

CCS Technical Information

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To: All Shipping Companies, Related Departments of CCS, CCS Surveyors and Auditors

Notice on Conducting Pre-PSC Inspection to Ships Scheduling to Call at European Ports

All shipping companies,

To enable a better and smooth pre-PSC inspection for owners of ships entering European ports so as to pass the formal inspection successfully, the European Center of this society has made, based on years' experiences in accompanying PSCOs to conduct PSC inspection in Paris MOU area, a summary of frequently occurred deficiencies and major check points during Paris MOU PSC inspections, and request all shipping companies to pay attention to the implementation during daily works.

For more details, please refer to the annex to this Information.

It is recommended that shipping companies give their attentions and take necessary measures accordingly.

This Technical Information is published on CCS website (www.ccs.org.cn) and is to be forwarded by CCS branches to related Ship Management Companies in relevance to their business area.

It is hereby notified!

Classed Ship in Services Department of CCS

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A. Inspection Overview

At present, there are about 20,000 inspections conducted to ships each year by Paris MOU, among which Spain, Italy, the Netherlands, Great Britain and France are the top several member States carrying out inspections. According to statistics of the recent decade, the detention rate of ships inspected in Paris MOU area is between 3.28% and 7.98%, and has continued to be maintained at a comparatively higher level for several years. Starting from the implementation of NIR, the number of ships that had been rejected to enter ports have increased progressively year by year. In accordance with Paris MOU's statistic data, regions with higher detention rates have already shifted from traditional Holland and Germany to Southern European regions such as Spain and Italy.

B. Major PSC inspection check points

Verification of ship certification documents

Review of certification documents is basically the first thing to do after an inspector boarding on a ship, and a good first impression can be left with the inspector by being able to provide such documents in a quick and accurate manner. Otherwise, it may lead to the more detailed inspection. On the Paris MOU list of deficiencies, deficiencies raised with regard to certification documents are around 15%, reflecting the focus and meticulousness on this aspect of PSCOs from the area. In addition to conventional certification documents, the following documentation materials shall be reviewed on a mandatory basis by the PSCOs, and thus special attention shall be given to:

- 1) Records of Oil Record Book and Garbage Record Book; (whether requirements of the Convention are met)
- 2) Approved sheet for rate of discharge of sewage;
- 3) Diesel engine NOX technical documents and records of parameters inspection;
- 4) Bunkering records of low sulfur fuel;
- 5) ESP documents applicable to ships (including survey plans, thickness measurement reports, condition evaluation reports, etc.);
- 6) Loading Manual, Stability Information, Loading Instrument Operation Manual as well as their approval documents;
(PSCOs may even choose one or two operating mode(s) for comparison)
- 7) Damage stability information for oil tankers;
- 8) For bulk carriers, it is also required for ship masters to provide the recent two cargo loading lists for review when registering CBC details;
- 9) Overhaul reports of rescuing boats and rafts;
(Special attention shall be given to recent 5 years' overhaul reports, davit load tests and hook release tests under loads as well as power brake tests)

- 10) Muster list; (updates after crew replacement)
- 11) Latest maritime notices; (normally less than a month, and deficiency is less likely to be raised)
- 12) Maintenance plans and relevant records required under ISM;
(There are frequent complaints made by PSCOs about the fact that records are kept not in English such as Chinese; although this will not lead to a deficiency, it certainly will affect the inspector's mood)
- 13) Record book of seafarers' hours of work and rest; (it should be noted that consistency with the official log book and other operation records should be kept)

Major check points in site inspection

1. Fire Safety

For the past several years, deficiencies on fire safety have always been one of the major aspects with the highest deficiency rate during inspections in Paris MOU area, and therefore adequate attention shall be given. PSCOs also pay more and more attention to the details of fire safety drills, and focus to a considerable extent on inspection of practical operation capability and effects of usual drills. They will often simulate a real fire scenario and request the crew members to perform a fire drill. It shall be noted that a drill must be carried out with correct sequences: identify a fire - alarm - shut down ventilation/fire damper board - assemble crew -give instructions -wear fire safety outfits - detect fire - extinguish fire according to fire detection results.

Inspector will sometimes designate a crew member with bigger physique at random to locate according to IMO signs the fireman's outfits and get them suited correctly. In such cases, attention shall be paid to the adjustment of the breathing device. While verifying seafarers' proficiency level, PSCOs will also carry out inspections on status of the outfit itself.

During inspection of emergence fire pumps, it is often required that water shall run out of two fire hoses, and meanwhile, inspections will also be carried out to fire hoses, fire pipe status, working condition of emergence fire pumps and outlet pressure. Main fire pipe stop valves and distributing valves of emergence fire pumps shall be checked to see if there are rusty and inflexible situations. Attention shall be given to the tightness of fire doors, and PSCOs will check to see if door frames are deformed and self-closing devices are functioning well. Overall inspection and self inspection shall be made to the fire detection system, and tests are to be carried out on randomly selected probes. Inspections will be conducted to EEBD and its cylinder pressure, and sometimes, PSCOs will take such opportunities to verify the numbers and storage locations of fire control plans. Attention will also be given to the shutters of engine room funnels as well as the effective close, either at site or remotely, of ventilator fire dampers. Some aged ships are often raised with deficiencies as their shutters cannot be closed completely.

2. Life saving appliances

Same as fire drill, abandon ship drill is also a “must-be-inspected” item during Paris MOU inspection. Major check points for abandon ship drills are listed as below:

The crew members should be familiar with emergency signals, crew number counting, life jacket, wearing of life jacket, life rescuing communicating equipment to be carried during abandon ship as well as lifeboat launching operations.

PSCOs will also request at least one life boat to be launched and one winch to be started. It will take a long time to inspect the rescuing boats and rafts, and the following aspects require special attention:

- 1) Conditions of the revolution counter of the boat engine;
- 2) Emergency lighting and overboard lighting at the embarkation deck (it is to be noted that life boat launching instructions shall be posted at a location under the emergency lighting, and it is necessary to check if the embarkation lighting of old boats are still in good condition and can be fastened effectively to the desired locations);
- 3) Automatic close device for bottom valves of the boats (floating ball);
- 4) Corrosion conditions of the hook end (it will required to open the cover lid within the lifeboat for a thorough inspection);
- 5) Aging conditions of the glasses at the riding position of the lifeboat;
- 6) Maintenance of the two boat batteries
- 7) Storage of life rafts and connection of hydrostatic release unit (it is required that two rescue rafts stacked together shall not interfere with each other and can be released separately. When two life rafts are stacked together, it is likely to be raised with a deficiency);
- 8) Corrosion conditions of the gear box casing of life raft davit release unit;
- 9) PSCOs will often inspect the equipment and status of boat according to requirements of the Convention and records of the third mate;
- 10) Sometimes lifeboat will be required to be lowered into water and operated forwards and backwards for a while;
- 11) Attention will also be given to status of the embarkation rope ladders as well as the corrosion status of deck rings.

Additional life rafts at the bow. Inspections will be carried out to emergency lighting of the storage locations and their embarkation facilities. It is to be noted with special attention that the embarkation facility shall not be ropes with knots, and there shall be devices on board to fasten the embarkation facilities.

3. Hull structure

Comparing with other MOUs, Paris MOU gives special attention to ESP documents and the hull structure integrity of bulk carriers and tankers involved:

- 1) For bulk carriers, generally attention will be given to the status of cargo holds, hatch covers and hatch coamings, especially whether there is severe corrosion

or deformation which may affect the water tightness. For the structure status of hatch coaming brackets, hatch cover of the cargo hold and the hatch coaming plate shall be free of cracks, holes, severe corrosion or deformation, and the closing appliances shall be complete. The clamping devices shall be kept in a good condition. The effective anti-slip positioning devices under open status shall also be noted.

- 2) Attention will be given to small hatch covers, ventilators and corrosion status of the covers of air pipe heads, and further inspection will be made to suspect areas by using a test hammer.
- 3) Inspections will be carried out to the bulkhead structure of deckhouses, especially the corrosion status at their upper and lower edges, adjoining parts with other structures as well as connection areas with the drain channel.
- 4) Attention will be given to the corrosion at the bottom of deck oil trays and the sealing status through the pipes.
- 5) Attention will be given to whether there is any temporary banding on the deck pipelines. For any unauthorized temporary actions such as applying paints after banding epoxy adhesive tapes, PSCOs will feel a strong antipathy and often give a quite negative judgment leading to ISM deficiencies.
- 6) Inspections will also be focused on special ladders and stairways, such as pilot ladder, boarding ladders of compass deck as well as boarding ladder of the mast.

4. Engine room inspection and emergency equipment

Paris MOU PSCOs follow a very high standard for the cleanness of engine rooms, and observations such as too much bilge water, oil stains on the surface of machines, frequent occurrences of spilling, dribbling and leaking, will be deemed as risks of fire disaster and oil pollution, which may lead to detentions if they are of a severe level.

If too many small deficiencies are identified within the engine room, such as water leakage of pump packing, hand wheel of valves lost, glass of level meters aged or oil stains affecting readings, gauges not accurate and lack of effective calibration, foundations of mechanical machinery corroded universally and etc., it will also be deemed that the ISM is not under effective running, and the inspector will take a further step to review engineering log-books and records of fault accidents, and to require the machines to be tested. In this case, there will be often quite a lot of tests required, for example, in addition to operation with available loads on board and parallel operation, some more tests on protection measures will be carried out to the auxiliary engines, such as reverse power protection, over speed protection and etc.

Steering gear and emergency steering gear are also frequently inspected items for Paris MOU. On the basis of ensuring steering gear performance and crew members' proficiency in operating emergency steering gear, attention shall also be paid to the communication facilities, compass repeater and instructions of emergency steering gear within the steering gear room, as well as leakage of steering gear, flammable materials within the steering gear room, and other necessary materials that need to be fastened securely.

PSCOs from port States such as Spain and Italy often adopt a black-out method (which is also the recommended method under Paris MOU Guidelines) to test the automatic start of the emergency generator as well as the emergency lighting on board the whole ship, with attention especially given to the emergency lighting at engine room escape routes and muster stations of rescuing boats and rafts.

5. Pollution prevention equipment

Oily water separator is the one must be inspected for each vessel. All deficiencies of functional tests, 15 ppm alarm as well as automatic stop devices will basically lead to the detention. PSCOs from Germany and the Netherlands are also concerned about whether the piping layout meet the requirements of the Convention and its amendments, whether the actual ship arrangement is in compliance with drawings, as well as whether there is any unauthorized modification, and if there is any doubt, they will request a disassembly inspection to verify if there is any unauthorized illegal discharge. (Re-circulating piping)

As requirements of European directives, the Netherlands and Germany follow a stricter control on the standard of fuel uses on board ships. In addition to inspections on bunkering lists, fuel replacement procedures and records, samples will be taken for test from the service tank of auxiliary engines if there is any doubt.

6. Safety of Navigation /radio equipment

- 1) Nautical charts will be inspected in a very careful manner. PSCOs will not only check if the latest charts are used on board and if they are timely revised, but also review the actual plotting of the routes in the charts carefully, and implementation of the requirements such as Sailing Direction during the voyage will also be inspected while spot checking the charts.
- 2) Attention will be given to VDR interface, Radar/AIS data import as well as crew members' proficiency in using VDR;
- 3) Attention will be given to the switch of GMDSS main power and emergency power supply. PSCOs will check if the self-inspection records are complete, and will also request the crew to carry out a real operation, for example, using VHF to call shore stations.
- 4) PSCOs will directly open the compass for inspection at the compass deck with attention given to the bubbles on the surface and the emergency lighting of the compass, and also verify deviation correction of the compass;
- 5) Print devices of the echo sounder;
- 6) Attention will be given to the corrosion of signal light seatings.

7. Seafarers' living and working conditions

Paris MOU has always carried out inspections according to requirements on seafarers' living and working conditions under applicable ILO conventions (174 & 180), STCW Convention and ISM Code, maintaining a relatively high inspection intensity. Among the numbers of raised deficiencies published by Paris MOU, deficiency of this category has ranked third with a deficiency rate of

10.27% over recent years. Major inspection points and items that have been frequently raised with deficiencies include:

- 1) Sanitation and equipment at crew members' accommodation, and water supply and discharge in the toilets;
- 2) Inspection of oil fume concentration around the kitchen ventilator in the galley, with an actual test of the fire damper on the air vent pipe;
- 3) Provision and condition of vegetables, whether they are stored on shelves (on some ships, indications of decay are often found with vegetables, and the quantity of vegetables is not adequate);
- 4) Inspection of reefer space / storage room temperature;
- 5) Call alarm system of the reefer space;
- 6) Inspection of hospital accommodation and verification of first aid medicines on board;
- 7) Record forms of crew watch keeping and rest required by ILO 180.

With MLC 2006's entry into force, Paris MOU will certainly strengthen its inspection on this aspect.

The inspector's first impression to a ship is very important, because the inspection system adopted by Paris MOU is a progressive system, and for most ships, the scope of inspection will only be expanded under clear grounds. Therefore, a ship will successfully pass the inspection if there are not corruptions found as a universal problem, the deck and living areas are clean and neat, and the engine room areas are to the most possible degree free of oily water. Here below is a summary of Paris MOU inspection features:

- 1) Capability of language communication, including the communications with PSCOs, relevant business parties as well as between crew members, is very important in the inspector's point of view;
- 2) Documentation materials and fire safety safety are the major items with higher deficiency rate within this area, and thus special attention shall be given;
- 3) Focus on crew members' business and real operation capabilities as well as the effectiveness of usual drills and trainings;
- 4) More attention has been given to labor protection and human-related elements, with a relatively high standard maintained.
- 5) Focus on the structure integrity of ESP vessels (bulk carriers and tankers).

We hope that the above mentioned content can be of any assistance to all shipping companies. However, it does not necessarily mean that successful pass of PSC inspection will be guaranteed by giving attention to and completing the tasks and works described above. Good ship condition and excellent ship management need to be shaped through common efforts of the shipping companies and their crew members. We, the CCS, will also try our best to provide ship owners and ship management companies with premium services and timely help. Let's work together to win an excellent PSC inspection record.