

# Vessels Detained in China - 2014

Top Deficiencies in each Port				
Port	FREQ	Codes (* means made detention)		
Shanghai	4	03102	Freeboard marks	<i>Water/Weathertight conditions</i>
	2	11112	Launching arrangement for survival craft	<i>Life Saving Appliances</i>
	2	13103	Gauges, thermometers, etc	<i>Propulsion and auxiliary machinery</i>
	2	02108	Electrical installations in general	<i>Structural Conditions</i>
Tianjin	5	07110	Fire fighting equipment and appliances	<i>Fire Safety</i>
	5	07105	Fire doors/openings in fire-resisting divisions	<i>Fire Safety</i>
	4	07101	Fire prevention structural integrity	<i>Fire Safety</i>
	4	*07116	Ventilation	<i>Fire Safety</i>
	4	14608	Incinerator incl. operations and operating manual	<i>Pollution prevention – MARPOL Annex VI</i>
	3	07119	Other (fire safety)	<i>Fire Safety</i>
	3	10116	Nautical publications	<i>Safety of Navigation</i>
Rizhao	5	10127	Voyage or passage plan	<i>Safety of Navigation</i>
	2	03108	Ventilators, air pipes, casings	<i>Water/Weathertight conditions</i>
	2	07114	Remote Means of control ( opening, pumps, ventilation, etc) Mach'y space	<i>Fire Safety</i>
	2	01314	SOPEP	<i>Certificate &amp; Documentation- Documents</i>

# Vessel's Detained in China - 2014

Top Deficiencies in each Port				
Port	FREQ	Codes (* means made detention)		
Guangzhou	8	07101	Fire prevention structural integrity	<i>Fire Safety</i>
	3	11101	Lifeboats	<i>Life saving appliances</i>
	3	10116	Nautical publications	<i>Safety of Navigation</i>
	2	04114	Emergency source of power-Emergency generator	<i>Emergencies Systems</i>
	2	10114	Voyage data	<i>Safety of Navigation</i>
Lianyungang	6	*07101	Fire prevention structural integrity	<i>Fire Safety</i>
	4	11101	Lifeboats	<i>Life saving appliances</i>
	2	10127	Voyage or passage plan	<i>Safety of Navigation</i>
	2	11101	Lifeboats	<i>Life saving appliances</i>
	2	14402	Sewage treatment plant	<i>Pollution prevention – MARPOL Annex IV</i>
Zhanjiang	4	07103	Division-decks, bulkheads and penetrations	<i>Fire safety</i>
	3	08109	Boiler alarm	<i>Alarms</i>
	3	04103	Emergency, lighting, batteries and switches	<i>Emergencies Systems</i>
	2	07110	Fire fighting equipment and appliances	<i>Fire safety</i>

# Vessels Detained in China - 2014

Top Deficiencies in each Port				
Port	FREQ	Codes (* means made detention)		
Hong Kong	2	04103	Emergencies, lighting, batteries and switches	<i>Emergencies Systems</i>
	2	09209	Electrical	<i>Working and Living Conditions- Working conditions</i>
	2	10127	Voyage or passage plan	<i>Safety of Navigation</i>
	2	01305	Log-books/compulsory entries	<i>Certificate &amp; Documentation</i>
	2	11101	Lifeboats	<i>Safety of Navigation</i>
Qingdao	2	04103	Emergencies, lighting, batteries and switches	<i>Water/Weathertight conditions</i>
	2	10116	Nautical publications	<i>Safety of Navigation</i>
	2	*11104	Rescue boats	<i>Life saving appliances</i>
Xiamen	3	07101	Fire prevention structural integrity	<i>Fire Safety</i>
	2	07114	Remote Means of control (opening, pumps, ventilation, etc) Mach'y spaces	<i>Fire Safety</i>
	2	14402	Sewage treatment plant	<i>Pollution prevention – MARPOL Annex IV</i>

# Vessels Detained in China - 2014

Top Deficiencies in each Port			
Port	FREQ	Codes (* means made detention)	
Shenzhen	8	*11101	Fire prevention structural integrity <i>Fire Safety</i>
	3	10109	Lights, shapes, sound-signals <i>Safety of Navigation</i>
	2	07115	Fire-dampers <i>Fire Safety</i>
	2	07119	Other (fire safety) <i>Fire Safety</i>
	2	04103	Emergencies, lighting, batteries and switches <i>Emergencies Systems</i>
	2	02108	Sewage treatment plant <i>Pollution prevention – MARPOL Annex IV</i>
Fuzhou	2	07115	Fire Dampers <i>Fire Safety</i>
	2	10116	Nautical publications <i>Safety of Navigation</i>
	2	14503	Garbage management plan <i>Pollution prevention – MARPOL Annex V</i>
Ningbo	2	13107	Other (Machinery) <i>Propulsion and auxiliary machinery</i>

# Port State Control Trending

- **Load Line items**
  - Ventilators, air pipes, casings
  - Cargo and other hatchways
  - Weather tight doors
  - Freeboard marks
  - Machinery space openings
  - Windows, side scuttles
  - Scuppers, inlets and discharges



# Hatch Cover Securing Arrangements (old & new)



# Air Pipes

## ABS action – Rule requirement

- At each Annual Hull Survey, air pipe closure devices are to be **randomly** opened and their condition verified
- At each Special Survey of Hull, **all** air pipes are to be opened and examined both internally and externally



# WBT Air Vent Head Float Defect



**Float and Spindle weld connection**



# Measures taken by ABS

## Ventilators & Air Pipes – ABS Action

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- Annual Hull survey - Protection of other opening. Part 7-3-2/1.1.2(d) (1 July 2006):

“Ventilators including closing devices where fitted, air pipes together with flame screens and weld connections to deck plating. All air pipe “closure devices” installed on the exposed decks are to be externally examined, randomly opened out and their condition verified”.
- Special Periodical Hull Survey – Air Pipes. Part 7-3-2/5.1.7(b) (1 July 2006)

“All air pipes are to be opened out and closing arrangements and flame screens, if fitted, are to be examined both externally and internally. For designs where the inner parts cannot be properly examined from outside, this is to include removal of the head from the air pipe. Particular attention is to be paid to the condition of the zinc in heads constructed from galvanized steel.

# PSC Deficiencies – Load Line

Recent PSC Reports on an ABS Classed Double Hull Oil Carrier and Double Hull Bulk Carrier.

GUARDRAILS STANCHIONS OF  
GUARDRAIL ON BRIDGE DECK  
AFT NOT BE SPECIALLY SUPPORTED  
AT EVERY THIRD STANCHIONS

1	07/03	GUARDRAILS ON POOP DECK SAME STANCHIONS NOT BE SUPPORTED AT EVERY THIRD STANCHIONS
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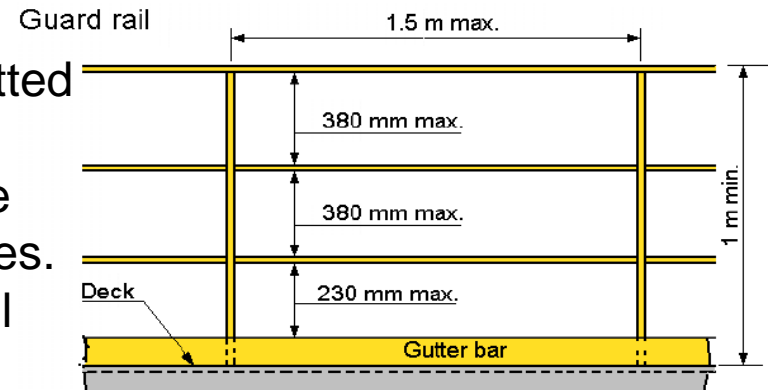
Q: Which LL Reg identifies guardrail; requirements & what are they??

# PSC Deficiencies – Load Line (Annex I, Chp II, Reg 25)

Regulation 25(2): Guard rails or bulwarks shall be fitted around all exposed decks.

Regulation 25(3): Guardrails fitted on superstructure and freeboard decks shall have at least three courses.

Regulation 25(3b): At least every 3rd stanchion shall be supported by a bracket or stay.



# PSC Deficiencies – Load Line Marks

1	03102	LOAD LINE MARK NOT CLEAR	16
2	03102	DRAFT MARK ON SHIP'S HULL FADE OUT	16
01	03115	THE BOW DRAFT MARK NOT AVAILABLE	

1 03102 Two sets of load line marks on ships side. 17

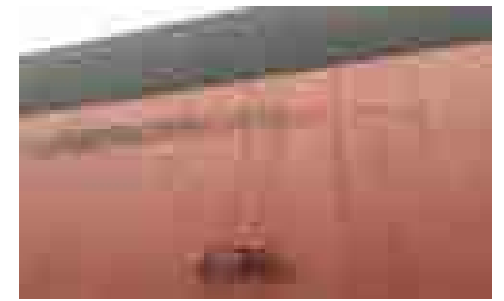
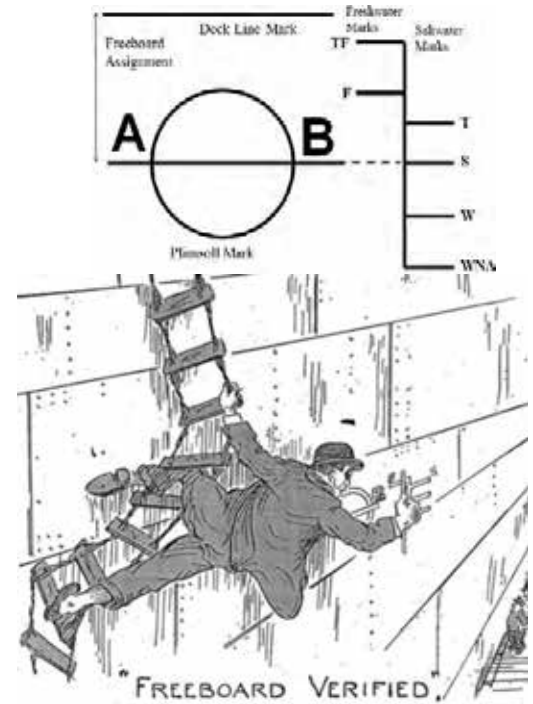
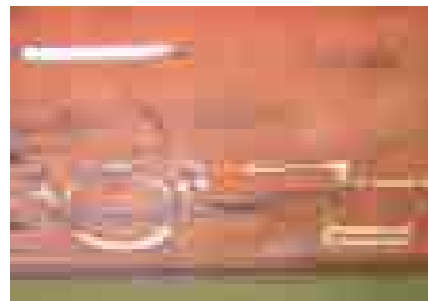
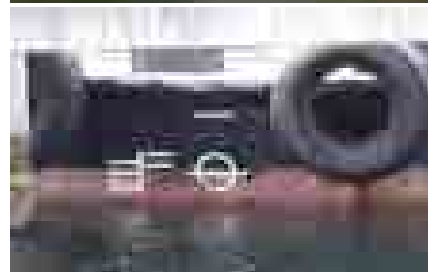
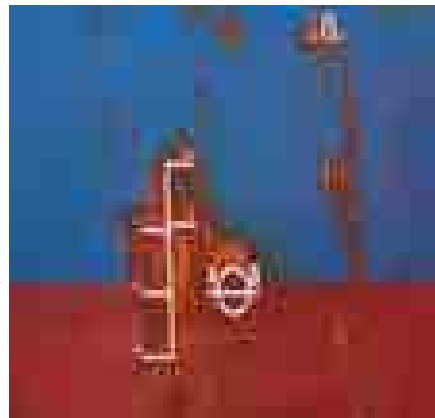
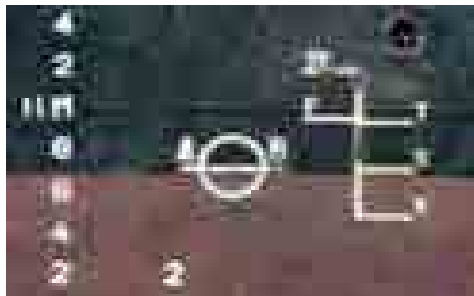
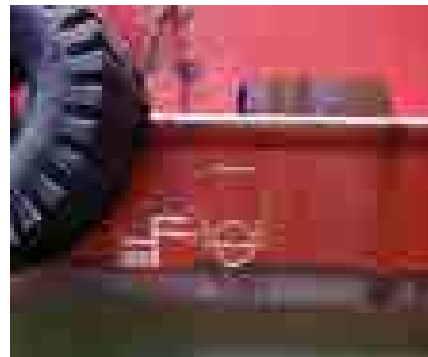
PORTSIDE DECK LINE MARK FADED 17/10

1 03102 STBD FREEBOARD MARK NOT CLEARLY 17

- |   |       |  |                            |
|---|-------|--|----------------------------|
| 1 | 03199 | THE LOAD LINE MARK AND FRESH WATER LOAD LINE (NOW USED) WAS NOT PERMANENTLY MARKED ON SHIP SIDE. | reference ⑤<br>taker<br>17 |
| 2 | 03199 | THE PERMANENTLY LOAD LINE MARK (UPPER ONE) WAS NOT PAINTED PLAINLY VISIBLE.                      | 17.                        |

# PSC Deficiencies – Load Line Marks

At Annual LL Surveyor Surveyor to confirm: The freeboard marks are to be sighted, found plainly visible, and recut and/or painted in accordance with the LL Certificate as required. The LL Certificate is to be examined for accuracy.



# PSC Deficiencies – Navigation



g. A current table or curve of residual deviations for the magnetic compass /12(b)(ii), V/12(p); V/19.1.2.2 (2000)

a. Magnetic compass V/12(b)

- i. Steering compass unless heading information is provided by the standard magnetic compass to the main steering position
- ii. Means for taking bearings over a 360 deg arc, as far as practicable
- iii. Compass bowl filled with liquid free of bubbles

b. Gyrocompass and any gyro repeaters, including examining alignment of the master and V/12(d)(e) all repeaters

MAGNETIC Compass	D E E DEVIATIONS TABLE		
	DEG True	DEG Compass	DEG Error
13W	000	000	000
	015	015	000
	030	030	000
	045	045	000
	060	060	000
	075	075	000
	090	090	000
	105	105	000
	120	120	000
	135	135	000
	150	150	000
	165	165	000

1. 11103 COMPASS IN S/S L/B HAVE A BIG  
ERROR OVER 30 DEGREES

17/10

4. 11101 PORTSIDE LIFEBOAT COMPASS WITH EXCESSIVE ERROR

PORTSIDE L/B COMPASS WITH EXCESSIVE ERROR. 17

10105 THE STANDARD MAGNETIC COMPASS  
— ERROR MORE THAN 8 DEGREES

10105 THE STANDARD MAGNETIC COMPASS 16

— ERROR MORE THAN 6 DEGREES

10105 MAGNETIC COMPASS WITH LARGE ERROR 17

seq code nature of deficiency 17/10

1 10105 Magnetic compass showing excessive deviation as observed visual and by compass  
record book errors. 15

3. 11102 ONE AIR BUBBLE WAS FOUND IN  
THE MAGNETIC COMPASS OF L/B. 17

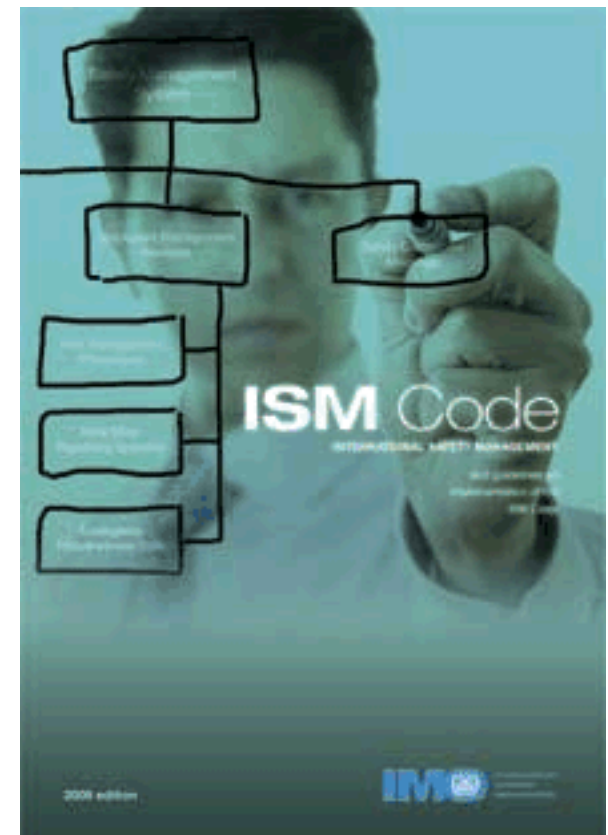
10105 Standard magnetic compass in Monkey Island bubble 16

10104 DEVIATION OF GYRO COMPASS REPEATER IN STEERING  
GEAR ROOM 17  
— MORE THAN 4 DEGREES

# Port State Control Trending

## ISM related

- Maintenance of the ship and equipment
- Development of plans for shipboard operations
- Emergency preparedness
- Master's responsibility and authority
- Safety and environment policy
- Reports and analysis of nonconformities, accidents and hazardous occurrences
- Documentation
- **STCW**



# CIC – STCW – Recording of rest hours

2	01308	Records of work hours for engineers for February 2014 do not the actual hours worked.	17
6	01308	Chief Officer & Second Officer rest hours incorrectly entered for the month of December 2013 and January 2014 as evidence by ship documentation	171
C12	01308	HOURS OF REST – NOT RECORDED COMPLETELY IN AUG 2014	99 (FROM NOW ON)
1	01308	Records of hours of rest do not reflect actual hours worked - Master, C/O and C/E inaccuracies.	17

1	01308	Engineers Hours of work/rest do not reflect actual hours worked/rested	1710
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01308	RECORD OF REST & WORK HOURS OF ENGINE DEPARTMENT	NOT CONFIRMED BY MASTER OR AP IN DEC 2014	17/10
01308	RECORD OF REST & WORK HOURS FROM OCT 2014 TO DEC 2014 NOT COMPLY WITH FACT		17/10

①	01301	2ND ENGINEER WORKING HOURS MORE THAN 14 HOURS ON 24 AUG 2014 FROM 9 AM TO NEXT DAY 9 AM	东莞海事局/17/10
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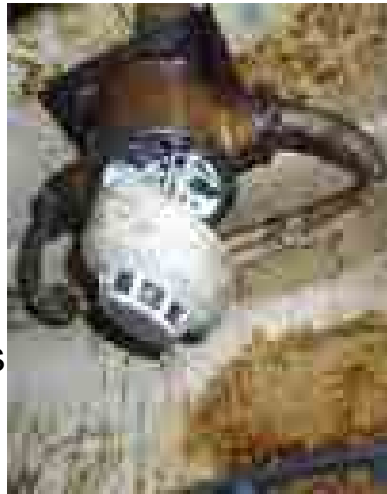
②	10136	WORKING LANGUAGE NOT MARKED IN DECK LOG BOOK	中华人民共和国海事局/17/10
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3	01305	THE WORKING LANGUAGE MARKED IN DECK LOG BOOK – NOT COMPLY WITH THE RECORD.	浙江海事局/17/10
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# Port State Control Trending

## Main & Auxiliary Machinery

- Propulsion main engine
- Auxiliary engine
- Cleanliness of engine room
- Insulation soaked (oil)
- Bilge pumping arrangements
- Guards around machinery



# Serious Violations



Jammed Quick Closing Valves

# Serious Violations



# Port State Control Trending

- **MARPOL items – Annex I**
  - Oil Record Book
  - Oil filtering equipment
  - Shipboard oil pollution emergency plan (SOPEP)
  - Oil discharge monitoring and control system (ODMC)
  - Control of discharge of oil
  - 15 ppm alarm arrangements
  - Retention of oil on board
  - Suspected discharge violations



# Oil Record Book (O.R.B.) – Mandatory Entries

## (C) COLLECTION, TRANSFER AND DISPOSAL OF OIL RESIDUES (SLUDGE AND OTHER OIL RESIDUES)

### 11. Collection of oil residues (sludge).

Quantities of oil residues (sludge) retained on board. The quantity should be recorded weekly<sup>1</sup> (this means that the quantity must be recorded once a week even if the voyage lasts more than one week):

1. identity of tank(s)
2. capacity of tank(s) in m<sup>3</sup>, gals., or bbls.
3. total quantity of retention in m<sup>3</sup>, gals., or bbls.
4. quantity of residue collected by manual operation in m<sup>3</sup>, gals., or bbls.  
(Operator initiated manual collections where oil residue (sludge) is transferred into the oil residue (sludge) holding tank(s).)

### 12. Methods of transfer or disposal of oil residues (sludge).

State quantity of oil residues transferred or disposed of, the tank(s) emptied and the quantity of contents retained in m<sup>3</sup>, gals., or bbls:

1. to reception facilities (identify port);<sup>2</sup>
2. to another (other) tank(s) (indicate tank(s) and the total content of tank(s));
3. incinerated (indicate total time of operation with time of start and stop);
4. other method (state which).

#### NOTES:

<sup>1</sup> Only those tanks listed in item 3.1 of Forms A and B of the Supplement to the IOPP Certificate used for oil residues (sludge).

<sup>2</sup> The ship's master should obtain from the operator of the reception facilities, which includes barges and tank trucks, a receipt or certificate detailing the quantity of tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book Part I, may aid the master of the ship in proving that the ship was not involved in an alleged pollution incident. The receipt or certificate should be kept together with the Oil Record Book Part I.

# Oil Record Book (O.R.B) - Deficiencies

01315 ENTRIES REGARDING CH.4  
NOT FOUND AN ORD. 99

CODE C11.4 OF ORB NOT RECORDED FROM 26TH FEB 2014 TO 16TH  
AUG 2014.

99  
FROM NOW ON

01315 OIL OPERATION NOT RECORDED IN OFFICIAL RECORD BOOK  
FROM 4-JAN-2015

01315 ACCORDING TO RECORD IN O.R.B. ON 2-JAN-2015, 3.8M3  
BILGE WATER DISCHARGED BY O.P.E WITHIN 2 HOURS.  
WHILE CAPACITY OF O.P.E ONLY 1M3

3 01315 O.R.B PAGE 10 FOR BUNKERING  
RECORD NOT CORRECTED

17

2 01715 O.R.B RECORD FOR LO  
BUNKERING NOT SATISFY

17

# Oil Filtering Equipment

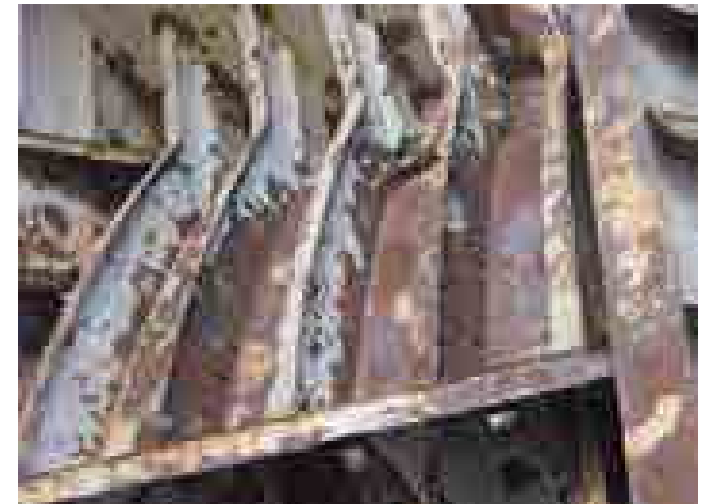
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- Examination. ABS action – Rule requirement
- Test of OWS at each Annual Machinery Survey (AMS)
- At each Special Periodic Survey of Machinery
  - OWS opened up for examination – system tested



# Port State Control Trending

- **Stability, structure and related equipment**
  - Steering Gear
  - Electrical Equipment general
  - Emergency lighting, batteries and switches
  - Gangway, Accommodation Ladder
  - Closing devices / Watertight doors
  - Stability / Strength / Loading information and Instrument.
  - Means of escape
  - Signs/Indications (WT doors, Fire detectors, fire dampers, ventilation)
  - Deck/Hull corrosion, Damages impairing seaworthiness.



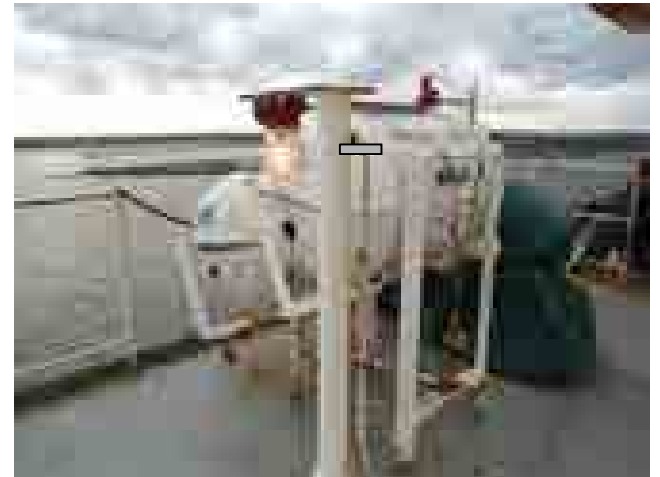
# Typical China MSA Deficiencies

07199	All manual call points, fire detector sensors are not posted with IMO symbols	SOLAS Ch.II-2	17
05109	Emergency lights for VHF DSC are not fitted	SOLAS Ch.IV, <small>REFERENCE</small>	17
07120	STEERING-GEAR ROOM EMERGENCY ESCAPE TRUNK NOT MARKED CLEARLY		17
09108	EMERGENCY LIGHT NEAR L/B DAMAGE		17
09209	THE INSULATION TESTED FOR POWER SOURCE OF GMDSS WITH POOR CONDITION.		17
03/03	SAFETY NET OF GANGWAY - NOT INSTALLED PROPERLY		17/10

# Port State Control Trending

## Lifesaving appliances

- Lifeboats / stowage
- Lifebuoys
- Rescue boats
- Inflatable life rafts / stowage
- Lifeboat inventory
- Launching arrangements for survival craft
- Operational readiness and maintenance
- Embarkation arrangements survival craft
- Immersion suits and lifejackets
- Onboard training and instructions



# On-Load setting of hooks

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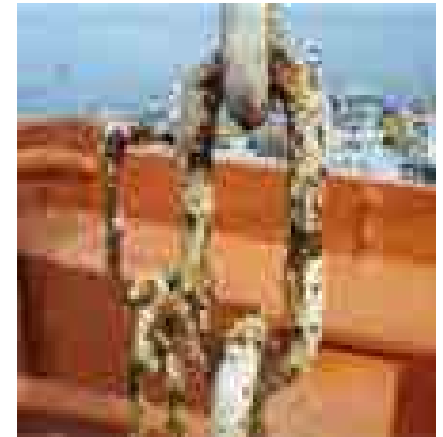
# Free Fall !!

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# Lifeboats & Launching Appliances

Lifeboats & equipment are a major issue with Class & PSC



# Open or Locked??

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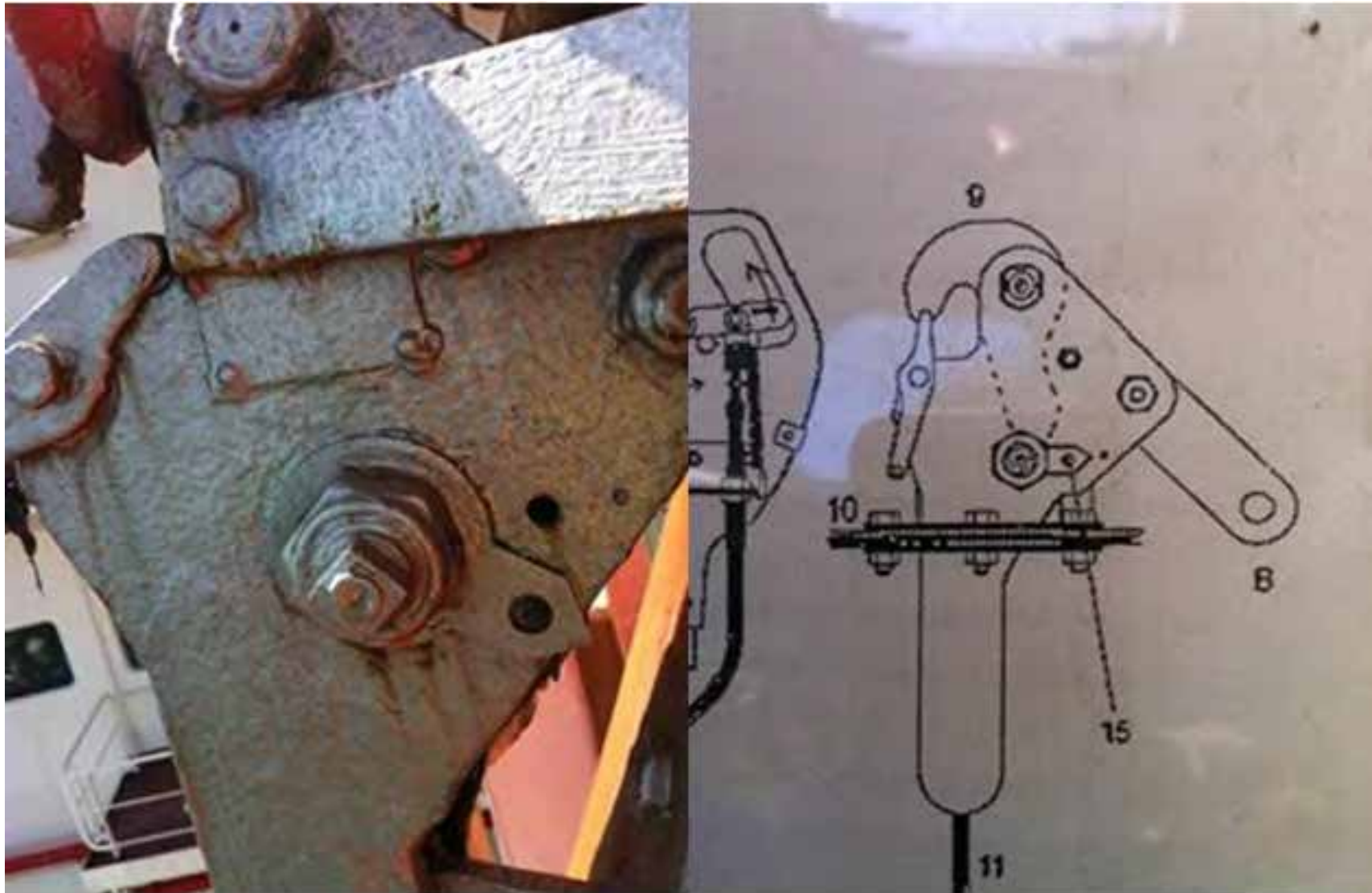
# Locked



## Hook indicator position – external



## Hook indicator position – external



# Lifeboats & Launching Appliances

	reference	taken 6)
11101	SAFETY BELT OF BOTH SIDE LIFEBOATS ALL SAME COLOR.	
09219	INSULATION FOR 110V POWER ON MAIN SWITCHBOARD LOW.	16
14611	ODS RECORD BOOK NOT PROPERLY RECORDED.	17
		17

11102 THE COLOUR OF SAFETY BELTS FOR  
 A SEAT - NOT CONTRAST WITH  
 THE BELTS FOR SEATS IMMEDIATELY  
 ADJACENT. 17

2 PAIRS OF SAFETY BELT FOR PORT SIDE L/B  
 BROKEN

# Lifeboat - freefall



# Lifeboat - freefall



# Lifeboat - freefall



# Lifeboat Seatbelts

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- LSA code (from MSC 48(66))
- 4.6.3 Capsizing and re-righting
- 4.6.3.1. Except in free-fall lifeboats, a safety belt shall be found at each indicated seating position. The safety belt shall be designed to hold a person with a mass of 100 kg securely in place when the lifeboat is in a capsized position. **Each set of safety belts for a seat shall be of a colour which contrasts with the belts for seats immediately adjacent.** free-fall lifeboats shall be fitted with a safety harness at each seat in contrasting colour designed to hold a person with a mass of 100 kg securely in place during a free-fall launch as well as with the lifeboat in capsized position.

# Embarkation Ladder Damage

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◀ 2008 built chemical carrier

2002 built container carrier ▶



# Embarkation Ladder Damage

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◀ 2007 built oil carrier



2007 built oil carrier ▶

# Port State Control Trending

## ● Fire safety measures

- Emergency Fire Pump
- Fire-dampers
- Fire prevention
- Firefighting eqpt & appliances
- Fire detection
- Fixed firefighting installation
- Fire pumps
- Ready availability of ff eqpt
- International shore connection
- Jacketed piping for HP fuel line
- EEBD



# Port State Control Trending

## Safety of Navigation

- Nautical publications
- Charts
- Lights, shapes and sounds
- Magnetic compass and Gyro compass
- Voyage data recorder (VDR or S-VDR)
- Voyage or passage plan
- Echo sounding device
- Radar
- AIS
- Rudder angle indicator
- Emergency steering position communication and compass reading
- LRIT
- Signaling lamp



# Safety of Navigation

## ECDIS, Charts and Passage Planning/Monitoring – what is being looked at.

- Lack of appropriate, updated, large scale charts/publications for:
  - Upcoming voyage
  - Arrival voyage
- Voyage planning / monitoring
  - Berth to berth
  - **Infrequent position fixing**
  - Position fixing using only one means (eg. GPS)
  - Lack of position fixing during pilotage



# China MSA – Navigation Deficiencies

02	10116	THE ADMIRALTY NOTICES TO MARINERS @ NP 131 NOT UP-TO-DATE	17
03	10116	CHARTS AND PUBLICATIONS CATALOGUE O/L EDITION (LAST EDITION)	17
10127		ONLY SINGLE FIXING METHOD RECORDED IN VOYAGE PLAN	17/10
03	10116	NAUTICAL PUBLICATION NP: 31 OUT-OF-DATE	17
4	10116	CHART CATALOGUE (NP 131) NOT CORRECTED UP TO DATE	17
3		IMSAAR MANUAL IV NOT AVAILABLE ONBOARD DURING INSPECTION	17/10
4		LATEST NOTICE TO MARINER WEEKLY #15 ONBOARD, NOT UP TO DATE	17/10
5		ADMIRALTY LIST OF LIGHTS & FOG SIGNALS VOL F NOT CORRECTED TO UPDATE	17/10
2	10111	LATEST CHARTS OF QINGDAO PORT NOT PROVIDED ON BOARD	17
12	10116	NAUTICAL PUBLICATION NP284 NOT AVAILABLE ONBOARD TO LATEST EDITION	17
4	10116	CHART CATALOGUE (NP131) NOT LATEST EDITION	17

# COLREG: Navigation Lights

- 1998 built container carrier was detained due to:
  - Horizontal arc of visibility of stern light found not as per COLREG
- This is the 2<sup>nd</sup> time that a vessel has been detained for this deficiency



**Existing Stern Light**



**New Stern Light**

STERN LIGHT	17,
- HAS THEAD LIGHT WAS	10 01-11-2013
EQUIPPED	<i>[Signature]</i>

# Port State Deficiencies

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**Items of Concern**  
**Most frequent deficiencies**

**Ventilators, Funnel Flaps, Air  
Pipes**

# Common deficiencies associated with Ventilators & Air Pipes

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## Deficiencies categorized under Fire & Safety

1. Ventilators holed.
2. Ventilators repaired with soft patch/tape.
3. Ventilator cover securing nut broken.
4. Fire flap handle not easily assessed.
5. Fire flaps not closing fully.
6. Funnel dampers not operating properly.
7. Dampers wasted and holed.
8. E/R ventilator fire dampers not operational/not closing fully.
9. Air pipe closing device – corrosion, pipe wasted.
10. E/R vent closing lever seized.

# Measures taken by ABS - Ventilators & Air Pipes

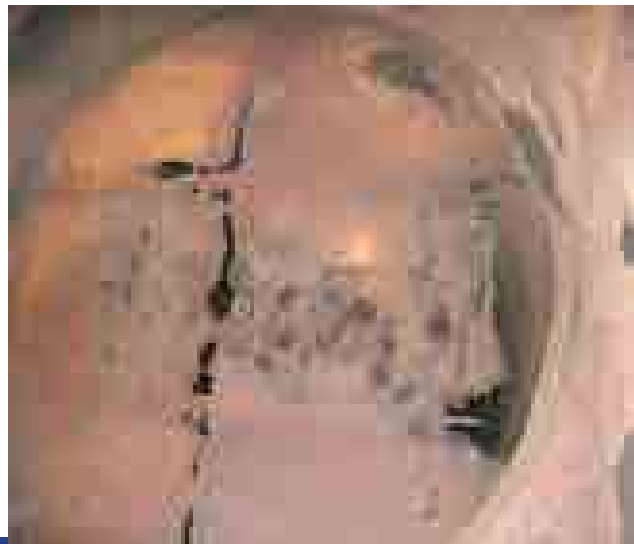
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1. ABS Action : Annual Machinery survey – Closing Arrangements. Part 7-6-2/1.1.9(k) (1 July 2004):

Examination of the closing arrangements of openings in funnels, skylights, ventilators, doorways and tunnels. Ventilator ducts are to be opened to verify satisfactory condition and operation of dampers.

# Common deficiencies associated with Ventilators

Ventilator casings holed  
Fire flap wasted/broken



# Louvre Fire Dampers – Engine Room Intakes & Exhaust, including Funnel Flaps

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- PSC have detained several vessel's in China in 2013,2014 & and now in 2015, due to the operation of engine room & funnel dampers. Typical deficiency reported has been:
  - i) Fire damper has gap.
  - ii) Fire damper cannot close tightly.
  - iii) Fire damper cannot close from outside.

Following slides show 4 similar PSC deficiencies, of which 3 are Code 30 (detained) and one is a code 99 (rectify before departure).

In referencing fire dampers we are referring solely to engine room intakes/exhausts and funnel flaps – and not fire dampers located in ventilation ducts in fire control boundaries.

# China PSC Reports on fire dampers.

NO. 4 AND NO. 3 ENGINE ROOM 596-98 AMZN/  
VENTILATORS FIRE DAMPERS (II-2/R16)  
UNABLE TO BE CLOSED FULLY  
(HAVE MORE THAN FIVE SENTIMETER  
GAP)

30/10

FIRE DAMPER FOR ENGINE  
ROOM HAVE GAP (VENTILATOR)

99 (SHIP YARD)

FIRE DAMPER OF VENTILATER FOR B/R  
STARBOARD SIDE AND PORT SIDE.

S74-1/CI-2/R48-A16 30/10  
S74-18/CI-2/R54-2.43.  
2.10-11  
S74-24/CI-2/R52.8.29.7.

—CLOSED FROM OUTSIDE FAILURE  
DUE TO CONTROL MOTOR MALFUNCTION.

THE FIRE PLATS ON ENGINE ROOM S74/CI-2  
FUNNEL — UNABLE TO CLOSE PROPERLY.

30/99

# Fire Dampers

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- 1. As per section 4-7-2/1.9.6 of the SVR's and SOLAS Reg. II-2/5.2.2.1 "means of control are to be provided for closure of **openings in funnels which normally allow exhaust ventilation and closure of ventilation dampers**".
- 2. There are **NO** requirements for the dampers located in the engine room funnel to be either **gastight or watertight** (normally these dampers are located higher than 2.3 m above position 2 and accordingly they **are not required to be watertight** in accordance with Load Line requirements).

# Typical funnel louvre dampers/flaps



# ABS Classed Vessel – Detained in China Jan'15

2012 Built Double Hull Bulk Carrier Detained in .....China due to PSC Inspectors contention that the funnel fire flaps were not closed tightly during operation.

20 number	21 code	nature of deficiency <sup>4)</sup>	Convention <sup>5)</sup> references	22 action taken <sup>6)</sup>
1	07115	FIRE DAMPER OF FUNNEL CANNOT BE CLOSED TIGHTLY		30

# Funnel Flaps – Any Problem??



# ABS Classed Vessel – Detained in China Jan'15

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# NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 9-97, CHANGE 1

Subj: CH-1 to NVIC 9-97, GUIDE TO STRUCTURAL FIRE PROTECTION

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commandant  
United States Coast Guard

2100 2nd St SW Stop 7126  
Washington DC 20593-7126  
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Fax: (202) 267-1924

JUL 2 - 2010

- **2.14 Fire Dampers**, Ref: 46 CFR 72.05-50, 116.610
- The construction specifications in Subchapters H and K may be applied to fire dampers installed in A-class divisions on all domestic vessels. The regulations require fire dampers to have a casing and blade constructed of at least 3 mm (11 USSG) thick steel, **with a maximum gap of 3 mm (1/8 inch) between the blade and the casing.** The operating components of the damper such as springs and hinges must be stainless steel or equivalent corrosion resistant construction.

# Survey Requirements for Ventilators

- AHS

1.1.2(f) (1 July 2006) Ventilators including closing devices where fitted; air pipes together with flame screens and weld connections to deck plating. All air pipe "closure devices" installed on the exposed decks are to be externally examined, randomly opened out and their condition verified. Scuppers, inlets and overboard discharges are to be externally examined as accessible including their attachment to shell and valves.

Observation:

FPT(P), AFT(S) NO.1&3 W.B.T. (P) and NO.5,8&9 W.B.T. (S), F.O.T No.1(S) were opened out and their conditions were verified.

- AMS

1.1.9(k) Closing Arrangements: (1 July 2004) Examination of the closing arrangements of openings in funnels, skylights, ventilators, doorways and tunnels. Ventilator ducts are to be opened to verify satisfactory condition and operation of dampers. For passenger vessels, examination and testing as far as possible of control, alarm and indication arrangements of fire doors at control position.

# Rule requirement for Inspection cover

Part	3	Hull Construction and Equipment	
Chapter	2	Hull Structures and Arrangements	
Section	17	Bulwarks, Rails, Freeing Ports, Portlights, Ventilators, Tank Vents and Overflows	3-2-17

## 9.3 Ventilators (2004)

### 9.3.1 Construction of Coamings (2002)

Ventilators on exposed freeboard or superstructure decks to spaces below the freeboard deck or decks of enclosed superstructures are to have coamings of steel or other equivalent material. Coaming-plate thickness is not to be less than 7.5 mm (0.30 in.) for ventilators up to 200 mm (8 in.) in diameter, and 10 mm (0.40 in.) for diameters of 457 mm (18 in.) and above; the thicknesses for intermediate diameters may be obtained by interpolation. Coamings are to be effectively and properly secured to properly stiffened deck plating of sufficient thickness. Coamings which are more than 900 mm (35.5 in.) high and which are not supported by adjacent structures are to have additional strength and attachment. Ventilators passing through superstructures, other than enclosed

superstructures, are to have substantially constructed coamings of steel at the freeboard deck. Where a fire damper is located within a ventilation coaming, an inspection port or opening at least 150 mm (6 in.) in diameter is to be provided in the coaming to facilitate survey of the damper without disassembling the coaming or the ventilator. The closure provided for the inspection port or opening is to maintain the watertight integrity of the coaming and, if appropriate, the fire integrity of the coaming.

# Inspection Port or Opening:

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## **Recent PSC Detentions**

**Emergency Escape Trunk.**

# Engine Room Emergency Escape Trunk

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SOLAS Chapter II-2, Part D 4.2.1 *Escape from machinery spaces of category A*

Except as provided in paragraph 4.2.2, two means of escape shall be provided from each machinery space of category A. In particular, one of the following provisions shall be complied with:

.1 .....The ladder shall be fixed in such a way that heat is not transferred into the enclosure **through non-insulated fixing points**. The enclosure shall have minimum **internal dimensions of at least 800mm x 800mm**, and shall have emergency lighting provisions; or

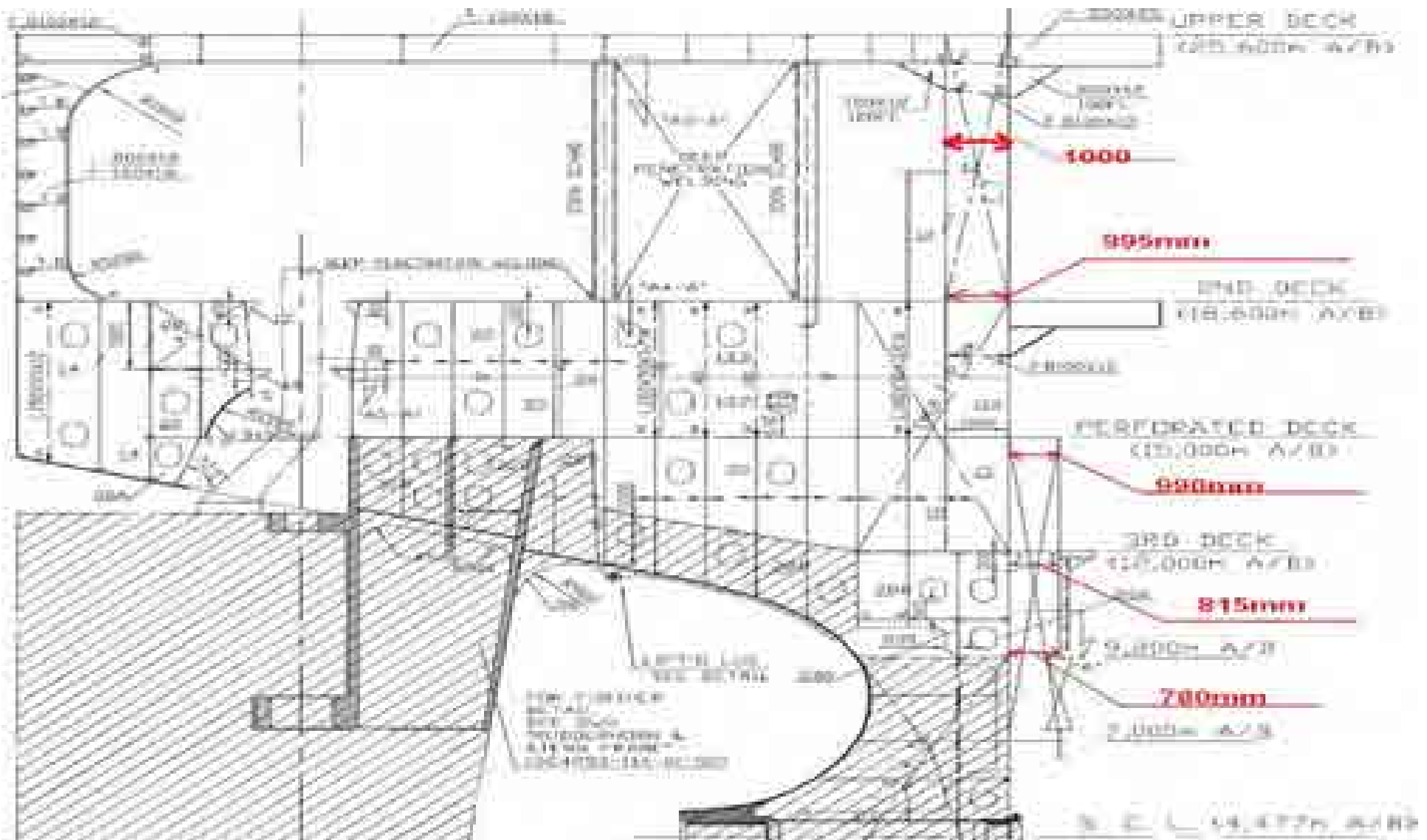
# PSC Detention 17/06/14 – ER Emgcy Escape Trunk

- Vessel detained (Code 30) by China PSC in Lianyungang.
- **ABS held responsible i.e. are BLAMED.**
- PSC Rejects ABS Appeal

07120 LENGTH OF EMER. ESCAPE  
TRUNK IN E/R NOT REACHED  
TO 800 AM. S74-21/SI-4/26/A 30/70/99 (DRY DOCK)



# PSC Detention 17/06/14 – ER Emgcy Escape Trunk



# China MSA – Vessel detention (Emgcy Escape Trunk)

20 No.	21 code	nature of deficiency ④	convention reference ⑤	22 action taken ⑥	23 responsible RO ⑦
07120		HEAT CAN BE TRANSFERRED INTO ENCLOSURE OF E/R EMERGENCY ESCAPE TRUNK THROUGH NON-INSULATED FIXING POINTS.	S74-24/CII-2/R13.4.2.1	30/10	YES

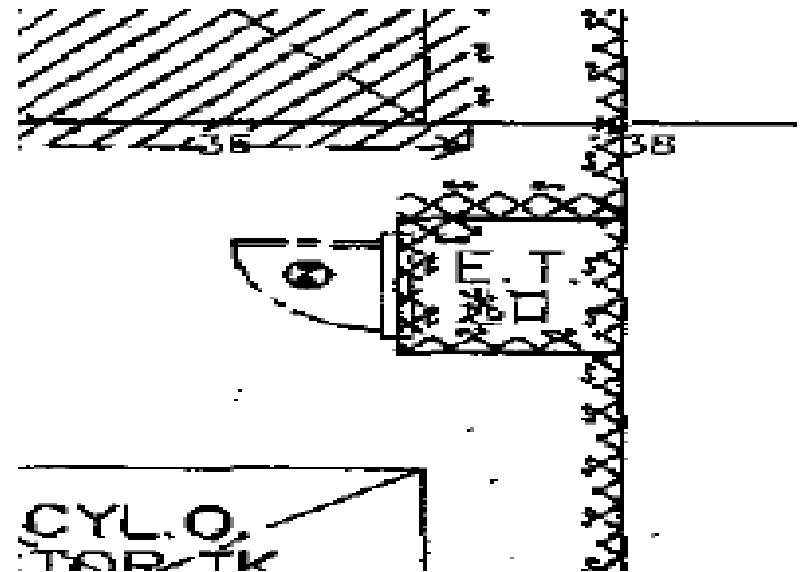
**SOLAS Chapter II-2 Regulation 13.4.2.1.1 clearly states; “the ladder shall be fixed in such a way that heat is not transferred into the enclosure through non-insulated fixing points”.**



# Grounding & PSC Detention

- ABS Approved Insulation Drwg clearly shows that the A-60 insulation in-way-of the bulkhead to which the ladder is attached is mounted externally.

Since the approved drwgs were not followed during the new construction, the appeal to the PSC Inspector was unsuccessful.





## **ABS Meeting with China MSA - Beijing**

# Questions presented to China MSA - Beijing

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**Q1.** We are facing cases where a known PSC deficiency on one ship is repeated throughout an owners fleet of vessel's. In order to avoid a PSC detention (Code 30 or Code 17) on a sister vessel would it be acceptable to China MSA if the Owners have a copy of the original PSC Detention/Intervention report (from vessel A) placed on-board vessel's B,C,D etc... and provide the PSC Inspector with the owners letter stating that they are aware of this deficiency and the time frame they are working to in order to rectify it?

**Response:** China MSA recognize that this situation may occur and further to ABS having asked this question, it is their intention to raise this situation with both the Tokyo & Paris MOU Secretariat as the vessel's are not only likely to have an intervention in China, but it may occur anywhere else in the world. However the Owners/Master of other vessel's where a known deficiency exists must indicate that they are aware of the deficiency and providing they can show they are taking proactive measures to deal with it, then this evidence may be a valid reason not to raise it as a further/new deficiency.

# PSC Sub-Committee (China MSA) Response

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**Discussed result by Port State Control Sub-committee of China MSA:** On this occasion, to avoid a PSC detention, the following advice are referred to :

1. The captain should declare and interpret the situation about the deficiency with PSCO fully before initial inspection.

PSCO will take appropriate measure according to A.1052(27).

2. A conditional certificate about the deficiency should be issued by the RO under the authority of the flag state of the vessel and the rectified time frame should be clarified and reasonable as per requirement of SOLAS.

# Questions presented to China MSA - Beijing

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**Q2.** With respect to SOLAS Chapter II-2 Regulation 13.4.2.1.1, when the China MSA PSC Inspector has raised a deficiency and given a Code 16 (rectify in 14 days) – what extension or assistance can be given to the owner if they physically cannot complete the required modifications in 14 days, but show that every effort is being made to complete it in a timely manner?

**Q2, Response:** If evidence is presented to the PSC as to why a deficiency cannot be completed within the time given and this would need supporting documentation (for example spare parts are on order but delayed delivery time, no available repair facilities at vessel location etc.) then China MSA will consider this, and if agreeable they may provide an extension on the time.

# PSC Sub-Committee (China MSA) Response

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- **Discussed result by Port State Control Sub-committee of China MSA:** According to section 6-11 of ASIA-PACIFIC PSC Manual , action code 16 can only be replaced with code 10. So the captain should communicate with PSCO about the rectification of deficiencies .....fully before a PSC inspection report issued. If the vessel physically cannot complete the required modifications in 14 days, The PSCO will take into account to using other action codes such as 99 with extension.

# Questions presented to China MSA - Beijing

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**Q3.** What is the position of China MSA if they have raised a deficiency, and the Owners then contact the vessel's flag administration to seek a waiver on the particular regulation against which the deficiency was raised, and the flag accept the 'as-built' condition and believe the deficiency meets the intent of the SOLAS Regulation?

**Q3,Response:** Subject to the nature (seriousness) of the deficiency, if the Owners and/or ABS have approached the vessel's flag administration to obtain a waiver on a particular SOLAS or MARPOL regulation against which the deficiency was raised, the China MSA will consider this and recognize the flags position.

# PSC Sub-Committee (China MSA) Response

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- **Discussed result by Port State Control Sub-committee of China MSA:** The flag state's waiver on the particular regulation shall be stated beforehand and only in cases where it appears proper and reasonable. This question should be dealt with case by case.

# PSC Inspection item(s) leading to a detention

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**Q4.** Similar to question 3, what is the position of China MSA if an ABS Engineering office provides their interpretation on a SOLAS Regulation which differs from the opinion of China MSA with respect to a deficiency that has been raised?

- Example: The photo is of a CO<sub>2</sub> pipe in the control room, which is fully insulated to A-60, except for the attached bracket. China MSA PSC Inspector did raise this as a deficiency citing SOLAS Chapter II-2 Regulation 13.4.2.1.1 ABS Engineering position is that:-

**“With regard to fire insulation of pipe support brackets, SOLAS II-2/9.3.4 and its interpretation in MSC/Circ.1120 does not explicitly require non-structural items attached to insulated decks or bulkheads to be insulated, and as the attachment area is small and the supports are partially insulated, the heat transmitted along the support would be absorbed by the insulation”.**



# Questions presented to China MSA - Beijing

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**Q4,Response:** China MSA encourages the ABS Surveyors to have technical discussions with their Inspectors onboard the vessel's, and assistance can be offered from Beijing to the PSC Inspectors if there is a difference of opinion on an interpretation of a statutory regulation or a technical matter. China MSA are willing to enter into technical discussions and training with ABS in order that all parties have a clear and common understanding.

# PSC Sub-Committee (China MSA) Response

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- **Discussed result by Port State Control Sub-committee of China MSA:** For this case, SOLAS II-2/9.3.4 and its interpretation in MSC/Circ.1120 does not explicitly require non-structural attach to insulated decks or bulkheads to be insulated. The original regulation is “In approving structural fire protection details, the Administration shall have regard to the risk of heat transmission at intersections and terminal points of required thermal barriers”. This is an ambiguous point. Whether raise deficiency or not always depends on the professional judgement of PSCOs. Discussing and communicating with PSCOs fully is always helpful. The unified guidance made by China MSA on this deficiency is not practical.

# Questions presented to China MSA - Beijing

Inside brackets are fully covered with A-60 covering.

The ladder supports are covered with A-60 covering from outside.



## RECTIFICATION:

Q5. In cases where the insulation was only placed on the inside of the emergency escape trunk, does the below modification where A-60 is now placed externally in-way-of the ladder fixing points satisfactorily address this PSC deficiency?

# Questions presented to China MSA - Beijing

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**Q5, Response to rectification:** China MSA have internally discussed this situation, and their position is, that providing the solution meets the intent of the regulation, then they will consider it to be satisfactory.

**Discussed result by Port State Control Sub-committee of China MSA:** agree with the above response.

# PSC Sub-Committee (China MSA) Response

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**Q6.** ABS Surveyors face the situation where they are unable to have the PSC Inspector amend his report after an appeal has been made, and the reason cited is because the PSC Report has already been submitted into their database system.

**Q6, Response:** China MSA understand the concern that ABS has on this issue, but it is noted that China MSA are cautious of the detainable items that they raise and they consider the seriousness of the item carefully. However, if an ABS Surveyor can get onboard the vessel and discuss the situation with the PSC Inspector this is beneficial to all parties – but if an agreement cannot be reached, then providing that ABS submits a letter to China MSA – Beijing, giving all the technical arguments & justifications, then they will NOT submit the report into their system until the appeal has been reviewed.

**Cont'd**

# Questions presented to China MSA - Beijing

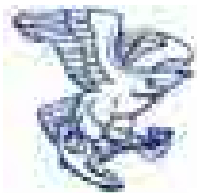
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If an appeal is considered after a PSC Inspectors report has been submitted, they can under special circumstances change their report, but this will be subject to a very strong technical justification and supporting evidence being provided.

**Discussed result by Port State Control Sub-committee of China MSA:** The PSC Report submitted into their database system can be modified after an appeal was accepted.



## **ABS GCD – Action Plan**



**ABS – China MSA**



**Building the Relationship**

# GCD PSC - Action Plan

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- China MSA appears to have a 'quota' that they must meet each month. In 2013 they averaged about 56 detentions per month (all vessels). ABS had 32 detentions in 2013 (4.72%) and were blamed for one(1). In 2014, they averaged about 44 detentions per month (all vessels). ABS had 18 detentions in 2014 (4.20%) and have been blamed for three(3).
- Comparing the most active PSC countries in the Tokyo MOU during 2013, Australia detained 6.97% and China detained 8.16% of all vessels in Tokyo MOU. Next closest country was Hong Kong at 5.41%. The average is 4.5%. Both countries are much more likely to detain a vessel they inspect than the average Tokyo-MoU authority.

# GCD PSC - Action Plan

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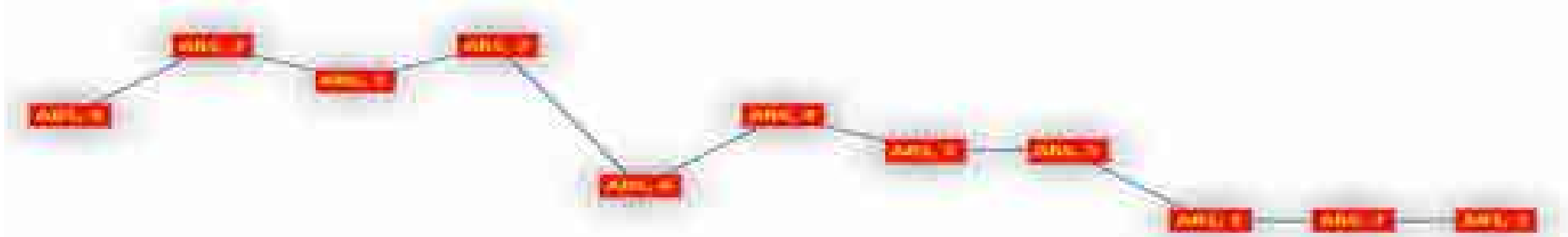
- In previous years ABS had been ranked as high as # 2 in the Tokyo MOU listing of RO's, but recently our position has declined and we are ranked # 7.
- In order to improve our (ABS) position, there is a PSC Action Plan at both Corporate and Division levels being implemented.
- From GCD our action plan focuses on the following:
  - ⇒ ACS is meeting with as many of the Provincial & Local MSA Offices as possible and providing presentations to the PSC Inspectors related to ABS vessel's under Detention/Intervention in China, highlighting specific case studies, and promoting mechanisms for greater cooperation between ABS & China MSA.
  - ⇒ ABS GCD preparing to host a joint seminar in Beijing (May'15) with China MSA.

# GCD PSC - Action Plan

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- ⇒ Focusing on the Principal Surveyors to establish a closer working relationship with the PSC Inspectors within their own port districts.
- To-date meetings/presentations have been held at 10 MSA Offices with more than 75 PSC Inspectors and have been well received and with some PSC Offices providing their own presentations as well as case studies to discuss.
- First meeting was held in Nov'14 at the MSA Head Office in Beijing with the MSA Deputy Director General.
- ⇒ Principal Surveyors, Surveyors – they need to know their local PSC Inspectors and the MSA Office Manager.
- ⇒ Principal Surveyors need to improve relationships with their local PSC Inspectors.

# Annual Tokyo MoU Rankings of IACS Members



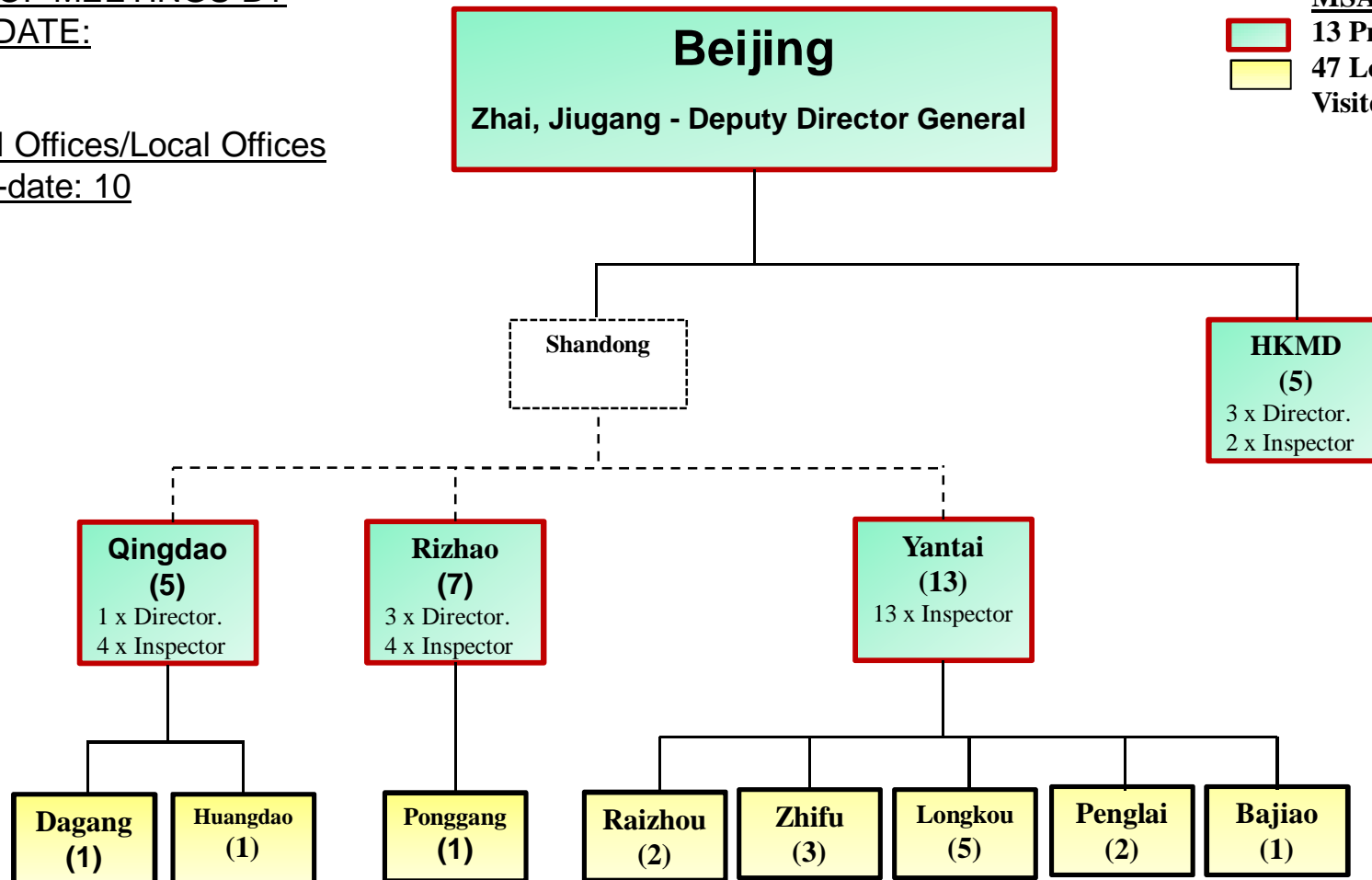
1	GL	DNV	DNV	CCS	CCS	CCS	RINA	CCS	KR	RINA	RINA
2	KR	ABS	CCS	ABS	KR	GL	CCS	KR	CCS	CCS	CCS
3	DNV	GL	ABS	RMRS	GL	KR	KR	GL	RINA	KR	KR
4	ABS	KR	KR	GL	RMRS	ABS	GL	RINA	DNV	GL	LR
5	CCS	CCS	RMRS	KR	NKK	LR	ABS	ABS	LR	DNV	DNV
6	NKK	RMRS	GL	NKK	ABS	NKK	DNV	LR	NKK	LR	NKK
7	RMRS	NKK	NKK	DNV	LR	RMRS	LR	DNV	ABS	ABS	ABS
8	LR	LR	LR	LR	DNV	BV	NKK	BV	GL	NKK	BV
9	BV	BV	BV	BV	BV	DNV	BV	NKK	BV	BV	GL
10	RINA	RINA	RINA	RINA	RINA	RINA	RMRS	RMRS	RMRS	RMRS	RMRS
11						IRS	IRS	IRS	IRS	IRS	IRS
12						PRS	PRS	PRS	PRS	PRS	PRS
13						CRS	CRS	CRS	CRS	CRS	CRS
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014

# GCD PSC Action Plan: 2014 - 2015

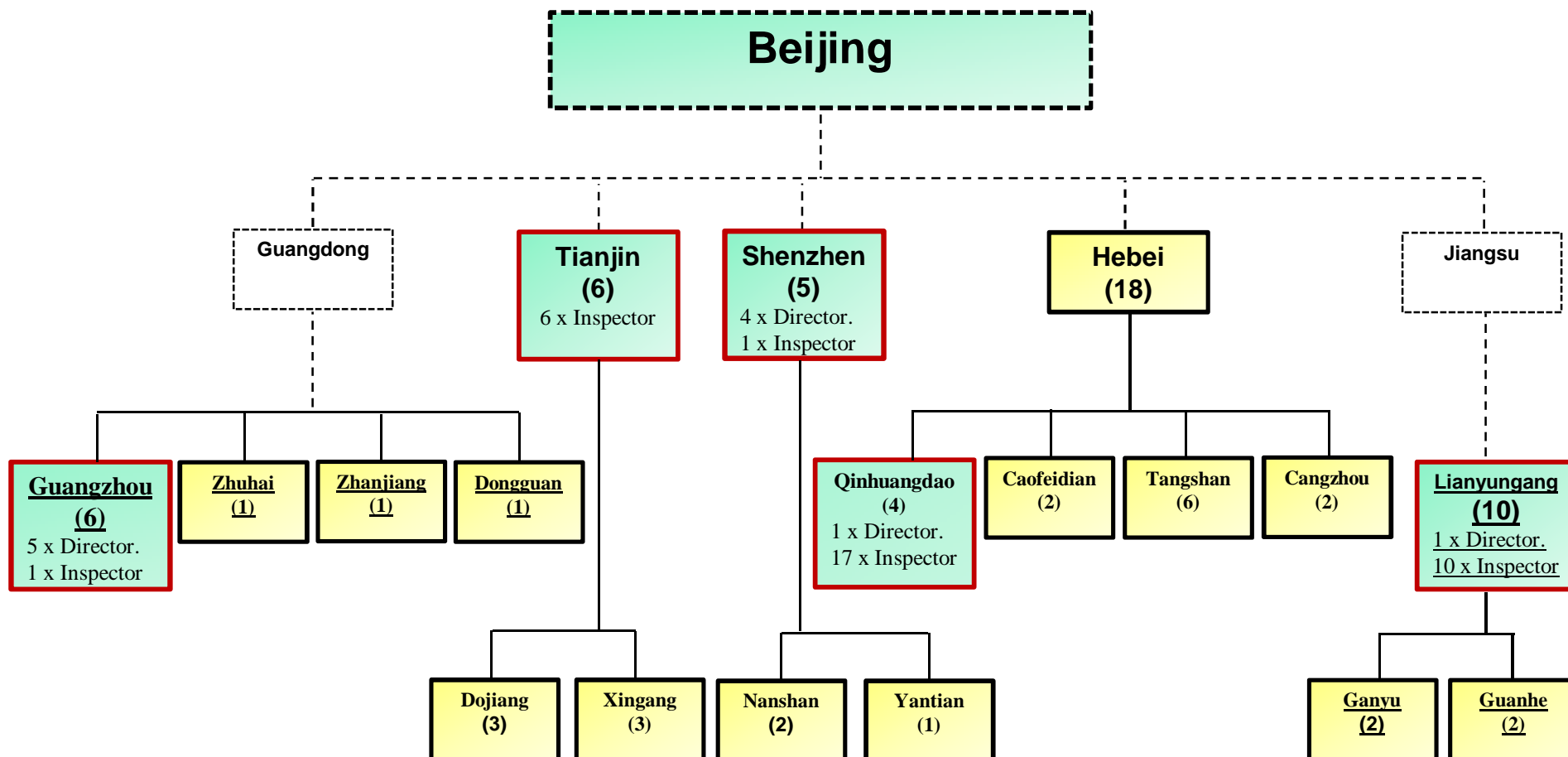
STATUS OF MEETINGS BY ACS TO DATE:

Provincial Offices/Local Offices Visited to-date: 10

MSA-China  
 13 Provincial offices  
 47 Local offices  
 Visited offices



# GCD PSC Action Plan: 2014 - 2015





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**ABS**