

**ClassNK**



# Fire-fighting Measure for PCTC

~Under SOLAS  
regulations~

# Contents

## 1. Fire precaution / prevention measures for Pure Car Truck Carrier

(1) SOLAS II-2 / Reg.10 Fire fighting

(2) SOLAS II-2 / Reg.20 Protection of vehicle, special category and ro-ro spaces

## Fire safety under SOLAS regulation(major requirement only)

### ➤ Ro-ro space and vehicle space

#### 10.2.1 Fire mains and hydrants

10.2.1.5

- ✓ Arrangement of fire hydrant : Two jets shall reach eay part of the space, each from a single length of hose.



Fire hydrant, fire hose and fire nozzle  
(Referenced from Marin fire fighting)

## Fire safety under SOLAS regulation(major requirement only)

### ➤ Closed vehicle space, closed ro-ro space and special category space

#### 20.3.1 Ventilation system

20.3.1.1.2 / 3.1.2.2

- ✓ Capacity of ventilation system : 6 times per hour for cargo ships\*

20.3.1.2

- ✓ Performance of ventilation system : The ventilation system shall be such as to prevent air stratification and the formation of air pockets.

20.3.1.3

- ✓ Indication of ventilation system : Indication of loss of the required ventilating capacity shall be provided on the navigation bridge.

20.3.1.4

- ✓ Closing appliances and ducts : Rapid shut-down and effective closure of the ventilation system shall be provided.

\* Ventilation shall be activated when vehicles are on board. Where this is impracticable, they shall be operated for a limited period daily as weather permits and in any case for a reasonable period prior to discharge, after which period the ro-ro or vehicle space shall be proved gas free. One or more portable combustible gas detecting instruments shall be carried for this purpose.

## Fire safety under SOLAS regulation(major requirement only)

- **Precaution to prevent the ignition to the combustible gases in closed vehicle space, closed ro-ro space and special category space**

### 20.3.2 Electrical equipment and wiring

20.3.2

- ✓ **Electrical equipment and wiring : A type suitable for use in an explosive petrol and air mixture shall be provided\***

\*Electrical equipment of a type so enclosed and protected as to prevent the escape of sparks shall be permitted, on condition that the ventilation system is so operated as to provide continuous ventilation of the cargo space.

### 20.3.3 Electrical equipment and wiring in exhaust ventilation ducts

20.3.3

- ✓ **Electrical equipment in exhaust ducts : A type approved for use in explosive petrol shall be provided and air mixtures and the outlet from any exhaust ducts shall be sited in a safe position.**

## Fire safety under SOLAS regulation(major requirement only)

### ➤ Detection and alarm

#### 20.4 Detection and alarm

20.4.1

- ✓ Fixed fire detection and fire alarm system : To compliant with FSS Code Ch.9

20.4.2

- ✓ Sample extraction smoke detection systems : To compliant with FSS code Ch.10\*

\* Except for open ro-ro space, open vehicle space and open special category space.



Fixed fire detection and fire alarm system  
(Referred from NOHMI BOSAI LTD.  
official web page)



Sample extraction smoke detection system  
( Referred from AIR WATER SAFETY SERVICE  
INC. official web page )

## Fire safety under SOLAS regulation(major requirement only)

### ➤ Fire extinction

#### 20.6 Fire extinction

20.6.1.1

- ✓ Fixed fire extinguishing system : Fixed gas fire extinguishing system, fixed high expansion foam system and fixed water based fire fighting system which are compliant with FSS Code.

20.6.2.1

- ✓ Portable fire extinguisher : To be provide on both sides of the spaced not more than 20m apart.

20.6.2.2

- ✓ Additional fire fighting appliances : At least three water fog applicators, one portable foam applicator\*

\* For the space where vehicle, ro-ro and special category space intended for the carriage of motor vehicles with fuel in their tanks for their propulsion.



Water fog applicator  
(Referred from Marine fire fighting)



Portable foam applicator  
(Referred from HATSUTA SEISAKUSYHO Co., Ltd  
official web page)

A hand is pointing at a technical drawing on a desk. The text 'THANK YOU' is overlaid on the image, with the 'N' and 'K' characters being significantly larger than the other letters. A horizontal line passes through the center of the 'N' and 'K', and a large circle is drawn around the 'N' and 'K' characters, with the line passing through the center of the circle.

**THANK YOU**

**for your kind attention**