

# **Trends of PSC in China**

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## [Preamble]

This year, the number of detentions due to ISM detainable deficiencies has been increasing in China significantly. This material was developed based on data ClassNK collected in order to introduce the trend of PSC in China, focusing on ISM detainable deficiencies. Also, the data of main ports in China is shown. We hope this material will help you to take measures to reduce PSC risk in China.

## [Terms and Abbreviation]

The following terms and abbreviation are used in the material:

- **Def.(Defs.):** Deficiency (Deficiencies)
- **Detainable def.:** Deficiency leading to detentions
- **ISM def.:** Deficiency with the first two letters of TOKYO MOU deficiency codes starting with 15
- **ISM detainable def.:** Detainable Deficiency with the first two letters of TOKYO MOU deficiency codes starting with 15

## The number of inspections and detentions in China

### Table 1: For total ships

	2013	2014	2015	2016	2017-1Q
Inspection	8078	7361	8136	7736	<b>1837</b>
Detention	659	476	443	422	<b>131</b>
Ratio of detention	8%	6%	5%	5%	<b>7%</b>

### Table 2: For NK ships

	2013	2014	2015	2016	2017-1Q
Inspection	1791	1691	1811	1708	<b>405</b>
Detention	141	94	105	103	<b>29</b>
Ratio of detention	8%	6%	6%	6%	<b>7%</b>

(Based on TOKYO MOU's database)

# Trends of detainable defs. sorted by Categories in China



The ranking of "ISM" has been getting higher year by year.

No.	Category	2015	2016	2017-1Q
1	Fire safety	78*(394)	53(346)	**↑19(92)
<b>2</b>	<b>ISM</b>	<b>28(66)</b>	<b>32(59)</b>	<b>↑13(20)</b>
3	Life saving appliances	35(295)	22(256)	↑7(65)
4	Pollution prevention	37(179)	29(137)	↑6(36)
5	Emergency Systems	28(153)	17(131)	→6(37)
6	Water/Weathertight conditions	19(144)	20(126)	↓6(23)
7	Certificate & Documentation	8(110)	6(103)	↑4(40)
8	Safety of Navigation	19(274)	15(238)	↑2(60)
9	Structural Conditions	4(53)	4(57)	↓2(18)
10	Radio Communications	10(65)	8(40)	↓1(9)
11	Propulsion and auxiliary machinery	8(124)	7(104)	↑1(36)
12	Dangerous goods	1(9)	4(9)	↑1(1)
13	Other	1(21)	1(11)	↓1(8)
14	MLC	0(1)	0(17)	↑1(17)
15	Alarms	5(24)	9(25)	↓0(2)
16	Working and Living Conditions	2(51)	1(49)	→0(11)
17	Cargo operations including equipment	0(3)	2(33)	→0(3)
18	ISPS	2(15)	0(12)	→0(3)
	<b>TOTAL</b>	<b>285(1981)</b>	<b>230(1753)</b>	<b>70(481)</b>

\*:( ) shows a total number of deficiencies in the category.

( Based on NK' s database)

\*\* : The arrow shows the "rise" or "fall", compared the number of detainable defs. in 2017-1Q to the one in 2016-1Q

Typical cases when ISM detainable deficiency was pointed out by PSC.

- Case A: The detainable deficiency(s) found
- Case B: Many deficiencies(evidences) found

Case	Number of Deficiencies* in Each Category																		
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	99
A			(1)				2 (3)								1				
B	(1)			(1)			(3)			(1)	(3)			(1)	1			(1)	

**Deficiencies Main Group:**

01	Certificates & Documentation
02	Structural Condition
03	Water/ Weathertight condition
04	<b>Emergency Systems</b>
05	Radio communication
06	Cargo operations including equipment
07	<b>Fire safety</b>

08	Alarms
09	Working and Living Conditions
10	<b>Safety of Navigation</b>
11	<b>Life saving appliances</b>
12	Dangerous Goods (1)
13	Propulsion and auxiliary machinery (14)
14	Pollution Prevention (25)

15	<b>ISM</b>
16	ISPS
17	Other
18	MLC, 2006
99	Others or Not categorized

Note: "x" = detainable, "(x)" = non-detainable deficiencies

**Typical description of "Nature of ISM Deficiency":**

*"Deficiencies marked (ISM) are objective evidences of failure/lack of implementation of ISM Code."*

\* (regardless of categories) detainable deficiencies and/or many deficiencies may become a **Evidence of ISM deficiency**

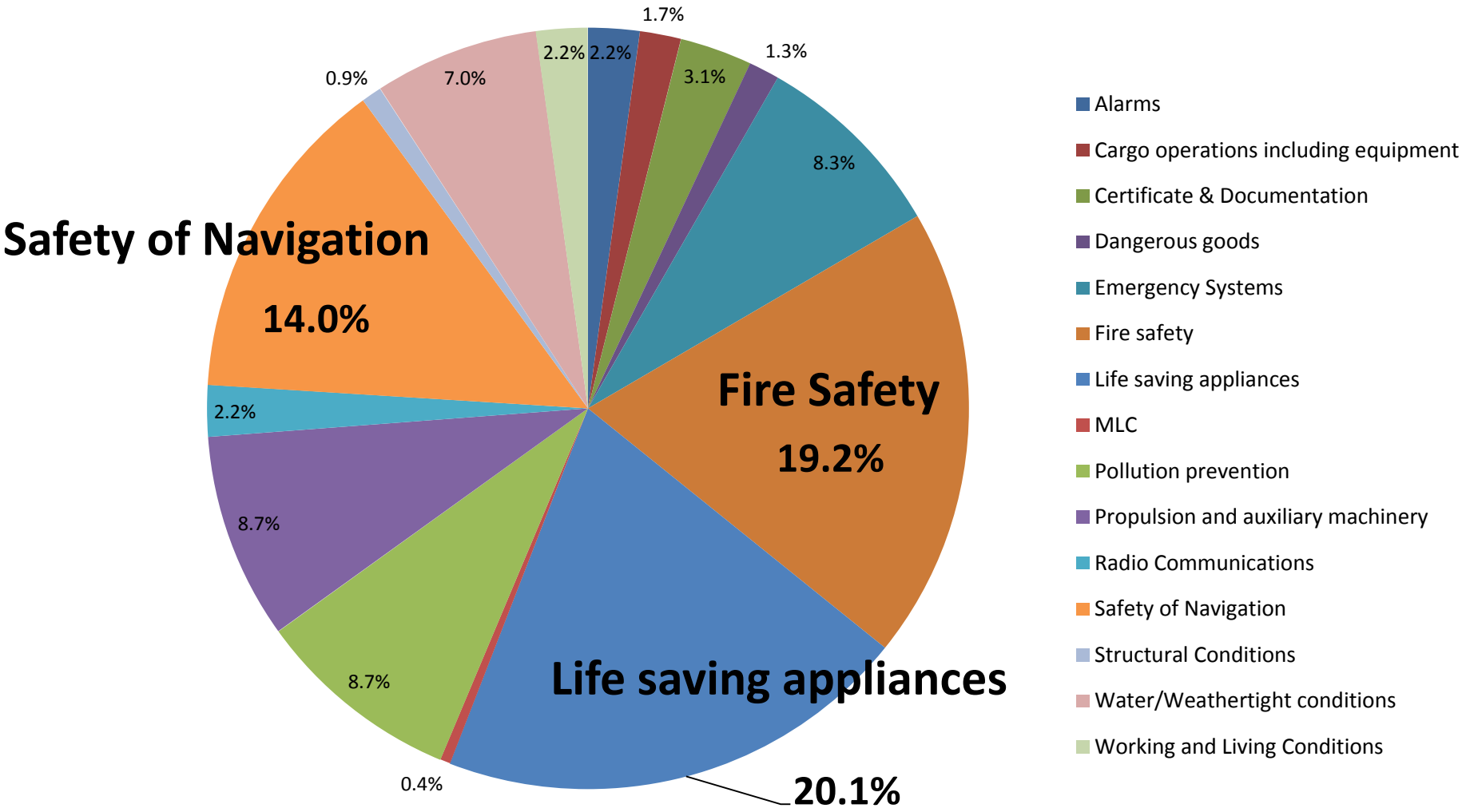
## The trends of ISM detainable deficiency.

**Table 3: Trend of ISM detainable deficiency**

Def. Code	Defective Item	2015	2016	2017-1Q
15101	Safety and environment policy	0	1	0
15102	Company responsibility and authority	0	1	0
15104	Masters responsibility and authority	0	1	0
15105	Resources and personnel	6	4	1
15106	Shipboard operations	9	10	2
15107	Emergency preparedness	5	1	2
15108	Reports of non-conf., accidents & hazardous occur.	0	1	1
<b>15109</b>	<b>Maintenance of the ship and equipment</b>	<b>5</b>	<b>8</b>	<b>7</b>
15112	Certification, verification and control	1	2	0
15199	Other (ISM)	2	3	0



**Pie Graph: Distribution for categories of deficiencies pointed out as evidences of ISM detainable deficiencies**



## Life Saving Appliances

### 1. Lifeboat and the inventory

- The engine not start
- The watertight door not keep watertight
- Some of the inventory missing
- Poor visibility etc.



Poor visibility

### 2. Lifebuoy

- Self-ignition light missing or broken
- Not in position etc.

### 3. Launching arrangements

- Seized and corroded seriously
- On-load release device defective
- Crew not familiar with the emergency operation



Corrosion of davit



## Fire Safety

### 1. Fire door

- **Not closed tightly**
- Kept open by using rope
- Attached a hook to keep open etc.



Attached a hook

### 2. Fire Fighting equipment

- Potable foam applicator not fitted at Boiler
- Fire main piping leaking or corroded seriously



Leakage of fire line

### 3. Fire Detection

- Failure of fire detection system etc.

### 4. Insulation

- Peeled off
- **No insulations for cable penetrations etc.**

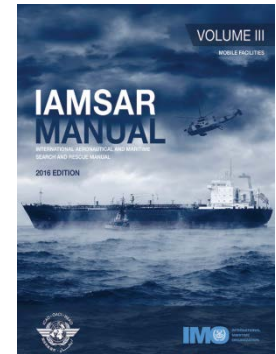


In many cases, caused by  
Drilling by crew-hands

## Safety of Navigation

### 1. Nautical Publication and Charts

- Charts not correspond to planed route courses
- Not latest version
  - NP131(Chart catalog)
  - The IAMSAR Volume III etc.



IAMSAR Manual

### 2. Navigation lights

- Failure of navigation lights
  - Failure of stern lights or stern lights not cover a 135 degree arc of horizon. etc.

Example)

- Arc of stern light exceeded 135 degrees. (actual arc more than 200 degrees) (ISM)

**Table 4: The number of detentions due to ISM detainable def. per port of China.**

PORTs	2015	2016	2017-1Q	Total
QINGDAO	4	8	1	13
NINGBO	4	7	0	11
SHANGHAI	2	3	3	8
TIANJIN	4	2	1	7
Other ports	13	9	6	28

**Table 5: Top 5 evidences of ISM detainable def. by categories from 2015 to 2017-1Q**

No.	Category	%
1	Fire safety	25.9%
2	Life saving appliances	24.1%
3	Safety of Navigation	16.1%
4	Propulsion and auxiliary machinery	7.1%
5	Water/Weathertight conditions	7.1%

**Table 6: Top 5 evidences of ISM detainable def. by items from 2015 to 2017-1Q**

No.	Item	%
1	Lifeboats	6.3%
2	Lifebuoys incl. provision and disposition	4.5%
3	Fire fighting equipment and appliances	3.6%
4	Ventilators, air pipes, casings	3.6%
5	Fire doors/openings in fire-resisting divisions	2.7%

**Table 7: Top 5 evidences of ISM detainable def. by categories from 2015 to 2017-1Q**

No.	Category	%
1	Dangerous goods	37.5%
2	Pollution prevention	25.0%
3	Certificate & Documentation	12.5%
3	Life saving appliances	12.5%
3	Working and Living Conditions	12.5%

**Table 8: Top 5 evidences of ISM detainable def. by items from 2015 to 2017-1Q**

No.	Item	%
1	Stowage/packaging of dangerous goods	37.5%
2	Garbage	25.0%
3	Rescue boats	12.5%
3	Garbage record book	12.5%
3	Other (accident prevention)	12.5%

**Table 9: Top 5 evidences of ISM detainable def. by categories from 2015 to 2017-1Q**

No.	Category	%
1	Emergency Systems	30.4%
2	Propulsion and auxiliary machinery	26.1%
3	Pollution prevention	13.0%
4	Life saving appliances	8.7%
5	Fire safety	8.7%

**Table 10: Top 5 evidences of ISM detainable def. by items from 2015 to 2017-1Q**

No.	Item	%
1	Propulsion main engine	13.0%
2	Enclosed space entry and rescue drills	13.0%
3	Auxiliary engine	8.7%
4	Lifeboats	4.3%
4	Emergency Fire Pump and its pipes	4.3%

**Table 11: Top 5 evidences of ISM detainable def. by categories from 2015 to 2017-1Q**

No.	Category	%
1	Fire safety	39.1%
2	Pollution prevention	13.0%
3	Water/Weathertight conditions	13.0%
4	Life saving appliances	8.7%
4	Certificate & Documentation	8.7%

**Table 12: Top 5 evidences of ISM detainable def. by items from 2015 to 2017-1Q**

No.	Item	%
1	Fire doors/openings in fire-resisting divisions	30.4%
2	Emergency lighting, batteries and switches	4.3%
2	Incinerator	4.3%
2	Covers (hatchway-, portable-, tarpaulins, etc.)	4.3%
2	Garbage	4.3%

**End**