

The Second Safety Meeting of Shipowner/ Ship
Management Company, 2020

PSC Session

CCS Headquarters
August 2020

General status of CCS on PSC of PSC in 2017-2019

1. General Status:

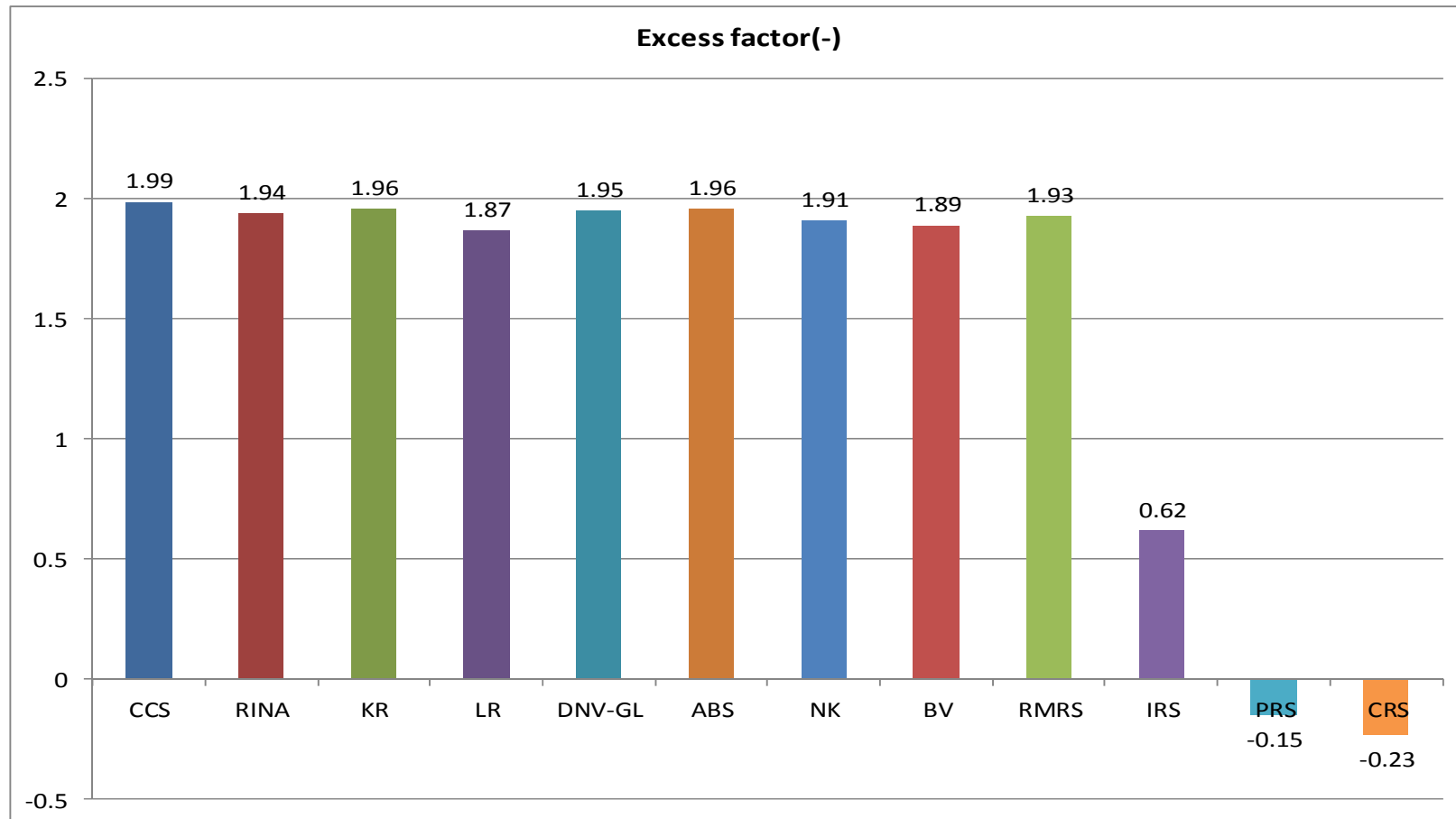
- ◆ **TOKYO MOU:** A total of 7,589 inspections were carried onboard CCS ships, among which 43 were detained, with a detention rate of **0.57%**;
- ◆ **PARIS MOU:** A total of 890 inspections carried onboard CCS ships, among which 17 were detained, with a detention rate of 1.91%;
- ◆ **USCG:** Approximately 638 inspections carried onboard CCS ships, among which 3 were detained, with a detention rate of 0.47%.
- ◆ In summary, a total of 9,117 CCS ships were inspected in the PSC inspections carried out by TOKYO MOU, PARIS MOU and USCG during 3 years, among which 63 were detained, with a detention rate of 0.67%. The overall PSC performance of CCS ships was better.
- ◆ Grateful to shipping companies for the above-mentioned achievement that benefited from the consistent support and effort and good management.

(Total inspection numbers were from PSC annual reports and total detention numbers were the numbers noticed to CCS by PSCs)

General status of CCS on PSC of PSC in 2017-2019



Comparison of excess factors of each IACS member in TOKYO MOU
(figures from TOKYO MOU 2019 Annual Report)

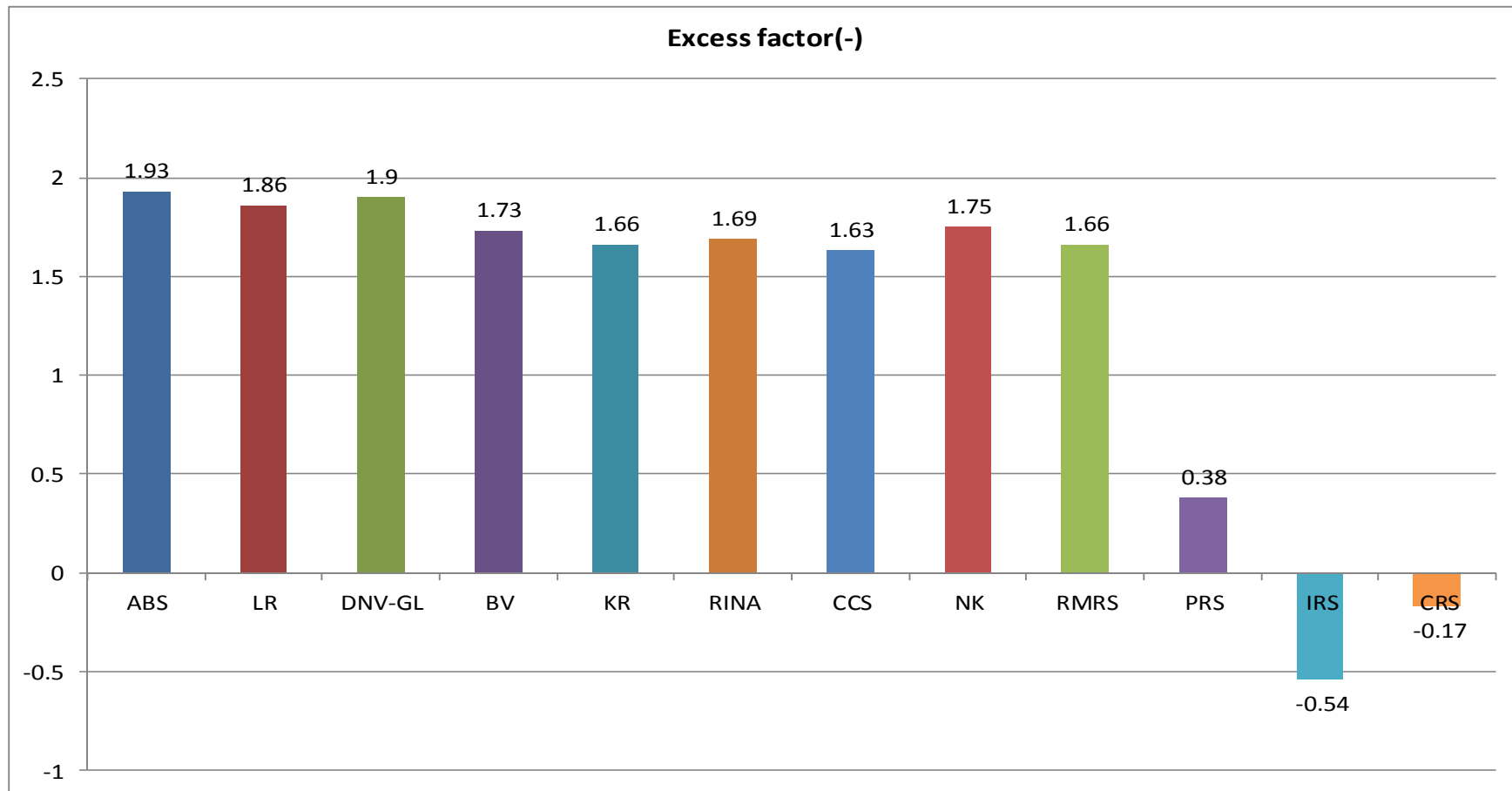


The performance of CCS in TOKYO MOU ranked better than other IACS members.

General status of CCS on PSC of PSC in 2017-2019



Comparison of excess factors of each IACS member in Paris MOU (figures from Paris MOU RO Performance Table 2017-2019)



The performance of CCS in Paris MOU was ranked No. 9 in all IACS members.

General status of CCS on PSC of PSC in 2017-2019



Comparison of RO-RELATED DETAINMENT RATIO of each IACS member in USCG
(figures from USCG 2019 PSC Annual Report)

RO	YEARS AND INSPECTIONS				2017-2019 RO-RELATED DETAINMENT	RO-RELATED DETAINMENT RATIO
	2017	2018	2019	Total		
ABS	1685	1936	1833	5454	0	0.00%
BV	1166	1191	1150	3507	4	0.11%
CCS	194	240	204	638	0	0.00%
CRS	14	20	16	50	0	0.00%
DNV-GL	3271	3658	2577	9506	6	0.06%
IRS	13	22	23	58	0	0.00%
KR	314	269	296	879	0	0.00%
LR	2405	2684	2457	7546	7	0.09%
NK	2282	2478	2456	7216	4	0.05%
PRS	22	32	18	72	0	0.00%
RINA	320	431	420	1171	0	0.00%
RMRS	29	32	30	91	1	1.09%

CCS kept “0” RO-related detention in USCG PSC many years

PSC Analysis of CCS ships in the first half of 2020

PSC Analysis of CCS ships in the first half of 2020



General Status:

- ◆ **TOKYO MOU:** A total of 681 inspections were carried onboard CCS ships, among which 11 were detained, with a detention rate of **1.62%**, which was over the detention ratio in same period of last year (0.9%) ;
- ◆ **PARIS MOU:** A total of 75 inspections carried onboard CCS ships, no ship was detained, with a detention rate of 0%, which was lower than the detention ratio in same period of last year (4.93%);
- ◆ **USCG:** Approximately 70 inspections carried onboard CCS ships, among which 0 was detained, with a detention rate of 0%.
- ◆ Other areas: 1 detention report was received from Russian PSC(Black Sea MOU).

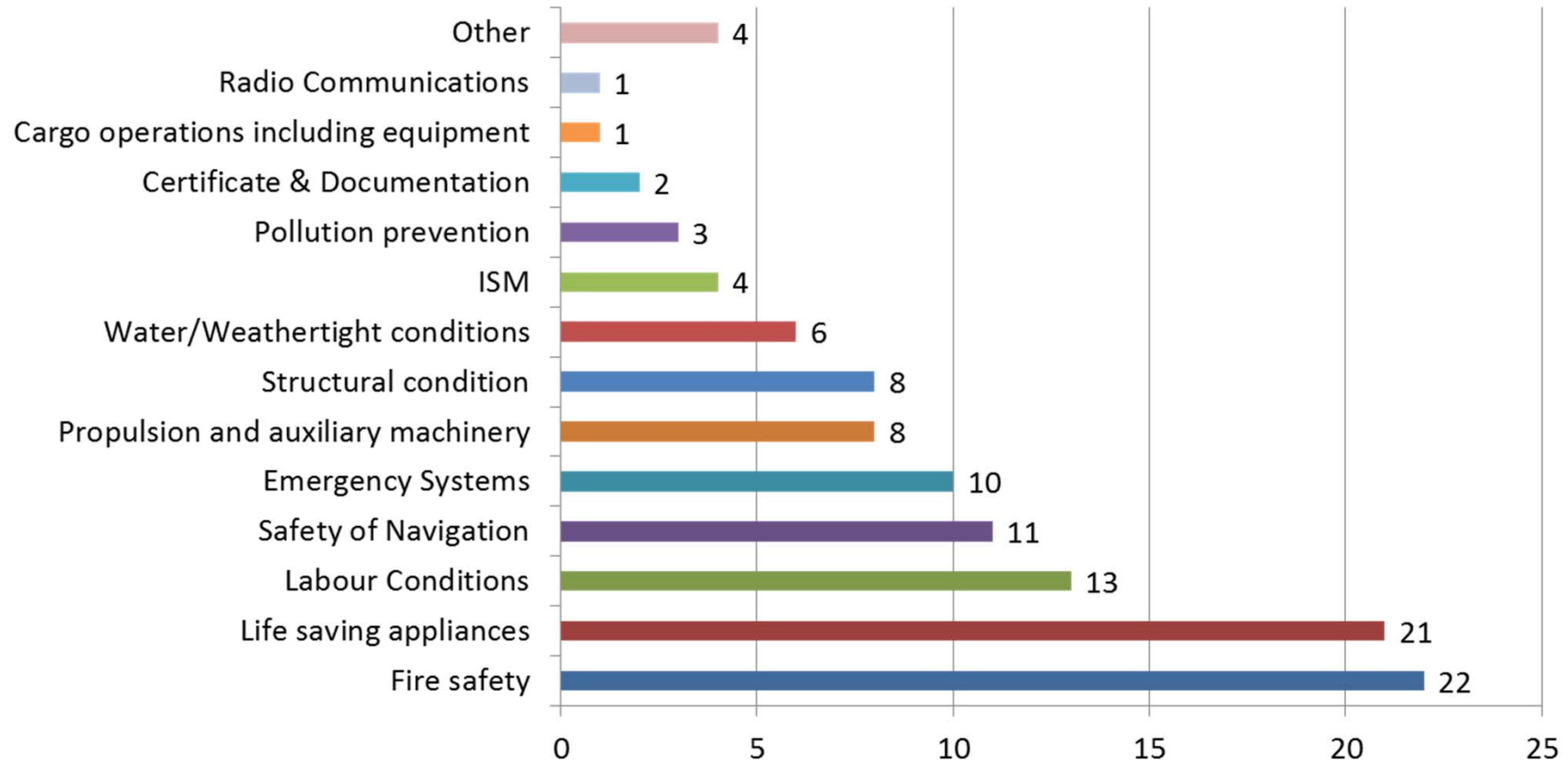
Due to COVID-19, ship managements were affected heavily and PSC inspections were reduced substantially, PSC inspections were focused on high-risks ships, ships with accident or dangerous situation and ships with appeals from seafarers or other organizations, etc., these were high PSC detentions risk ships. Each company and ship should take relevant measures actively to prevent such ship PSC detention.

Remarks: inspection figures above from website, detention figure was reported by PSC.

PSC Analysis of CCS ships in the first half of 2020



Distribution of all deficiencies

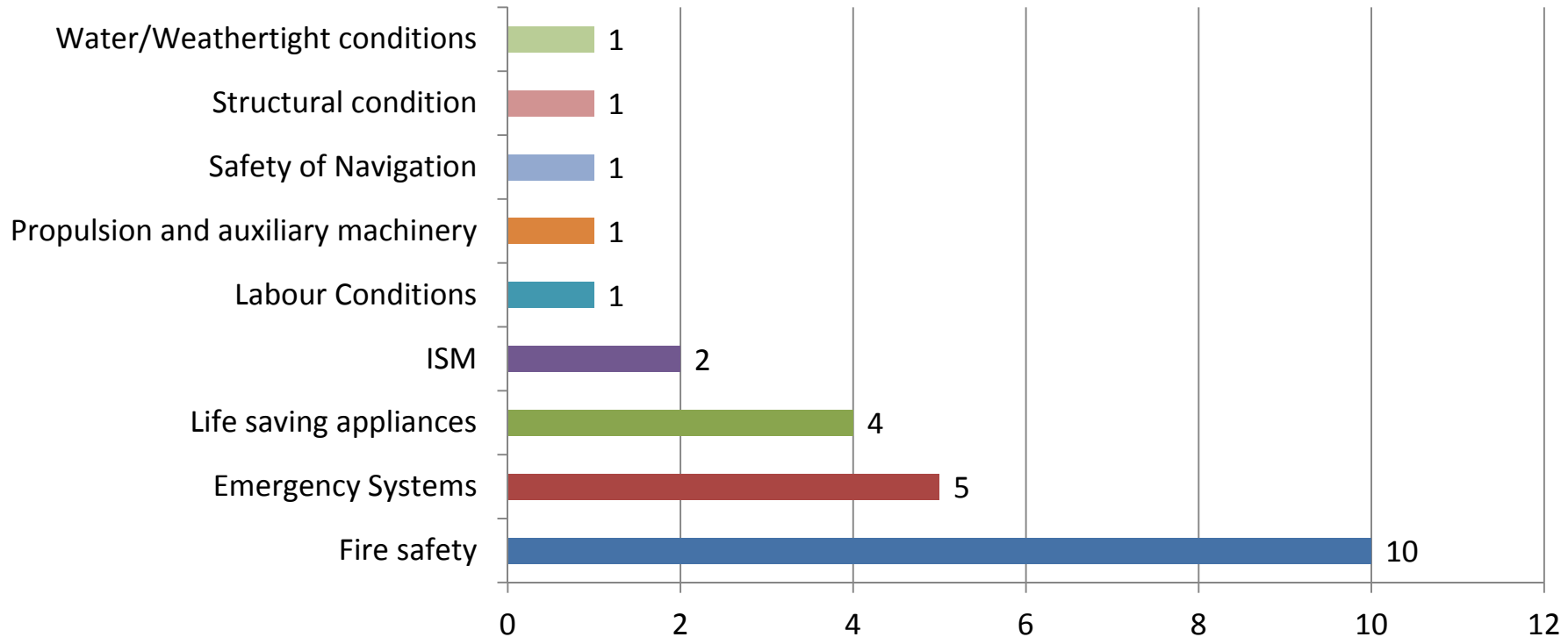


Total 12 ship were detained with 114 deficiencies proposed by PSC in the first half of 2020, mainly included fire safety, life saving appliances, labor conditions and safety of navigation, etc. Each company and ship should try to reduce the number of PSC deficiency.

PSC Analysis of CCS ships in the first half of 2020



Distribution of all detainable deficiencies

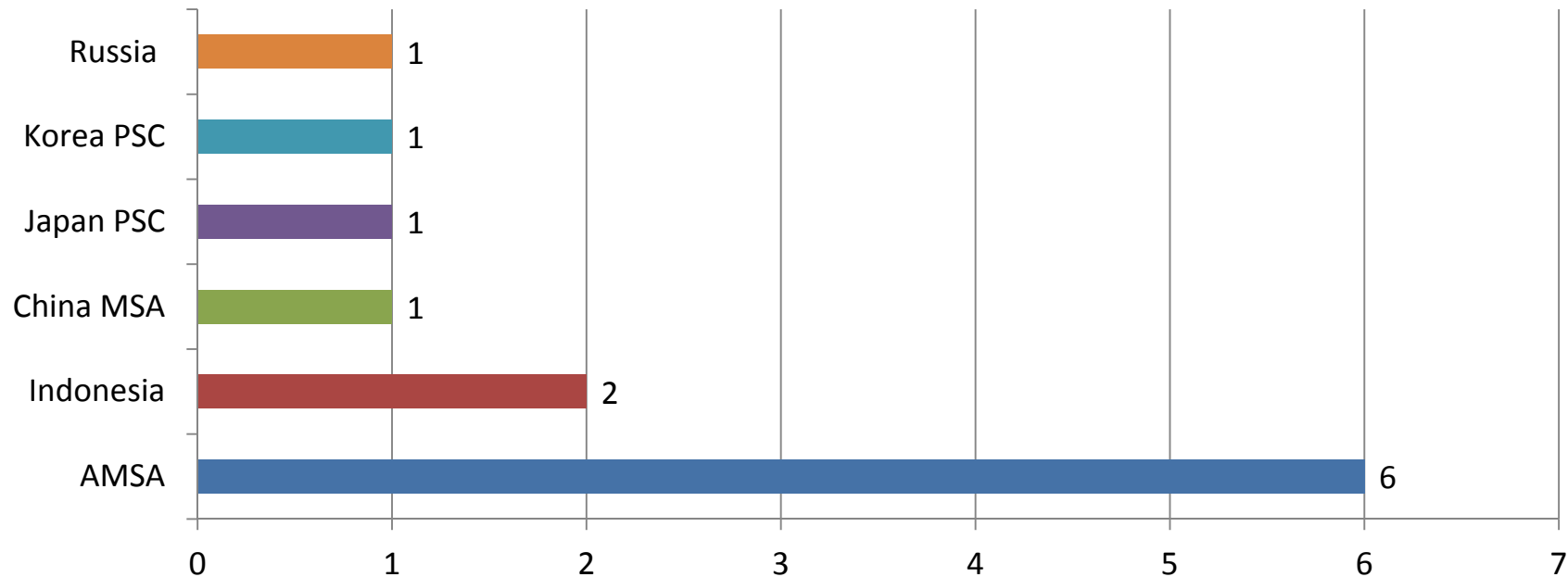


Total 12 ship were detained with 26 detainable deficiencies proposed by PSC in the first half of 2020, mainly included fire safety, emergency system, life saving appliances and ISM, etc. Mainly PSC detainable deficiencies were related to engine room ventilator fire dampers, life saving boat, rescue boat, emergency generator and emergency fire pump, etc. If ship was detained with many deficiencies, PSCO may issue a ISM detainable deficiency.

PSC Analysis of CCS ships in the first half of 2020

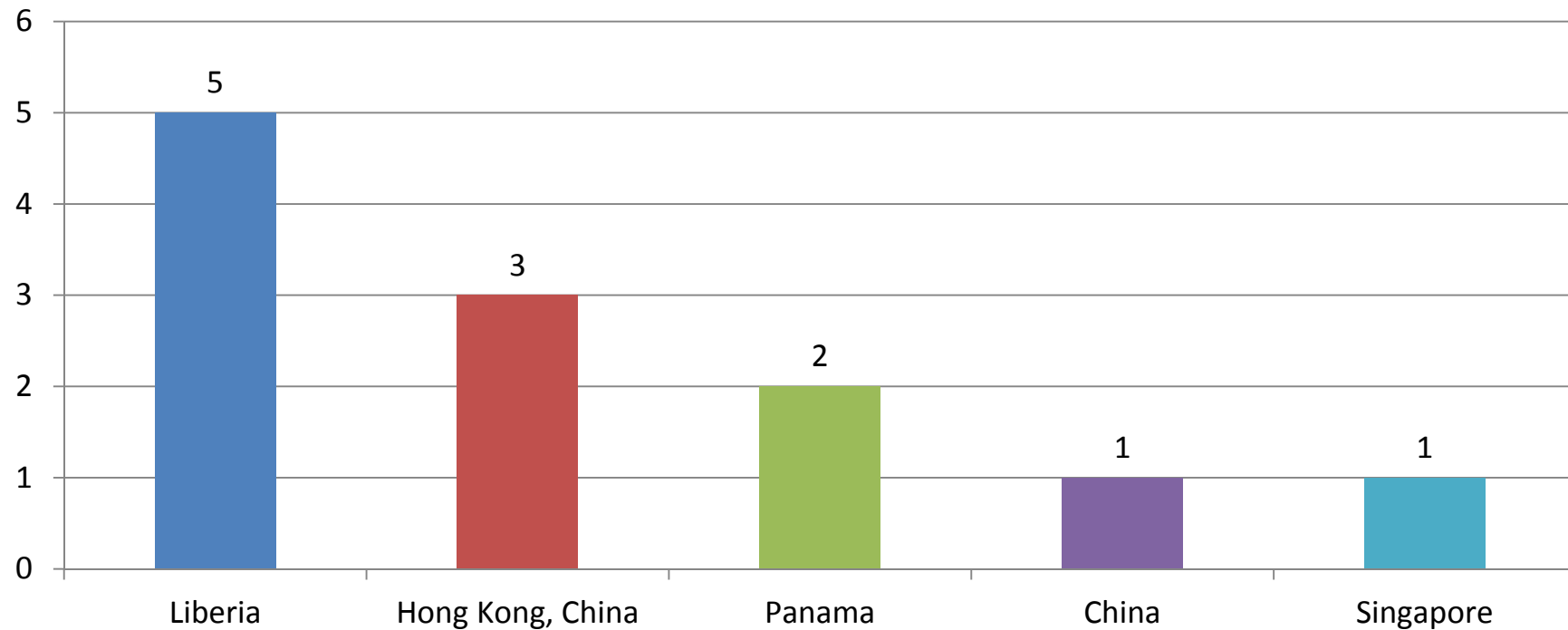


Distribution of detentions by countries/regimes



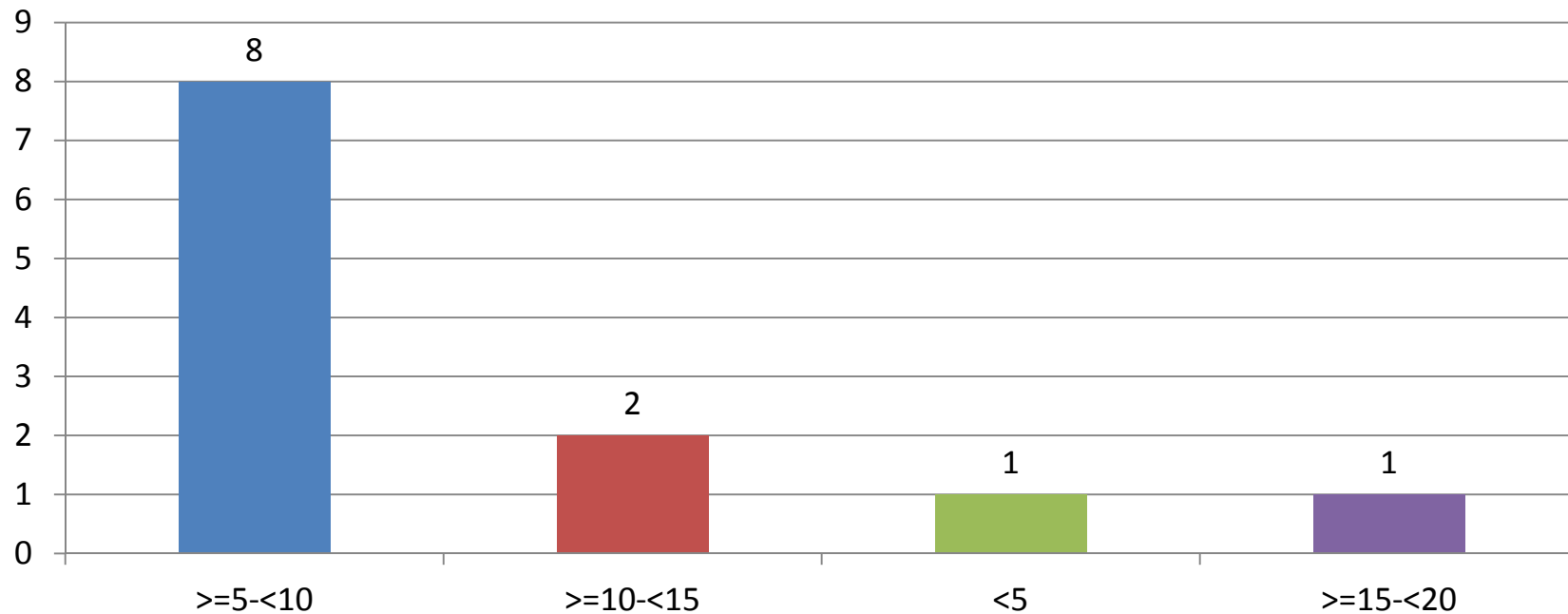
In the first half of 2020, detention numbers of CCS ships by AMSA occupied 50% of total detentions. All relevant companies shall strengthen the management to ships sailing to Australia and supervise all crew members to carry out pre-inspections before port arrival, to carry out careful inspections and tests to engine room ventilator fire dampers, fire doors, air pipes, pollution prevent equipment and emergency equipment, etc., in order to reduce PSC deficiencies and detentions.

Distribution of detained ships by Flags



The number of Liberia flag Ships detained were more than numbers of other flag ships.

Distribution of detained ships by ages

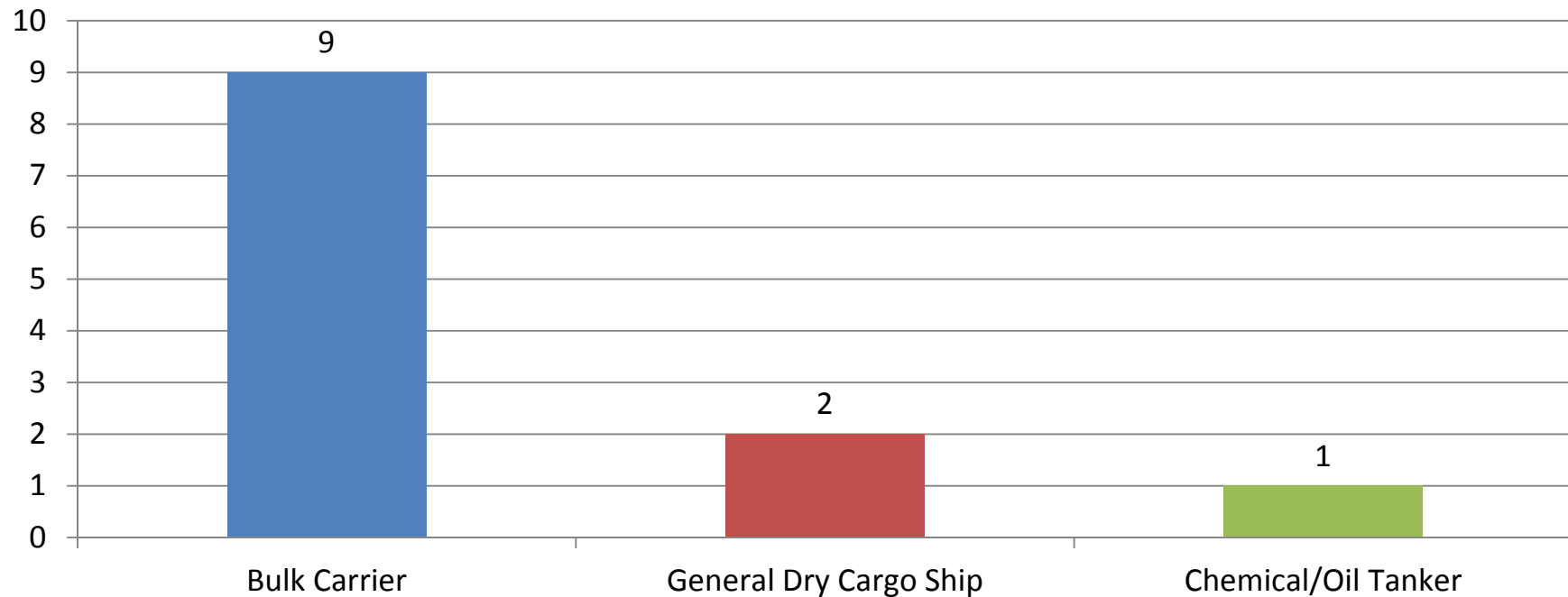


Ships at the ages of 5-10 occupied 67% of all detained ships. Shipping companies shall strengthen the management and maintenance of these ships in order to decrease detention.

PSC Analysis of CCS ships in the first half of 2020



Distribution of detained ships by ship's types

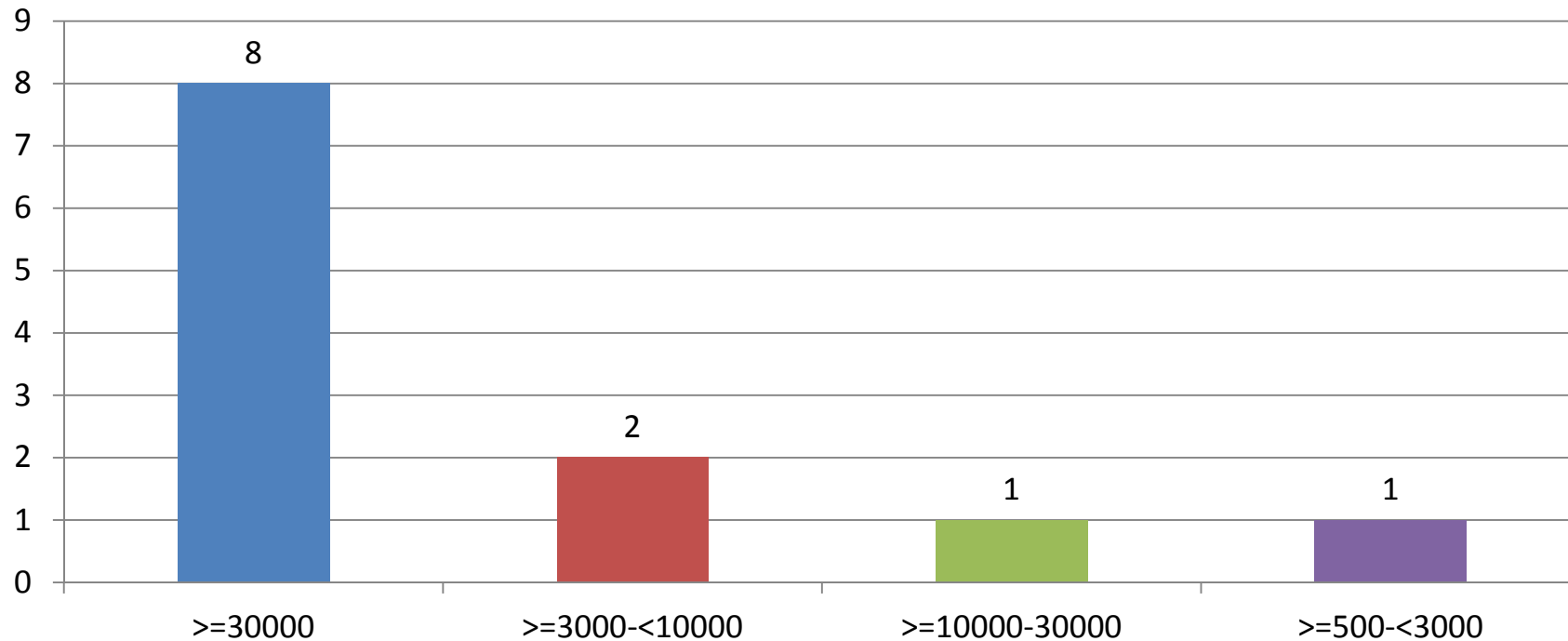


Bulk Carriers occupied 75% of all detained ships, especially ships sailed to Australia. We recommend all companies to strengthen the safety inspection and supervision on these ships.

PSC Analysis of CCS ships in the first half of 2020



Statistics of detained ships by gross tonnage



Above 30,000 GT ships detentions occupied 67% of all ships detentions, especially Bulk Carriers. We recommend all companies to strengthen the management of Bulk Carriers to reduce detention.

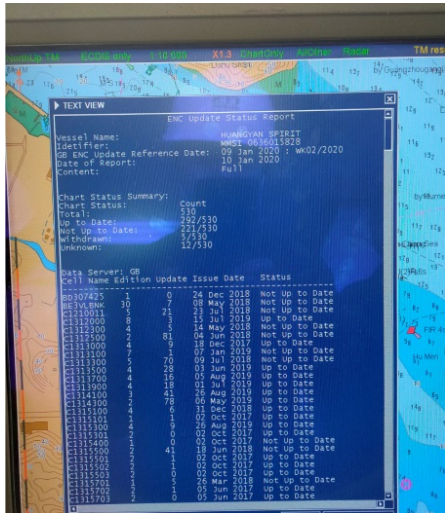
Detention cases

Detention case-Jan.8, 2020-China



- ◆ **Detainable deficiencies:** 1、 ENC CHARTS FOR THE ARRIVAL VOYAGE IN BOTH ECDIS DID NOT UPDATE; 2、 RESCUE BOAT ENGINE CAN NOT BE STARTED; 3、 THE RESCUE BOAT DAVIT FOUND LEAKING HYDRAULIC OIL DURING SWING OUT THE DAVIT BY ACCUMULATOR, AND THE LIMIT SWITCHES FOR THE WIRE AND RECOVERY HANDLE WERE MALFUNCTION; 4、 ALL THE CYCLINDER FOR M/E FOUND WATER LEAKING SERIOUSLY。
- ◆ **Cause analysis:**
 - Shipping company did not supply up to dated ECDIS software ;
 - Crew was unfamiliar with control of fuel oil ,causing the engine of rescue boat starting failure.
 - Inadequate maintenances caused rescue boat davit hydraulic oil leakage ,limit switch malfunction and M.E. cylinder water leakages.
- ◆ **Suggestions:**
 - Shipping company should supply all navigation documents to the ship in time.
 - Each ship should enhance onboard training of operation, maintenances and tests to all emergency and key equipment.

Detention case-Jan.8, 2020-China



ECDIS not up to date (rectified)



Rescue boat engine starting failure (rectified)



rescue boat davit hydraulic oil leakage ,limit switch malfunction



M.E. cylinder water leakages

Detention case-Jan.8, 2020-Indonesia

◆ **Detainable deficiencies:**

- 1、 Fire funnel damper to E/R not close properly。
- 2、 Air vent damper to E/R Port/ Stbd. not close properly。

◆ **Cause analysis:**

During PSC inspection, PSCO found fire funnel damper and air vent dampers to engine room could not be closed tightly, then detained the ship.

◆ **Suggestions:**

Crew members should inspect , test and maintain all ship's fire dampers properly.



Fire funnel damper to E/R not close properly



Air vent damper to E/R Port/ Stbd. not close properly

Detention case-Jan.28, 2020-Australia



◆ Detainable deficiencies:

- 1、 Emergency Fire Pump Defective.;
- 2、 Emergency generator will not connect to emergency switchboard automatically 。

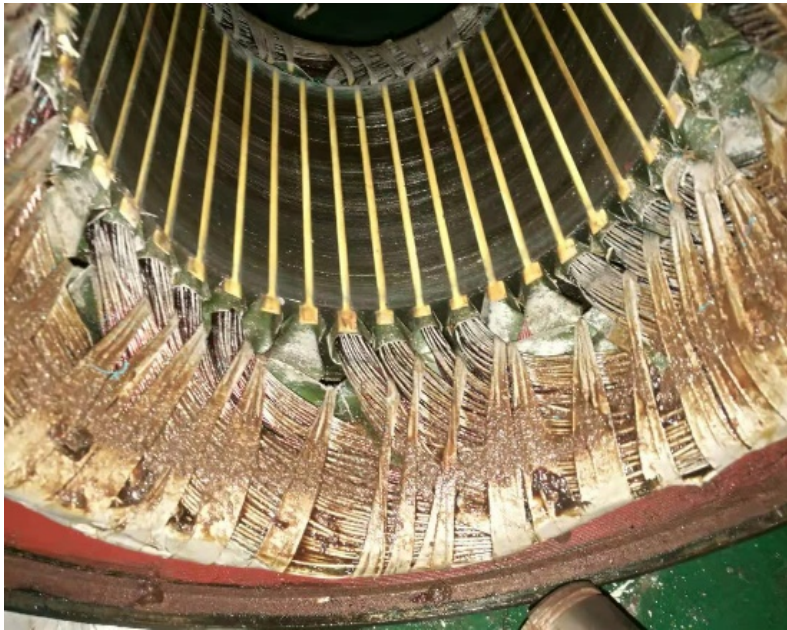
◆ Cause analysis:

- 1、 During PSC inspection, emergency fire pump stopped automatically after running 30 minutes. After dismantling motor and found more greases covering the rotor, after cleaning, test again successfully.
- 2、 During PSC inspection, power could not be supply to emergency switch board, crew found wires of time delayer of control system loosen, after repairs, test again successfully.

◆ Suggestions:

- Emergency fire pump and emergency generator are major PSC inspection items. Crew members should check and test all emergency equipment every week and before arrival of any port carefully, find and rectify any possible defects relating to emergency equipment in time.
- Shipping company should supervise the ship to carry out maintenances, inspections and tests to all emergency equipment strictly.

Detention case-Jan.28, 2020-Australia



Greases covering the rotor of motor of emergency fire pump



Emergency generator will not connect to emergency switchboard automatically

Detention case-Feb. 5, 2020-Korea



- ◆ **Detainable deficiencies :** 1、 EMERGENCY GENERATOR--NOT STARTED DURING BLACK-OUT TEST ; 2、 CARGO HOLD SMOKE DETECTION SYSTEM--FAULT ALARM SOUNDED DUE TO AIRFLOW LINE No.1; 3、 QUICK CLOSING V/V (FS04V) OF LSFO SERVICE TANK--NOT ACTIVATED (WORKING) DURING TEST; 4、 WATER LEVEL DETECTOR--No.2 C/HOLD: PRE-ALARM SOUNDED-- PORE PEAK TANK-FAULT ALARM SOUNDED。
- ◆ **Cause analysis:** 1、 Damage of control unit in emergency generator control box was found, after changing spare part, test again successfully; 2、 Smoke detector in C/H was found dirty and sensitivity was absence, after cleaning, test again successfully ; 3 、 Quick closing valve was not maintained properly, after maintenance, test again successfully ; 4、 Detector in water ingress alarm system were not inspected and maintained properly and causing mistake alarm or alarm failure, after maintenances, water ingress alarm system works normally.
- ◆ **Suggestions:**
 - Many deficiencies relating to emergency equipment and alarm system such as and emergency generator, quick closing valve, alarm system and water ingress alarm system, etc., may cause PSC detention generally. Crew members should periodical check and test all emergency equipment and alarm systems carefully to avoid any PSC detention.

Detention case-Feb. 5, 2020-Korea



EMERGENCY GENERATOR--NOT STARTED DURING BLACK-OUT TEST



C/H SMOKE DETECTION SYSTEM --FAULT ALARM



QUICK CLOSING V/V NOT ACTIVATED DURING TEST



WATER LEVEL DETECTOR-PRE-ALARM SOUND OR FAULT ALARM SOUNDED

Detention case-Feb. 27, 2020-Australia



- ◆ **Detainable deficiencies:** 1. Engine room fire dampers no.2, no.3 and no.4 unable to be effectively closed locally and from remote; 2. Deficiencies are objective evidence that the vessel 's safety management system as implemented on board the vessel is ineffective in meeting with the elements 7, 8, 9 and 10 of the ISM Code.
- ◆ **Cause analysis:** 1.Crew members did not inspect and test engine rom ventilator fire dampers before arrival, did not find deficiencies. 2. Due to deficiencies such as whistle failure, rudder angle repeater defective, fire door of kitchen secured in open condition, ECDIS not up to date and crew members unfamiliar with operation of life boat engine, etc., and did not report any defect to PSCO, PSCO considered ship' s SMS ineffective.
- ◆ **Suggestions:**
 - AMSA inspect all engine room ventilators strictly , more ships were detained. Ship company should strictly supervise crew members to maintain, inspect and test to all engine room ventilators , ensure all engine room ventilators are in good conditions always.
 - Deficiencies relating to ECDIS did not up to date were proposed by PSCO many time, even caused ship detention, ship company should pay more attention to ECDIS validity.
 - If crew members found any defect and the defect can not be rectified by ship, master should report the defect to company, local PSC and Flag administration or RO for temporary exemption as early as possible.

Detention case-Feb. 27, 2020-Australia



Engine room fire dampers unable to be effectively closed locally and from remote

Detention case-March 23, 2020-Australia

- ◆ **Detainable deficiencies:** Fire dampers for Engine room ventilation fan No.2 and No.3 defective.
- ◆ **Cause analysis:** Connecting rod of fire dampers of No.2 ventilator corroded and broken and middle fire dampers of No.3 ventilator deformed.
- ◆ **Suggestions:** Crew members did not maintain, inspect and test all engine room ventilator fire dampers properly. ship company should enhance supervising ship crew members to maintain, inspect and test all engine room ventilator fire dampers strictly.



Connecting rod of fire dampers corroded and broken



fire dampers deformed (rectified)

Detention case-April 10, 2020-Australia

- ◆ **Detainable deficiencies:** Freefall lifeboat release system defective.。
- ◆ **Cause analysis:** Life boat release gear was not reset correctly, remain unsafe condition, affecting safety of crew members. It shown that crew members did not familiar with operations of life boat release system. The life boat release system was inspected, re-set and all crew members were trained by shore base
- ◆ **Suggestions :** Similar detentions occurred many times. Onboard emergency trainings should be strengthened, each crew member should be familiar with operations of all emergency equipment.



Freefall lifeboat release system defective



Life boat release gear after re-setting

Detention case-April 29, 2020-Indonesia

- ◆ **Detainable deficiencies:** 1、 Emergency fire pump defective (no pressure) ; 2、 Auto start emergency generator had failed test.
- ◆ **Cause analysis:** 1、 During PSC inspection, there was no any cargo and ballast water on the ship, draught of ship bow was not enough and caused low pressure of emergency fire pump. After ballast operation, the pressure of emergency fire pump was normal. 2、 One electric relay in emergency generator control system damaged, after renewal, emergency generator was in normal condition.
- ◆ **Suggestions:** 1. Ship should be in proper draft condition always, ensure emergency fire pump can be use immediately. 2. Emergency generator should be inspected by every PSCO , crew members should test auto start and power supply of emergency generator system every week and before arrival carefully to prevent PSC detention.



Emergency fire pump defective

Auto start emergency generator had failed test

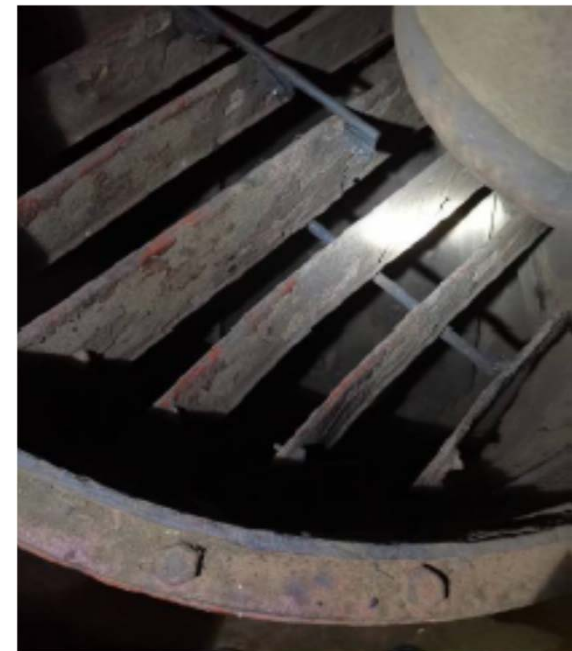


Detention cases-May 28, 2020-Australia (Two ships were detained due to similar defects.

- ◆ **Detainable deficiencies:** **ship 1:** Engine room fire damper Number 1 , 2 and 4 not operational, found seized in open position. **Ship 2:** Engine room ventilation fan No. 1, 2, 3 and 4 fire dampers defective.
- ◆ **Cause analysis:** Due to improper maintenances by crew members, caused engine room fire dampers defective.
- ◆ **Suggestions:** AMSA detained many ships due to defects relating to Engine room fire dampers. Engine room ventilator work s long times in bad environment , disassembling inspections and maintenances are difficult, if maintenances and inspecting tests were improperly, defects may occur frequently. Crew members should inspect and test all engine room ventilators carefully and frequently for finding and rectifying any defect as early as possible. It is suggested that shipping company should arrange possible disassembling inspections to all engine room ventilators while repairing the ship.



Engine room ventilators fire dampers corroded, seized or damaged.



Detention case-May 31, 2020-Russia



- ◆ **Detainable deficiencies:** 1、 Free Fall lifeboat one of two emergency battery empty (indicators of density); 2、 Ventilation system of battery room out side cover through corroded, funnel corroded, damaged; 3、 Drums for mooring ropes corroded, handle damaged; 4、 Fire system of engine room protective grids corroded, fastening corroded, damaged.
- ◆ **Cause analysis:** PSCO proposed total 30 deficiencies including 4 detainable deficiencies. Many deficiencies shown that crew members did not paid enough attentions to small defects and did not carried out proper maintenances to the ship . Except defect of engine room protective grids could not rectified at the detention port and RO issued a conditional certificate with the authorization of the Administration of Flag State, other defects were rectified within two days.
- ◆ **Suggestions:**
 - Shipping company should supervise and encourage crew members to inspect all ship carefully , find and rectify any defect in time.
 - Keep ship cleaning, cleaning oily or corroded equipment, may decreasing the number of PSC deficiency and avoiding improper decisions of PSCO.
 - If any defect can not be rectified in time, the master should report to ship company, local PSC, Administration of the Flag State and RO, take temporary measures, obtain exemption of Administration and conditional certificate of RO, the detention may be prevented.

Detention case-May 31, 2020-Russia



Drums for mooring ropes corroded, handle damaged



lifeboat battery empty



engine room grids corroded, damaged



system of battery room ventilation cover corroded

Suggestions on PSC

Suggestions on PSC



- Now, COVID-19 is still spreading in many other countries and regions, some seafarers were infected, ship safety managements were affected heavily, although PSC inspections were decreased obviously, but ship PSC detentions were occurred continuously. Ship managing companies should guide the ship to prevent COVID-19 actively, ensure seafarer's health safety and benefits, ensure ship's supply, strictly supervise ship to carry out pre-arrival inspections and ship maintenances, try to decrease ship PSC deficiency and detention.
- Due to COVID-19, changes of seafarers are very difficult now, more seafarers were worked onboard exceeding MLC requirements. Ship company may use any possible chance to change seafarers in time. If any seafarer works onboard over the limit of MLC, Ship' company should develop plans for changing seafarer with approval by the ship flag administration, sign a new SEA with seafarer, keeps all real evidences of efforts for changing seafarer in all past ports, relevant actions should be recorded in ship log books.
- Recently, some ships were detained by PSC due to seafarer's appeals concerning improper salary payment by shipping company. Shipping company should pay full salary to all seafarers in time as per SEA engagements, avoid any possible reduction of salary by the middleman or third party, prevent appeals of seafarers and PSC detention.
- In the first half year of 2020, 11 CCS ships were detained by members of Tokyo MOU, especially, 6 CCS ships were detained by AMSA and it took up 50% of total CCS ship PSC detentions. Each ship company should enhance to supervise ships sailing to Australia ports, when it is necessary, to invite other organization to attend onboard the ship to carry out PSC pre-inspection or assistance of PSC inspection to decrease similar ship detention.

Suggestions on PSC



- In the first half year of 2020, there are many detentions caused by serious defects relating to engine room ventilation fire dampers, window-shades, fire doors, emergency generator, emergency fire pump and pipe line, life boat/rescue boat and launching/ releasing mechanism, fire detection and alarm system, ECDIS and propulsion/auxiliary machinery, etc. Each ship company should enhance supervise ship's crew members to carry our proper maintenances and inspecting tests to all ship's key equipment and emergency equipment, to carry out pre-inspection before arrival carefully and to prevent any PSC detention.
- Recently, some ships were proposed deficiencies and detained by AMSA due to defects relating to ship's sewage treatment plant, such as, sewage treatment plant defective, sewage treatment plant has no filtering medium inside unit, scour air valve was opened (normally closed), both air pumps defective, internal structures corroded and holed, chemical supply pump defective, etc. Deficiencies were caused by improper maintenances and inspections to the sewage treatment plant delay supplement of spare parts of sewage treatment plant. So, ship managing company should supervise the condition and maintenance of ship's sewage treatment plant strictly and supply necessary spare parts of sewage treatment plant to the ship in time to avoid deficiency or detention relating to sewage treatment plant.
- A part of ships were detained due to the ship did not report ship's defect or equipment failure to local PSC in time. If the deficiency or equipment failure cannot be immediately rectified or repaired by the ship, the ship or managing company shall report at the earliest opportunity to the Administration/RO and the local PSC as required by SMS to obtain exempt of the Administration / RO and understanding of PSCO to avoid PSC deficiency or detention.



Thanks for your supporting !

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