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ABS



Guidance for Reducing Port State Detentions

Pre-Port Arrival Quick Reference



Our Mission

The mission of ABS is to serve the public interest as well as the needs of our members and clients by promoting the security of life and property and preserving the natural environment.



Pre-Port Arrival Quick Reference Guide

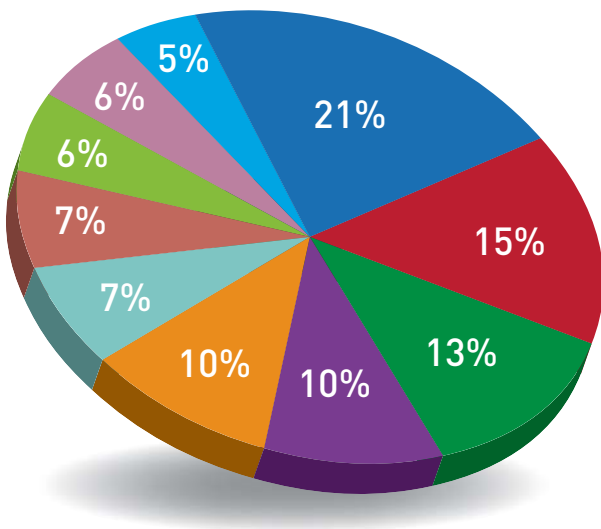
This quick reference guide is based on data gathered from ABS vessels that have been involved in Port State interventions or detentions.

The guide should be used by the vessel's crew prior to arrival into port. The categories and items identified in this guide are items that have been identified as top Port State detention items on board ABS classed vessels. This guide should be used in conjunction with the normal pre-port arrival and departure checks required by international regulations and in conjunction with on board routine maintenance programs.

If any of the items identified in this guide are not in good working condition, the crew should take appropriate steps to remedy the situation prior to arrival into port. The guide is organized according to major categories as well as items identified by Port State Control (PSC) as areas of concern. For each major category the top items have been identified for your easy reference.



Top 10 Major Categories of PSC Detentions



- Fire Safety Measures
- Safety of Navigation
- Lifesaving Appliances
- Propulsion & Auxiliary Machinery
- Stability, Structure & Related Equipment
- Ship's Certificates & Documents
- Load Line
- MARPOL Annex I
- SOLAS Operational Defects
- ISM-related Deficiencies

Period of analysis: 1 January 2011 to 31 December 2013

Top Port State Control Detention Issues & Items on Board ABS Classed Vessels

Tokyo & Paris MOU Codes	IMO Code	Top PSC Categories	Number of Deficiencies Found 2011 to 2013
07	0700	Fire Safety Measures	405
13	1400	Propulsion & Auxiliary Machinery	201
11	0600	Lifesaving Appliances	251
10	1500	Safety of Navigation	296
02	0900	Stability, Structure & Related Equipment	194
141	1700	MARPOL Annex I	125
011	0100	Ship's Certificates & Documents	126
03	1200	Load Line	126
15	2500	ISM-related Deficiencies	98
17102	2000	SOLAS Operational Defects	114

Top Port State Control Detention Issues & Items on Board ABS Classed Vessels

Tokyo & Paris MOU Codes	IMO Code	Top PSC Categories
04103	0945	Emergency Lighting, Batteries & Switches
13107	1499	Other (Machinery)
11101	0610	Lifeboats
13102	1430	Auxiliary Engine
10116	1570	Nautical Publications
10111	1560	Charts
07115	0743	Fire Dampers
07109	0725	Fixed Fire Extinguishing Installation
07119	0799	Other (Fire Safety)
04103	0730	Fire Equipment & Appliances

Master's Office – Certificates & Documentation

Port State Control officers typically begin inspections in the Master's office to confirm that the vessel and crew have all of the appropriate certificates and documents in accordance with applicable international and local requirements. The following items should be verified as a minimum prior to the vessel entering port:

> Certificates

- Certificates and documents should be available on board, current and valid, and properly endorsed.
- The vessel's Master should review the information to confirm that the agent has returned the original certificates.
- Servicing certificates for firefighting and lifesaving equipment should be up-to-date and available.

> STCW

- The vessel's crew members are adequately trained and have the appropriate training certification. Many flag Administrations may require certificates to be issued by the vessel's flag State.

> ISM & ISPS Codes

- The vessel's Master has a firm knowledge of the vessel's Safety Management System as well as the International Ship and Port Facility Security (ISPS) Code.
- Proper on board maintenance and drills are carried out and documented in the vessel's log book as required by the ISM and ISPS Codes.

➤ ILO Maritime Labour Convention

- Master is familiar with the national requirements and company's measures ensuring compliance with the requirements of the Convention relative to seafarers' working and living conditions onboard.
- Periodic inspections are carried out and documented for accommodation, food and drinking water, all spaces and equipment used for storage and handling of food, including galley areas.

➤ Manuals

- The appropriate manuals and booklets are on board and up-to-date as applicable including:
 - Training manuals
 - Trim and stability booklet
 - Loading manual
 - Cargo securing manual
 - Survey planning document (including enhanced survey report files)
 - Shipboard oil pollution emergency plan (SOPEP)
 - Grain loading manual
 - Damage control plan
 - Loading instrument book
 - Coating technical file
 - Emergency towing procedure
 - Garbage and Oil Record Book
 - Applicable maintenance manuals



➤ Safety of Navigation – Bridge

- **Nautical Publications**

- The latest publications are on board for ready reference such as IMO publications and flag Administration regulations.

- **Charts**

- Charts, including tide tables, are up to date. The Notice to Mariners is properly logged. Electronic charts should display the information systems.

- **Lights, Shapes & Sound Signals**

- The list of lights, international code of signals and illustrated table of lifesaving signals is legible and the signaling lamp is in good working condition.

- **Magnetic & Gyro Compasses**

- The magnetic compass is adjusted for proper working condition and the deviation card has been updated.
- The gyro compass is operational and the error book is maintained.



• GMDSS, EPIRB & AIS

- Radio equipment is in good working order and is serviced and tested by a recognized radio technician.
- EPIRB is in proper working condition, programmed correctly and the battery expiration date is displayed within the window.
- The vessel's automatic identification system (AIS) is properly programmed and operational.
- VDR annual performance test certificate is on board.
- LRIT is in working condition and the test report is available.

• Radar Transponder

- The radar transponder is located in the proper location, operationally tested and the expiration date of batteries is confirmed.

• Radars & Echo Sounder

- Radars and echo sounder are in proper working condition.

➤ Fire Safety Measures

- **Main & Emergency Fire Pumps**

- The main and emergency fire pumps are to be in proper working condition – gauges operational, priming pump functioning, remote starting is operational (if applicable) and pumps are capable of taking sea suction and maintaining the proper line pressure.
- Operating instructions are posted in plain view.

- **Fire Dampers & Doors**

- The fire dampers are in good working condition and recently examined internally and externally.
- Damper flaps are structurally sound with no edge wastage.
- The external ventilation trunk is marked to show damper flap position – OPEN or CLOSE.
- The location of fire dampers can be found on the fire control plan.
- Louver type dampers tested to ensure louver contact and function.



- **Firefighting Equipment**

- The fire, smoke and heat detectors have been tested for proper operation.
- Fire stations have the appropriate equipment secured properly.
- Fire hoses are not leaking and have been checked for dry rot and usability.
- Fire main is in good condition and does not have patches or holes.
- Isolation and relief valves are working properly.
- Portable and fixed firefighting systems have been serviced as required and extinguishers are properly marked with date of servicing.
- Fixed firefighting systems have been serviced and do not have any loose hoses, and the system has been reactivated.
- Servicing documentation is with the vessel's Master.
- Fire line isolating valve between the engine room (ER) and deck has been tested and is working properly.

- **Fire Control Plans**

- Fire control plans are up to date with appropriate IMO markings.
- Emergency control stations are clean and equipped with applicable safety equipment.
- Remote and quick closing devices are in good operating order.





➤ Lifesaving Appliances

• Lifeboats

- The lifeboat structure (hull integrity, seats/thwarts, flooring, releasing hook connections to the boat, releasing gear, tiller/gudgeons) has been checked for proper maintenance with no wastage or rot.
- The engine is in good working condition and has been operationally tested.
- The lifeboat equipment has been checked for proper quantity, expiration date and condition.
- Lifeboats have been lowered as per schedule and released from hooks to confirm release mechanisms.

• Lifeboat & Liferaft Davits

- Davits are in good working condition and have been operationally tested.
- Davits should be checked for wastage, proper hoisting/lowering and braking function.
- Sheaves and loose gear are not worn.
- Wires have been serviced and changed out as necessary.
- Limit switches and winches have been tested.
- Launching instructions are clearly posted.

- **Emergency Power**

- The emergency generator has been operationally tested and is capable of coming online automatically within 45 seconds.
- Emergency lighting is operationally tested.
- A transitional source of power (as applicable) and emergency power batteries have been checked for proper operation.

- **Liferafts**

- Liferafts have been serviced by an approved servicing company.
- Proper servicing certificates are on board for reference by the Port State Control officer.
- Liferafts are properly secured. Launching arrangements are in good condition (as applicable) with no obstructions for float-free operation.

- **Lifesaving Equipment**

- The following equipment has been properly serviced and labeled as applicable:
 - Lifejackets with lights and whistles – the correct number and location are clearly shown on the safety plan
 - Lifebuoys – the correct number is identified by type with line, light or smoke as applicable
 - The correct number and type and all pyrotechnics have been checked for expiration date
 - Line throwing apparatus

➤ Deck & Accommodation Requirements

- **Decks**

- Excessive corrosion, cracking, buckling – if found should be reported to the local ABS office as soon as possible. It's for your safety.

- **Hatch Covers & Weathertight Closing Appliances**

- Hatch covers and weathertight closing appliances are in proper working condition and have been checked for missing or damaged gaskets, cleats, wedges and securing devices.
- Weathertight doors and hatches are tight and properly fitted.

- **Air Pipes & Ventilators**

- Air pipes and closure devices are checked for wastage.
- Closure devices have been opened and the flame screen checked.
- Air pipes have been hammer tested to confirm soundness of piping and attachment to the deck.

- **Accommodations**

- Crew accommodations – quarters, heads, bathing facilities and galley – are clean and operating properly.
- Accommodation air conditioning and heating is in working condition.
- The galley is clean, functional and free of insects and rodents, and the range hoods are clean, free of excess grease and the fire extinguishing system is functional.

➤ Machinery Spaces

- Cleanliness

- Excess oil leaks from engines, bilges, containment areas and FO/LO processing areas have been cleaned. The sources of any excessive oil leaks have been rectified
- Tools and equipment are stored properly and emergency exits are clear.
- Repair damaged lighting and/or replace burned bulbs.
- Fire hydrants and hose stations are clean and in good working order.

- MARPOL Annex IV

- Sewage treatment plant is operational and shore connections are in good working order.

- Main Propulsion Engine

- Components of the main propulsion engine are working correctly.
- The emergency control station and engine side station are operating correctly.
- Validate that emergency procedures can be carried out as applicable.
- MARPOL Annex VI, the Engine International Air Pollution Prevention (EIAPP) certificates and technical files for each engine should be available. The record book of the engine parameters should be updated by the Chief Engineer as applicable.





- **Auxiliary Engines & Equipment**

- Generators and attachments have been tested to see that gauges, emergency shut downs, automatic changeovers and quick closing valves are operating properly.
- MARPOL Annex VI, the EIAPP certificates and technical files for each engine should be available. The record book of the engine parameters should be updated by the Chief Engineer as applicable.

- **Oily Water Separator Equipment**

- Check to see that oily water separator equipment and 15 ppm alarm have been operationally tested including automatic stopping devices, alarms, piping systems and gauges, and found properly functioning.
- Confirm that no unauthorized piping or electrical modifications have been made.
- Verify that the Oil Record Book has been filled out correctly and signed by the Chief Engineer, as per MARPOL Annex I.

- **High Pressure Fuel Lines**

- High pressure fuel lines are jacketed and spray shields in place as required.

- **Steering Gear**

- The main and emergency steering gear has been tested and is functioning properly.

Reducing ISM-related Port State Detentions

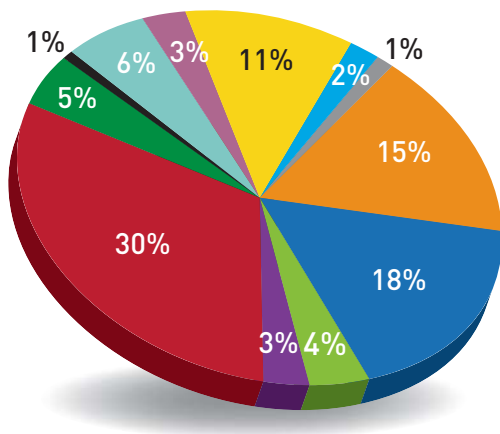
The data and statistics used in this quick reference guide have been derived from ISM-related deficiencies written during Port State interventions and detentions.

Detailed analysis of PSC findings has been carried out to identify the most common and recurring nonconformities, deficiencies and weaknesses. These have been listed against each element of the ISM Code and are designed to serve as leading indicators of an effective implementation of ISM Code requirements.

The guide has been designed primarily for use on board ships to quickly validate the health of the company's safety management system (SMS) at any given time. It can be used as an effective tool to prepare the vessel for PSC inspections, external or internal audits and to check the effective implementation of the ISM Code on a routine basis.

If any of the common nonconformities listed in this guide are identified on board, immediate corrective actions are recommended to be taken by the crew to rectify them directly. A record of any actions taken should be maintained to serve as evidence that the 'system' is effective and functioning correctly until the root cause of any deficiencies have been identified and addressed.

PSC ISM Related Deficiencies



- ISM Element 2
Safety & Environmental Protection Policy
- ISM Element 3
Company Responsibilities & Authority
- ISM Element 4
Designated Person(s)
- ISM Element 5
Master's Responsibility & Authority
- ISM Element 6
Resources & Personnel
- ISM Element 7
Shipboard Operations
- ISM Element 8
Emergency Preparedness
- ISM Element 9
Reports & Analysis of Nonconformities, Accidents
& Hazardous Occurrences
- ISM Element 10
Maintenance of the Ship & Equipment
- ISM Element 11
Documentation
- ISM Element 12
Company Verification, Review & Evaluation
- Other

Period of analysis: 1 January 2011 to 31 December 2013

➤ Element 2:

Safety & Environmental Protection Policy

A Safety and Environmental Protection (SEP) policy, understood and supported by the crew, provides strong evidence of an overall effective implementation of the company's SMS.

Verify that:

- ☐ The SEP policy statement is signed off by senior management
- ☐ The policy is properly controlled and the latest revision is in use
- ☐ The policy posters are displayed at prominent locations
- ☐ Crew members are able to demonstrate a satisfactory level of awareness of the SEP policy
- ☐ Safety and environmental objectives and targets established in the SMS are consistent with those contained in the policy statement
- ☐ On board procedures and practices support and contribute to the successful achievement of objectives and targets established by the company





➤ Element 3:

Company Responsibilities & Authority

The provision of support, allocation of resources and overall commitment of the company is vital for the effective implementation of the SMS on board the vessel.

Verify that:

- ☐ Responsibility, authority and lines of reporting of key personnel are clearly defined and documented
- ☐ Crew personnel are able to demonstrate a satisfactory level of awareness of their duties and responsibilities as detailed in the SMS
- ☐ If day-to-day operations of the vessel have been delegated to a management company, evidence of this delegation is available
- ☐ Requisitions for supply of stores, spares and requests for repairs are being followed up by the shore-based management in a timely manner
- ☐ There is evidence of follow up action and monitoring by shore-based management over documented and reported outstanding nonconformities and deficiencies

➤ Element 4:

Designated Person

As the custodian of the SMS, the ISM Code places a special responsibility on the designated person ashore (DPA). The nominated person must hold the relevant qualification and experience and demonstrate the commitment required by the position.

Verify that:

- ☐ Identity and contact details of the DPA have been reported to the flag Administration, if required
- ☐ DPA has direct access to the top company management
- ☐ Qualifications, experience and training of the DPA meets the IMO guidance contained in the Annex to MSC-MEPC.7/Circ.6
- ☐ Crew are aware of the identity and contact details of the DPA
- ☐ There is evidence to show that the DPA is engaged in monitoring the safety and pollution prevention aspects of all vessel operations



➤ Element 5:

Master's Responsibility & Authority

The Master has the responsibility to ensure that the requirements specified in the company's SMS are being observed. To this end, the Master needs to be completely familiar with the SMS and be given the necessary support and overriding authority to take decisions relating to safety and pollution prevention.

Verify that:

- ☐ Master is able to demonstrate his familiarity with his role and responsibility under the ISM Code
- ☐ SMS contains a clear statement giving the Master overriding authority to take decisions relating to safety and pollution prevention and to ask for assistance from the company when needed
- ☐ Master is aware where this overriding authority is documented and is able to explain the intent of this provision
- ☐ Master's review of the SMS has been carried out as specified in the SMS and that it is effective
- ☐ Master's standing and night orders are current and in accordance with SMS
- ☐ Master is verifying that his crew is observing the procedures and processes specified in the company's SMS

➤ Element 6:

Resources & Personnel

The SMS must ensure that all personnel including the crew are competent, properly qualified, medically fit and given the proper training and familiarization to safely and efficiently perform their assigned responsibilities.

Verify that:

- ☐ Crew on board meet or exceed the minimum safe manning criteria established by the flag Administration, and the vessel is appropriately manned in order to maintain safe operations on board under all conditions
- ☐ Officers and ratings hold valid certificates and endorsements as per the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW)
- ☐ All crew hold valid medical fitness certificates





- ☐ The Master is fully conversant with the company's SMS
- ☐ Safety induction, shipboard familiarization and safety training of crew have been carried out as per the SMS
- ☐ Crew members are able to effectively communicate as a team in the execution of their duties
- ☐ Crew members are able to demonstrate their familiarity with the SMS commensurate to their roles and responsibilities
- ☐ Shipboard officers are familiar with relevant rules and regulations covered by the SMS
- ☐ Company and ship security officers are qualified and hold valid certificates as required by the Administration
- ☐ Watchkeeping schedules have been established and a record of hours of rest is being maintained as per the STCW

➤ Element 7:

Shipboard Operations

Key shipboard operations that can affect safety and pollution prevention must be backed by documented procedures with responsibilities assigned to qualified personnel.

Verify that:

- ☐ The SMS contains documented procedures for key shipboard operations
- ☐ Roles and responsibilities have been clearly assigned to qualified personnel who are able to demonstrate their familiarity with assigned tasks
- ☐ Voyage passage planning is carried out from berth to berth
- ☐ Navigational charts and publications for the intended passage are available on board and have been updated to the latest notices to mariners
- ☐ Ship stability and stress calculations for different stages of the voyage are being carried out





- ☐ Bridge and engine room checklists (arrival, departure, testing controls, watchkeeping, etc.) are being followed
- ☐ Permit to work (hot work, entry into enclosed spaces, working aloft, lock out-tag out) procedures are being complied with
- ☐ Suitable personnel protective equipment is being used by the crew
- ☐ Bunker and fuel transfer procedures are complied with
- ☐ Procedures for operations with low sulfur fuel oil are being followed – as applicable
- ☐ The ballast water exchange plan is complied with as per regulations
- ☐ The waste management plan is properly implemented
- ☐ A safe means of embarkation and disembarkation is available
- ☐ An efficient gangway watch is maintained and access to the vessel is controlled

➤ Element 8:

Emergency Preparedness

The company should identify all potential emergency situations that can affect its fleet; develop contingency plans to mitigate adverse impact of emergencies; periodically test the contingency plans to validate their effectiveness; and train and familiarize the crew.

Verify that:

- ☐ Crew emergency response plans and muster lists are current and up to date
- ☐ Personnel are familiar with their muster stations and assigned duties
- ☐ Contingency plans for potential emergency situations are available
- ☐ Drills as required by SOLAS and as per the company's SMS have been carried out
- ☐ Emergency exercises with the shore-based emergency response team have been carried out as required by the SMS
- ☐ Post-drill analysis to identify weaknesses and lessons learned is carried out for continuous improvement
- ☐ Personnel are able to satisfactorily demonstrate emergency drills
- ☐ Emergency contact information for the shore-based emergency response team is updated and kept current
- ☐ All safety equipment is readily available and adequately maintained
- ☐ Fire control plans are up to date and current
- ☐ Means of escape and access are not obstructed



➤ Element 9:

Reports & Analyses of Nonconformities, Accidents & Hazardous Occurrences

Accidents, incidents, near misses and nonconformities must be reported and analyzed to determine the root cause. Appropriate timely corrective actions must be taken to prevent recurrence. Data collected is to be used for trending and continuous improvement.

Verify that:

- ☐ All accidents, incidents, injuries and near misses are being reported
- ☐ Accidents, incidents, injuries and near misses are being recorded and investigated to determine the root cause
- ☐ Timely corrective and preventive action is being taken and records maintained
- ☐ Reported accidents and incidents are being closed out in a timely manner after verification of effectiveness of action taken
- ☐ Follow-up actions and monitoring by shore-based management of reported cases and actions taken is evident
- ☐ Following a PSC detention, corrective action taken by the ship must not be limited to the PSC deficiencies. Action has been taken to identify and resolve other similar deficiencies existing on board.

➤ Element 10:

Maintenance of Ship & Equipment

This element addresses areas in the SMS where the highest percentage of nonconformities and deficiencies are identified. Nearly 30% of all PSC ISM-related deficiencies relate to inadequate maintenance. A vast majority of detainable PSC ISM deficiencies (Code 30) relate to maintenance of ship and equipment.

Verify that:

- ☐ The vessel is clean, tidy, habitable and well illuminated
- ☐ There is no evidence of excessive corrosion and/or wastage on exposed decks and fittings
- ☐ The ship has implemented and is maintaining an effective a planned and/or preventive maintenance system (PPMS)
- ☐ PPMS is up to date with minimum overdue maintenance items
- ☐ Inspection of the vessel is carried out as established in the SMS and identified defects are being dealt with
- ☐ All class, statutory and other required trading certificates are valid and up to date





- ☐ No unauthorized repairs, modifications or alterations have been carried out
- ☐ Machinery and hull defects including breakdowns have been reported to the company
- ☐ Reported defects are being monitored by the company and timely corrective action is being implemented to rectify them
- ☐ There is no accumulation of oily water residues in the machinery space bilges or on the tank tops
- ☐ Air pipes, sounding pipes, ventilators and closing appliances are properly maintained and are fully operational.
- ☐ Lifeboat/rescue boat lowering winch/davits are being maintained/serviced and are in good operational condition
- ☐ Critical and standby equipment and systems have been identified and routine testing is being carried out
- ☐ A sufficient stock of spares and stores is available on board as required by the SMS
- ☐ Records of maintenance and test activities are available

➤ Element 11:

Documentation

All documentation relating to the SMS must be controlled and available at all relevant locations to ensure safe and pollution-free operations.

Verify that:

- ☐ All class, statutory and other applicable trading certificates relevant to the ship are available
- ☐ The latest revisions of the SMS manuals, procedures and records are readily available at relevant locations
- ☐ The latest editions of publications required by the vessel's flag Administration are available
- ☐ A copy of the company's ISM Document of Compliance with the latest endorsement is available
- ☐ Deck, engine, GMDSS and other applicable official log books are maintained and up to date
- ☐ The correct format of the Oil Record Book is in use on board and kept up to date



➤ Element 12:

Company Verification, Review & Evaluation

The company must ensure that the SMS is effectively implemented and fosters continuous improvement through a system of internal audits and management reviews.

Verify that:

- ☐ Internal audits have been carried out at intervals not exceeding 12 months by auditors who are independent of areas audited
- ☐ External audits have been carried out as required by the ISM Code
- ☐ Audit reports are available on board
- ☐ Audit findings are being tracked to closure
- ☐ Timely corrective action has been taken to close out audit findings
- ☐ Shore-based management is monitoring and providing the necessary support in implementation of corrective actions
- ☐ The company has developed and implemented a procedure for risk assessments
- ☐ Periodic verification has been performed to confirm that individuals undertaking delegated ISM-related tasks are acting in conformity with the company's responsibilities under the Code
- ☐ Appropriate safeguards have been established against all identified risks to the ship, personnel and the environment
- ☐ Management reviews to verify the effectiveness of the SMS are being carried out and records are available

International Ship & Port Facility Security (ISPS) Code

PSC detentions resulting from ISPS-related deficiencies are on the rise. To prevent these, vessels must implement the security measures as per the approved ship security plan. Access to the ship must be controlled through an efficient system of gangway watchmen, visitor identification and checking of personal belongings.

Restricted areas must be identified and access to these compartments controlled. The ship security officer and crew should be familiar with the security procedures and their individual security duties. Stores, spares and provisions should be liable to search as required. All security equipment must be in good operational condition. Drills and exercises must be carried out and recorded as required by the SSP.





ILO Maritime Labour Convention (MLC, 2006)

The ILO MLC Convention entered into force on 20 August 2013. This Convention addresses the working and living conditions of the seafarers on board. General areas that are subject to a detailed inspection by a PSC officer are:

- Minimum age
- Medical certification
- Qualifications of seafarers
- Seafarers' employment agreements
- Use of any licensed or certified or regulated private recruitment and placement service
- Hours of work or rest
- Manning levels for the ship
- Accommodation
- On board recreational facilities
- Food and catering
- Health and safety and accident prevention
- On board medical care
- On board complaint procedures
- Payment of wages

If Your Ship is Detained

Owners and representatives are to notify ABS when a vessel is being detained by a Port State Authority or flag Administration. If the owner does not notify ABS of a detention, then ABS reserves the right to suspend or cancel classification of the vessel or invalidate the applicable statutory certificates. ABS can assist the owner and/or Master with clearing the vessel from Port State detention.



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An ABS office directory can be also found at www.eagle.org.

