

**PART II RULES FOR THE CONSTRUCTION
AND CLASSIFICATION OF VESSELS
IDENTIFIED BY THEIR MISSIONS**

**TITLE 35 OIL RECOVERY SHIPS (AUXILIARY
SHIPS FOR POLLUTION PREVEN-
TION AND CONTROL)**

SECTION 3 HULL EQUIPMENT

CHAPTERS

- A APPROACH
- B DOCUMENTS, REGULATIONS AND STAND-
ARDS
 - See Part II, Title 11, Section 3
- C MATERIALS AND MANLABOUR
 - See Part II, Title 11, Section 3
- D SPECIFIC SYSTEM REQUIREMENTS
- E FIRE DETECTION, PROTECTION, PREVEN-
TION AND FIGHTING VESSELS HAVING GT
 ≥ 500
- F FIRE DETECTION, PROTECTION, PREVEN-
TION AND FIGHTING VESSELS HAVING GT
 < 500
- G SHIP MANEUVERING: RUDDERS, SOLE
PIECES AND RUDDER HORNS
 - See Part II, Title 11, Section 3
- H EVALUATION OF SCANTLING OF THE
HATCH COVERS AND HATCH COAMINGS
IN THE CLOSING ARRANGEMENT OF CAR-
GO HOLDS OF SHIPS
 - See Part II, Title 11, Section 3
- T TESTS AND INSPECTIONS
 - See Part II, Title 11, Section 3

CONTENTS

CHAPTER A	5
APPROACH	5
A1. APPLICATION	5
100. <i>Cargo types</i>	5
200. <i>Case of ships where the removal of oil floating on the sea surface is not the main mission</i>	5
CHAPTER D	5
REQUIREMENTS PER SYSTEMS	5
CHAPTER D	5
SPECIFIC SYSTEM REQUIREMENTS	5
100. <i>Application</i>	5
200. <i>Design hypotheses</i>	5
D4. LIFE SAVING EQUIPMENT	5
100. <i>Lifeboats</i>	5
D5. EQUIPMENTS FOR PREVENTION AND FIREFIGHTING	6
100. <i>Application</i>	6
100. <i>Definitions</i>	6
200. <i>Cargo hatchway</i>	6
300. <i>Scuttle of access</i>	6
400. <i>Manholes</i>	6
500. <i>Openings at the sides</i>	6
600. <i>Drain plugs and bottom plugs</i>	6
700. <i>Access openings to cargo area compartments</i>	6
800. <i>Oil spill coamings</i>	6
900. <i>Protection of the crew</i>	7
CHAPTER E	7
FIRE PROTECTION, FIRE DETECTION AND FIRE EXTINGUISHMENT FOR SHIPS HAVING GROSS TONNAGE GT ≥ 500	7
E11. FIRE FIGHTING	7
100. <i>Portable Foam Applicator Units</i>	7
200. <i>Pump Rooms</i>	7
CHAPTER F	8
FIRE FIGHTING FOR VESSELS WITH AB < 500	8
100. <i>Portable foam application units</i>	8
200. <i>Pump Rooms</i>	8

CHAPTER A APPROACH

CHAPTER CONTENTS

- A1. APPLICATION
 - A2. DEFINITIONS
-

A1. APPLICATION

100. Cargo types

101. The present Title applies to all vessels intended Ships for the removal of oil floating on the sea surface, as defined in the Regulation 1 of Annex 1 of MARPOL 73/78, handling, storage on board, transportation and subsequent discharge. as defined in Regulation 1 of Annex 1 of the International Convention MARPOL 73/78,.

102. The provisions of Title 35 cover the following aspects:

- a. Protection against fire and explosion during operations involving the removal, storage on board, transportation and discharge of spilled oil on the sea surface;
- b. Structural strength in relation to efforts imposed by the equipment intended for oil removal.

102. Ships in conformity with the regulations of the present Title 35 will be assigned the following Class Notations:

RecOil class 1: ships covered by Title 35 designed and built for the collection of oils with unknown flash point.

RecOil class 2: ships covered by Title 35 designed and built for the collection of oils with flash point greater than 60°C.

103. In all cases, the requirements are not to be less than those of the National Flag. For vessels under the Brazilian Flag unde 500 GT, the requirements of NORMAM 01 apply.

200. Case of ships where the removal of oil floating on the sea surface is not the main mission

201. Ships in compliance with the requirements of Title 35, but whose primary mission is different, being occasionally used for collecting oil. Will be assigned the “**Rec-Oil Class 1**” or “**Rec-Oil Class 2**” notation as an additional to class notation assigned notation according to the main mission of the vessel.

CHAPTER D REQUIREMENTS PER SYSTEMS

CHAPTER D SPECIFIC SYSTEM REQUIREMENTS

CHAPTER CONTENTS

- D1. LIFTING APPLIANCES
 - D2. ANCHORING, MOORING AND TOWING
See Part II, Title 11, Section 3
 - D3. MANOEUVERING SYSTEMS
See Part II, Title 11, Section 3
 - D4. LIFE SAVING APPLIANCES (LSA)
 - D5. FIRE DETECTION, PREVENTION, PROTECTION AND FIGHTING
 - D6. HULL OPENING: MEANS OF PROTECTION AND CLOSURE
 - D7. HULL EQUIPMENT: FITTINGS AND ACCESSORIES
-

D1. LIFTING APPLIANCES

100. Application

101. This subchapter D1 is additional to Part II, Title 11, Section 3, Chapter D, and applies to lifting and oil recovery equipment required to carry out the mission of ships assigned RBNA “**RecOil**” notation as defined in A1.

200. Design hypotheses

201. The weight handling equipment such as hydraulic winches for handling hoses, etc., are to comply with the requirements of the RBNA Guide for Lifting Appliances and the regulations of ILO - International Labour Organization.

102. Any electrical devices for driving or controlling which are located in a hazardous area or within the cargo zone are to follow the requirements of Table T.E2.101.2 of the Part II, Title 32, Section 7, Chapter T.

D4. LIFE SAVING EQUIPMENT

100. Lifeboats

101. In addition to the requirements in Part II, Title 11, Section 3, Chapter D. D.4, the use of synthetic materials in lifeboats is not permitted unless they are fire resistant.

D5. EQUIPMENTS FOR PREVENTION AND FIREFIGHTING

100. Application

101. The requirements of this Subchapter E5 are additional to those of Part II, Title 11, Section 3, Chapter D, D.5.

200. Portable fire extinguishers – Deck area

201. In addition of the requirements of Part II, Title 11, Section 3, D5, the following fire-fighting equipment is to be provided for protection of the operating deck area.

202. **Fire Extinguishers:** two dry chemical fire extinguishers with a minimum capacity of 50 kg are to be provided. These fire extinguishers are to be located in the vicinity of the deck area where the equipment for handling the oil recovery is located, and to be provided with hoses with extension sufficient to reach the equipment of oil handling.

D6. HULL OPENINGS -PROTECTION AND CLOSING

100. Definitions

– See Title 11

200. Cargo hatchway

– See Title 11

300. Scuttle of access

– See Title 11

400. Manholes

– See Title 11

500. Openings at the sides

– See Title 11

600. Drain plugs and bottom plugs

– See Title 11

700. Access openings to cargo area compartments

701. The access openings to cargo holds, cofferdams, double sides, double bottom and other compartments that could be considered at gas risk are to be made through the deck and to meet the following requirements:

- Allow the sites accessed through them to be inspected and thoroughly cleaned;
- Allow a person wearing a breathing apparatus to enter and exit the room without difficulties;
- Allow the removal of an injured or unconscious person without difficulties.

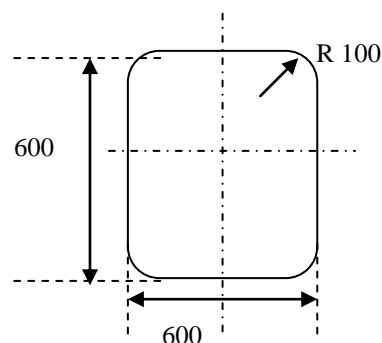
702. The dimensions of access openings, manholes or horizontal scuttles are to have a section of at least 0.36 m^2 and minimum size of $600 \times 600 \text{ mm}$.

703. The dimensions of access openings, manholes or vertical scuttles are to have a section of at least 0.50 m^2 and minimum size of $600 \times 800 \text{ mm}$, at a height of lesser than 600 mm from the bottom plating, unless steps or other type of support has been installed.

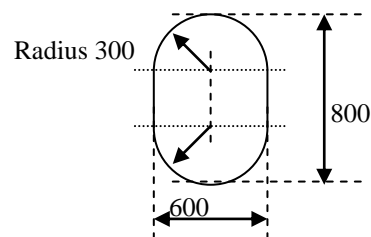
704. Smaller openings may be submitted to RBNA approval, provided that access is possible for the removal of an injured person in a stretcher.

Guidance

The term "minimum opening larger than $600 \times 600 \text{ mm}$ " means that such openings are to have radii of 100 mm at the maximum:



The term "minimum opening greater than $600 \times 800 \text{ mm}$ " also includes openings in dimensions below:



End of guidance

800. Oil spill coamings

801. Areas of the oil recovery deck are to be provided with spill coamings around the whole area with a minimum height of 150 mm . Each coaming

802. Each spill coaming is to be adequately sized to contain deck spills and prevent recovered oil from entering accommodation, machinery, control and service spaces, or flowing overboard. Containment trays around all pumps, transfer flanges and other connections where leaks may occur.

803. When drains are installed to the coamings, permanent closing devices are to be fitted.

900. Protection of the crew

901. In the oil recovery area, all surfaces are to be provided with non-slip coating.

902. In the oil recovery area, handrails are to be provided where possible for safety of the crew involved in the oil recovery operation.

CHAPTER E FIRE PROTECTION, FIRE DETECTION AND FIRE EXTINCTION FOR SHIPS HAVING GROSS TON- NAGE $GT \geq 500$

CHAPTER CONTENTS

E1. GENERAL

E2. FIRE SAFETY OBJECTIVES AND FUNCTIONAL REQUIREMENTS

E3. DEFINITIONS

E4. PROBABILITY OF IGNITION

E5. FIRE GROWTH POTENTIAL
- See Part II, Title 11, Section 3

E6. SMOKE GENERATION POTENTIAL AND TOXICITY
- See Part II, Title 11, Section 3

E7. DETECTION AND ALARM
- See Part II, Title 11, Section 3

E8. CONTROL OF SMOKE SPREAD
- See Part II, Title 11, Section 3

E9. CONTAINMENT OF FIRE
- See Part II, Title 11, Section 3

E10. STRUCTURAL INTEGRITY

E11. FIRE FIGHTING

E12. MEANS OF ESCAPE
- See Part II, Title 11, Section 3

E11. FIRE FIGHTING

100. Portable Foam Applicator Units

101. Two portable foam applicator units are to be provided. The monitors are to be type approved.

102. A portable foam applicator unit is to consist of an air-foam nozzle of an inductor type capable of being connected to the fire main by a fire hose together with a portable tank containing at least 20 litres of foam-making liquid, and capable of throwing foam at a minimum distance of 15 metres.

103. The nozzle is to be capable of producing effective foam suitable for extinguishing an oil fire, at the rate of 25% the foam flow of 0,6 litres per minute per square meter of the deck cargo area, the area being calculated as the ship's beam multiplied by the longitudinal length of the cargo area where the recovery oil tanks are located:

$$V = 0,6 \times B \times Lc \text{ in l/min}$$

where:

$$V = \text{flow in l/min;}$$

Lc = longitudinal length of the cargo area where the recovery oil tanks are located

104. A total of at least eight portable foam liquid shall are to be supplied on board.

Where only one fire hydrant is required to be fitted, due to the size of the vessel, only one portable foam applicator unit is required.

200. Pump Rooms

201. Recovered oil pump rooms are to be provided with an approved fixed fire extinguishing system controlled from a readily accessible position outside the pump room.

202. **Gas Measuring Instrument:** a portable hydrocarbon gas measuring instrument of an approved type is to be provided onboard the vessel.

CHAPTER F

FIRE FIGHTING FOR VESSELS WITH AB < 500

CHAPTER CONTENTS

- F1. APPLICATION
See Part II, Title 11, Section 3, Chapter F
- F2. FIRE PUMPS AND FIRE MAIN PIPING
See Part II, Title 11, Section 6, Chapter F, Subchapter F2.
- F3. FIRE SAFETY MEASURES
See Part II, Title 11, Section 3, Chapter F
- F4. RECOMENDATORY FIXED FIRE FIGHTING SYSTEMS
See Part II, Title 11, Section 3, Chapter F
- F5. FIRE-FIGHTING EQUIPMENT
-

F5. FIRE FIGHTING EQUIPMENT

100. Portable foam application units

101. The requirements of Chapter E, E11.100 apply.

200. Pump Rooms

201. The requirements of Chapter E, E11.200 apply.

Rgmm14en-PIIT35S3-edef-00