - 13.0 Alarm list
  - 13.1 Assembly point
  - 13.2 Composition
  - 13.3 Equipment
  - 13.4 Assembling
  - 13.5 Duties
  - 13.6 Clothing
  - 13.7 Training
  - 13.8 Special instructions for group members
- 14. Evacuation group 1
  - 14.0 Alarm list
  - 14.1 Assembly point
  - 14.2 Composition
  - 14.3 Equipment
  - 14.4 Assembling
  - 14.5 Duties
  - 14.6 Clothing
  - 14.7 Training
  - 14.8 Special instructions for group members
- 15. Evacuation group 2
  - 15.0 Alarm list
  - 15.1 Assembly point
  - 15.2 Composition
  - 15.3 Equipment
  - 15.4 Assembling
  - 15.5 Duties
  - 15.6 Clothing
  - 15.7 Training
  - 15.8 Special instructions for group members

- 16. Evacuation group 3
  - 16.0 Alarm list
  - 16.1 Assembly point
  - 16.2 Composition
  - 16.3 Equipment
  - 16.4 Assembling
  - 16.5 Duties
  - 16.6 Clothing
  - 16.7 Training
  - 16.8 Special instructions for group members
  
- 17. Evacuation group 4
  - 17.0 Alarm list
  - 17.1 Assembly point
  - 17.2 Composition
  - 17.3 Equipment
  - 17.4 Assembling
  - 17.5 Duties
  - 17.6 Clothing
  - 17.7 Training
  - 17.8 Special instructions for group members
  
- 18. Evacuation group 5
  - 18.0 Alarm list
  - 18.1 Assembly point
  - 18.2 Composition
  - 18.3 Equipment
  - 18.4 Assembling
  - 18.5 Duties
  - 18.6 Clothing
  - 18.7 Training
  - 18.8 Special instructions for group members
  
- 19. Evacuation group 6
  - 19.0 Alarm list
  - 19.1 Assembly point
  - 19.2 Composition
  - 19.3 Equipment
  - 19.4 Assembling
  - 19.5 Duties
  - 19.6 Clothing
  - 19.7 Trainintg
  - 19.8 Special instructions for group members
  
- 20. Evacuation group 7
  - 20.0 Alarm list
  - 20.1 Assembly point
  - 20.2 Composition
  - 20.3 Equipment
  - 20.4 Assembling
  - 20.5 Duties
  - 20.6 Clothing
  - 20.7 Training
  - 20.8 Special instructions for group members

- 21. Evacuation group 8
  - 21.0 Alarm list
  - 21.1 Assembly point
  - 21.2 Composition
  - 21.3 Equipment
  - 21.4 Assembling
  - 21.5 Duties
  - 21.6 Clothing
  - 21.7 Training
  - 21.8 Special instructions for group members
  
- 22. Evacuation group 9
  - 22.0 Alarm list
  - 22.1 Assembly point
  - 22.2 Composition
  - 22.3 Equipment
  - 22.4 Assembling
  - 22.5 Duties
  - 22.6 Clothing
  - 22.7 Training
  - 22.8 Special instructions for group members
  
- 23. Evacuation group 10
  - 23.0 Alarm list
  - 23.1 Assembly point
  - 23.2 Composition
  - 23.3 Equipment
  - 23.4 Assembling
  - 23.5 Duties
  - 23.6 Clothing
  - 23.7 Training
  - 23.8 Special instructions for group members
  
- 24. Evacuation group 11
  - 24.0 Alarm list
  - 24.1 Assembly point
  - 24.2 Composition
  - 24.3 Equipment
  - 24.4 Assembling
  - 24.5 Duties
  - 24.6 Clothing
  - 24.7 Training
  - 24.8 Special instructions for group members
  
- 25. Helicopter group
  - 25.0 Alarm list
  - 25.1 Assembly point
  - 25.2 Composition
  - 25.3 Equipment
  - 25.4 Assembling
  - 25.5 Duties
  - 25.6 Clothing
  - 25.7 Training
  - 25.8 Special instructions for group members



- 26. Man over board group (MOB-team)
  - 26.0 Alarm list
  - 26.1 Assembly point
  - 26.2 Composition
  - 26.3 Equipment
  - 26.4 Assembling
  - 26.5 Clothing
  - 26.6 Special instructions for group members
  
- 27. Rescue station - lifeboats
  - 27.0 Alarm list
  - 27.1 Assembly point
  - 27.2 Composition
  - 27.3 Duties
  - 27.4 Clothing
  - 27.5 Training
  - 27.6 Lifeboat capacities
  - 27.7 Special instructions
  
- 28. Rescue station - life-rafts
  - 28.0 Alarm list
  - 28.1 Assembly point
  - 28.2 Composition
  - 28.3 Duties
  - 28.4 Clothing
  - 28.5 Training
  - 28.6 Life-raft capacities
  - 28.7 Special instructions

## 2. ORGANISATION

### 2.1 Introduction

The most important aspect is that all crew members are aware of the importance of safety onboard, and are motivated to ensure the passenger's and crew's safety in the event of an emergency. Every member of the crew has a crew number, based upon their duties within the safety organisation. The duties are evident from the alarm list 2.5.

### 2.2 Alarm number

The alarm number states the position in the vessel's safety organisation in the event of lifeboat- and fire alarm - the Alarm List. You are assigned an alarm number upon commencing your duty onboard. The deck crew receive their alarm number from the chief officer, the machine crew from the chief engineer and the catering crew from the chief purser. All alarm numbers refer to a certain duty and a certain bed onboard. Sometimes an alarm number can be assigned for a optional duty and bed. If an alarm number is changed, the departmental chief will issue you a new personal instruction, which summarizes the alarm list with containing only the parts that concerns you. The new personal instruction will take effect until further notice. (See alarm list 2.5)

The first number in your alarm number states the department you belong to:

- 1 = Deck
- 2 = Machine
- 3 = Catering
- 4 = Bar and dining room
- 5 = Kitchen
- 6 = Cateteria, Pub
- 7 = Purser
- 8 = Tax free shop

### 2.3 Alarm

All crew members belong to a certain group in the safety organisation. In case of alarm, everyone has their own assembly point and a group leader to report to. All groups are directed from the command centre on the bridge. The command centre will consist of the master, chief officer, chief purser, chief engineer and assistant purser 711.

All activity is carried out in accordance with the prearranged alarm list or by direct orders. Only in the event of personal danger can a deviation be made. If you don't complete your duty, a "gap" will appear in the organisation which can lead to mortal danger for the persons you are responsible for.

### 2.5 Equipment

Security- and rescue equipment onboard consists among other things of the following:

- The fire stations with equipment;  
oxygen apparatus, boiler suits, helmets, boots, lamps, spare oxygen tubes. Cleaning equipment for chemical damage is placed in a separate station.

- Fire fighting equipment is placed in different places onboard. Fixed equipment is for example sprinklers and Co2 systems, water posts and fire doors. The mobile fire fighting equipment consists of fire hoses, portable fire extinguisher, foam apparatus and fire blankets.

- First aid equipment and stretchers.

- Protective clothing, survival suits, safety belts and harnesses, breathing apparatus and thermal protection (hypothermal sacks), portable pumps and building material.

- Alarm device; automatic fire alarms, alarm buttons, alarm and warning bells, loud speakers and personal call system.

- Emergency lights, distress signals and emergency signs.

- Telephones, portable radios and radio stations.

- Life-boats and life-rafts with equipment.

- Life-jackets, life-buoys and man-over board buoys.

- Pyrotechnical equipment.

- Warm clothing, blankets.

- Helicopter deck

- Watertight doors and sections

SAFETY AND RESCUE EQUIPMENT IS TO NO USE IF YOU DON'T KNOW WHERE IT IS OR HOW TO USE IT.

### 3. Responsibilities of the safety groups

#### 3.1 Command centre

The safety organisation directs from the command centre, which consists of; master, chief officer, chief engineer and chief purser.

Master leads the work in the command centre.

The chief officer leads:

- The boat groups, which are responsible for all activity on deck.
- First aid group, which takes care of injured and ill, and handle the transport of those.
- Helicopter group.

The chief engineer leads:

- Fire group 1 and 2, who handles the fire fighting, damage control, access and cleaning of chemicals and leakage tightening.
- The machine group, which handles machinery, electrical support, pumps and tanks.

The chief purser leads:

- Zone leaders, which in their turn leads the evacuation groups.
- The guard group, which carry out limited evacuation, blocking and guarding around the accidental area.

In case of helicopter assistance, the guard group is placed under the officer which leads the helicopter group

The chief officer leads the radio traffic.

A.B.s on duty serve as helmsman and lookout as well as courier.

Assistant purser makes the calls from the command centre and keeps the records over the group's measures.

#### 3.2 Other security groups

Each group has a leader, who is responsible for the group's activity.

The leader handles the contact with the command centre. In case of problems that takes measures, the command centre shall always be informed immediately.

Every group leader shall choose a person of the group as vice group leader. The group members shall in case of alarm or exercise go to the assembly point. The group leader reports to the command centre when the group is assembled.

### 3.3 Communication

The command centre takes care of all external communications.

Most safety groups have a portable VHF, which is used for traffic between the group and the command centre. The radio must not be used between the groups.

### 3.4 Training

The group leaders leads the group's training according to a schedule made in advance. They are responsible that all group members participate the training and of the group's equipment. A report regarding the training is given to responsible officer in the command centre.

## 4. ALARM SIGNALS

### 4.1 Introduction

Alarm signals are used to mobilize the safety organisation onboard and to start their actions.

Two completely different types of alarms are used on our vessels:

- The loudspeakers call "MR SKYLIGHT" + additional code, which is only for the crew. The call is made everywhere in the vessel.

- The passengers are alarmed by lifeboat alarm and/or fire alarm.

### 4.2 Alarm signal only for the crew

All "MR SKYLIGHT" alarms are loudspeakers alarms.

#### In case of fire:

"MR SKYLIGHT TO NUMBER ONE": signal to the fire groups to immediately go to fire station number one.

"MR SKYLIGHT TO NUMBER TWO": signal to the fire groups to immediately go to fire station number two.

"MR SKYLIGHT TO NUMBER ONE AND TWO": signal to fire group 1 to immediately go to fire station number 1, and fire group 2 to fire station number 2.

At these alarms gathers also the boat group at boat deck.

In case of collision or grounding:

"MR SKYLIGHT DAMAGE CONTROL": signal to everybody in fire organisation to go to their fire stations.

The fire groups prepare themselves to access and damage control.

Alarm number 121 automatically sound all tanks. Alarm number 130 and 132 are automatically closing the scuppers on cardeck and all openings in the plating.

Calling first aid group together:

"MR SKYLIGHT 727": the first aid group gathers at the nurse cabine.

If the first aid group are wished to be gathered to a certain place, a supplementary code can be attached to the ordinary call.

5.81 Instructions for the bridge in case of:

COLLISION, GROUNDING OR LEAKAGE

1. Close the watertight doors.
2. Announce "MR SKYLIGHT one and two DAMAGE CONTROL" through the loud speakers.
3. A.B.s on duty, equipped with VHF, flashlight, searching schedule and fire keys, search through the watertight section from the stem towards the stern according to the prearranged control routine. (See point 5.804.) When they meet the firegroup crew, which has searched the vessel from the stern, they must report to the command centre. After that they must immediately return to the bridge.
4. Inform master, chief engineer, and information.
5. Deck repairmen sound tank according to check list without specific orders.
6. A.B. 130, 132 and machine repairman 220 close the scuppers, valves, and hatches on car deck as per the check list without specific orders.
7. Take out current safety plans.
8. When all groups are gathered, give order of suitable action until the command centre group takes over.
9. When the master has arrived on the bridge, the officer on duty gives a report of the situation and after that, if the situation requires, he goes to his boat group, equipped with megaphone and VHF.
10. Chief officer makes stability calculations and is responsible for ballasting the vessel.
11. Follow the special instructions for operations and actions.

5.84 Evacuation

1. Evacuation starts with a lifeboat alarm. The master decides when to start the alarm.
2. Chief purser leads the evacuation from the command leading central according to the alarm list.
3. The evacuation shall be documented and followed-up on the emergency plan.
4. Following announcement is made to the passengers:

LOUD SPEAKERS CALL UPON EVACUATION

Swedish: Allmänt meddelande. Befälhavaren uppmanar samtliga passagerare att omedelbart bege sig till räddningsstationerna. Hissarna får inte användas. När ni kommit till er räddningsstation, handla enligt personalens direktiv.

Estonian:

English: Attention all passengers. The Captain informs that all passengers immediately are requested to go to the rescue stations. Do not use the elevators. At your rescue station, please act according to the instructions given by the crew.



6. FIRE GROUP 1

6.1 Meeting place

Fire station 1 which is forward at deck 8.

6.2 Composition

Alarm numbers: 130, 131, 211, 216, 220, 221, 222, 230, 231, 522, 540, 716.

6.2 Equipment

Keys

Portable radios with channel 15

Smoke diving apparatus with spare air

Fireman's suits, protection boots

Fireman helmets with visor

Fireman belts with fireaxe and lifeline

Heating protection suits, protection gloves

Special nozzle, portable fire extinguisher

Lamps, bolt clipper, crewbar, iron-bar lever, jack, securing material

first aid material

6.4 Calling together

Fire group alarmed by the call "MR SKYLIGHT" and fire alarm. The number after "MR SKYLIGHT" announcement is the number of the fire station where the group has to meet. If no station number is given, is the meeting point fire station 1. Addition "DAMAGE CONTROL" to the alarm announcement tells the group the equipment for the alarm.

ATOMATICALLY FIRE ALARM

At the automatically fire alarm shall the people that belongs to the fire groups immediately go to fire station number one without any particular order, and stay there await additional order.

TASK

The group that is leaded by the second engineer shall as soon as possible contact the fire chief in the leading central on VHF, channel 15 for receiving a state control and the catastrophe place. When arriving to the fire station the group shall get dressed in their equipment. The group leader has to tell the leading central when the group is ready for action. And then, when they have received order they go to the accidental area. The group leader has to keep continues with the smoke divers and the leading central for information and order. Firegroup 1 is special educated for fighting accommodation fires. Alarm number 220 and 221 is also ready for helicopter landing.

6.6 Clothes

The members of the firegroup shall if possible get dressed in warm and isolating clothes. Clothes made of synthetic fibres that can take fire or melt down by heating shall be removed before fire protection suits is taken on. When abandon the ship shall firefighting suits be brought to the saving stations.

6.7 Exercises

Firegroup is exercising every second week under the leading of the group leader. The exercise has to be done and followed by an exercise program. The group leader has to make up a written report regarding the exercise to the ships fire chief. Three times a year shall the fire group take part in a special exercise under the leading of a independant professional firestaff.

6.8 Special instructions for the group members

At the alarm "MR SKYLIGHT DAMAGE CONTORL" shall A.B. 130 and repairman 220 directly go to the car deck and close the scuppers accordingly to a ready made special instruction. When this has been done they should let the leading central know and thereafter go to the firegroup.

7. FIRE GROUP 2

7.1 Meeting place

Fire station 1 which is aft on car deck.

7.2 Composition

Alarm numbers: 132, 133, 135, 212, 215, 232, 233, 234, 511, 513, 523, 717

7.2 Equipment

Keys

Portable radios with channel 15  
Smoke diving apparatus with spare air  
Fireman's suits, protection boots  
Fireman helmets with visor  
Fireman belts with fireaxe and lifeline  
Heating protection suits, protection gloves  
Special nozzle, portable fire extinguisher  
Lamps, bolt clipper, crewbar, iron-bar lever,  
jack, securing material  
first aid material

Equipment chemical station

Chemical protection suits, chemical apron, special gloves,  
boots, protection glasses, lifelines, lamps, gas-meter,  
absorption dryer and tightening material.

7.4 Calling together

Fire group alarmed by the call "MR SKYLIGHT" and fire alarm. The number after "MR SKYLIGHT" announcement is the number of the fire station where the group has to meet. If no station number is given, is the meeting point fire station 2. Addition "DAMAGE CONTROL" to the alarm announcement tells the group the equipment for the alarm.

ATOMATICALLY FIRE ALARM

At the automatically fire alarm shall the people that belongs to the fire groups immediately go to fire station number two without any particular order, and stay there await additional order.

TASK

The group that is leaded by the second engineer shall as soon as possible contact the fire chief in the leading central on VHF, channel 15 for receiving a state control and the catastrophe place. When arriving to the fire station the group shall get dressed in their equipment. The group leader has to tell the leading central when the group is ready for action. And then, when they have received order they go to the accidental area. The group leader has to keep continues with the smoke divers and the leading central for information and order. Firegroup 1 is special educated for car decks fire and chemical protection.

7.6 Clothes

The members of the firegroup shall if possible get dressed in warm and isolating clothes. Clothes made of synthetic fibres that can take fire or melt down by heating shall be removed

before fire protection suits is taken on. When abandon the ship shall firefighting suits be brought to the saving stations.

7.7 Exercises

Firegroup is exercising every second week under the leading of the group leader. The exercise has to be done and followed by an exercise program. The group leader has to make up a written report regarding the exercise to the ships fire chief. Three times a year shall the fire group take part in a special exercise under the leading of a independant professional firestaff.

7.8 Special instructions for the group members

At the alarm "MR SKYLIGHT DAMAGE CONTORL" shall A.B. 132 and directly go to the car deck and close the scuppers accordingly to a ready made special instruction. When this has been done they should let the leading central know and thereafter go to the firegroup.

**SUPPLEMENT No. 228**

**Safety round on board MV ESTONIA of the AB seaman on watch.**

## **Safety Round of the Watchkeeping Seaman on M/V ESTONIA**

Descending from the bridge along the corridor on Deck 8

1. Bow, Deck 7 (X, cabins), along portside bow through the lounge
2. Port side central Deck 7 (repairman's cabin), through the aft lounge
3. Deck 7, next to the Mess door (opposite the seamans' cabin), up and to the deck
4. On Deck 8, opposite the cabins of the Swedes to starboard through the resting lounges
5. Starboard side aft (near the sauna) through the aft lounge to Deck 7
6. Deck 7 starboard aft opposite the lift door through the officers' mess down the open stairs to Deck 5
7. On the open deck of Deck 5 aft (behind the café) down the open stairs port side X bar to the car deck
8. On deck 2 portside aft along the portside up to the aft lifts
9. On Deck 2 port side between the aft lifts along port side towards the bow up to the passage and to starboard bow
10. On deck 2 near the bow ramp starboard between the opening switchboard and the ramp along starboard aftwards up to the 1st door to the stairs, down to Deck 1 to the bow
11. On Deck 1 first cross passage left at the bow moving aftwards
12. On Deck 1 the second right-side cross-passage starboard at the end to the sauna and through the locked sauna door to Deck 0
13. Deck 0 in the sauna between the lift doors and the conference sauna door starboard; along the sauna staircase to Deck 1, moving aftwards
14. Mid-Deck 1 in the corner of the starboard side side crossing, moving aftwards

15. Engine room on Deck 1, the last crossing to the right, starboard side along the corridor towards the bow up to the bow lift. Taking the lift to Deck 7, officers' section starboard side, thence to the bridge.

The duration of the round is about 20 - 25 minutes