CR船級檢驗動態、PSC統計及2018年重點檢查活動

CR Classification Activity, PSC Statistics and Concentrated Inspection Campaign (CIC) 2018

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2018年CR第三次技術研討會

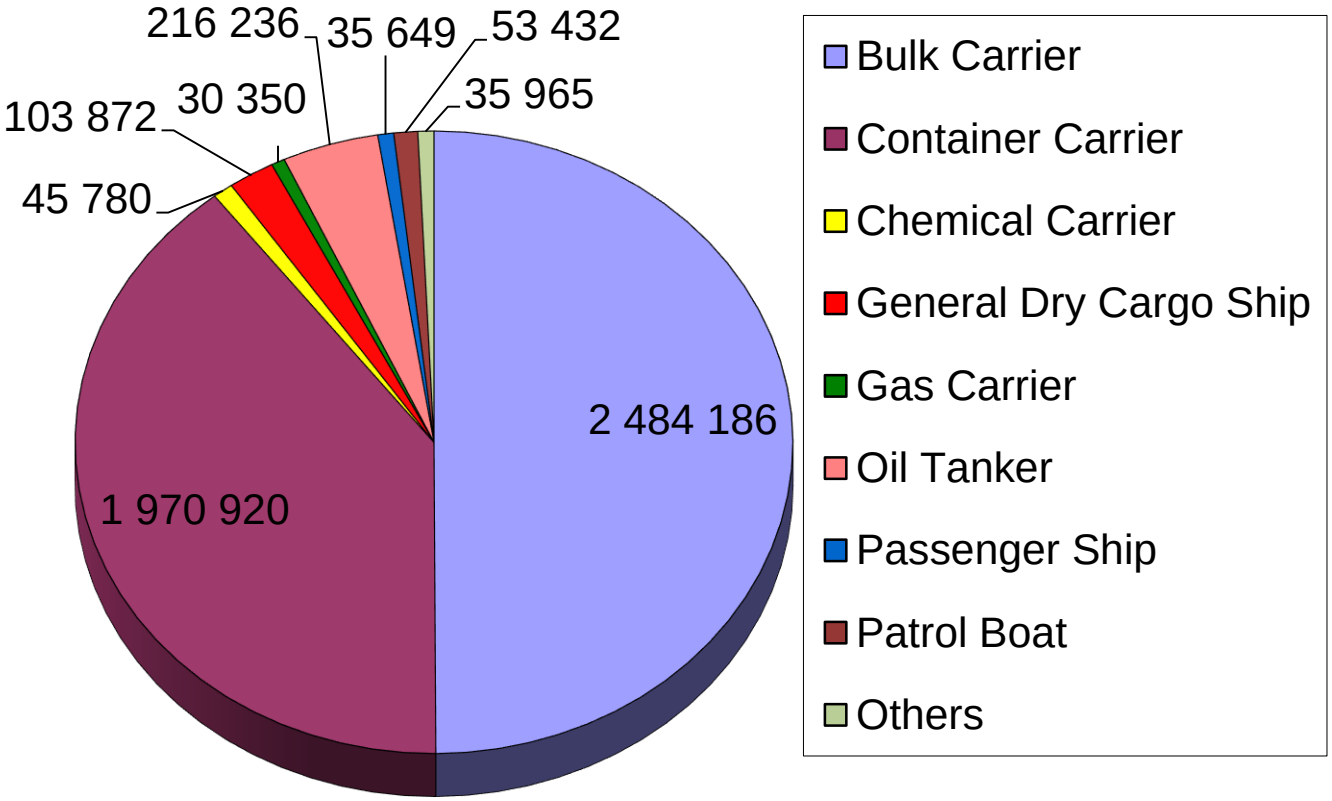
報告大綱

1. CR船級檢驗動態(p.2~p.6)
2. PSC統計(p.7~p.18)
3. 2018 MOU重點檢查活動(p.19~p.37)
4. CR PSC緊急連絡方法(p.38~p.39)

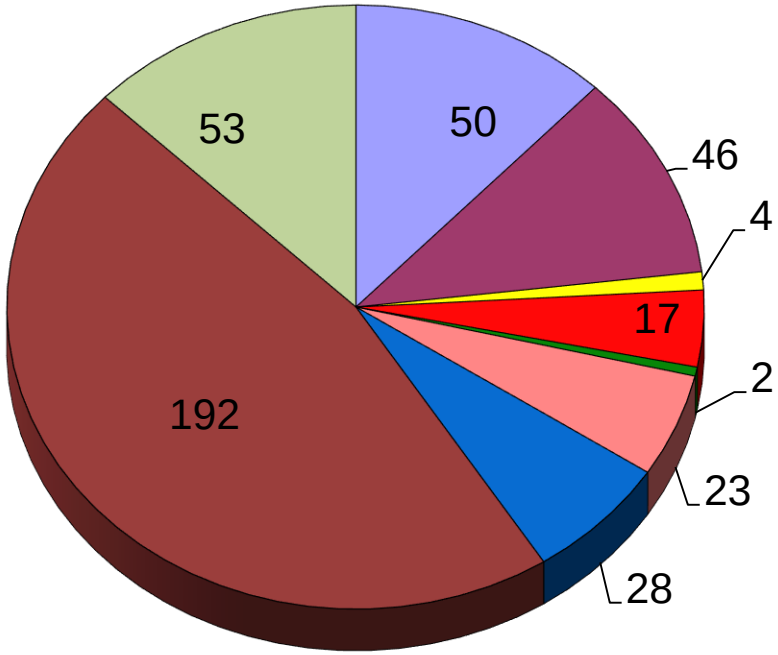
現有入級船舶概況

(截至2018年8月10日)

- 總噸位：4,976,390 GT



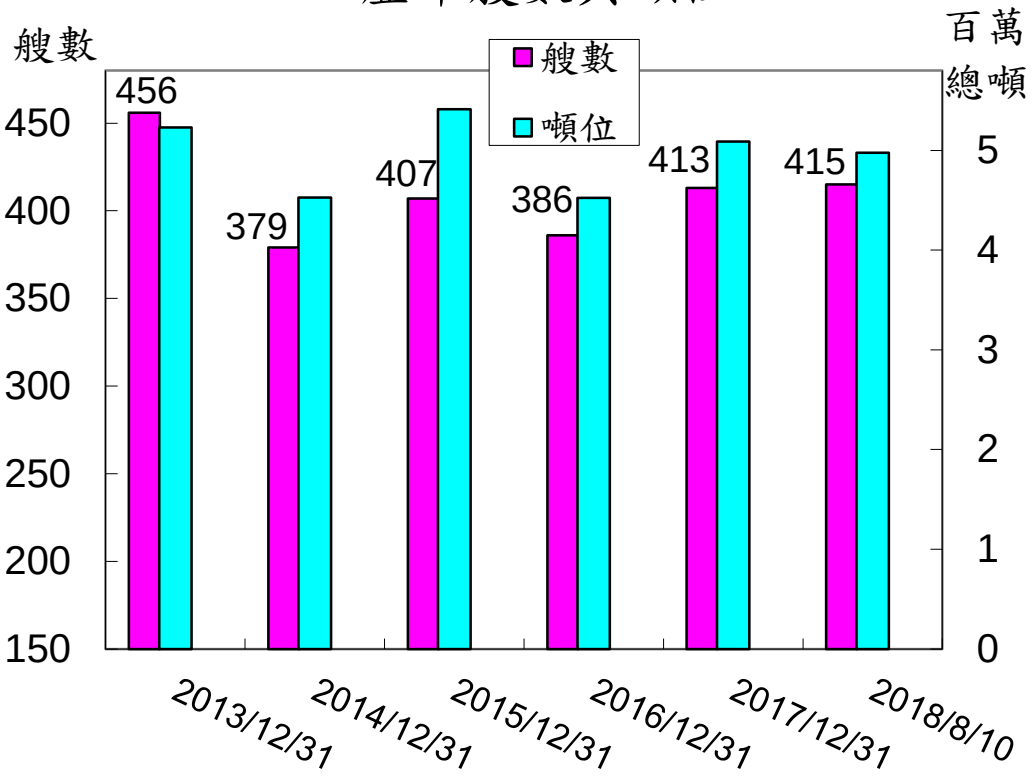
- 總數量：415艘



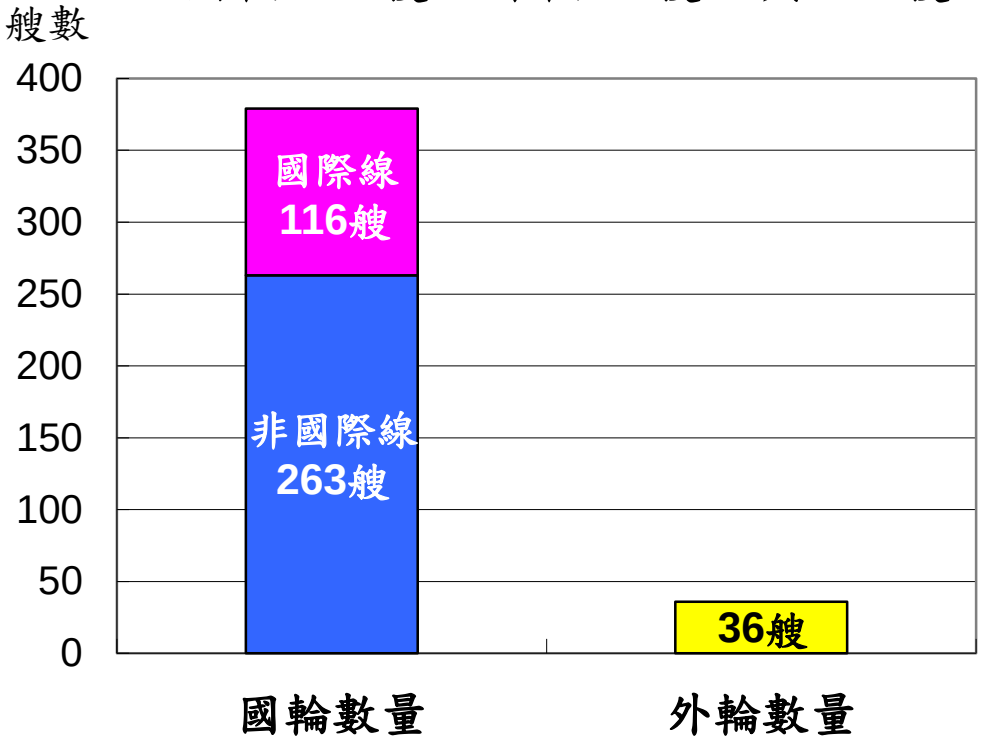
現有入級船舶概況

(截至2018年8月10日)

- 歷年艘數與噸位



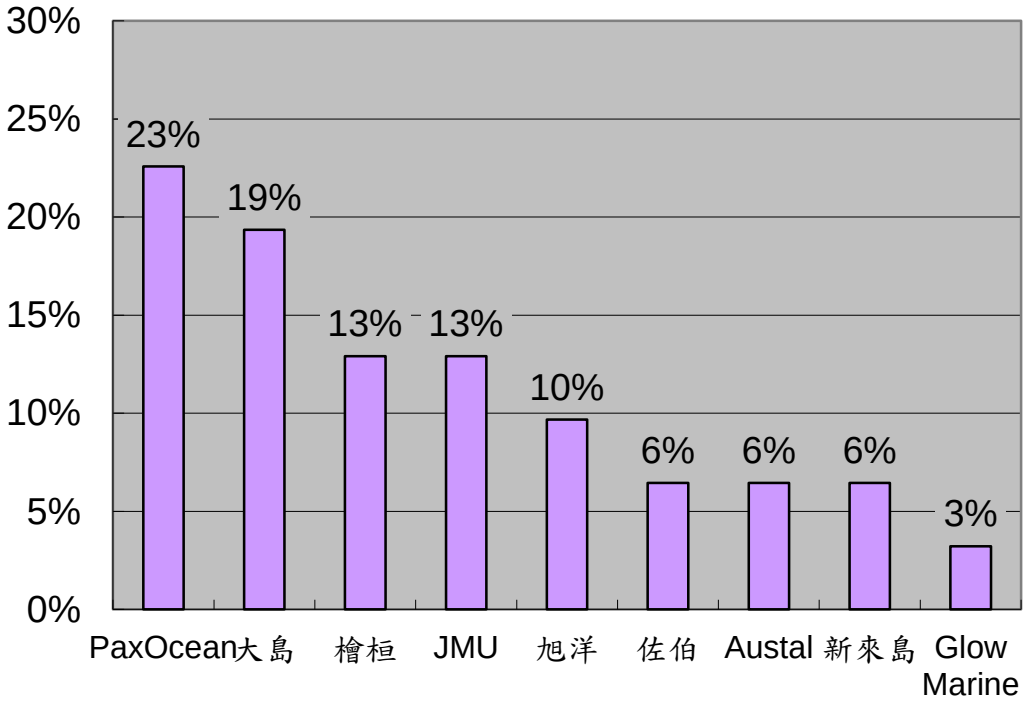
- 國輪379艘，外輪36艘，共415艘



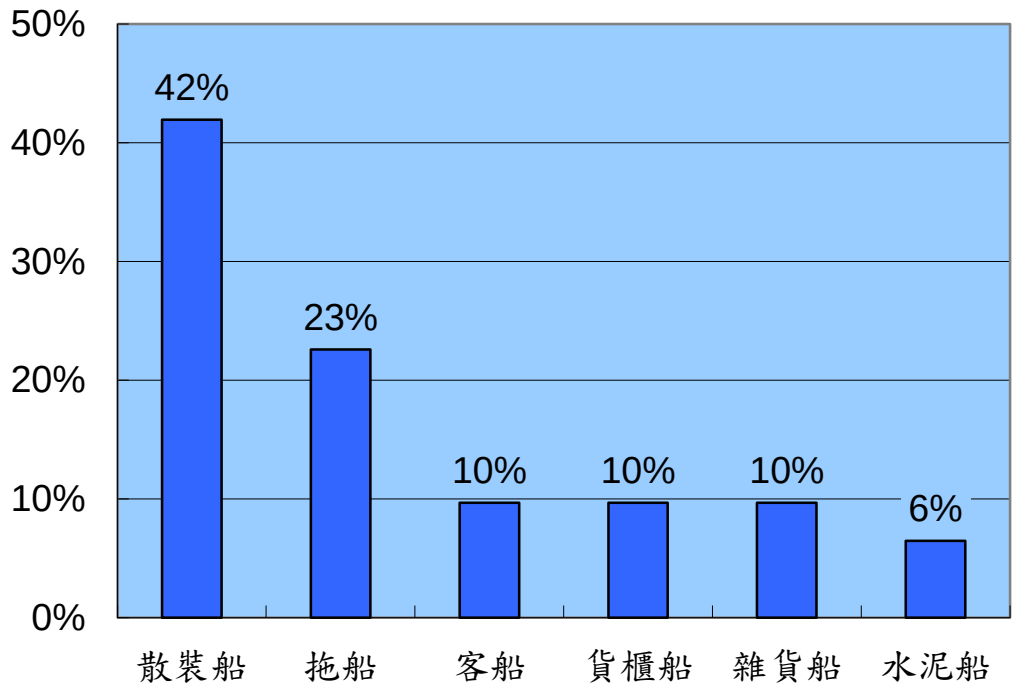
國外建造中入級船，共31艘

(截至2018年8月10日)

- 船廠建造艘數百分比



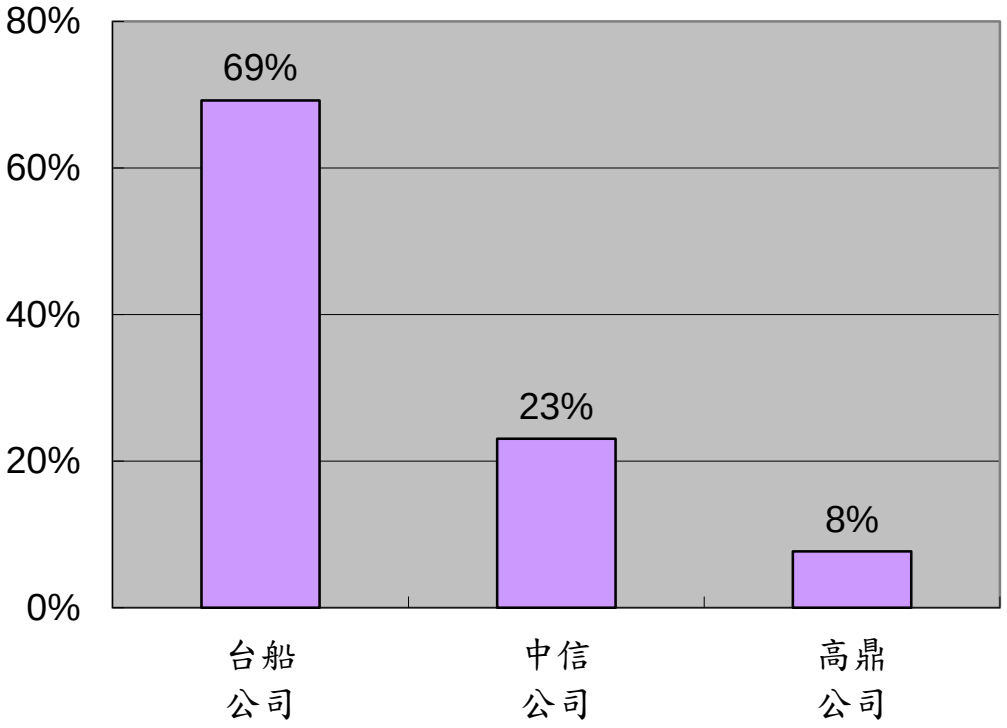
- 船型艘數百分比



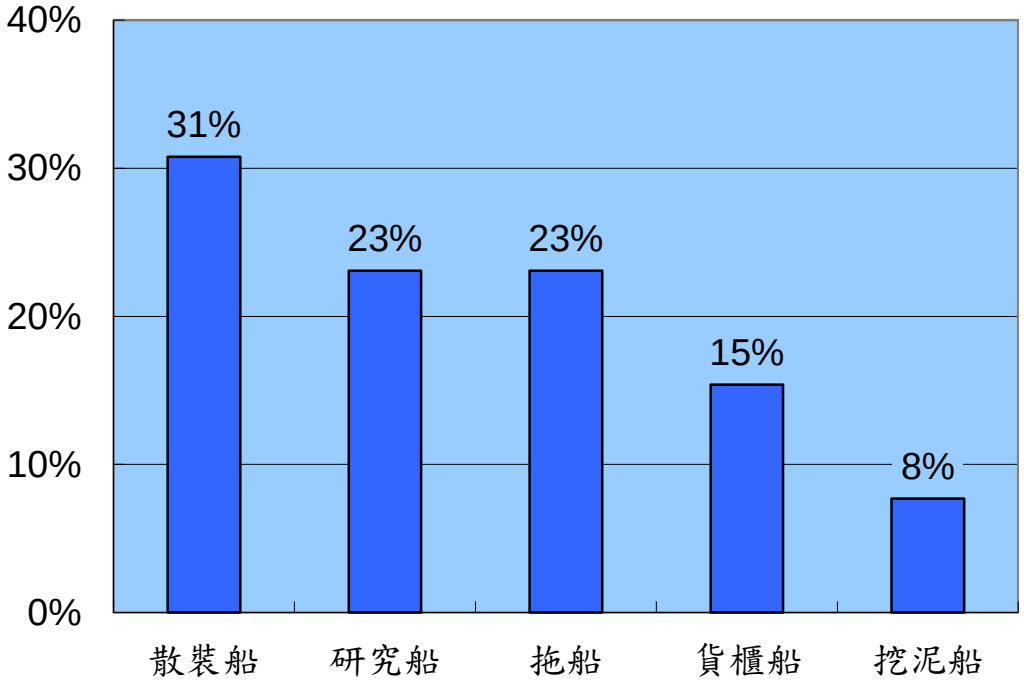
國內建造中入級船，共13艘

(截至2018年8月10日)

● 船廠建造艘數百分比

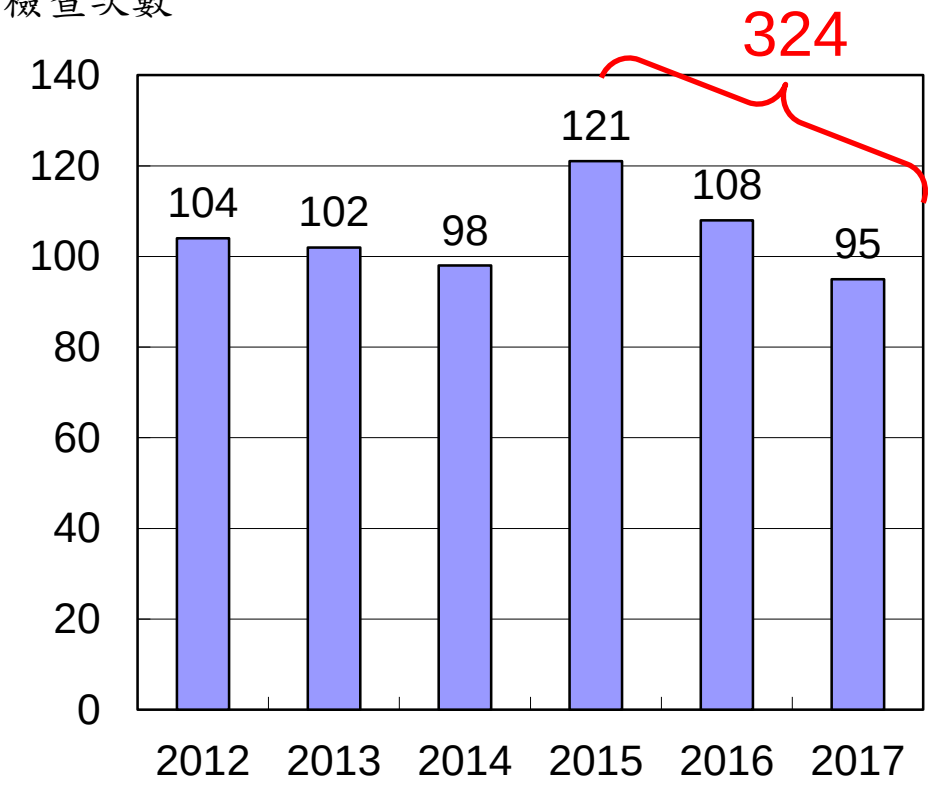


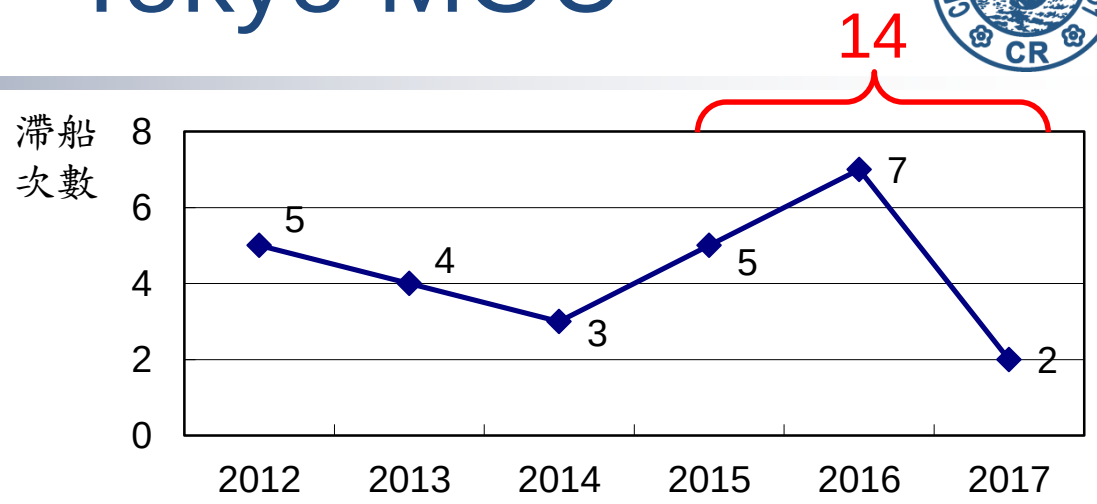
● 船型艘數百分比



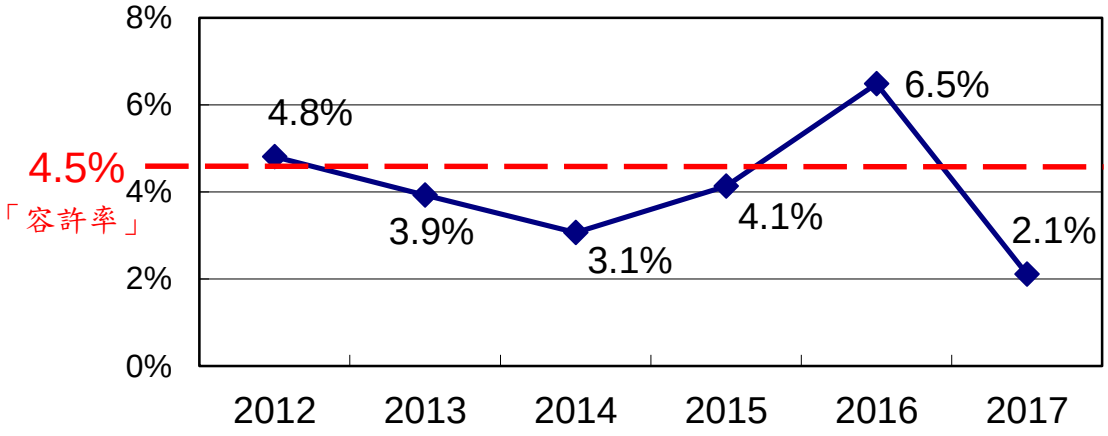
PSC統計分析—Tokyo MOU

檢查次數



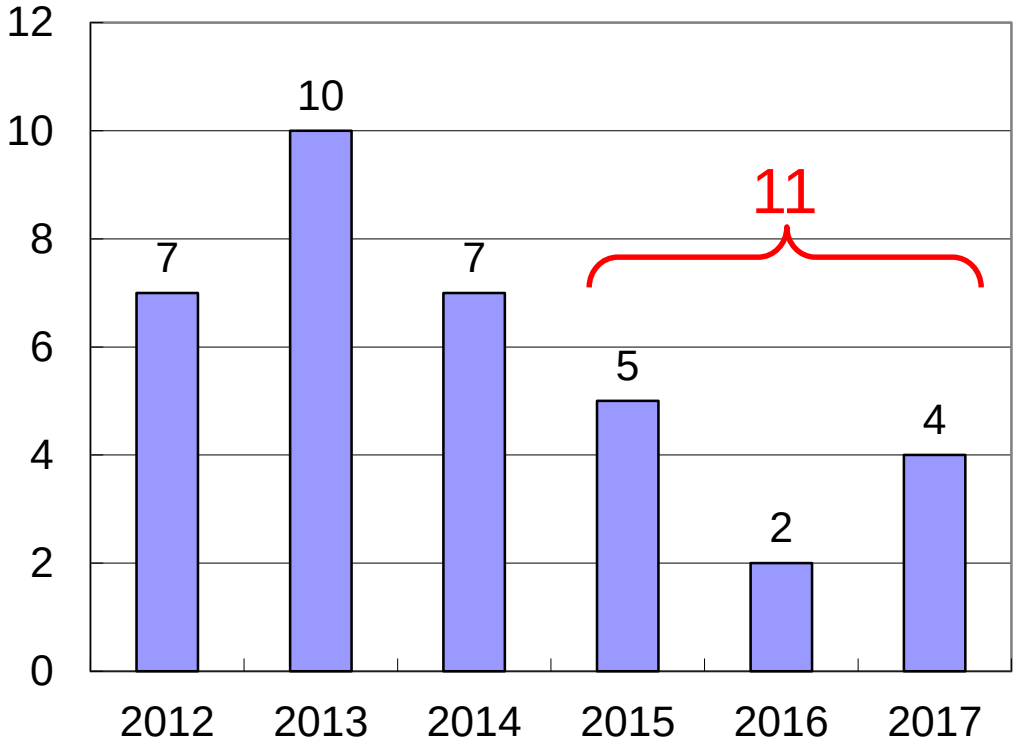


滯船率

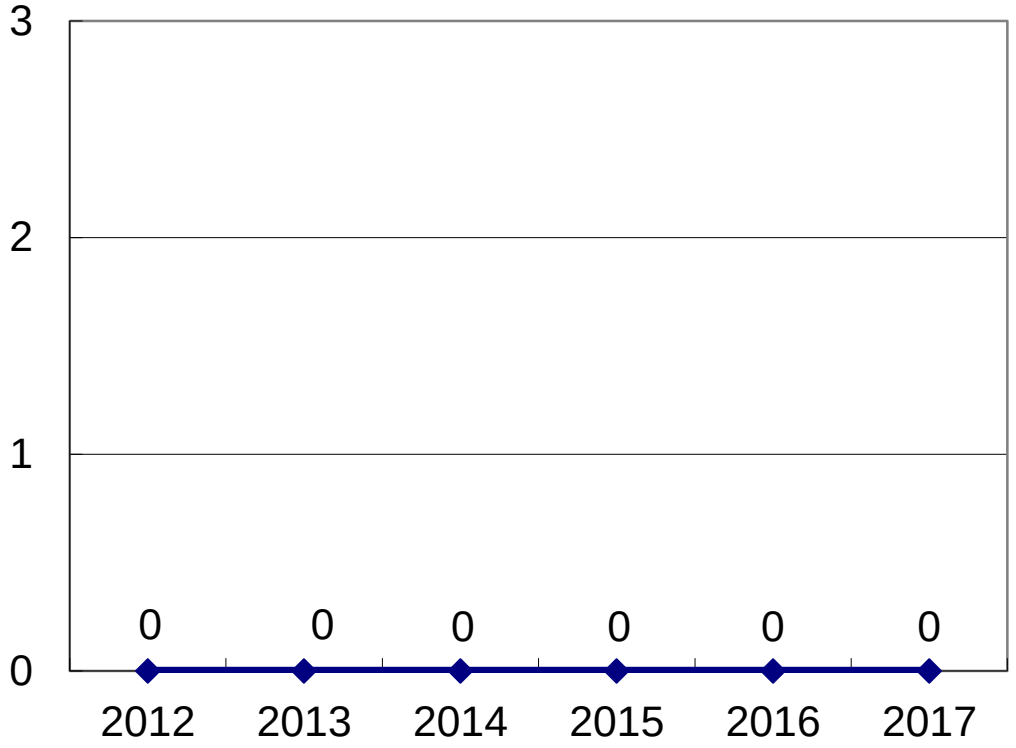


PSC統計分析—Paris MOU

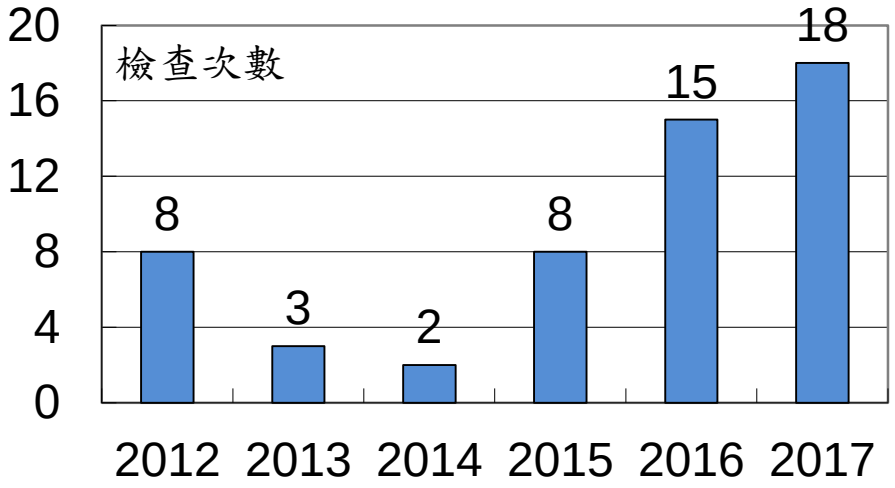
檢查次數

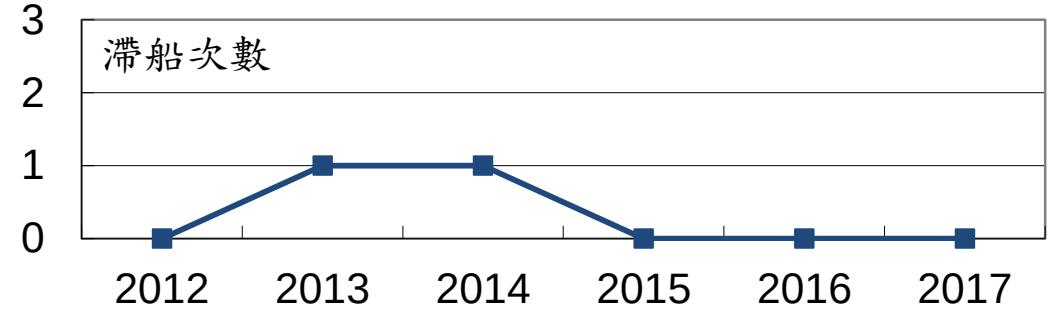


滯船次數



PSC統計分析—USCG

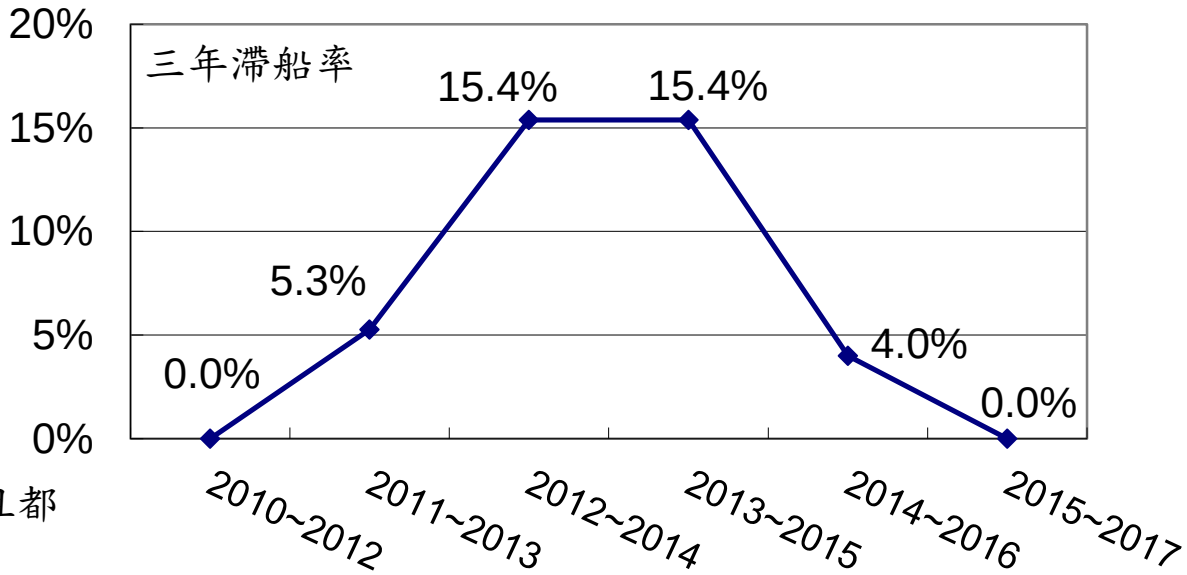




In 2011, we created a list of Flag Administrations that have shown a commitment to excellence in their level of compliance with international standards but do not meet the full requirements for QUALSHIP 21 eligibility. Specifically, they have not met the requirement of at least 10 PSC examinations per calendar year for the previous three years. The list below contains Flag Administrations that have had at least three PSC safety examinations in each of the previous three years and have not been subject to any PSC detention in that same time period:

USCG 2017年報中的Qualship 21相關資訊

Finland	Malaysia	Spain
Jamaica	Moldova	Taiwan
Libya	Qatar	
Luxembourg	Russia	



前三年，每年檢查次數不到10次，但達到3次，且都沒有扣船。台灣在受表揚之列。

Tokyo MOU 2017國輪缺失類別排序

缺失類別	缺失數	滯船缺失數
Safety of Navigation (航行安全)	39	1
Fire Safety(消防安全)	35	0
Life Saving Appliances (救生設備)	27	0
Water / Weathertight Conditions (水密/風雨密情況)	19	2
Propulsion and Auxiliary Machinery (推進及輔助機器)	14	0
Certificate and Documentation – Documents (文件)	12	0
Working Conditions (工作條件)	10	0
Radio Communications (無線電通訊)	8	0
Certificate and Documentation - Crew Certificates (船員證書)	5	1
Emergency Systems (應急系統)	5	0
Labour Conditions (勞動條件：起居艙室、娛樂設施、食品和膳食服務)	5	0
Pollution Prevention - Marpol Annex I (油污染)	4	0

2017東京備忘錄之船旗國評比

國輪為白名單

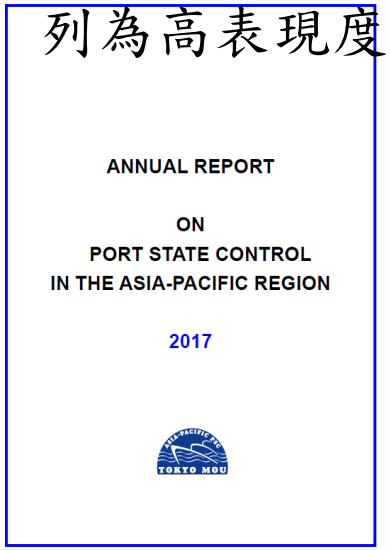
2018.5.2公布

表現度評比	船旗國
白名單	China, Republic of Korea, Singapore, Hong Kong, Norway, Japan, Marshall Islands, Bahamas, United Kingdom (UK), Portugal, Cayman Islands (UK), Denmark , Tuvalu, USA, Panama, Liberia, Greece, Bermuda, Germany, Isle of Man (UK), Belgium, Saint Vincent and the Grenadines, Viet Nam, Malaysia, Malta, Cyprus, Antigua and Barbuda, Netherlands, Russian Federation, Luxembourg, France, Thailand, Sweden, Gibraltar(UK), Italy, **Taiwan,** Philippines
灰名單	Kuwait, Switzerland, Bangladesh, Iran, Saudi Arabia, Turkey, India, Croatia, Vanuatu, Belize, Sri Lanka, Curacao, Kiribati, Jamaica, Cook Islands, Saint Kitts and Nevis, Barbados, Dominica
黑名單	Micronesia, Democratic People's Republic of Korea, Palau, Sierra Leone, Indonesia, Niue, Cambodia, Togo, Mongolia, Tanzania, Fiji

2017東京備忘錄之驗船機構評比
CR為高表現度第12名

2018.5.2公布

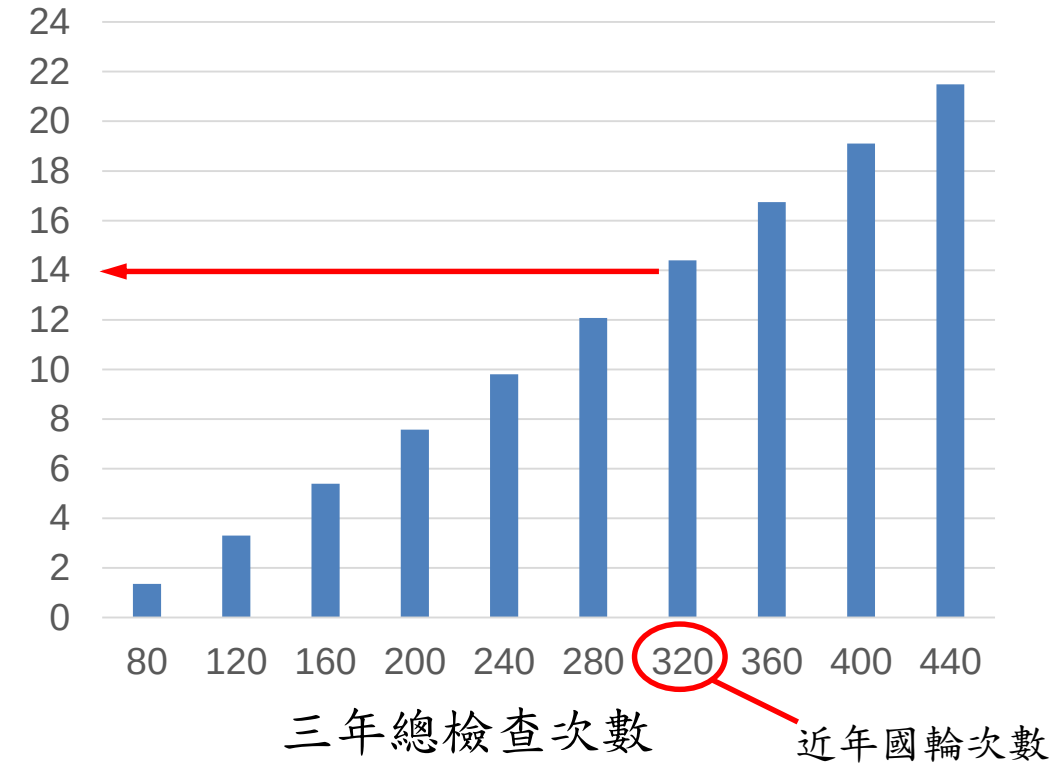
- 78個驗船機構，CR排名12
- 21個驗船機構列為高表現度



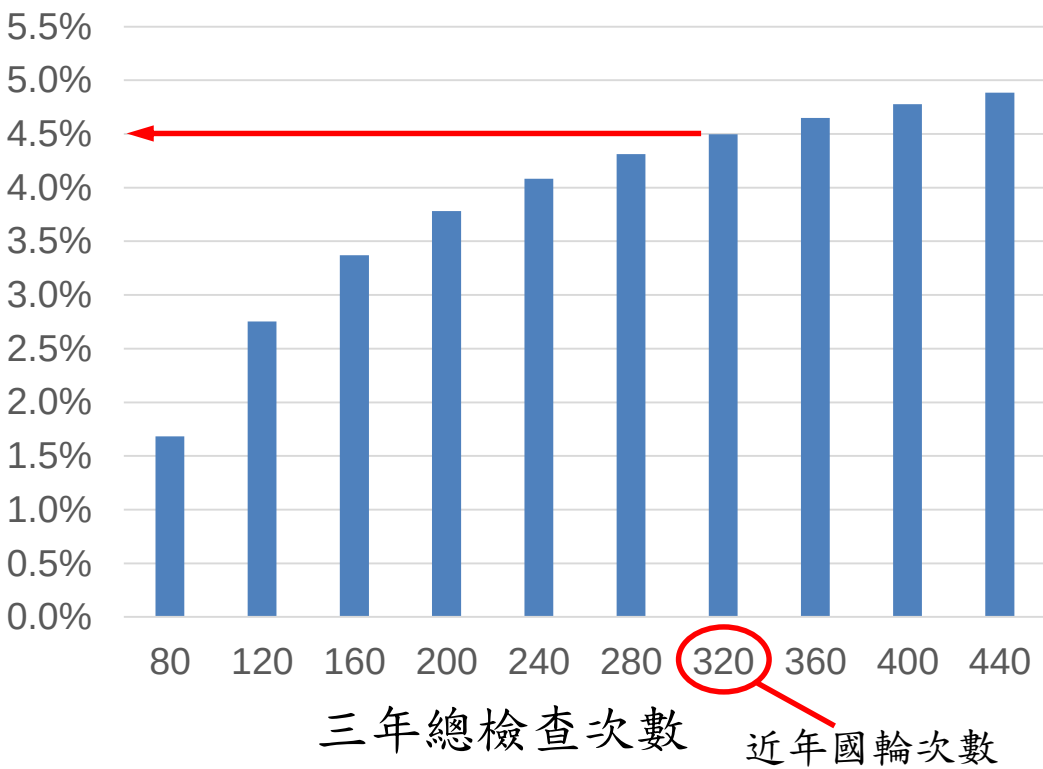
排名	驗船機構	表現度
1	China Classification Society (CCS)	高表現度 High Performance
2	Korean Register of Shipping (KR)	
3	DNV GL AS (DNV-GL)	
4	American Bureau of Shipping (ABS)	
5	RINA Services (RINA)	
12	CR Classification Society (CR)	
21	Union Bureau of Shipping	
22~	……	Medium
~78	……	Low

船旗國評比於Tokyo MOU列於白名單之條件

三年容許滯船次數



三年容許滯船率



2. PSC統計

高風險船舶計點方式

- 船東所屬之高風險船舶由CR個別通知
- 修訂的新檢查機制(NIR)於2018.2.1起實施，新增：
  - ▶ 貨櫃船加計2點
  - ▶ 公司過去36個月沒有檢查紀錄者加計2點
- 詳見CR通報CR-18-001(R)
  http://www.crclass.org/opennotice/opennotice.php

累計4點以上即為高風險船舶

Parameters		Profile: High Risk Ship (HRS) (When sum of weighting points >=4) Criteria	Weighting points	Standard Risk Ship (SRS) Criteria	Low Risk Ship (LRS) Criteria
Type of Ship		Chemical tanker, Gas Carrier, Oil tanker, Bulk carrier, Passenger ship, Container ship	2	Neither LRS nor HRS	
Age of Ship		All types > 12y	1		-
Flag	BGW-list[1]	Black	1		White
	IMO Audit[2]	-	-		Yes
Recognized Organization	RO of Tokyo MOU[3]	-	-		Yes
	Performance[4]	Low Very Low	1		High
Company performance[5]		Low Very Low No inspection within previous 36 months	2		High
Deficiencies	Number of deficiencies recorded in each inspection within previous 36 months	How many inspections were there which recorded over 5 deficiencies?	No. of inspections which recorded over 5 deficiencies		All inspections have 5 or less deficiencies (at least one inspection within previous 36 months)
Detentions	Number of Detention within previous 36 months	3 or more detentions	1		No detention

船旗國是白、灰名單皆不會增加計點，ROC為白名單

CR為高表現度

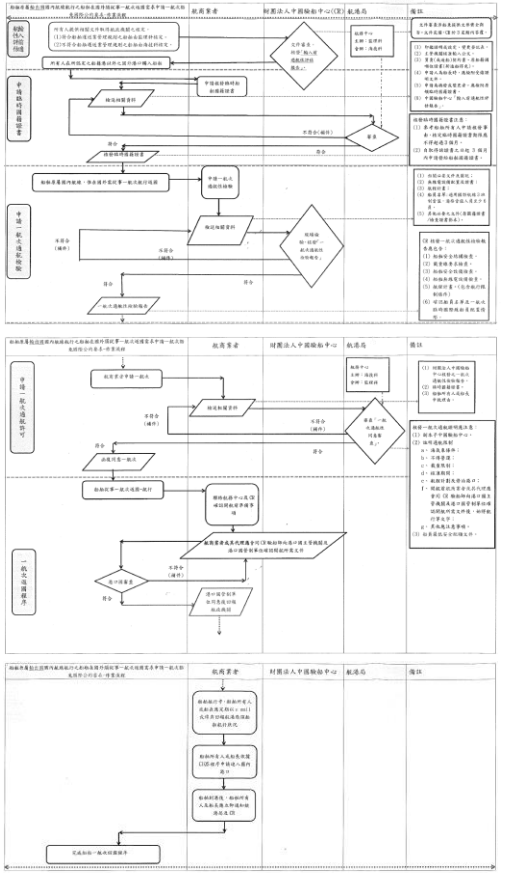
2018年於Tokyo MOU預期「容許」滯船次數

2018年 受檢次數	「容許」 滯船次數
≤ 40	0
41 ~ 58	1
59 ~ 75 Now	2
76 ~ 93 Expect	3
94 ~ 110	4
≥ 110	5

- 以國輪每年受檢次數而言，「容許」滯船率約4.5%
- 維持白名單，2018年度預期「容許」滯船次數為3艘
- 目前實際滯船次數為1艘，摘要如下：
  - 於日本尾道，船東剛完成購船，欲一航次國際航線返台
  - 無船級，無IMO編號，95總噸，平水域客船
  - 船員不符國際航線資格，無STCW適任證書正本(STCW Reg. I/2.11)
  - 船長無法用英文溝通。但日方表示通過水道，與岸台及他船通訊仍是要用英文
  - 船員文件補充後，東京PSC尚要求登輪複檢結案方可出港，但尾道PSCO到達碼頭後，發現船已逕自離港

一航次返國作業流程

- 依據2018.7.16航港局航舶字第1071710297號函辦理
- 為避免國內航線船舶一航次開國際航線時遭到滯船
- 先由CR進行文件審查，核發「輸入前適航性評估報告」
- 取得臨時國際證書後，再由CR於國外執行一航次適航性檢驗，核發「一航次適航性檢驗報告」
- 開航前，航商或其代理應會同CR驗船師向港口國主管機關確認開航所需文件是否足夠
- 船員適用國際航線3班當值，適格當值人員至少6員



強化國輪管制檢查

- 106年3月2日起執行強化國輪管制作業。
  (航港局106年3月8日航舶字第1061710115號函)
- 106年度共執行完成預防性加強檢驗87 艘次，公司DOC額外評鑑11次，船上SMC額外評鑑4次。
- 107年3月1日於台北，3月2日、3月14日於高雄召開「107年度強化國輪管制檢查作業」會議，決議107年度作法原則上與106年度相同。
  (航港局107年3月22日航舶字第1071710126號函)
- 107年度1～8月共執行完成預防性加強檢驗137艘次(於國外執行27艘次)，公司DOC額外評鑑6次，船上SMC額外評鑑9次。

強化國輪管制檢查

- 「高風險船舶」每2-4個月須進行加強檢驗。
- 「標準風險船舶」每5-8個月須進行加強檢驗。
- 「高風險船舶」前往澳洲、香港、新加坡三個高滯船率港口前，每一航次都必須申請加強檢驗。不是「高風險船舶」不用申請。
- ISM表現度為Low或Very Low之航運公司，每6個月進行DOC額外評鑑。
- CR提供「港口國管制檢查表(到港前使用)」及「船上保養檢查表」，請船東及船員落實使用，由驗船師查核使用狀況。表格連結如下：
  http://www.crclass.org/chinese/content/focal-points/20180314/20180314_03-2.pdf
  http://www.crclass.org/chinese/content/focal-points/20180314/20180314_04.pdf

3. 2018 MOU重點檢查活動
MOU Concentrated Inspection Campaign (CIC) 2018

Year	Tokyo MOU	Paris MOU
2018	**MARPOL ANNEX VI 防止船舶空氣污染**	
2017	Safety of Navigation	
2016	Cargo Securing Arrangements	MLC
2015	Crew Familiarization for Enclosed Space Entry	
2014	STCW Hours of Rest	
2013	Propulsion and Auxiliary Machinery	
2012	Fire Safety System	

CIC問卷

MEMORANDUM OF UNDERSTANDING ON PORT STATE CONTROL IN THE ASIA-PACIFIC REGION

CONCENTRATED INSPECTION CAMPAIGN ON MARPOL ANNEX VI 01/09/2018 to 30/11/2018

CIC on MARPOL ANNEX VI

Inspection Authority:			
Ship Name:		IMO Number:	
Date of Inspection:		Inspection Port:	

	Questions	Yes	No	N/A
1	Are bunker delivery notes, with details of fuel oil for combustion purposes, kept available on board for the required period of 3 years? Annex VI, regulation 18.5 and 18.6			
2*	Do bunker delivery notes indicate that fuel oils delivered and used on board is not exceeding the maximum allowed sulphur content, as appropriate? Annex VI, regulation 14.1.2 and 14.4.3			
3	Do ships which are using separate fuel oils to comply with the maximum sulphur content of 0.1% m/m in fuel oil while operating in SOx emission control areas, have a written procedure showing how fuel oil change-over is to be done for achieving compliance with the above requirements when entering SOx emission control areas? Annex VI, regulation 14.6			
4*	Are alternative arrangements, (e.g. scrubbers) installed on board according to regulation 4.1 approved by the flag State? Annex VI, regulation 4.1			
5	Do ships which are using separate fuel oils to comply with the maximum sulphur content of 0.10% m/m in fuel oil and entering or leaving SOx emission control areas, record detailed information showing that the ship has completed/initiated the change-over in the logbook prescribed by the Administration? Annex VI, regulation 14.6			
6	Do ships which have rechargeable systems containing ozone-depleting substances (refer to the supplement to the IAPP Certificate, item 2.1), have the ozone-depleting substances record book maintained? Annex VI, regulation 12.6			
7	Where an Approved Method in accordance with Annex VI, regulations 13.7.1-13.7.5 (refer to the supplement to the IAPP Certificate, item 2.2.1) is installed, has such an installation been confirmed by a survey using the verification procedure specified in the Approved Method File, including appropriate notation on the ship's International Air Pollution Prevention Certificate of the presence of the Approved Method? Annex VI, regulation 13.7.1.1			
8	For ships equipped with a shipboard incinerator or thermal waste treatment device installed as an alternative arrangement, is the ship's crew responsible for the operation of the equipment familiar with, properly trained in, and capable of implementing the guidance provided in the manufacturer's operating manual? Annex VI, regulation 16.8			
9*	Are the master and crew familiar with essential shipboard procedures in the approved VOC Management Plan relating to the prevention of air pollution from ships? Annex VI, regulation 15. 6			
10	Does the ship keep on board a Ship Energy Efficiency Management Plan (SEEMP)? Annex VI, regulation 22 paragraph 1			
11	Was the ship detained as a result of the Inspection Campaign?			

Note: Questions 1 to 10 answered with a "NO" MUST be accompanied by a relevant deficiency on the Report of Inspection.
If the box "NO" is ticked off for questions marked with an "", the ship may be considered for detention.*

相同

Paris MoU on Port State Control

TOKYO MOU

Questionnaire for the Inspection Campaign on MARPOL ANNEX VI

Ship's name	
IMO No.	
Date of inspection	

N°	QUESTIONS	YES	NO	N/A
1	Are bunker delivery notes, with details of fuel oil for combustion purposes, kept available on board for the required period of 3 years? Annex VI, regulation 18.5 and 18.6			
2*	Do bunker delivery notes indicate that fuel oils delivered and used on board is not exceeding the maximum allowed sulphur content, as appropriate? Annex VI, regulation 14.1.2 and 14.4.3			
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Note: Questions 1 to 10 answered with a "NO" MUST be accompanied by a relevant deficiency on the Report of Inspection.
If the box "NO" is ticked off for questions marked with an "", the ship may be considered for detention.*

"＊"問題回答"NO"可能遭滯船

2018 CIC Q.1

- Are bunker delivery notes, with details of fuel oil for combustion purposes, kept available on board for the required period of 3 years?
  Annex VI, regulation 18.5 and 18.6
  燃油交付單(BDN)是否包含燃燒用燃油之細節，並存放於船上3年？
- 公約要求：燃油交付單(BDN)應記錄對交付作為船上燃燒用的燃油的細節，該交付單應至少包含Marpol Annex VI Appendix V中規定的資料，並應存放於船上，隨時可供檢查，於燃油交付船上之後保存3年。

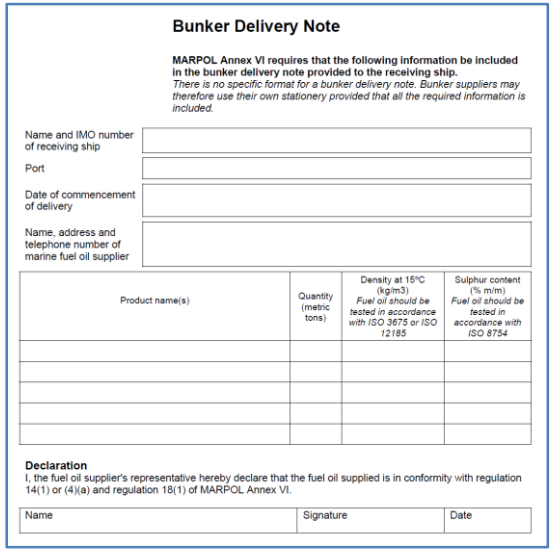
YES	NO !	N/A !
符合	不符合	未滿400GT船舶不適用 (但會受PSC檢查之船舶較少未滿400GT者。勾選本欄需注意。)

2018 CIC Q.1

- 燃油交付單(BDN)應包含的資料

  Annex VI Appendix V

  - 船名及IMO編號
  - 港口
  - 供油起始日
  - 船用燃油供應商的名稱、地址、電話
  - 產品名稱
  - 數量(公噸)
  - 15℃時的密度(kg/m³)，按ISO 3675：1998或ISO 12185:1996測試
  - 硫含量(% m/m)，按ISO 8754:2003測試
  - 由燃油供應商代表簽署和證明的聲明，證明所供燃油符合本附則(Marpol Annex VI)第14.1或14.4條以及第18.3條 ← 燃油品質：不含無機酸、不含對人員有害的附加物質等等



Bunker Delivery Note

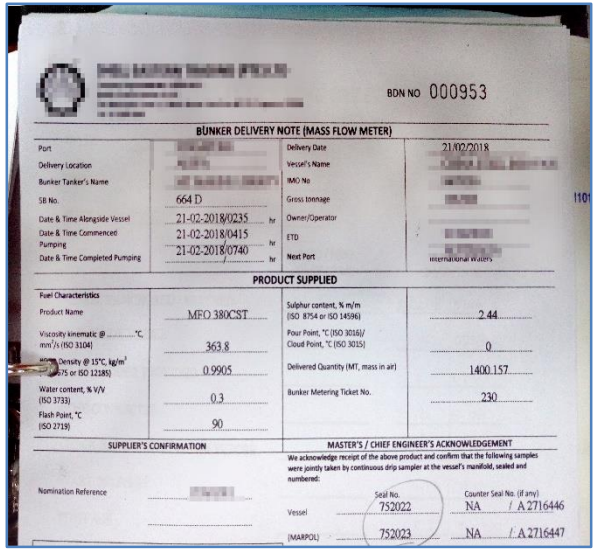
MARPOL Annex VI requires that the following information be included in the bunker delivery note provided to the receiving ship.
There is no specific format for a bunker delivery note. Bunker suppliers may therefore use their own stationery provided that all the required information is included.

Name and IMO number of receiving ship	
Port	
Date of commencement of delivery	
Name, address and telephone number of marine fuel oil supplier	

Product name(s)	Quantity (metric tons)	Density at 15°C (kg/m3) *Fuel oil should be tested in accordance with ISO 3675 or ISO 12185*	Sulphur content (% m/m) *Fuel oil should be tested in accordance with ISO 8754*

Declaration
I, the fuel oil supplier's representative hereby declare that the fuel oil supplied is in conformity with regulation 14(1) or (4)(a) and regulation 18(1) of MARPOL Annex VI.

Name	Signature	Date



BDN NO 000953

BUNKER DELIVERY NOTE (MASS FLOW METER)

Port		Delivery Date	21/02/2018
Delivery Location		Vessel's Name	
Bunker Tanker's Name		IMO No	
SB No.	664 D	Gross tonnage	
Date & Time Alongside Vessel	21-02-2018/0235 hr	Owner/Operator	
Date & Time Commenced Pumping	21-02-2018/0415 hr	ETD	
Date & Time Completed Pumping	21-02-2018/0740 hr	Next Port	International Waters

PRODUCT SUPPLIED

Fuel Characteristics			
Product Name	MFO 380CST	Sulphur content, % m/m (ISO 8754 or ISO 14596)	2.44
Viscosity kinematic @ ..... °C, mm²/s (ISO 3104)	363.8	Pour Point, °C (ISO 3016)/ Cloud Point, °C (ISO 3015)	0
Density @ 15°C, kg/m³ (ISO 3675 or ISO 12185)	0.9905	Delivered Quantity (MT, mass in air)	1400.157
Water content, % V/V (ISO 3733)	0.3	Bunker Metering Ticket No.	230
Flash Point, °C (ISO 2719)	90		

SUPPLIER'S CONFIRMATION

Nomination Reference

MASTER'S / CHIEF ENGINEER'S ACKNOWLEDGEMENT

We acknowledge receipt of the above product and confirm that the following samples were jointly taken by continuous drip sampler at the vessel's manifold, sealed and numbered.

	Seal No.	Counter Seal No. (if any)
Vessel	752022	NA / A 2716446
(MARPOL)	752023	NA / A 2716447

硫含量　ECA區硫含量

2018 CIC Q.2

回答"NO"可能遭滯船

- Do bunker delivery notes indicate that fuel oils delivered and used on board is not exceeding the maximum allowed sulphur content, as appropriate? Annex VI, regulation 14.1.2 and 14.4.3
  燃油交付單(BDN)是否表明燃油未超過最大容許硫含量？
- 容許硫含量之規定：Marpol Annex VI, regulation 14

14.1.船上使用的任何燃油的硫含量不應超過下述限值：

.1 2012 年1 月1 日以前，4.50% m/m；

.2 在2012 年1 月1 日及以後，3.50% m/m；以及

.3 在2020 年1 月1 日及以後，0.50% m/m。

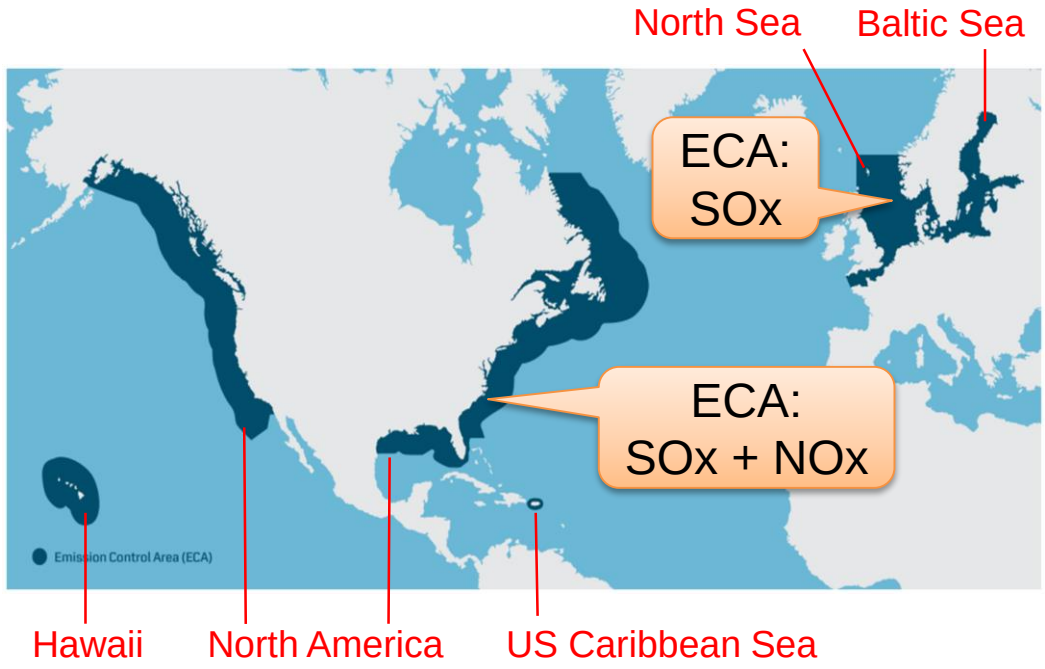
14.4. 當船舶在排放控制區航行時，船上使用的燃油的硫含量不應超過下述限值：

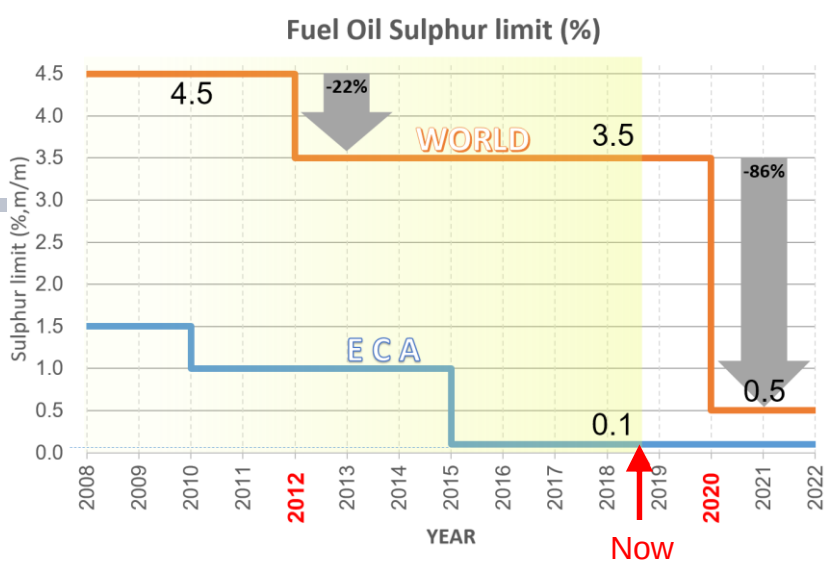
.1 2010 年7 月1 日以前，1.50% m/m；

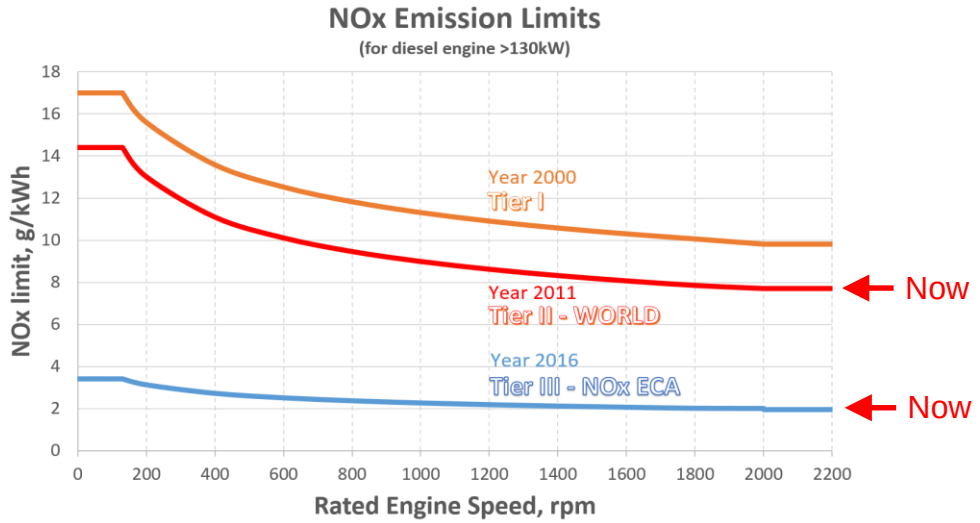
.2 在2010 年7 月1 日及以後，1.00% m/m；以及

.3 在2015 年1 月1 日及以後，0.10% m/m。

SOx和NOx之排放控制區 (Emission Control Areas, ECA)







2018 CIC Q.3

- Do ships which are using separate fuel oils to comply with the maximum sulphur content of 0.1% m/m in fuel oil while operating in SOx emission control areas, have a written procedure showing how fuel oil change-over is to be done for achieving compliance with the above requirements when entering SOx emission control areas? Annex VI regulation 14.6

  於SOx排放控制區(ECA)，使用最大硫含量0.1%之燃油以符合排放要求時，是否有書面的燃油轉換程序？

- 公約要求：要有書面燃油轉換程序，進入ECA之前有足夠的換油時間。進入ECA前換油完成時，以及離開ECA後換油開始時，應於輪機日誌記錄每個低硫燃油艙之容積、日期、時間及船舶位置。

YES	NO !	N/A
有程序	沒程序	不會去ECA…等

2018 CIC Q.4

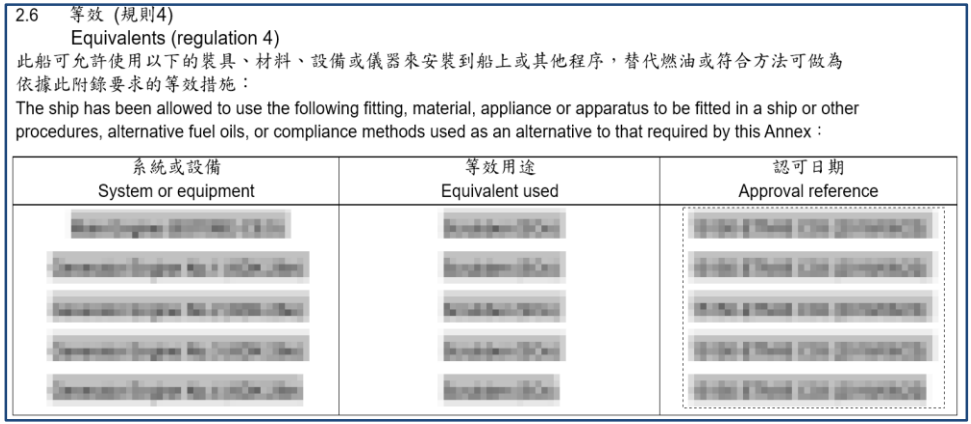
回答"NO"可能遭滯船

- Are alternative arrangements, (e.g. scrubbers) installed on board according to regulation 4.1 approved by the flag State? Annex VI, regulation 4.1

  船上依規則4.1安裝的替代性布置(如洗煙器)是否得到船旗國認可？

- 公約：主管機關可允許在船上安裝使減排同等有效的任何裝置、材料、設備或器具或允許使用其他程序、替代燃油或符合方法，以代替包含SOx、NOx等之要求。

IAPP證書附頁2.6記載等效布置

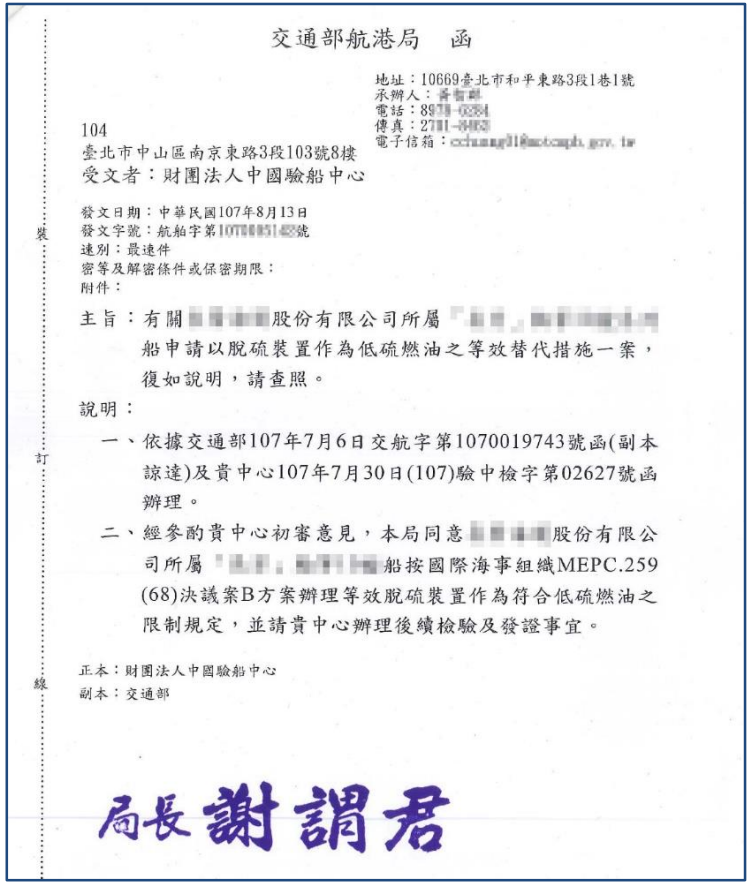


2.6 等效 (規則4)
Equivalents (regulation 4)
此船可允許使用以下的裝具、材料、設備或儀器來安裝到船上或其他程序，替代燃油或符合方法可做為依據此附錄要求的等效措施：
The ship has been allowed to use the following fitting, material, appliance or apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by this Annex：

系統或設備 System or equipment	等效用途 Equivalent used	認可日期 Approval reference
[redacted]	[redacted]	[redacted]

YES	NO !	N/A
有得到認可	沒得到認可	沒有替代性布置

船旗國等效認可文件(符合NOx, SOx排放)



交通部航港局　函

地址：10669臺北市和平東路3段1巷1號
承辦人：[redacted]
電話：8978-0284
傳真：2701-8463
電子信箱：[redacted]

104
臺北市中山區南京東路3段103號8樓
受文者：財團法人中國驗船中心

發文日期：中華民國107年8月13日
發文字號：航船字第[redacted]號
速別：最速件
密等及解密條件或保密期限：
附件：

主旨：有關[redacted]股份有限公司所屬[redacted]船申請以脫硫裝置作為低硫燃油之等效替代措施一案，復如說明，請查照。

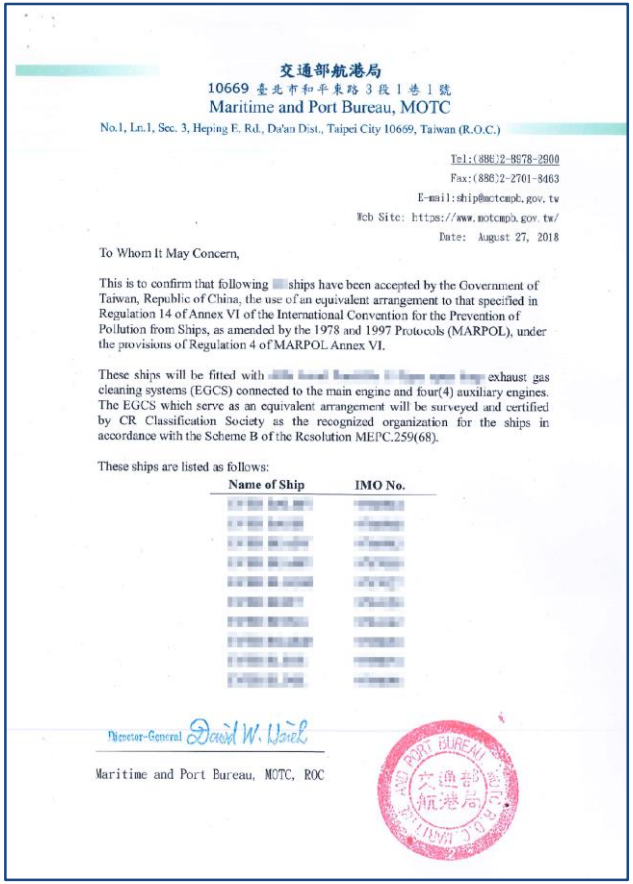
說明：

一、依據交通部107年7月6日交航字第1070019743號函(副本諒達)及貴中心107年7月30日(107)驗中檢字第02627號函辦理。

二、經參酌貴中心初審意見，本局同意[redacted]股份有限公司所屬[redacted]船按國際海事組織MEPC.259(68)決議案B方案辦理等效脫硫裝置作為符合低硫燃油之限制規定，並請貴中心辦理後續檢驗及發證事宜。

正本：財團法人中國驗船中心
副本：交通部

局長謝謂君



交通部航港局
10669 臺北市和平東路 3 段 1 巷 1 號
Maritime and Port Bureau, MOTC
No.1, Ln.1, Sec. 3, Heping E. Rd., Da'an Dist., Taipei City 10669, Taiwan (R.O.C.)

Tel:(886)2-8978-2900
Fax:(886)2-2701-8463
E-mail:ship@motcmpb.gov.tw
Web Site: https://www.motcmpb.gov.tw/
Date: August 27, 2018

To Whom It May Concern,

This is to confirm that following [redacted] ships have been accepted by the Government of Taiwan, Republic of China, the use of an equivalent arrangement to that specified in Regulation 14 of Annex VI of the International Convention for the Prevention of Pollution from Ships, as amended by the 1978 and 1997 Protocols (MARPOL), under the provisions of Regulation 4 of MARPOL Annex VI.

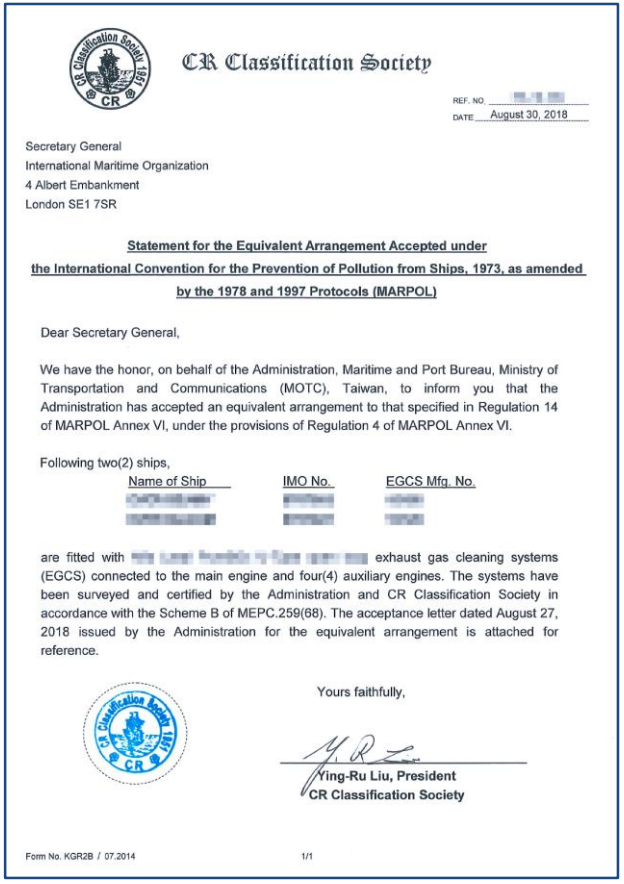
These ships will be fitted with [redacted] exhaust gas cleaning systems (EGCS) connected to the main engine and four(4) auxiliary engines. The EGCS which serve as an equivalent arrangement will be surveyed and certified by CR Classification Society as the recognized organization for the ships in accordance with the Scheme B of the Resolution MEPC.259(68).

These ships are listed as follows:

Name of Ship	IMO No.
[redacted]	[redacted]

Director-General David W. Wang

Maritime and Port Bureau, MOTC, ROC



CR Classification Society

REF. NO. [redacted]
DATE August 30, 2018

Secretary General
International Maritime Organization
4 Albert Embankment
London SE1 7SR

Statement for the Equivalent Arrangement Accepted under the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the 1978 and 1997 Protocols (MARPOL)

Dear Secretary General,

We have the honor, on behalf of the Administration, Maritime and Port Bureau, Ministry of Transportation and Communications (MOTC), Taiwan, to inform you that the Administration has accepted an equivalent arrangement to that specified in Regulation 14 of MARPOL Annex VI, under the provisions of Regulation 4 of MARPOL Annex VI.

Following two(2) ships,

Name of Ship	IMO No.	EGCS Mfg. No.
[redacted]	[redacted]	[redacted]

are fitted with [redacted] exhaust gas cleaning systems (EGCS) connected to the main engine and four(4) auxiliary engines. The systems have been surveyed and certified by the Administration and CR Classification Society in accordance with the Scheme B of MEPC.259(68). The acceptance letter dated August 27, 2018 issued by the Administration for the equivalent arrangement is attached for reference.

Yours faithfully,

Ying-Ru Liu, President
CR Classification Society

Form No. KGR2B / 07.2014　1/1

2018 CIC Q.5

- Do ships which are using separate fuel oils to comply with the maximum sulphur content of 0.10% m/m in fuel oil and entering or leaving SOx emission control areas, record detailed information showing that the ship has completed/initiated the change-over in the logbook prescribed by the Administration? Annex VI, regulation 14.6

  進出SOx排放控制區，使用最大硫含量0.1%之燃油時，是否在主管機關規定的日誌中記錄了完成/開始燃油轉換操作的詳細資訊？

- 公約要求(同Q.3)：進入ECA之前有足夠的換油時間。進入ECA前換油完成時，以及離開ECA後換油開始時，應於(輪機)日誌紀錄每個低硫燃油艙之容積、日期、時間及船舶位置。

YES	NO !	N/A
有紀錄	沒紀錄	不會去ECA…等

2018 CIC Q.6

- Do ships which have rechargeable systems containing ozone-depleting substances (refer to the supplement to the IAPP Certificate, item 2.1), have the ozone-depleting substances record book maintained?

  Annex VI, regulation 12.6

  具有消耗臭氧層物質(Ozone-depleting substances, ODS)的可再充填系統的船舶是否持有消耗臭氧層物質紀錄簿？

- 公約要求：具有消耗臭氧層物質(ODS)的可再充填系統，則需要有ODS紀錄簿
- 2005.5.19以後建造的船舶禁止裝有氟氯碳氫化合物(HCFC)以外的ODS
- 2020.1.1以後建造的船舶禁止裝有氟氯碳氫化合物ODS

YES	NO !	N/A
有ODS紀錄簿	沒有ODS紀錄簿	船上沒有使用ODS

2018 CIC Q.6

- 消耗臭氧層物質(ODS)：Halon 1211, Halon 1301, Halon 2402, CFC-11, CFC-12, CFC-113, CFC-114, CFC-115……
- 作法：查IAPP證書附頁2.1，若船上仍使用海龍(2.1.1)或非環保冷媒(2.1.2)，且為可再充填者，則應備有ODS紀錄簿(無規定格式)。

IAPP證書附頁2.1

2.1 消耗臭氧層物質(規則12)
Ozone depleting substances (regulation 12)

ODS

2.1.1 下列滅火系統，其他系統及設備，含有消耗臭氧層物質，除了氫氯碳氫化合物之外，在2005年5月19日前安裝在船上者，尚可繼續使用：
The following fire-extinguishing systems, other systems and equipment containing ozone depleting substances, other than hydro-chlorofluorocarbons, installed before 19 May 2005 may continue in service :

系統或設備 System or equipment	船上位置 Location on board	物質 Substance
		非HCFC

2.1.2 下列系統含有氫氯碳氫化合物，在2020年1月1日前安裝在船上者，尚可繼續使用：
The following systems containing hydro-chlorofluorocarbons (HCFCs) installed before 1 January 2020 may continue in service :

系統或設備 System or equipment	船上位置 Location on board	物質 Substance
Air condition plant	Air condition room	R-22
Unit cooler	E/R control room	R-22
Refrigeration plant	Steering gear room (Port)	R-22

HCFC

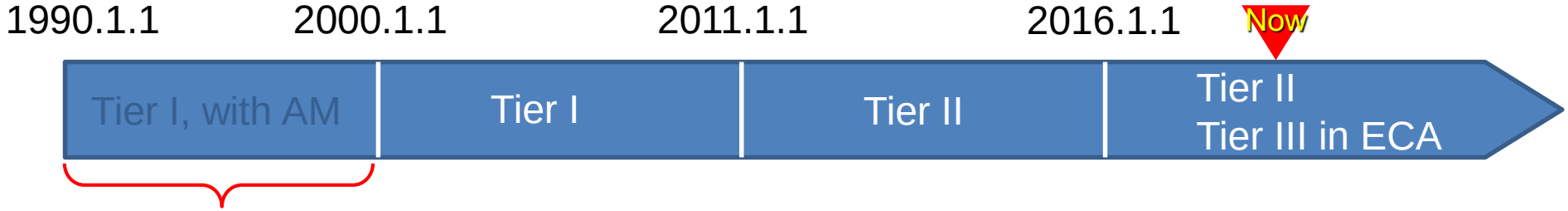
Ozone Depleting Substances Record Book
According with
Marpol Annex VI Regulation 12

Vessels Name:.....
IMO No:.....

若有，則需要ODS紀錄簿

2018 CIC Q.7

- Where an Approved Method in accordance with Annex VI, regulations 13.7.1-13.7.5 (refer to the supplement to the IAPP Certificate, item 2.2.1) is installed, has such an installation been confirmed by a survey using the verification procedure specified in the Approved Method File, including appropriate notation on the ship's International Air Pollution Prevention Certificate of the presence of the Approved Method? Annex VI, regulation 13.7.1.1
  若柴油機安裝認可辦法(Approval Method, AM)，此辦法的安裝是否通過認可辦法檔案(AMF)中的驗證程序予以檢驗，並於IAPP證書中予以註記？
- 公約要求：安裝出力大於130kW的柴油機，依船舶建造時間符合各級NOx排放標準：



2018 CIC Q.7

1990.1.1至1999.12.31建造的船舶，安裝出力大於5000kW且單缸排氣量90L以上之柴油機

- 符合Tier I之方式：
  - ▶ 安裝「認可辦法」
  - ▶ 有EIAPP證明符合Tier I或II或III
- 柴油機的「認可辦法」應通過主管機關核准且通知IMO。
- 通知IMO後12個月後的換證檢驗應安裝「認可辦法」，若無法取得商業化提供，則在有商業化提供後的第一個歲驗安裝。

IAPP證書附頁2.2.1

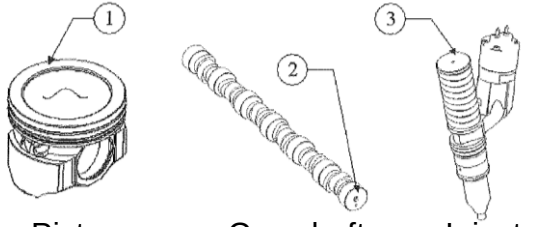
適用MARPOL附錄VI規則 (NTC = 2008年氮氧化物技術章程) (AM = 認可辦法) Applicable regulation of MARPOL Annex VI (NTC = NOX Technical Code 2008) (AM = Approved Method)			柴油機#1 Engine #1	柴油機#2 Engine #2
12	認可辦法* AM*	已安裝 installed	[ ]	[ ]
13		本次檢驗時無商業化 not commercially available at this survey	[ ]	[ ]
14		不適用 not applicable	[ ]	[ ]

YES	NO !	N/A ✓大部分船勾選此項
有安裝「認可辦法」	沒有安裝「認可辦法」 (無法取得商業化提供)	本船不適用「認可辦法」之規定：非1990.1.1至1999.12.31建造的船舶，安裝出力大於5000kW且單缸排氣量90L以上之柴油機

柴油機NOx參數紀錄

- NOx Technical Code 2008 6.2.2.8：
  任何會影響柴油機參數的調整、部件更換、部件修改，都必須依其時間順序記載於柴油機參數紀錄簿，並須附有佐證資料。

Part Number Location



ENGINES' RECORD BOOK OF ENGINE PARAMETERS

Ship's Name:

ENGINE SERIAL NUMBER	DESCRIPTION (to be supplemented with any other applicable data used for the assessment of the enginer(s)' NOx levels)	DATE	SIGNATURE

Note： 1. This sheet is delivered together with Certificate after an initial certification survey to the owner for chronologically recording any changes affecting the designated engine parameters, including adjustments, parts replacements and modifications to engine parts.

2. Please make copies, if necessary, and keep records on board for checking.

page of

- NOx排放驗證可使用之方法
  - 參數檢查法 ✓ 大部分使用此方法
  - 簡化量測法
  - 直接量測與監測法

2018 CIC Q.8

- For ships equipped with a shipboard incinerator or thermal waste treatment device installed as an alternative arrangement, is the ship's crew responsible for the operation of the equipment familiar with, properly trained in, and capable of implementing the guidance provided in the manufacturer's operating manual? Annex VI, regulation 16.8

  裝設有焚化爐的船舶，是否負責操作的船員熟悉，並有接受適當的訓練，

  能依製造廠家的操作手冊進行操作？

- 公約要求：負責操作焚化爐的人員應受訓，能依製造廠家的操作手冊進行操作。焚化爐應由主管機關[illegible]手冊。

YES	NO !	N/A
符合	不符合	船上沒有焚化爐

2018 CIC Q.9

回答"NO"可能遭滯船

- Are the master and crew familiar with essential shipboard procedures in the approved VOC Management Plan relating to the prevention of air pollution from ships? Annex VI, regulation 15.6
  船長和船員是否熟悉認可的揮發性有機化合物(Volatile Organic compounds, VOC)管理計畫中防止造成空氣污染的必要程序？

YES	NO !	N/A
熟悉	不熟悉	不是原油油輪

- 公約要求：原油油輪應在船上備有並實施主管機關認可的VOC管理計畫。

有無VOC管理計畫，看IAPP證書附頁

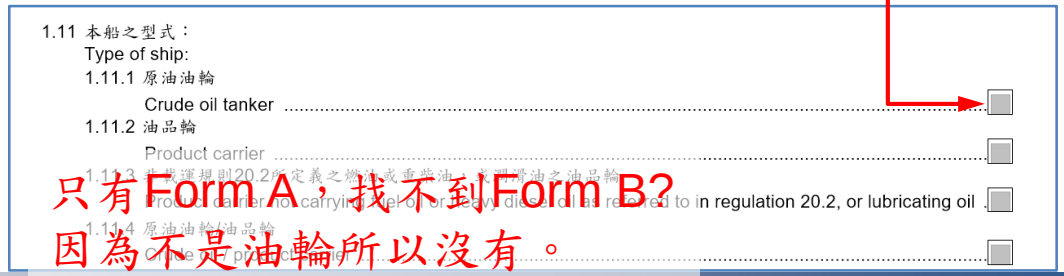
2.4 揮發性有機化合物(VOCs)(規則15)
Volatile organic compounds (VOCs) (regulation 15)

2.4.1 液貨船裝有依 MSC/Circ.585 認可的氣體收集系統。
The tanker has a vapour collection system installed and approved in accordance with MSC/Circ. 585. X

2.4.2.1 載運原油的液貨船上應有一份認可的揮發性有機化合物管理計畫
For a tanker carrying crude oil, there is an approved VOC Management Plan X

2.4.2.2 揮發性有機化合物管理計畫認可日期
VOC Management Plan approval reference

是否為原油油輪，看IOPP證書附頁Form B



1.11 本船之型式：
Type of ship:
1.11.1 原油油輪
Crude oil tanker .....
1.11.2 油品輪
Product carrier .....
1.11.3 本船運規則20.2所定義之燃油或重柴油之油品輪
Product carrier for carrying fuel oil or heavy diesel oil as referred to in regulation 20.2, or lubricating oil .....
1.11.4 原油油輪/油品輪
Crude oil tanker/Product carrier .....

只有Form A，找不到Form B?
因為不是油輪所以沒有。

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- Does the ship keep on board a Ship Energy Efficiency Management Plan (SEEMP)? Annex VI, regulation 22 paragraph 1
  船上是否有能源效率管理計畫？
- 公約要求：每艘船舶(Each ship)應訂有具體的船舶能源效率管理計畫(SEEMP)，並成為船舶安全管理系統(SMS)的一部分。

YES	NO !	N/A
有SEEMP	無SEEMP	依據Annex VI Reg.19，未滿400GT船舶不適用 (但會受PSC檢查之船舶較少未滿400GT者。勾選本欄需注意。)

5	船舶能源效率管理計畫 Ship Energy Efficiency Management Plan	IEEC證書附頁5.1
5.1	船舶有依照規則 22 提供船舶能源效率管理計畫 The ship is provided with a Ship Energy Efficiency Management Plan (SEEMP) in compliance with regulation 22.... [☒]	

2018 CIC Q.11

- Was the ship detained as a result of the Inspection Campaign?

  本船是否曾因本次重點檢查活動而被滯船？

YES !	NO
有扣船	沒扣船

「CR PSC應急群組」LINE條碼

- 任何港口，只要有網路處皆可使用。
- 請將此條碼告知船上，若有PSCO上船，或即將/可能上船，歡迎船長或輪機長或工程師等加入此群組。
- CR可提供諮詢或提供資料。
- 單一PSC案件結束後，會將加入的人員刪除，以保護各船舶之間的隱私。
- 下一次PSC案件歡迎重新加入。

CR PSC應急群組

http://line.me/ti/g/fXw_7cSzV7

(使用條碼或網址連結皆可加入)

CR緊急連絡電話

- CR的連絡手機門號：
  - ▶ 總驗船師　　鄭志文：　+886-937-870-514 (台灣門號)
  - ▶ 副總驗船師　　黃建樺：　+886-928-123-360 (台灣門號)
    +852-6947-3065　(香港門號)
  - ▶ 檢驗處副處長　陳正泰：　+886-938-556-200 (台灣門號)
    +852-5394-0874　(香港門號)
- 到達香港船舶，若有PSC上船檢查，請立即通知CR。CR可與船上及香港海事處保持連絡，必要時驗船師立刻前往香港協助。(或委託當地驗船師協助)
- 在任何國家受檢時皆可連絡CR協助。(使用LINE或電話皆可)

歡迎討論與提供意見

http://www.crclass.org/

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