經濟部暨所屬機關因公出國人員報告書

出國報告（出國類別：其他）

# 參加國際油輪檢查及安全管理課程

服務機關：台灣中油股份有限公司
姓名職稱：林頂光組長、王紹培工程師
派赴國家：新加坡
出國期間：101 年 11 月 25 日至 101 年 11 月 29 日
報告日期：102 年 02 月 21 日

儲運處
王紹培
102/02/22

# 摘要

自有油輪自民國85年起申請國際大油公司檢查（SIRE INSPECTION）以來，雖累積許多檢查經驗。但因國際法規更新與日趨嚴格，國內油輪公司僅有台塑及中油，可交換經驗有限，因此，參加本次課程，學習國外檢查員課程與經驗，以期學習改善現有管理系統，提高油輪檢查通過的機會。

本課程在新加坡進行，共計三日，獲單位主管指派隨林頂光組長前往參加，全程課程以英語講售方式，並有小組實務討論，其他參訓學員多爲新加坡地區油輪、油駁船、油碼頭及菲律賓地區油輪工程師及管理高層，有許多交換不同實務經驗的機會，學習效果良好，並獲取許多國外同業管理經驗。

# 目次

# 目的

自有油輪自民國85年起申請國際大油公司檢查（SIRE INSPECTION）以來，雖累積許多檢查經驗，但礙於檢查條款修正與船員替換異動等因素，檢查通過率日漸降低。

因此，希望透過此研討會瞭解相關檢查的背景及油輪管理者對相關檢查評核應注意事項，改善本公司油輪安全管理系統(ISO/ISM)，提高油輪檢查通過的機會，使船隊未來能順利航行國外，增加營運彈性。

參加本次課程後，可獲得整體油輪檢查架構的概念，可作爲管理系統改善及油輪檢查實務的參考。油輪通過檢查是既定的年度目標，首先要有完整與更新的管理系統，公司與船上人員都應了解工作目標與熟悉作業程序，共同努力才可以朝向通過檢查的目標。並且，降低油輪操作的風險，減少工安問題，維持良好品質。

## 過程

第一天　**101年11月25日**

搭機自台北前往新加坡

第二天　**101年11月26日**

課程報到，第一天課程

油輪檢查與風險評估、檢查過程介紹與檢查作業

油輪公司營運風險評估與管理

第三天　**101年11月27日**

第二天課程

油輪檢查準備工作研討、美國油污染法規、新海事勞工公約生效準備作業、及緊急應變計畫作業

第四天　**101年11月28日**

油輪與化學船檢查要點、港口國檢查案例研討、船上作業ISO文件持續改善、重要案件分析等

第五天　**101年11月29日**

搭機自新加坡返回台北

# 師資介紹與課程綱要

## 一、師資介紹

1.資深船長 Captain John Bussell

船舶海事工業34年經驗，受訓合格之SIRE/ CDI液體貨船檢查員，ISO9000/14000評鑑員及主導稽核員

2.資深船長 Captain Sanjiv Sehgal

船舶海事工業31年經驗，INTERTANKO技術委員，油輪檢查及美國OPA90檢查員20年經驗

3.授課方式

參訓人員共計18人，講師2人，依照教學資料介紹課程內容，並且輔以分組討論單一油污染問題後之互動式教學，使得參訓人員對課程內容印象深刻與實用。

## 二、課程綱要

中油自有油輪定期安排國際油公司進行檢查，對於油輪檢查業務非常重要。以下，茲就課程內容依照油輪檢查目的、管理系統及實際檢查與持續改善等順序分類融貫所有實務檢查作業。

1.油輪檢查目的、流程與檢查員

進行油輪檢查的目的，是以油輪安全管理角度進行。在現有國際法規要求下，當船方違反國際法規規定，無論事故原因爲蓄意或非蓄意，

都將船舶污染列爲嚴重狀況處理。因此，國際大油公司將油輪作業碼頭、港口、船東及船舶管理人列入檢查，將各方面分別評估與檢查，以管制風險。

因此，在管理系統中無論操作人員與程序，均需要熟悉「IMO/ILO/海事法規」、「ISM管理程序條款與執行」、「工作前的風險評估」及「準備工作應確認」，以確實執行內部管控與油輪檢查，並藉由檢查重複的進行風險評估，發現作業過程風險與改善。可減少油輪因故延滯、違反法令、保險費增加及操作錯誤產生人員營運及環境污染。申請國際油公司檢查雖然爲自願性質檢查，雖未明文強制，但目前全世界由碼頭與油公司均以是否通過油公司檢查，通過SHELL, BP, EXXONMOBIL等作爲是否僱租用船舶的依據。因此，油輪檢查爲必要執行的業務。

船上檢查流程，自檢查員準備接受檢查開始。船上檢查與船上人員溝通應對爲最主要部份，影響檢查結果最多。檢查員進行檢查時觀察船上實際操作裝卸貨作業過程，可以發掘船員平時素養與工作態度，並了解公司管理系統的文化與執行狀況。另外，再根據書面記錄資料與對於船員的當面訪談做一重要評估與確認人員素質等，每次檢查約耗時10-12小時。

目前，油輪與化學船分二大系統檢查，油輪檢查爲SIRE (Ship Inspection

Report Programme)，檢查員約400人，化學船檢查爲CDI (Chemical Distribution Industry)，檢查員約80人。而檢查員職責僅將所觀察是項紀錄上網提報，但並未對檢查通過與否做一結論。因此，檢查報告上載到SIRE/CDI檢查系統後，國際油公司根據各自觀察檢查不符合事項是否違反各別之高風險項目進行評估，並判斷檢查是否通過。

2.船上作業管理系統與船員熟悉訓練

船上管理系統依據ISM CODE執行各項檢查，可分爲三大部份：

檢查一 管理階層的承諾

檢查二 船上與設備的維護檢查

檢查三 公司認證、內部稽核與外部評鑑

The Managers shall provide technical management which includes, but is not limited to, the following services:

(a) ensuring that the Vessel complies with the requirements of the law of the Flag State;

(b) ensuring compliance with the ISM Code;

The vessel inspection report enable the reader make decisions about future utilization of vessel and allocation of resources.

船上作業與船員、船上設備及操作程序相關，並與作業環境相關。當系統中發現不符合事項時，可分類爲主要不符合、次要不符合及觀察

事項，改正措施依據不符合狀況，了解是否爲系統程序問題或是單一偶發事件，可透過各階層的內部審查會議改正或加強訓練。但由於船員定期輪調與陸上作業不同，需要考量在人員交接與接任時記錄完整順利無軌交接。

三、ISM風險評估與港口國檢查

(1) ISM風險評估

在新版海事法規ISM CODE ( ISM CODE 1.2.2.2, 1.2.3, 10.3 & TMSA 9, 9A )中已經正式列入風險評估的要求規定。公司應依照ISM CODE將作業程序進行修訂調整，並且風險評估的過程，須先將油輪作業中的危害辨識定義出來，以調整作業程序方式降低風險。例如：船上計畫進行熱工工作，除依照工作程序申請還要進行風險評估，將危害因素的傷害程度與發生機率降低。

ISM CODE 1.2.2.2
Assess all IDENTIFIED risks to its ships, personnel and the environment and ESTABLISH appropriate safeguards
ISM CODE 1.2.3
The safety management system should ensure
.2 applicable codes, guidelines and standards recommended by the Organization, Administrations, Classification Societies and maritime industry organizations are taken into account
TMSA 9
• The vessel operator' s procedures include a documented risk-assessment process to systematically identify potential hazards and manage operational risks fleet-wide.
• Records of all valid/current risk assessments are maintained at relevant locations

• Preventive measures and alternative methods of work to ensure safe completion of work are identified and documented in the risk-assessment process

• Shore-based management regularly reviews the validity of risk assessments and ensures that any common risk assessments are applied across the fleet

• Company management reviews and collates all on-board risk assessments to check that standards are consistent

TMSA 9A

• The vessel operator has a formal documented risk-assessment process on board, and relevant crew members have been trained in hazard identification and risk assessment

ISM CODE 10.3

The Company should identify equipment and technical systems the sudden operational failure of which may result in hazardous situations. The SMS should provide for specific measures aimed at promoting the reliability of such equipment or systems. These measures should include the regular testing of stand-by arrangements and equipment or technical systems that are not in continuous use.

(2)港口國 PSC ( Port State Control )檢查

1978年，油輪 "Amoco Cadiz"發生嚴重油污染，隨後歐洲13國元首於1980年12月擬定港口國檢查，並自1982年1月起強制執行港口國檢查。以篩選次等級高風險船舶進入歐洲港口，隨後又根據世界各地區組成共計9個港口國檢查組織，全面過濾與強制檢查不符合公約檢查船舶，以降低油汙染風險。

船舶靠港後進行PSC檢查，如結果有違反公約項目者，將以扣船方式要求船舶留置到檢修改善完畢後才能航行，並且，以PSC公佈檢查結果，使得針對船舶船籍港國家與驗船協會產生約制壓力。

港口國檢查網站上可查詢到船舶檢查缺失項目，亦可做爲加強訓練與

改善的經驗。

四、TMSA油輪管理與自我評估及ISM持續改善

(1)油輪管理及自我評估方案 TMSA (Tanker Management & Self Assessment)

TMSA指引推出後將油輪操作從ISM爲最基本標準提高到在所有作業過程中辨認風險與改善。TMSA共有254項重要指標，並將每個指標分爲四個等級，需要自我評估現有作業程序與系統是否可以逐步提高水準。

自我評估後，需將評估報告上載網路更新。如與國際油公司有長期租船業務，油公司甚至會依照TMSA條款查核油輪管理公司。

(2) 船舶管理執行安全管理系統（ISM）的目的，即爲確保船舶在海上航行安全，避免人員受傷損失及船舶造成環境污染等主要目標。因此，除了根據TMSA條款所建議方式修改作業手冊並加強船員熟悉程序操作，與重視與管制減少船上對外污染，將人員概念提升，並提供合適的作業程序，再給予加強檢查發現缺失，再進予改善缺失。讓管理階層到船員均可從上到下一致的認同共同目標，才能逐步降低風險，提升品質，穩定獲利。

(3)船舶除進行法規檢查，港口國檢查及油公司檢查，以持續不斷的內部與外部檢查，確認目前運作的系統是否依照作業程序進行，發現與

去除系統失效的狀況，可以有效降低風險的方式。

五、新生效海事勞工公約MLC2006 (Maritime Labour Convention)

自2013年8月20日起將生效新版2006年海事勞工公約，將更重視船東對於船員的責任，在船工作及生活的抱怨回饋與處理等，將提升船員的工作環境與權益。

此新法規生效，將首先查核限制船員年齡需高於16歲、證書與船員僱用契約、工作與休息時間、住宿空間、飲食健康等。

各公司船上作業程序需要儘速併入新修訂公約條款，以符合法規要求。

## 心得與建議

參與本次課程除獲得國外檢查員及其他參與學員在油公司檢查業務上的經驗，並經由彙總的課程內容，將目前油輪檢查做重新排序與補充不足。

油輪通過油公司檢查任務十分艱鉅，除需有完整管理系統與程序外，公司亦須多投資在船員訓練上，因爲，船員熟悉工作程序後，將會慢慢呈現出來。但因油公司檢查均以英語爲主，目前台灣籍船員面臨檢查員雖聽懂，但回應有困難，這還需持續的努力。

中油是石油公司，必會持續增加油輪數量，因此，油輪業務更應該自上至下的重視與關注，才能有安全、品質及通過檢查的油輪使用，並獲得油輪營運的最大利益。

以下事項建議：

1.管理系統與作業程序應獨立專人負責，除制定管理條款外，並應輔助船員訓練與油公司檢查任務。

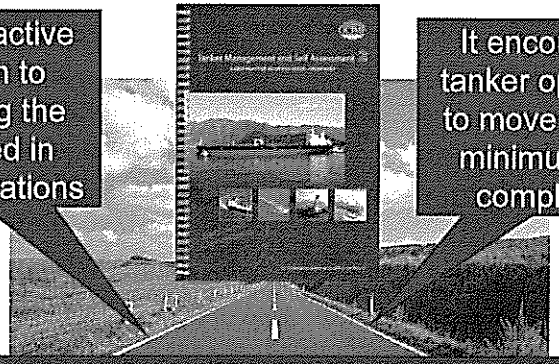
2.船員訓練應持續投資與加強，此爲百年樹人事業。國內航運界主流公司，均以重金培養自有船員，中油公司應以此方向努力。

# TANKER MANAGEMENT & SELF ASSESSMENT (TMSA)



## WHAT IS TMSA?

It is a pro-active approach to addressing the risks faced in tanker operations

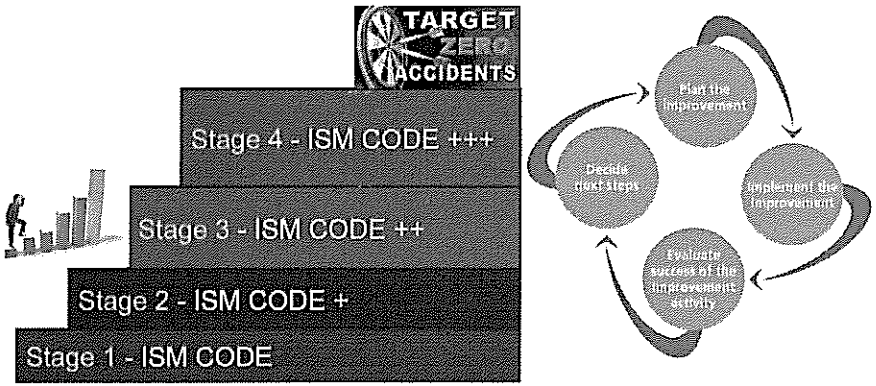


It encourages tanker operators to move beyond minimum ISM compliance

Initiative of The Oil Companies International Marine Forum (OCIMF)
A road map guiding the tanker operators towards safe management and continual improvement



## HOW DOES IT WORK



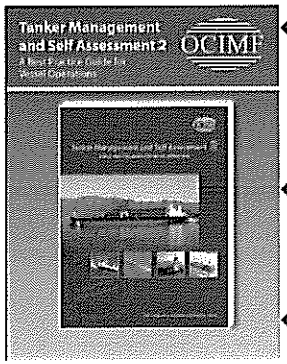

4 STAGES of progressively increasing effort



## ADVANTAGES OF TMSA

| | |
|---|---|
| Flexible | Allows the operator to design and develop a management system best suited to its core values and customer requirements |
| Flexible | Enables the operator to build upon minimum ISM code compliance by incorporating standards such as ISO 9001, ISO 14001, OHSAS 18001 |
| Measurable | Inspires the operator to benchmark themselves against the industry and continually improve their safety & environment protection performance |
| Measurable | Enables the charterers (oil companies) track the overall effectiveness of the management system of operators |

# KEY ELEMENTS OF TMSA




Element 1 – Management, Leadership and Accountability

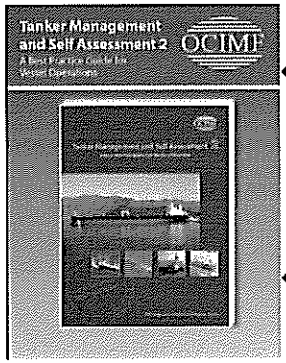
Element 2 – Recruitment and Management of Shore-Based Personnel

Element 3 – Recruitment and Management of Vessel Personnel
Element 3A – Recruitment and Management Vessel Personnel

Element 4 – Reliability and Maintenance Standards



# KEY ELEMENTS OF TMSA




Element 4A – Reliability and Maintenance Standards (Critical Equipment)
Element 4B – Reliability and Maintenance Standards (Close out Performance)

Element 5 – Navigational Safety

Element 6 – Cargo and Ballast Operations
Element 6A – Mooring Operations

Element 7 – Management of Change
Element 7A - Management of Change



# KEY ELEMENTS OF TMSA




Element 8 – Incident Investigation and analysis
Element 8A – Incident Investigation and Analysis – Training.

Element 9 - Safety Management – Shore Based Monitoring
Element 9A - Safety Management – Fleet Monitoring

Element 10 – Environmental Management
Element 10A – Environmental Management



# KEY ELEMENTS OF TMSA




Element 11 – Emergency Preparedness and Contingency Planning
Element 11A – Emergency Preparedness and Contingency Planning

Element 12 - Measurement, Analysis and Improvement
Element 12A - Measurement, Analysis and Improvement

245 KPI associated with best practice guidance

# LET US EXAMINE THIS IN DETAIL

## 9A Safety Management - Fleet Monitoring

### STAGE 1

The responsible officer conducts safety inspections at scheduled intervals and the results are recorded.
*Safety Officer carries out inspection of ship once in three months using a checklist provided by company*

Checklist is available

Significant safety deficiencies that cannot be rectified by vessel staff are immediately reported to company management.
*Defects are reported to Tech Superintendent by monthly defect list*

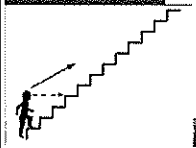
Defect list is available



# REPORTING TMSA COMPLIANCE

## THE STATEMENTS HAVE TO BE DEMONSTRATED

COMPANY HAS TO WALK THE TALK






How effective is this training?

Check Investigation Reports

What is "appropriate"?



# LET US EXAMINE THIS IN DETAIL

## 9A Safety Management - Fleet Monitoring

### STAGE 1

On-board safety meetings are held at least monthly and as soon as possible after any serious incident or accident within the company.
*Safety meetings are held monthly and minutes sent to office on a company format*

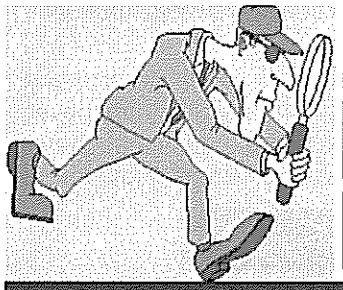
Minutes of Meeting are available

There is a formalized system on board to identify hazards (hazard identification) during work planning.
*Risk Assessment format is available. Company has procedures for carrying out Risk Assessment.*

Risk Assessment file is available



# WHAT WOULD THE TMSA AUDITOR CHECK?



Appropriate procedures are in place

People are aware of these procedures

The procedures are implemented effectively

The effectiveness is measured through established KPI's

There is a constant effort to improve, especially in areas identified to have weakness

# LET US EXAMINE THIS IN DETAIL

## 9A Safety Management - Fleet Monitoring

### STAGE 3

The vessel's management team promotes a strong, proactive safety culture on board, and all crew members are encouraged to be involved in proactive safety campaigns and work methods.
*Safety meetings agenda includes discussing safety campaigns of the company*

Minutes of Meeting are shown

Company safety policy ensures that senior officers and managers always lead by example in safety-related issues.
*This is mentioned in the Safety Management manual*

Relevant clause in manual is shown



# LET US EXAMINE THIS IN DETAIL

## 9A Safety Management - Fleet Monitoring

### STAGE 2

At monthly safety meetings, the agenda includes safety monitoring and confirmation that all vessel-based safety procedures are being complied with.
*Safety meetings agenda includes this confirmation*

Minutes of Meeting are available

Drills and safety exercises are used to determine and record the training needs of individual employees and records are maintained on board and/or ashore.
*Master checks and reports training needs. Crew Dept. arranges training as required.*

Crew Appraisal forms and Drill reports are shown



# LET US EXAMINE THIS IN DETAIL

## 9A Safety Management - Fleet Monitoring

### STAGE 3

The company sends officers and crew on safety training courses in excess of statutory requirements.
*Company has its own training center where non-mandatory courses are conducted*

Company Training Matrix for all ranks

Safety best practice identified on individual vessels is transferred across the fleet.
*Company circulars are sent to share experiences*

Circular file is shown



# LET US EXAMINE THIS IN DETAIL

## 9A Safety Management - Fleet Monitoring

### STAGE 2

The vessel operator has a formal documented risk-assessment process on board, and relevant crew members have been trained in hazard identification and risk assessment.
*Master , C/O and C/E have been trained in RA*

RA certificates are available

# LET US EXAMINE THIS IN DETAIL

## 9A Safety Management - Fleet Monitoring

### STAGE 4

There is a system in place for vessel staff to communicate ideas for improving safety to shore management.
*Company encourages crew to submit suggestions by placing a suggestion box on each ship*

Show 3 suggestions received from fleet in 12 months

The company actively seeks modern safety-training material and courses that can be used for on-board and shore-based training.
*CBT modules placed on ship. Simulators installed in training center.*

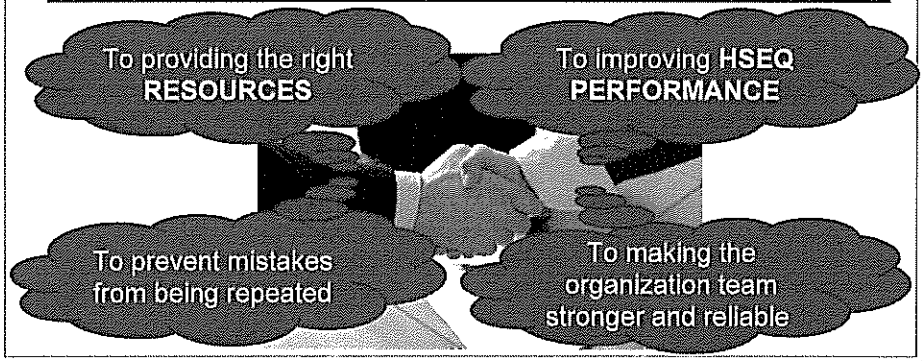
List of CBT's on board and simulator courses

17

# CONCLUSION

**TMSA is not about making statements**

It is a **COMMITMENT**




18

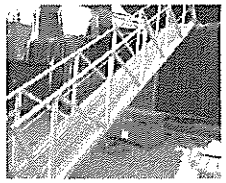
## PRIOR TO BOARDING

Inspections begin at the bottom of the gangway.

An inspector would be gaining an impression about ship and ship management from the time of his arrival at the ship, up to the time he arrives at the Master's cabin.

**Be prepared**

**Get the basics right**



In that short period of time a lot of items can be seen and a "feel" for the ship made.

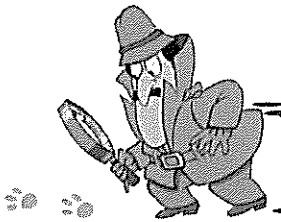
**First impressions count a lot**

# INSPECTORS VIEW POINT

## WHAT IS THE INSPECTOR LOOKING AT?

- ✓ General condition of hull, paintwork and markings
- ✓ Indentations on hull, if any
- ✓ Signs of oil below scuppers and overboard discharges, including OWS
- ✓ Condition of gangway and means of access (safety & security aspects)
- ✓ Condition of mooring lines

## REMEMBER



Inspectors are human

They have a job to perform

They too are answerable to someone

Knowing the inspector's view point, preparing for the inspection and demonstrating control over the ship and its operations is an important aspect of shipboard management.

## ON ARRIVAL AT MASTER'S CABIN

- ✓ Will introduce himself and present OCIMF / CDI identification card
- ✓ Will discuss the inspection process
- ✓ Will specially note the Master's preparedness and ability to provide necessary documents without delay

**Having all the necessary certificates, manuals, record books and an up to date VPQ and Officers Matrix ready for inspection will make a good impression.**

**Remember, inspectors would like to complete inspection with minimal delays.**

## UPON BOARDING & PRIOR MEETING MASTER

**This observation will help to determine areas that need to be examined in detail**

- ✓ Access control arrangements (ISPS Code)
  - Identification document
  - Master/ Duty Officer informed
  - Entry into visitor log (will note if there is a pre-arrival notification list with watchman)
  - Issued with visitor pass
  - Safety/Security briefing
  - Handed over any safety gear, if required
  - Escorted to Master
- ✓ General condition of main deck and accommodation, including behavior of crew working on deck

## WILL PAY ATTENTION TO

Will specially look for unsafe conditions such as
- Rags lying around,
- water leaks
- Slip / Trip hazards
- Mooring ropes on drums
- Unlit work areas; etc.

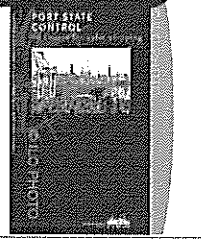
- ✓ Cleanliness of open deck areas
- ✓ Cleanliness of accommodation
- ✓ Accommodation Temperature
- ✓ Notices and Muster Lists
- ✓ Working Hour Schedules
- ✓ Fire door shutting devices
- ✓ Lighting, hand holds

## WHY PORT STATE CONTROL?

Port State Control was established as a safety net to catch ships and operators that manage to successfully evade the controls exercised by Flag Administrations and Recognized Organizations.

The origin of Port State Control can be traced back to ILO Merchant Shipping (Minimum Standards) Convention1976 (No. 147). This Convention aimed to inspect vessels that entered the ports of member states.

On March 2 1978 the Hague Memorandum was signed by the maritime authorities of eight countries (Belgium, Denmark, France, Germany FR, the Netherlands, Norway, Sweden and the United Kingdom) which decided that this Convention deserved a proper follow up and surveillance of ships in port.

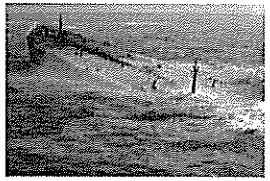





# PORT STATE CONTROL

## WHY PORT STATE CONTROL?

The *Amoco Cadiz* incident of March 16, 1978 caused a strong political and public demand in Europe for much more stringent regulations with regard to the safety of shipping.



The meeting of ministers from 13 European countries, European Commission, IMO and ILO at Paris in December 1980 agreed that elimination of substandard shipping would be best achieved by co-ordination of port states to inspect ships for verifying compliance with international conventions and instruments.

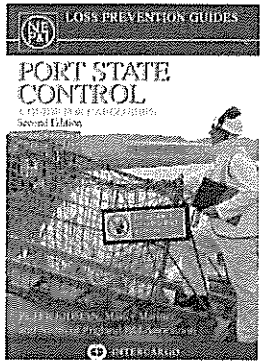
Based on this, the Paris Memorandum of Understanding on PSC was adopted and signed by 14 European states in Jan 1982



## WHY PORT STATE CONTROL?

Ships are governed by national and international laws through a system of inspections, audits and surveys by the Flag Administration or Recognized Organization (Class)

In an ideal world, this method of governance should ensure that ships are maintained and operated safely and securely.




Unfortunately, this does not happen. **Ports states often suffer from incidents occurring due to failure of the Flag Administration to exercise proper control over its ships.**

# IMO's LINK TO PSC

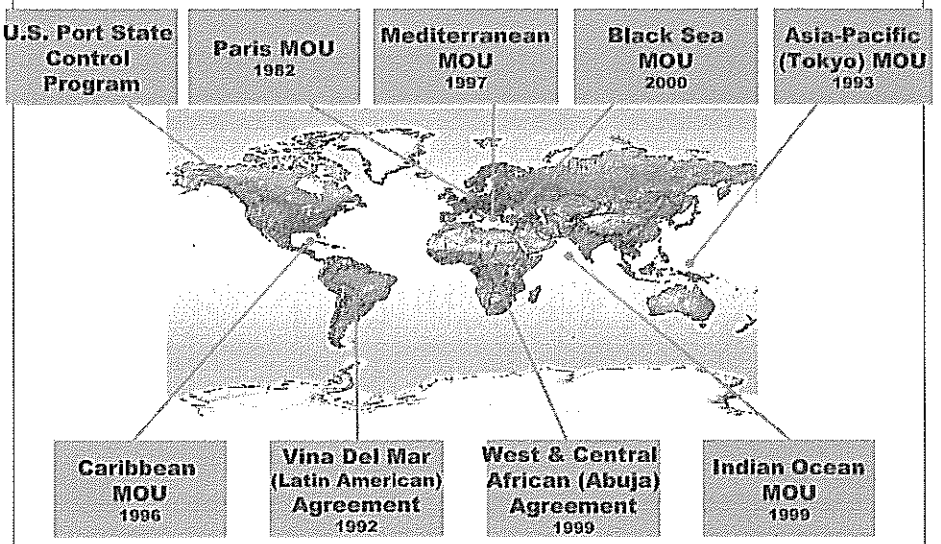
**SOLAS**
- Ch. I/Regulation 19
- Ch IX/Regulation 6.2
- Ch.XI-1/Regulation 4
- Ch.XI-2/Regulation 9

**OTHER CONVENTIONS**
- Load Line Article 21
- Tonnage Article 12
- Anti-Fouling Systems Article 11
- Ch.XI-2/Regulation 9

IMO requires the Port States to make effective use of these provisions for identifying deficiencies, if any, in such ships which may render them substandard and to ensure that remedial measures are taken.



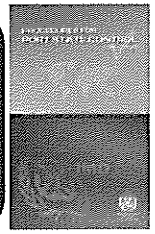
# International PSC Agreements




# LEGAL FRAMEWORK

**REMEMBER**

While following IMO procedures for PSC inspection, every Port State will have their special areas of focus based on their experience and types of ships calling their ports.
Ship Managers must be aware of these focus areas.



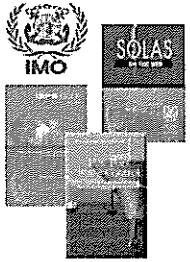
The aim of PSC-MoU is to eliminate the operation of substandard ships through a harmonized system of port state control.

Ships that fly the flag of a state which is not a party to that convention or below convention size would not be exempt from inspection because the principle of *no more favourable treatment* would be applied.



# IMO's ROLE IN PSC

19 Nov 1981
IMO adopted Resolution A466(12) – Procedures for Port State Control of Ships




23 Nov 1995 IMO adopted Resolution A787(19) – Procedures for uniform exercise of Port State Control

**LATEST AMENDMENT IN FORCE**

**Resolution A.1052(27) adopted on 30 November 2011 – PROCEDURES FOR PORT STATE CONTROL, 2011**

## SALIENT DEFINITIONS

**CLEAR GROUNDS** - Evidence that the ship, its equipment, or its crew does not correspond substantially with the requirements of the relevant conventions or that the master or crew members are not familiar with essential shipboard procedures relating to the safety of ships or the prevention of pollution.

**INSPECTION** - A visit on board a ship to check both the validity of the relevant certificates and other documents, and the overall condition of the ship, its equipment and its crew.

**MORE DETAILED INSPECTION** - An inspection conducted when there are clear grounds for believing that the condition of the ship, its equipment or its crew does not correspond substantially to the particulars of the certificates.



## WHEN IS SHIP INSPECTED?

When required by Port State as per their system of targeting ships

At the request of, or on the basis of, information regarding a ship provided by another Port State

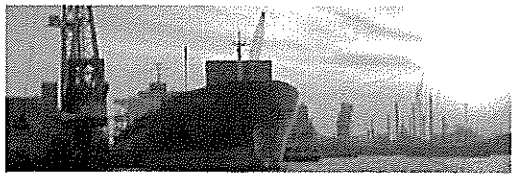
On basis of information provided by a member of the crew, a professional body, an association, a trade union or any other individual with an interest in the safety of the ship, its crew and passengers, or the protection of the marine environment.



## SALIENT DEFINITIONS

**SUBSTANDARD SHIP** - A ship whose hull, machinery, equipment or operational safety is substantially below the standards required by the relevant convention or whose crew is not in conformance with the safe manning document.

**STOPPAGE OF AN OPERATION** - Formal prohibition against a ship to continue an operation due to an identified deficiency(ies) which, singly or together, render the continuation of such operation hazardous.





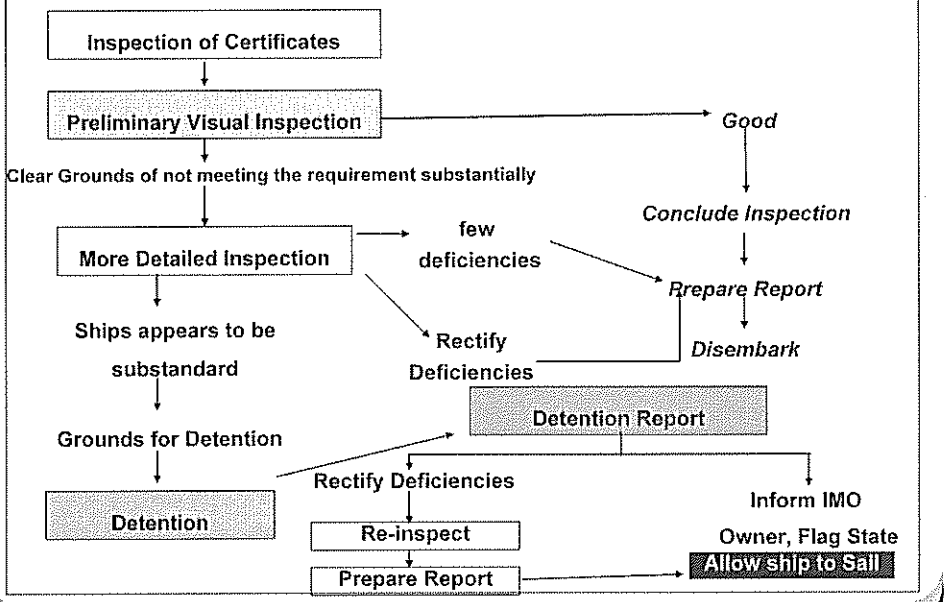
## INSPECTION PROCEDURE

Foreign ships are subject to Port State control, including boarding, inspection, remedial action and possible detention, only by officers duly authorized by the port State.

All possible efforts should be made to avoid a ship being unduly detained or delayed.

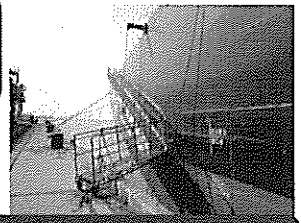
If a ship is unduly detained or delayed, it should be entitled to compensation for any loss or damage suffered.

Inspection is carried out in 2 stages – INITIAL INSPECTION & MORE DETAILED INSPECTION




# INITIAL INSPECTION (IMO Res.1052 (27))

Gain an initial impression before boarding by checking condition of paintwork, corrosion, pitting or unrepaired damage.



On boarding, examine the ship's relevant certificates and documents.

If above are in order and walk around of ship confirms a good standard of maintenance, this should conclude the PSC inspection.

However, if there are clear grounds for believing that the ship, its equipment or its crew do not substantially meet the requirements, the PSCO will do a more detailed inspection.
PSCO must inform the Master, who can invite the Flag / Class representative to be present during the inspection.



# GENERAL GUIDELINES FOR PSCOs IN HANDLING DEFICIENCIES
(IMO Res.1052 (27))

It should be recognized that all equipment is subject to failure and spares or replacement parts may not be readily available. In such cases, undue delay should not be caused if, in the opinion of the PSCO, safe alternative arrangements have been made.

Where deficiencies cannot be remedied at the port of inspection, the PSCO may allow the ship to proceed to another port, subject to any appropriate conditions determined.

In such circumstances, the PSCO should ensure that the competent authority of the next port of call and the flag State are notified.



# MORE DETAILED INSPECTION
(IMO Res.1052 (27))

Will generally focus on areas of concern

PSCO should use professional judgment in making this determination.

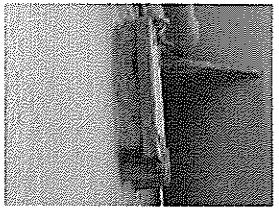
Aim is to determine if conditions are serious to prevent ship from proceeding to sea without rectification.

## DEFICIENCY & ACTION CODES

| | |
|---|---|
| 00 | No action taken |
| 10 | Deficiency rectified |
| 12 | All deficiencies rectified |
| 15 | Rectify deficiency at next port |
| 16 | Rectify deficiency within 14 days |
| **17** | **Master instructed to rectify deficiency before departure** |
| 18 | (ISM) rectify non-conformity within 3 months |
| 19 | (ISM) rectify major non-conformity before departure |
| 20 | Grounds for delay |
| 25 | Ship allowed to sail after delay |
| **30** | **Grounds for detention** |
| 35 | Ship allowed to sail after follow-up detention |
| 40 | Next port informed |
| 45 | Next port informed to re-detain |
| 50 | Flag state consul informed |
| 55 | Flag state consulted |
| 60 | Region state informed |
| 70 | Classification society informed |
| 80 | Temporary substitution of equipment |
| 85 | Investigation of contravention of discharge provision (MARPOL) |
| 95 | Letter of warning issued |
| 96 | Letter of warning withdrawn |
| 99 | Other (specify in clear text) |

## IDENTIFYING SUBSTANDARD SHIP

- the absence of principal equipment or arrangement required by the Conventions
- non-compliance of equipment or arrangement with relevant specifications of the conventions
- substantial deterioration of the ship or its equipment, for example, because of poor maintenance
- insufficiency of operational proficiency, or unfamiliarity of essential operational procedures by the crew
- insufficiency of manning or insufficiency of certification of seafarers





## EXERCISE 1 (Group Work)

In Resolution A.1052 (27) please find the following:

1.Under what conditions the PSCO cannot issue a detention order?

2.3.7 – page 9

2.Under what conditions can the PSCO allow a ship to proceed to a repair yard if deficiency cannot be rectified in port of inspection?

3.What are the de 3.7 – page 14 es under SOLAS?

4.What are the detainable deficiencies under STCW? page 21

page 24 & 25



## SUSPENDING INSPECTION OF SHIP
(IMO Res.1052 (27))

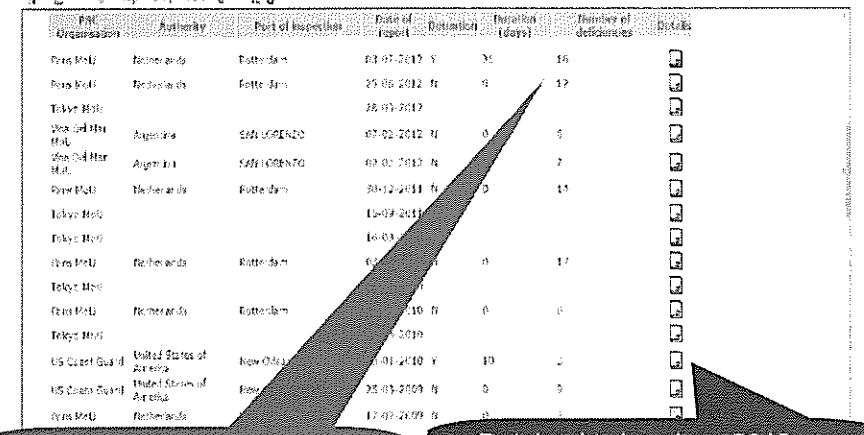
Where the overall condition of a ship and its equipment, also taking into account the crew conditions, are found to be obviously substandard, the PSCO may suspend an inspection.

Prior to suspending an inspection, the PSCO should have recorded detainable deficiencies

In cases where the ship is detained and an inspection is suspended, the Port State Authority should notify the responsible parties without delay.

The suspension of the inspection may continue until the responsible parties have taken the steps necessary to ensure that the ship complies with the requirements of the relevant instruments.

## EVALUATING SHIP HISTORY



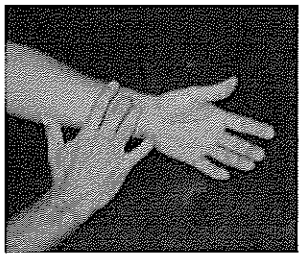
- Detained twice since 2010
- Increasing number of

Detained for 31 days in a follow-up inspection under



## PSC & SHIP MANAGEMENT

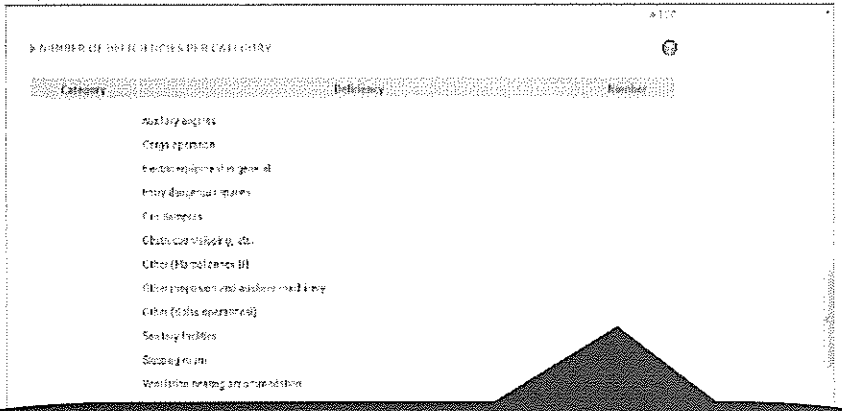
**THE INVOLVEMENT OF SHIP MANAGER WITH SECOND HAND SHIP BEGINS SOON AS THEY ARE NOTIFIED OF IT ENTERING THE COMPANY FLEET.**



It is important for the Manager to remain on top of the situation and pre-empt conditions that can cause concerns during external inspections, especially PSC inspections.



## Details of 18 deficiencies on 03/07/2012



The number of deficiencies in each area is usually shown some weeks later and gives a good indication of where the problems lie



## EVALUATING SHIP HISTORY

Sources for checking the **HISTORY OF A SHIP**:

equasis

EQUASIS
www.equasis.org

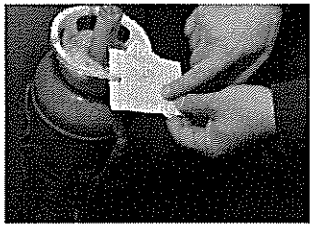
PORT STATE CONTROL
websites
www.parismou.org
www.tokyo-mou.org
www.iomou.org
www.medmou.org
www.abujamou.org *www.acuerdo latino.int.ar*
www.bsmou.org
www.caribbeanmou.org
www.riyadhmou.org
https://homeport.uscg.mil
www.amsa.gov.au

## SHIPS UNDER MANAGEMENT

During periodical inspection
•Watch out for defects that will attract attention of PSC inspectors

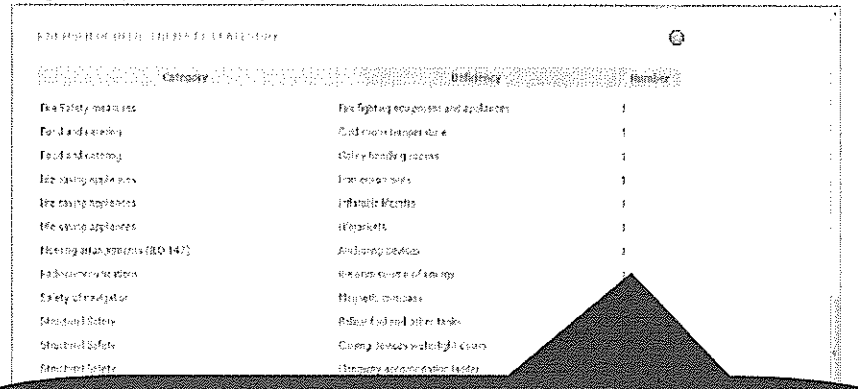
•Give high priority to detainable deficiencies

•Ensure detainable deficiencies are corrected in your presence if on board





## Details of 18 deficiencies on 03/01/2011



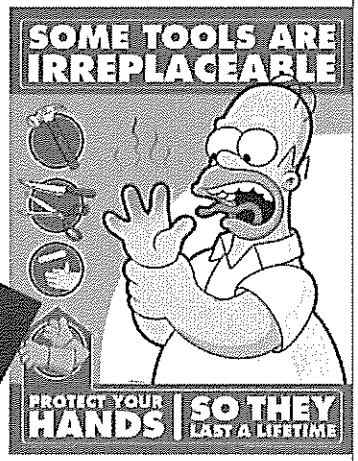
Examining the previous deficiency areas provides inputs into how ship operator handles corrective action. Recurring deficiencies in same area are indicators of poor safety management system.



## SHIPS UNDER MANAGEMENT

Guidance given to ship should provide LONG TERM SOLUTIONS and not short term quick fixes.

Action taken by Company will be seen by crew and external inspectors as indicator of company commitment to improvement.






## USING INFORMATION FROM PSC RECORDS

Place greater emphasis on the deficient areas during pre-take over inspection.



- ✓ What is the defect?
- ✓ Why is it prevalent?
- ✓ What repair is needed?
- ✓ What process change is needed to prevent recurrence?
- ✓ How much will it cost?

## EXERCISE 2

The next few slides show deficiencies noted by the Superintendent during the course of the inspection of a bulk carrier.

Examine their implication from Port State Control view point and identify the action to be taken to prevent the ship from being detained or delayed on account of these deficiencies.



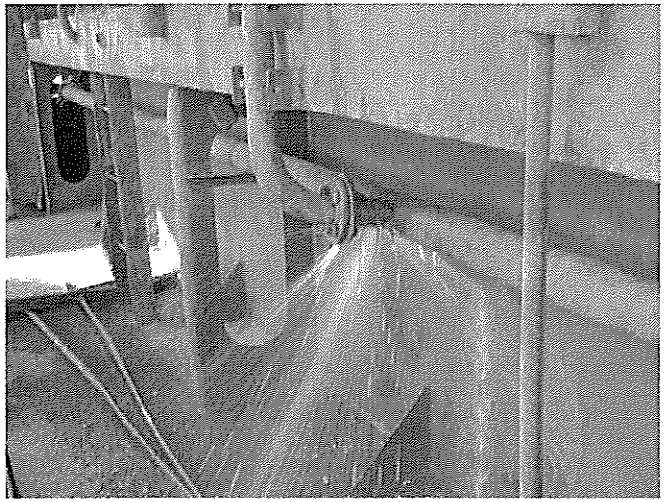
**Deficiency 1**

•Extensive corrosion on foremast ladder and fittings causing thinning down of metal and sharp edges



**Deficiency 2**

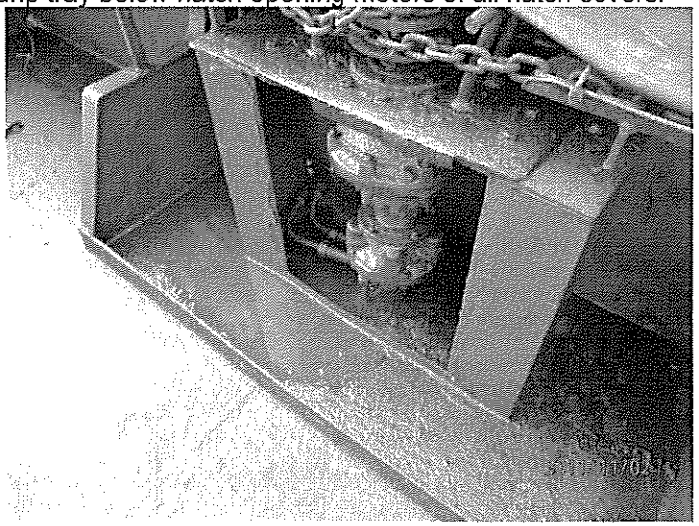
•Fire line leaking at a branch abreast #3 hold. Joint shows signs of cold repair.





**Deficiency 3**

•Oil collected in drip tray below hatch opening motors of all hatch covers.



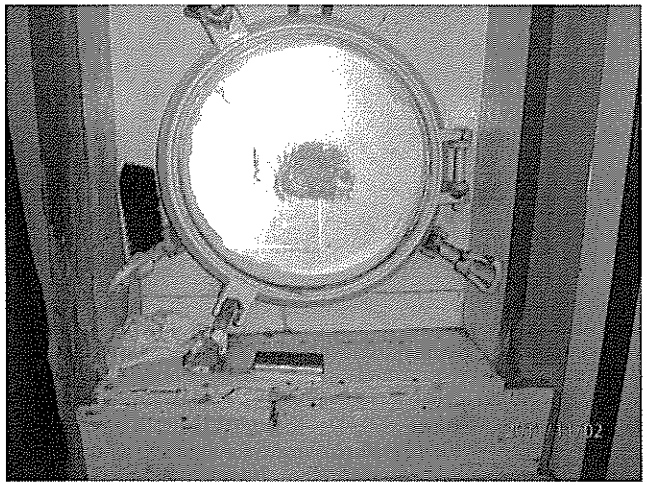
## Deficiency 6

•5 lights not working on main mast



## Deficiency 4

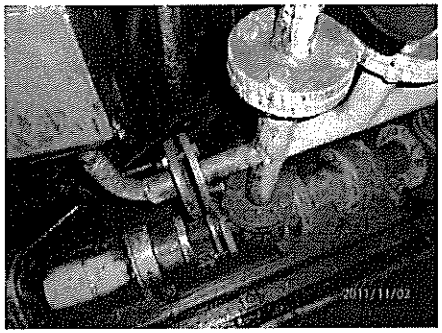
•Bulkhead paneling below the porthole is damaged from water ingress in most cabins

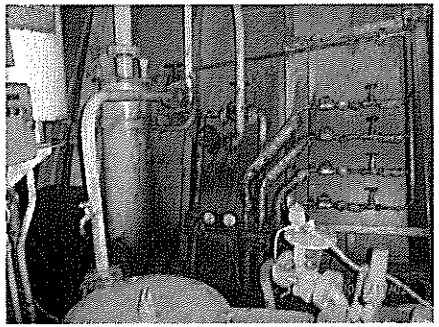




## Deficiency 7

•Engine Room bulkheads are dirty.
•There are oil stains on equipment.
•Drip trays and bilges have oil.







## Deficiency 5

•Clear view screen is removed from the bridge front and replaced by fixed glass.