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WORLD MARITIME UNIVERSITY

Dalian, China

**Study on regional coordination issues of Port State
Control**

By

FANG YUANMING

The People's Republic of China

A research paper submitted to the World Maritime University in partial
Fulfillment of the requirements for the award of the degree of

MASTER OF SCIENCE

(MARITIME SAFETY AND ENVIRONMENT MANAGEMENT)

2018

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DECLARATION

I certify that all the material in this research paper that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this research paper reflect my own personal views, and are not necessarily endorsed by the University.

(Signature): Fang Yuanming

(Date): June 28, 2018

Supervised by:

Zhang Cunyou

Professor

Dalian Maritime University

Assessor:

Co-assessor:

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ABSTRACT

Title of research paper: **Study on regional coordination issues of Port State Control**

Degree: **MSc**

As a supplementary means for the management of foreign ships and the supervision of flag States, PSC plays an important role in eliminating substandard ships as the last line of defense for maritime safety (Dong, 1997). However, the rising maritime standards and the accelerating trade development aggravate the conflict of value between safety, environmental protection and economic development. PSC is an international affair which depends on multilateral cooperation. As a legal system for the inspection of foreign ships, there are still some issues in regional PSC coordination, such as inconsistent inspection regime, lack of legal effect and absence of information sharing & mutual recognition mechanism. With the implementation of 21st century Maritime Silk Road, the scope of cooperation between China and other countries becomes more and more wide; there are also many cooperation projects in the field of shipping. Therefore, it is necessary to improve and coordinate the PSC system to provide legal convenience for the development of 21st century Maritime Silk Road. In this paper, the issues of regional coordination are discussed by analyzing limitations of the PSC system and MOUs, some suggestions and countermeasures are provided for the unification of the global PSC standards and the improvement of regional PSC coordination.

KEY WORDS: Regional PSC coordination; MOU; Dispute settlement mechanism

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LIST OF ABBREVIATIONS

| | |
|----------------|---|
| APCIS | Asian-Pacific Information System |
| BWM Convention | Ballast Water Management Convention |
| CCSS Code | Caribbean Cargo Ship Safety Code |
| CIC | Concentrated Inspection Campaign |
| CLC 1969 | International Convention on Civil Liability for Oil Pollution Damage, 1969 |
| COLREG 1972 | International Regulations for Preventing Collisions At Sea 1972 |
| EC | European Committee |
| EMSA | European Maritime Safety Administration |
| FSA | Formal Safety Assessment |
| FSC | Flag State Control |
| GISIS | Global Integrated Shipping Information System |
| HRS | High Risk Ships |
| HTW | Human factors, Training and Watch-keeping |
| III Code | IMO Instruments Implementation Code |
| ILO | International Labour Organization |
| IMO | International Maritime Organization |
| LL 1966 | International Convention of Load Lines 1966 |
| LRS | Low Risk Ships |
| MARPOL | International Convention for the Prevention of Pollution from Ships |
| MLC 2006 | Maritime Labor Convention 2006 |
| MOU | Memorandum of Understanding |
| MSA | Maritime Safety Administration |
| NIR | New Inspection Regime |

| | |
|--------------|--|
| OECD | Organization for Economic Cooperation and Development |
| PSC | Port State Control |
| PSCO | Port State Control Officer |
| RO | Recognized Organization |
| SOLAS74 | International Convention for the Safety of Life at Sea,1974 |
| SRS | Standard Risk Ships |
| STCW | International Convention on Standards of Training, Certification and Watchkeeping for Seafarers |
| TONNAGE 1969 | International Convention on Tonnage Measurement of Ships, 1969 |
| UN | United Nations |
| UNCLOS | United Nations Convention on the Law of the Sea |
| USCG | United States Coast Guard |
| WTO | World Trade Organization |

CHAPTER I Introduction

1.1 Background of research

PSC is the inspection of foreign ships in nation ports to verify that the condition of the ship and its equipment comply with the requirements of international regulations and that the ship is manned and operated in compliance with these rules.¹ Since the signature of the first regional MOU on PSC by 14 countries in Paris in March 1982, there are nine regional organizations on PSC now, which forms a global PSC network with the separate PSC in the United States.

The regional coordination of PSC is an important part of the safety net of navigation safety and marine environment.² At present, although there are many MOUs on the regional coordination of PSC, due to different national conditions of various port States, different levels of economic and cultural development, and different understandings of the convention by PSCOs of each State, there are also significant differences in the implementation of the convention such as references, ways, and deficiencies disposal of the PSC inspection in the same MOU and different MOUs, which directly affect the regional coordination level of the global PSC. In addition, the inconsistent inspection regime in different MOUs, the lack of legal effect of the MOU and the absence of the information sharing mechanism of mutual recognition

¹ <http://www.imo.org/en/OurWork/MSAS/Pages/PortStateControl.aspx>, accessed on 5 June 2018.

² In addition to PSC, a series of international conventions formulated by IMO/ILO, flag States, ROs and marine insurance also play an important role in navigation safety and environmental protection.

between MOUs enable ocean ships to be frequently inspected, which increases the operational cost of ships. Issues of existing dispute settlement mechanism such as detention appeals, dispute review and domestic judicial procedure also indicate that there is a further improvement and coordination of PSC in the domestic and international level. Considering the disadvantages of the existing PSC coordination system, it is necessary to establish a more fair and more practical regional coordination system for PSC, and it is imperative to carry out relevant research work.

1.2 Objectives of research

In 2013, President Xi Jinping proposed a major initiative to jointly build the 21st century Maritime Silk Road. With the implementation of the initiative, the infrastructure construction in the coastal States will be developed rapidly. It has been put on the agenda that legal policies should be combined with infrastructure construction and regional coordination should be strengthened to facilitate shipping connectivity. This paper focuses on forming a complete set of legal protection and providing efficient and convenient legal services for foreign ships in the context of the economic development of shipping, such as improving inspection regime of each MOU, accelerating disposal of PSC detention, unifying law enforcement standard, building a wider range of information sharing mechanism of mutual recognition, etc.

1.3 Structure of the research paper

This paper consists of six chapters. Chapter I introduces the background, objectives, structure and methodology of the research paper. Chapter II gives an overview of PSC, which is followed by the concept and objective of PSC, and the regional PSC organizations in the world. Then, the origin of PSC organization is discussed. Chapter III analyzes the issues of the regional PSC coordination, mainly including

the inconsistent inspection regime, the absence of ship information sharing and mutual recognition mechanism between different MOUs, the limitation of the regional PSC dispute settlement mechanism and the lack of legal effect of the MOU. Chapter IV analyzes the legal nature of PSC and demonstrates the dispute settlement that can be adopted in China. Chapter V puts forward some suggestions and countermeasures for improving PSC coordination at the domestic level and the international level. Finally, the last chapter summarizes the whole paper.

1.4 Methodology

The relevant literature was widely reviewed beforehand, including appropriate IMO documents and resolutions, international conventions, articles from contemporary journals, books and information from websites. Furthermore, this paper essentially concentrates on the regional coordination issues of PSC based on theoretical analysis method and comparative analysis method.

Chapter II PSC and regional PSC coordination

This chapter mainly introduces the concept and objective of PSC, the global PSC organizations and discusses the origin of regional PSC coordination.

2.1 Basic concept and objective of PSC

As mentioned above, PSC is the inspection of foreign ships in nation ports to verify that the condition of the ship and its equipment comply with the requirements of international regulations and that the ship is manned and operated in compliance with these rules³. Through the PSC, deficiencies which are found in the inspected ships shall be rectified and eliminated to ensure the safety of navigation, personnel and property, and to protect the marine environment. The resolution A.1052 (27) made by IMO stipulates that PSC is a ship safety inspection performed by port States as a complementary means of FSC. Many conventions such as LL1966, SOLAS74 and MARPOL are the legal basis of the PSC, which also provide the obligation of complying with the standard of the ship safety and marine environmental protection to applicable ships.⁴

The PSC mainly aims to eliminate substandard ships to ensure the safety of ships and personnel and to prevent pollution, as well as to supervise the performance of flag States. The PSC would not be necessary if flag States are able to perform their duties

³ <http://www.imo.org/en/OurWork/MSAS/Pages/PortStateControl.aspx>, accessed on 5 June 2018.

⁴ In addition to the above convention, the NIR is also an important basis.

well. But due to the imbalance of world economic development, some contracting States, especially developing countries, are difficult or not well to perform their duties given by international conventions. The implementation of such conventions made by IMO and ILO requires not only the cooperation of flag States, but also the implementation and enforcement of PSC which plays an important role in improving the status of international ships, promoting shipping safety, protecting interests of port States, promoting unified international standards and enhancing regional coordination.

2.2 Global PSC regional organizations

In July 1982, the world's first regional PSC organization began to operate officially and achieved certain results in fighting against substandard ships. Since then, other regional MOUs have been established. Until now, there are nine regional MOUs in the world, together with the PSC system implemented by USCG, ten PSC systems are running independently, and the global PSC regional organizations are shown in Figure 2.1.



Figure 2.1 Global PSC regional organizations

2.2.1 Paris MOU

Paris MOU is the earliest regional MOU which was signed in 1982. After more than 20 years of development, Paris MOU has been developed from 14 to 27 member States: Belgium, Canada, Croatia, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Latvia, Netherlands, Norway, Poland, Portugal, Russia, Slovenia, Spain, Sweden, the United Kingdom, Lithuania, Romania, Bulgaria, Cyprus and Malta, while Russia and Canada are members of Tokyo MOU. There are 5 observers: Japan, United States, IMO, ILO and Tokyo MOU. The organization is the most important regional MOU in the world which covers the north Atlantic and European regions.

At present, the executive agency of Paris MOU is the PSC Committee, which is composed of contracting maritime authorities of the MOU and representatives of EU. The daily affairs of Paris MOU are undertaken by the Secretariat of the transport and public affairs department in the Netherlands. Secretariat is led by PSC Committee, which is responsible for preparing meetings, providing information and preparing reports. The database system of Paris MOU is based in France, and inspection reports of each member States shall be entered into the system.

2.2.2 Tokyo MOU

In the Asia-Pacific region, maritime authorities of 19 countries or regions signed Tokyo MOU in Japan on 1 December 1993. Currently, Tokyo MOU includes 20 official members, Australia, Canada, Chile, China, Fiji, Hong Kong, Indonesia, Japan, Korea, Malaysia, Marshall islands, New Zealand, Papua New Guinea, Peru, the Philippines, Russia, Singapore, Thailand, Vanuatu and Vietnam. Among them, Canada also joined Paris MOU, Russia joined Paris MOU and Black Sea MOU,

Australia joined Indian Ocean MOU. Tokyo MOU has one cooperative member (Panama), five observers (North Korea, China Macau, Solomon islands, Tonga and USCG), and seven observers (IMO, ILO, Paris MOU, Viña del Mar Agreement, Indian Ocean MOU, Black Sea MOU and Riyadh MOU).

In terms of organizational structure, like other regional MOUs, Tokyo MOU also creates PSC Committee and Secretariat. Among them, PSC committee is composed of maritime authorities of all member States, observers of UN and other committees, which is responsible for the formulation and review of ship inspection rules, revision of the MOU and information exchange procedures. The Secretariat, which is set up in Japan, is mainly responsible for assisting the Committee. APCIS is used mainly for the exchange and management of PSC inspection information, and based in Russia. For the basis of supervision, the Tokyo MOU explicitly specified a number of international conventions relating to navigation safety of ships, as a unified basis for the implementation of PSC by the port State, including LL1966, SOLAS74, MARPOL, STCW, COLREG1972, TONNAGE1969, MLC2006 and CLC 1969.⁵

2.2.3 USCG

In the mid-19th century, a series of boiler explosions had occurred on ships sailing on the Mississippi River. To this end, United States established the first federal law to guide the inspection of merchant ships. In the following years, with the occurrence of maritime accidents, laws and regulations concerning the inspection of ships have been gradually increased. In 1968, U.S. Congress passed the Fire Safety Standards for Foreign and Domestic Passenger Ships, which opened the screen of PSC inspection by USCG.

⁵ Currently, the basis of PSC inspection is not only the above 8 conventions, but also the recently effective resolutions and conventions, such as BWM Convention, etc.

Since 1994, United States has adopted the risk assessment method to carry out PSC inspection, which includes three major systems including Boarding Priority Matrix, information network system and target inspection, and the Qualship21 plan has been implemented since January 2001. The USCG has its own characteristics in PSC inspection, like the security, drills. There are two large areas in the Atlantic region including 1,5,7,8,9 areas and the Pacific region including 11,13,14,17 areas. The inspection number in Region 8 is the largest, with 3000 ships inspected annually.

2.2.4 Viña del Mar Agreement

Viña del Mar Agreement is the second regional PSC organization in the world, which was signed in 1992. Currently, there are 15 members: Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Guatemala, Honduras, Mexico, Panama, Peru, Dominican republic, Uruguay and Venezuela.

2.2.5 Caribbean MOU

Caribbean MOU was established on 6 February 1996. In 1998, the third committee meeting was held in Bahamas and 22 Caribbean countries attended the meeting, United States decided to help Caribbean MOU to improve the existing data information center, and a new permanent information center had been established in 2001. There are 24 members: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Burris, British Virgin, Cayman Islands, Dominican republic, Cuba, Guyana, Grenada, Haiti, Jamaica, Montserrat, Netherlands Antilles, Suriname, St. Kitts Nevis, St. Lucia, Saint Vincent, Turks & Caicos Island and Trinidad & Tobago.

2.2.6 Mediterranean MOU

Mediterranean MOU was signed in 1997 by eight countries in the Mediterranean region, and has grown to 10 member states: Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Tunisia and Turkey.

2.2.7 Indian Ocean MOU

On June 5, 1998, Indian Ocean MOU was signed, and its first committee meeting was held in India on January 20, 1999. The meeting discussed the organization and operation of the Indian Ocean MOU. There are 21 members: Australia, Bangladesh, Comoros, Djibouti, Eritrea, Ethiopia, French Reunion, India, Iran, Kenya, Maldives, Mozambique, Myanmar, Oman, Seychelles, Sri Lanka, Sudan, South Africa, Tanzania, Mauritius and Yemen.

2.2.8 Abuja MOU

On October 22, 1999, the MOU for PSC inspection in central and west Africa was signed in Abuja, Nigeria with 22 member states: Angola, Benin, Cameroon, Cape Verde, Congo, Cote D'ivoire, Equatorial Guinea, Gabon, Gambia, Guinea, Guinea-bissau, Ghana, Liberia, Mauritania, Namibia, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, South Africa and Togo. The Secretariat of the MOU is located in Lagos, Nigeria. The information centre is located in Abidjan, Cote D 'ivoire.

2.2.9 Black Sea MOU

Black Sea MOU was signed by six countries in the Black Sea region in 2000 and they are: Bulgaria, Georgia, Romania, Russia, Turkey and Ukraine. Russia is a member of Tokyo MOU. The MOU is a young and active organization.

2.2.10 Riyadh MOU

Riyadh MOU was signed by the Arab gulf States in June 2004 and is currently the youngest PSC MOU. They are 6 members: the kingdom of Bahrain, the United Arab Emirates, Kuwait, Qatar, Oman and the kingdom of Saudi Arabia.

2.3 Origin of regional PSC coordination

Before the 1980s, the responsibility of ship supervision was mainly taken by flag States where the ship was registered. Subsequently, under the joint action of multiple factors, flag States fail to play their due role, and the importance of PSC was widely recognized by the international community. To sum up, since the 1980s, there are four main reasons for strengthening PSC internationally.

2.3.1 Practical needs - driven by several major marine accidents

The emergence of a legal system is often based on a response to social reality. In other words, the law itself is empirical, not transcendental (Su, 2007). This basic rule also applies to maritime law. In the case of the PSC, several major marine accidents became the trigger of strengthening the PSC in the relevant countries. In March 1967, the Liberian oil tanker Tony Canyon which was grounded on the British coast, caused serious marine environmental pollution in the areas including the south coast of England and Brittany in France. After more than 10 years, the European sea is polluted by the super tanker Amoco Cadiz in March 1978 again. It's a painful thought, and Europeans believe that both accidents have been linked to substandard ships in Europe and the absence of supervision by flag States, which must be effectively addressed. Led by France, ministers from 13 countries in Western Europe and Northern Europe met to discuss how to conduct safety inspections on foreign ships. In 1982, a preliminary Paris MOU was made and adopted at the second ministerial

conference, and it was entered into force in July of the same year. Since then, the world's first example of PSC regional coordination has been created.

2.3.2 Legal basis - flag State or port State jurisdiction

With regard to the jurisdiction of navigational ships, international law has clearly stated the right and obligation to exercise jurisdiction over the ship. In terms of jurisdiction of flag State, the article 94 of UNCLOS firstly clarifies that flag State shall effectively exercise its jurisdiction and control over ships flying its flag. From the perspective of the marine environmental protection, in article 217 of UNCLOS, flag State has the right to supervise the ship flying its flag to ensure that it meets the requirement of the convention by taking some measures including issuing, inspecting, investigating and punishment⁶. On the other hand, the port State has territorial jurisdiction over foreign ships voluntarily entering its ports based on the State sovereignty, just as a State has jurisdiction over foreign citizens who live in their own State. Article 218 to 220 affirms the right and responsibility of the port State and the coast State for the supervision and inspection of foreign ships⁷.

As for the relationship of jurisdiction between flag State and port State, apart from some special cases⁸, the two jurisdictions have no influence on each other and they can work together and play a role in ensuring navigation safety and pollution prevention. However, it is generally acknowledged the jurisdiction of the port State is prior to the flag State when the ship is within a port of the State. In spite of this, the port State rarely interferes with foreign ships on the basis of factors such as competitive advantage and economic interest, unless the relevant activities have a

⁶ See Article 94 and Article 217 in UNCLOS.

⁷ See Article 218 to Article 220 in UNCLOS.

⁸ when a ship is a government ship for official business, or it is not voluntary to enter a port but due to some emergency or weather conditions, international customary law will impose certain restrictions on the jurisdiction of the port State.

direct impact on the port State (Madorman, 1997). However, since the flag of convenience⁹ has become popular, there is no substantial connection between the flag State and the ship registered in the State. The flag State has no ability and power to supervise the registered ships. Then, the international community has begun to pay attention to the role of PSC in maintaining navigation safety and marine environment.

In addition, the PSC is often implemented under the specific authorization of relevant international conventions. For example, Article 19 of SOLAS74 specifies that every ship when in a port of another Contracting Government is subject to control by officers duly authorized by such Government in so far as this control is directed towards verifying that the certificates are valid; Article 20 of LL 1966 also stipulates ships holding a certificate issued under Article 16 or Article 17 are subject, when in the ports of other Contracting Governments, to control by officers duly authorized by such Governments. There are similar provisions of authorization in other conventions.¹⁰ Therefore, there is no obstacle in the legal basis for the PSC, which can be carried out not only in accordance with international law but also under the authorization of the specific convention.

2.3.3 Economic considerations - coordination and fair competition between port States in the region

In terms of long-term development of shipping industry, the enhancement of PSC is conducive to ensuring the fair competition between owners or managers of different ships. Research by OECD shows there is a 40% difference between the operating cost of a substandard ship and a ship with IMO minimum standard. The difference in

⁹ The phenomenon of flag of convenience refers to the owner registers a ship in a country with loose management to reduce the operating cost.

¹⁰ See Article 5 of MARPOL, Article 10 of STCW, Article 12 of 1969 TONNAGE.

operating cost must be reflected in the freight rate. If substandard ships are allowed to sail freely, which can compete with the price advantage formed by low freight, the interests of standard ship operators must be damaged, which is not conducive to the formation of a fair competition environment in the shipping industry (Kiehne, 1996). In the early days of Paris MOU, there was a consensus among European countries that reducing the number of substandard ships would benefit the fair competition and the shipping industry of member States (Jaap & Pons, 1996).

In addition, compared with the individual PSC, strengthening the regional coordination of PSC is undoubtedly beneficial for the fair competition between different ports to avoid port selection or port shopping. In particular, if there is no regional coordination, each port State in the region will be independent in the objective, standard and procedure of PSC, which will inevitably lead to the different strict degree. Consequently, ships will sail to the relatively unrestricted port, which would become the inevitable choice for ship operators under profit-seeking motivation (HoSam & DuckJong, 2012). The relatively unrestricted port can attract more ships, which will also drive the development of its port service industry and gain relative competitive advantage. However, when an accident occurs and causes marine pollution and ecological damage, the whole region is affected. This is certainly unfair to those countries that implement the PSC strictly.

2.3.4 Comparative advantage - the choice between unilateral, regional and global arrangements

From the perspective of scope, there are three methods of PSC implementation: unilateral, regional and global arrangements. Regardless of differences in different countries, the global and regional arrangements are generally superior to unilateral

arrangement in terms of the implementing effect¹¹. As Canada's maritime law professor William Trevor pointed out, although more strict safety standards specified in the national and regional legislation are beneficial to reduce marine disasters, the dream of safer shipping and cleaner ocean will not be realized in the 21st century without adopting international thinking and solutions in the field (Teley, 2005). Besides, the regional coordination of PSC is more feasible than unilateral or global arrangement from the feasibility analysis with considering the strict degree of complying with relevant international treaties, effectiveness of coordination, impact of competition and operational cost. On this basis, the recoordination of different regional coordination systems can be strengthened, it can effectively make up for the lack of coordination between different regions, which is also the development direction of PSC in the future (HoSam & DuckJong, 2012).

In conclusion, the establishment of regional PSC coordination regime is a better choice to respond practical needs with legal basis and conform to economic laws, it plays a very important role in preventing major ship safety and marine environmental pollution accidents.

¹¹ Due to its unique geographical features, the east and west coast are close to the Atlantic and Pacific, the United States can implement a separate PSC.

Chapter III Issues of PSC MOUs

In the early stage, the regional PSC coordination is beneficial for the effective implementation of PSC. It has also been proved that the scope of inspection can be expanded for effectively controlling substandard ships on the basis of regionalization. Under abovementioned factors, PSC MOUs in multiple regions of the world were established successively.¹² However, the coordination between different MOUs has been slow. Until recent years, a certain degree of regional coordination has carried out under the joint efforts of Paris and Tokyo MOU, including the selection of the same theme to carry out CIC and the launch of NIR. These coordination effectively improved the utilization of resources and promoted the unification of inspection standards, which laid a solid foundation for the establishment of a global network of navigation safety and pollution prevention in the future. However, there are still significant issues in regional and interregional coordination, mainly in the following aspects.

3.1 Inconsistent inspection regime in different MOUs

After the accident of Prestige, EU realized that the original PSC system could not completely prevent the operation of substandard ships. In order to avoid and reduce the entry of substandard ships into its waters, Paris MOU adopted the NIR which introduced the assessment of company performance and the selection scheme with

¹² Such as Paris MOU, Tokyo MOU, Viña del Mar Agreement, etc.

different risks. The NIR was officially implemented on January 1, 2011, and it fully absorbed the research results of risk assessment by IMO and introduced the FSA method with risk analysis technology to shipping safety management, flag State performance, RO performance and company performance are used to identify and assess the risk of ships. In fact, the NIR was not established by Paris MOU but the EMSA, which was authorized by the EC under the third maritime safety directives of EU (Directive 2009/16/EC on PSC). As early as 1995, the PSC system in Paris MOU was incorporated into the EU legal system, so the new system was adopted as soon as it was established (Liu, 2011). The NIR includes Ship Risk Profile, selection scheme, inspection procedure, deficiency disposal principle, inspection task allocation mechanism for member States, and a new information system (THETIS). The NIR in Tokyo MOU closely mirrors the system already in Paris MOU with ships assigned a ship risk profile from one of three categories: HRS, SRS and LRS. The following section takes examples of Paris MOU and Tokyo MOU for comparative analysis.

3.1.1 Comparison of calculation methods in ship risk profile

By comparison, it is found that the parameter criteria for determining LRS in two MOUs is consistent, but the risk value for HRS specified in Paris MOU are at least 5 points and more than 4 points specified in Tokyo MOU. The NIR in Paris MOU pays more attention to the performance of flag State than the NIR in Tokyo MOU, and gives the risk value of 2 points for flag State with the worst performance. In terms of historical inspection records, although Paris MOU do not pay attention to the number of inspection deficiencies, it was stricter in the accounting of detention index. In addition, the two MOUs use the matrix of detention index and deficiency index in the calculation of company performance, but the classification of indexes is slightly

different, and the index range of the NIR in Tokyo MOU is small.

Table 3.1 Comparison of ship risk profile

| Parameters | | Paris MOU NIR | | Tokyo MOU NIR | |
|---------------------|--|--|------------------|--|---|
| | | Criteria | Weighting points | Criteria | Weighting points |
| Type of Ship | | Chemical tanker, Gas Carrier, Oil tanker, Bulk carrier, Passenger ship | 2 | Chemical tanker, Gas Carrier, Oil tanker, Bulk carrier, Passenger ship | 2 |
| Age of Ship | | All types > 12y | 1 | All types > 12y | 1 |
| Flag performance | | Black list -VHR,HR,M to HR | 2 | Black list | 1 |
| | | Black list -MR | 1 | | |
| RO performance | | Low,Very Low | 1 | Low,Very Low | 1 |
| Company performance | | Low,Very Low | 2 | Low,Very Low | 2 |
| 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 |
| Detentions | Number of detention within previous 36 months | 2 or more detentions | 1 | 3 or more detentions | 1 |
| HRS | | Sum of weighting points >=5 | | Sum of weighting points >=4 | |

Table 3.2 Comparison of detention index

| Paris MOU NIR | | Tokyo MOU NIR | |
|-----------------|----------------------------|-----------------|----------------------------|
| Detention Index | Detention Percentage | Detention Index | Detention Percentage |
| above average | >2 above Paris MOU average | above average | >1 above Tokyo MOU average |
| average | Paris MOU average +/-2 | average | Tokyo MOU average +/-1 |
| blow average | >2 blow Paris MOU average | blow average | >1 blow Tokyo MOU average |

3.1.2 Comparison of time windows

Both MOUs adopt same ship selection scheme, but the opening standard of time window is not consistent. The inspection cycle for HRS, SRS and LRS is set at 6, 12 and 36 months in Paris MOU, while Tokyo MOU reduces the time span to 4, 8, 18 months respectively, the change is more reasonable, because ship condition, crew quality and management level may be changed a lot after 12 or 36 months.

Table 3.3 Comparison of time windows

| Paris MOU NIR | | Tokyo MOU NIR | |
|-------------------|----------------------------------|-------------------|----------------------------------|
| Ship Risk Profile | Time Window from last inspection | Ship Risk Profile | Time Window from last inspection |
| LRS | 24 to 36 months | LRS | 9 to 18 months |
| SRS | 10 to 12 months | SRS | 5 to 8 months |
| HRS | 5 to 6 months | HRS | 2 to 4 months |

3.1.3 Other differences

Paris MOU has strengthened measures to ban substandard ships from entering the port, and ships that have been detained several times will be refused. The ship reporting system before arrival has been increased, and the supervision of ships before arrival has been highlighted. In response to the negative performance of some member States, the inspection obligation and fair allocation mechanism of member

States have also been stipulated in the NIR. Tokyo MOU stipulates that any type ships detained three or more times by member States of Tokyo MOU in the past 12 months will be classified as under-performing ships. Tokyo MOU regularly publishes a list of substandard ships which should be inspected by all member States in Tokyo MOU whether or not entering the time window. Because of different cultural concept, scientific and technological level among member States, the contradiction of development in Tokyo MOU is more prominent, and the coordination of policy is more difficult. Tokyo MOU plans to evaluate the implementation effect of the NIR after a period of time to make the PSC system more reasonable and achieve the goal of eliminating substandard ships.

Resolution A.1052 (27) defines substandard ship as 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. According to the definition of substandard ship, crew is a big factor. Even a ship of high quality and very advanced equipment will become a substandard ship if it is manned with substandard crew or unqualified crew. In order to improve the study on human factors, IMO specially reorganized STCW sub-Committee into HTW sub-Committee in the 2013 organizational reform. However, the risk analysis of human factors may be difficult, so it is not included in the weight of the NIR of each MOU. In addition, if deficiencies can be distinguished with design, construction, equipment and maintenance, it will be helpful in selection scheme.

3.2 Without sufficient legal effect on member States

First of all, the legal nature of MOU has resulted in insufficient legal effect of the regional PSC coordination mechanism. In order to properly understand the legal

nature of the MOU, it is necessary to have an accurate understanding of the concept of the treaty. The article 2 of part I in Vienna Convention on the Law of Treaty defines treaty as an international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation. As mentioned above, in addition to the requirement of written form, there are two important requirements for the constitution of treaty: the State is the contracting body of treaty which must be subject to international law with rights and obligations. In general, the MOU is in written form, so it is only required to verify the latter two requirements for the comparative analysis of the legal nature of MOU and treaty.

In term of the contracting body, Paris MOU and other regional MOUs were signed by maritime authorities of member States but not sovereign States. This is clearly different from the requirement of treaty which shall be contracted by sovereign States. With regard to rights and obligations under international law, the MOU had been established because member States wanted to record certain matters in written form and did not wish to generate rights and obligations under certain international law, it expressed only a common willing and a programme of action among member States, rather than creating a legal binding commitment. From the view of use, it is a more formal substitution of the gentleman agreement, which is based on trust without legal binding. Compared with treaty, the advantage of MOU is that it does not require most member States to ratify it in a formal way, and the process of amendment is simpler (HoSam & DuckJong, 2012). In the process of establishing Paris MOU, member States expressed their hope to see the practical effect of this coordination mechanism as soon as possible, so they finally decided to adopt the form of MOU (Ozcayr, 2009). The legal nature is demonstrated in the preamble of Tokyo MOU, "this MOU is not a legal binding document and is not intend to impose any legal

obligation on any of the Authorities." Therefore, according to treaty law theory, MOU is not a treaty in the legal nature of international law, and does not have a legal effect on member States.

3.3 Incoordination between domestic legislation and PSC MOU

As mentioned above, member States have no legal obligation to comply with the provisions of the MOU, and the MOU cannot strictly restrict the action of member States at the legal level. The international community adopted the form of MOU to unify the regional PSC system because of the urgent demand for PSC cooperation and simple procedure of establishing the MOU (Anthony & Jiang, 2005). The formulation of a treaty often requires complicated procedure, which is more time-consuming and complex than establishing a MOU. The treaty is cumbersome, but it has legal binding force, and contracting States will be bound by the principle of *Pacta Sunt Servanda* , which makes the treaty more enforceable and beneficial for countries with different political, cultural and economic backgrounds to adopt same standards to exercise the right of PSC. In the event of a dispute, it can even appeal to the international court which can invoke the treaty at the time of the referee.

Because of lacking legal effect, the PSC MOU can not promote the unification of PSC implementation standards among member States quickly, which leaves a large amount of discretion in the exercise of inspection by port States. Although member States of PSC MOU usually strictly follow the selection scheme, they also adopt a respectful attitude towards the time window and review mechanism. But PSC is the exercise of national sovereignty, port States still have great freedom in the inspection cycle of ships.

Taking Tokyo MOU as an example, company performance is introduced in the NIR. The adverse performance of any international ships in a shipping company under PSC inspection carried out by member States in Tokyo MOU will result in lower performance of the company, which will affect the weight calculation of other ships in the company and increase the probability of being selected as target ships, the company image and rent will also be affected. The ship performance and company performance affect each other, making it more difficult for ships and companies to operate and manage, but effectively ensuring the safety of navigation and promoting the protection of marine environment. According to the time window stipulated by the NIR, the HRS only enjoys a one-month exemption period from last inspection. During the period from the second month to the end of the fourth month, the ship may be inspected by the port State at this time. When the PSC inspection has been carried out for more than four months, the ship inspection priority becomes the highest level and the port State must inspect the ship. For SRS, it can enjoys a four-month exemption period, which may be inspected form the fifth month to the end of the eighth month, and it will inevitably be inspected for more than eight months. The NIR is designed to reduce the inspection frequency of LRS and to increase the inspection frequency of HRS, so the LRS has a eight-month exemption period, which must be inspected by port States when the period exceeding eighteen months. The core significance of setting time window is not only to carry out PSC inspection on a regular basis but also greatly lower the inspection frequency of foreign ships in the same MOU to reduce the operational cost of ships. However, the premise of the above situation is that all member States shall implement PSC inspection in accordance with the provisions of the MOU strictly. In fact, not all member States strictly comply with requirements of the ship exemption period, port States still have a great deal of discretion in granting the exemption period to the ship.

This kind of discretion is also reflected in national legislation. As the main legal basis of PSC inspection in China, Rules of Ship Safety Inspection of the People's Republic of China (hereinafter referred to as Rules of Ship Safety Inspection) have also stipulated the inspection time window of ships: "... Foreign ships inspected by member States in Tokyo MOU will not be inspected within six months from the last inspection". According to the above regulation, foreign ships shall enjoy a six-month exemption period. However, there are exceptions to this regulation. The article 9 also stipulates that "... No inspection shall be conducted within six months from the last inspection date, except passenger ships, oil tankers and ships designated by China MSA. Subsequently, China MSA issued the notice concerning the implementation of the NIR in Tokyo MOU and made it clear that the NIR should be adopted for PSC inspection. The time window should be checked according to the NIR, and the inspection should be avoided before the time window open. In the case of the Rules for Ship Safety Inspection still in force, foreign ships inspected by member States in the Tokyo MOU are no longer entitled to a six-month exemption period, while ships flying Chinese flag can still enjoy a six-month exemption period after inspection conducted by China MSA. The application of the exception in article 9 to foreign ships is still in doubt, and the oil tanker or the liquefied gas ship are attributed to a weight calculation factor of the NIR in Tokyo MOU, it does not mean that the PSC inspection must be carried out. Therefore, there is still a discrepancy between China's domestic legislation and the MOU, which is influenced by the MOU without legal effect. However, Rules of Ship Safety Supervision of the People's Republic of China (hereinafter referred to as Rules of Ship Safety Supervision) which was promulgated in 2017 has deleted provisions of exemption period, it means that the time windows and other relevant provisions of PSC in China will be carried out with the NIR, which reflects the transformation of the domestic law of Tokyo MOU to meet the

goal of unified regional law enforcement standards.

3.4 Absence of information sharing and mutual recognition between PSC MOUs

Different member States under the same MOU can realize the mutual recognition and information sharing of ship inspection results, but there is no information sharing and mutual recognition mechanism between different MOUs. The absence of such information sharing will lead to repeated inspections of ships sailing between different MOUs, and may even be unduly detained, which is not conducive to the development of shipping.

3.4.1 Current status of information sharing and mutual recognition mechanism of PSC MOUs

In the PSC MOU, the information sharing and mutual recognition mechanism of ships is widely recognized by member States. Under this mechanism, member States record the information of foreign ships that have been inspected at their own ports and establish independent risk profiles for ships and share information. Any member States can query, upload and update the ship information in the data sharing platform set up by this MOU to facilitate the PSC implementation in the region. Other member States within the same MOU can refer to the uploaded information and decide whether to carry out PSC inspection on foreign ships visiting their ports. In Tokyo MOU, the information of inspected foreign ships in the MOU will be uploaded to APCIS as reference data, which can be checked by member States at any time to avoid excessive inspections of the same ship within a short period of time. Other PSC MOUs have similar data sharing platforms, such as the THESIS in Paris MOU, BSIS in Black Sea MOU and RiyadhSIS in Riyadh MOU. The above data platforms are the information sharing mechanisms adopted by each MOU to facilitate

information flow and optimize the PSC. Member States under the same MOU can not only get the historical inspection information of the ship, the inspection result made for the ship will also be recognized by other member States. These data sharing platforms simplify the procedure of PSC and reduce the inspection frequency of the same ship. For ships, this information sharing and mutual recognition mechanism has a positive effect on the navigation and operation of ships, and reduces the risk of being detained due to frequent inspections of ships.

Although nine regional PSC MOUs have all signed data exchange agreements with IMO to submit PSC reports electronically to GISIS on behalf of their member Authorities on 3 March 2013, the inspection data exchange is not comprehensive, some MOUs only exchange detention data and member States from different MOUs cannot directly obtain effective information from the GISIS.

3.4.2 Impact of the absence of information sharing and mutual recognition between PSC MOUs

The PSC inspection result of each MOU can only be effective within this MOU, inspected ships sailing to different MOUs will be inspected again. For instance, a new ship may be subjected to multiple PSC inspections when sailing across different MOUs, which undoubtedly puts enormous pressure on ship operations. Within a short period of time, the ship will be inspected many times with different inspection standards, which increases the risk of being detained by port States. The ship company has to over-maintain the ship to avoid economic losses caused by the detention, which increases the operational cost of the ship. Before 2000, USCG unilaterally declared that inspection results of Tokyo MOU will not be admitted, a PSC inspection will be carried out for the ship again in the United States even though

it had been just inspected in Tokyo MOU. Such repeated inspections have added the burden on shipowners and affected the international image of Tokyo MOU (Guo, 2013). The absence of information sharing and mutual recognition mechanism is not conducive to the development of shipping. Therefore, it is necessary to actively seek a cooperative mode, such as signing information sharing and mutual recognition agreement to establish the ship information cooperation mechanism between PSC MOUs.

At present, the operational mode of PSC is mainly based on regional MOUs, and the information sharing and mutual recognition of ship inspection results are also implemented within the scope of this MOU. However, there are no clear rules on the information sharing and mutual recognition of ship inspection results between different MOUs. It is clear that member States should upload and update the ship historical information in the database in time after the PSC inspection, and other member States can determine the next step according to the ship's historical records. Through research on Guangdong MSA, foreign ships generally hold the corresponding report after the PSC inspection which is implemented by non-Tokyo MOU, but this document is not accepted by China MSA. If the ship meets the inspection requirements specified by the NIR in Tokyo MOU, it will still be inspected in China, as well in other member States. At present, the mutual recognition and information sharing of the ship between PSC MOUs is based on dialogue and cooperation, and there is no clear legal basis.

To sum up, authorities of port States should actively advocate the transformation of MOU into domestic legislation and promote the unified process of regional PSC standards. It is necessary to build the ship information sharing and mutual recognition mechanism to reduce repeated inspections of ships and the operational

pressure of shipowners, and provide legal convenience for shipping interconnection between different MOUs and even between MOUs and USCG.

Chapter IV Legal issues of dispute settlement mechanism for PSC coordination

PSC is the exercise of the power by port States, due to lacking legal effect of the MOU and the absence of mutual recognition mechanism of ship information sharing between regional MOUs, it will inevitably encounter the conflict between controlling actions of port States and interests of foreign ships. The conflict is mainly manifested in the undue detention of ships, which is the most important factor that impedes the efficient navigation of ships. Although there is a review mechanism for detention in PSC MOUs, opinions made by the detention review panel can not be used as the basis for economic claims because of lacking legal effect of the MOU.

4.1 Analysis on the legal nature of PSC behavior

PSC is, in essence, an administrative act implemented by an administrative organ of a State and its administrative staff according to international conventions or national administrative laws and regulations. The administrative act is the legal action taken by an organization or individual to the administrative counterpart with administrative power (Jiang, 2012). The following part analyzes the legislative nature, enforcement nature and legal characteristics of PSC.

4.1.1 Legislative nature of PSC

PSC system is first stipulated by international conventions, then member States

determine relevant contents of conventions through the form of domestic law. In Europe, EU DIRECTIVE 95/21/EC is the legal basis for PSC, which stipulates that all EU member States must carry out PSC inspections. Consequently, member States carry out the PSC inspection through domestic legislation and promulgation of relevant regulations and guidelines for the ship inspection in accordance with EU regulations. In China, some laws and regulations of PSC are made by the Council and relevant administrative departments authorized by the Council in accordance with international conventions and Tokyo MOU, including Maritime Traffic Safety Law, Rules of Ship Safety Supervision, etc.

According to the theory of administrative law, administrative legislation is the activity of administrative organs to formulate and promulgate administrative rules in accordance with statutory authority and legal procedures (Jiang, 2012). Therefore, it can be judged that the legislation of PSC is an abstract administrative act, which belongs to administrative legislation.

Besides, it can be seen from laws and regulations for the reference of PSC, the content of PSC is mainly to adjust the administrative relationship. The authority of PSC is an organ which is responsible for the inspection of ships on behalf of the State to ensure navigation safety and pollution prevention. As the administrative subject, the authority of PSC forms the corresponding administrative legal relationships with ships during the process of inspection, inspected ships should be obliged to follow the order made by the authority which must bear the corresponding administrative legal responsibility for their actions.

4.1.2 Enforcement nature of PSC

The specific administrative act generally refers to the administrative decision made by the administrative subject on a particular object (Ying, 2008). Therefore, it can be seen that whether an act is a specific administrative act must satisfy the three most important conditions: the existence of a suitable administrative subject, the existence of administrative power and the generation of legal effect.

In terms of the subject, the authority of PSC exercises jurisdiction over the ship on behalf of the State. Although in some countries, the PSC is authorized to some social organizations, there is no denying that the right of ship inspection enjoyed by these social organizations is in the nature of administrative law enforcement with a certain administrative compulsion. However, in most countries, the PSC is implemented by the authorized departments, which belongs to the administrative organ system, so it is in accordance with the condition of administrative subject. From the perspective of administrative power, the PSC has been authorized by national laws of ship safety inspection, the authority of PSC has been granted the right of inspecting foreign ships. In other words, the authority of PSC has the administrative power of ship inspection. In view of the legal effect, the authority of PSC will issue a report after inspecting a foreign ship. If the inspection result is unqualified, the authority of PSC has the right to impose penalties on the ship including detention. This action directly generates the administrative legal effect on the ship being inspected, the ship must comply with this action, otherwise it will face a more serious punishment. On the other hand, the ship also has the right to remedy after being punished, it can take the corresponding remedy right to the inappropriate punishment.

4.1.3 Legal characteristics of PSC

According to the theory of administrative law, administrative act is unilateral, public and compulsory. From the analysis of behavior characteristics, PSC behavior is fully consistent with these three characteristics of administrative act. Firstly, PSC behavior is unilateral. The authority of PSC conducts safety inspection for the ship and determine whether it can pass through or be detained. As long as it is established according to the view of the authority of PSC, it is not necessary to consult with the ship. Compared with the authority of PSC, the ship as the other subject in the legal relationship is in an unequal position. The ship only needs to implement the order on the ship inspection with the authority of PSC. Secondly, PSC behavior is public. From the initial purpose established for the PSC system, it can be seen that the PSC behavior is purely for serving the public interest. Through the inspection of foreign ships, the PSC has effectively fought against substandard ships, which greatly ensured navigation safety and pollution prevention. In other words, the public goal is also the basic attribute of PSC behavior. Furthermore, PSC behavior is compulsory. PSC behavior is the act on behalf of the State, which reflects the national will. The order issued by the authority of PSC has compulsory legal effect on the ship. When there is a significant deficiency in the inspected ship, the authority of PSC has the right to make the ship be rectified within a time limit or to be repaired in place in case of obvious evidence. The ship must unconditionally follow this order without a reasonable explanation. The authority may even detain the ship with serious deficiencies. If the ship has the right to accept or reject the order of the authority of PSC, the supervision will be meaningless.

4.2 Legal nature of detention and other disposal opinions under PSC behavior

In general, when the authority of PSC finds the deficiency during the inspection,

disposal opinions will be put forward and the ship will be notified to rectify the deficiency. If the deficiency has not been rectified before departure, the ship may be required to rectify within a time limit or be detained until the deficiency is rectified. In the case of detention, the ship can not leave the port until the deficiency is rectified. Due to different understanding of the convention and the great discretion of PSC, the ship may be frequently inspected or detained. If the ship can not release from the detention in time, it will suffer immeasurable economic loss.

The following disposal opinions are stipulated in article 27 of the Rules of Ship Safety Supervision: warning, detention, restricted operation, ship expelled, etc. Among them, although the detention is rarely used, it is most likely to cause foreign ships to suffer large economic losses, and the detention is the product of international law into domestic law, therefore, it is important to determine whether the detention is an administrative compulsory measure (Li & Lv, 2013), and it can be concluded that whether the detention and other disposal opinions made by PSCO are adjusted by the Administrative Compulsion Law of the People's Republic of China (hereinafter referred to as Administrative Compulsion Law), and whether or not the ship can protect their rights and interests in accordance with the proper legal routes, such as administrative litigation and administrative review. However, there are huge differences in the practice of ship detention and the understanding of legal provisions in different ports in China. Therefore, there is no agreement on the legal nature of the disposal opinions such as ship detention. At the same time, there is no clear definition of the abovementioned disposal opinions in the relevant laws, among which the most controversial is the understanding of the legal nature of detention.

The categories of administrative compulsory measures are listed in article 9 of the Administrative Compulsion Law, which mainly include restriction of personal

freedom, seizure of property, frozen deposits, etc. The detention under the PSC inspection has not been included, and it is not explicitly excluded. According to the concept of administrative compulsory measure defined in the article 2 of the Administrative Compulsion Law, administrative compulsory measure includes the following characteristics, such as limitation, temporal, restitution, subordination, physical rationality and unity. Administrative compulsory measure is single and not comprehensive, which belongs to the specific administrative act. Firstly, foreign ships are unable to leave the port after being detained, which is a negative consequence, so the detention is limited. Secondly, the detained ship can be released from the port until the deficiency is rectified, it is temporary. Thirdly, the restitution refers to the ship has the right to recover the freedom of navigation after the release of detention, so the detention is recoverable. Fourthly, the subordination is mainly the auxiliary nature of administrative act, which has the precautionary characteristic. The reason why the ship is detained is to prevent the expansion of hazards and to stop illegal activities. Fifthly, there is no physical means to restrict the navigation of ships in the case of detention, it is only a kind of notification or decision to prohibit the ship from leaving the port without the permission of the port State. In practice, the physical means of sealing and seizing have not been taken to prohibit foreign ships from leaving the port, but based on the particularity of navigation, the ship should obtain the permission of the port State when entering and leaving the port, and the port State will restrict the navigation of the ship in the case of the existence of deficiencies, so the detention is also in accordance with the requirements of physical property which is more subtle. However, the provisions of the implementing procedure of maritime Administrative Compulsion of the People's Republic of China does not specify the detention as an administrative compulsory measure. This also indicates that there is no definite host law basis for the detention under the PSC as a administrative compulsory measure. All in all, the detention is in accordance with the

characteristics of administrative compulsory measure. In conclusion, the detention belongs to administrative compulsory measure, which should be adjusted by the Administrative Compulsion Law, other disposal opinions such as restricting operation and rectified before departure are administrative orders of the authority, and the ship expelled has the meaning of sanction, which should be adjusted by the Administrative Penalty Law of the People's Republic of China (hereinafter referred to as the Administrative Penalty Law). Therefore, disposal opinions under PSC are specific administrative acts. When foreign ships accept the above-mentioned opinions in China, disputes may be settled according to the Administrative Litigation Law of the People's Republic of China (hereinafter referred to as the Administrative Litigation Law) and the Administrative Review Law of the People's Republic of China (hereinafter referred to as the Administrative Review Law) when the opinion is unreasonable or illegal. At present, China has not made clear legal nature of all kinds of disposal opinions in legislation. The legal nature of the detention and other disposal opinions shall be defined in the form of legislation. In this way, PSC behavior will be better regulated, State power will be exercised legally and reasonably to guarantee the lawful rights and interests of foreign ships.

4.3 Analysis on the dispute settlement mechanism of PSC

The aforementioned part analyzes the legal nature of disposal opinions of PSC and PSC behavior which are concluded as specific administrative acts. In China, Ships can protect their rights and interests according to the Administrative Litigation Law and the Administrative Review Law. On the international level, most of conventions such as SOLAS74 and MARPOL stipulate that “When exercising control under this regulation all possible efforts shall be made to avoid a ship being unduly detained or delayed. If a ship is thereby unduly detained or delayed it shall be entitled to

compensation for any loss or damage suffered”¹³. It is clear that foreign ships have been given the right to claim after being unduly detained. When a foreign ship is detained in China for the PSC inspection, China's domestic law, the appeal route in Tokyo MOU and other effective ways such as negotiation can be used to safeguard their legitimate rights and interests if shipowners believe that the detention is undue.

The domestic remedy route provides a dispute settlement way to all disposal opinions of PSC including detention. However, the appeal system and the review mechanism of the MOU are only for undue detention. There are still significant limitations to the existing dispute settlement mechanism for PSC. The following part discusses the issues of these remedy systems and the absence of quick dispute settlement mechanism through analyzing the domestic dispute settlement route, the appeal system in the MOU and the dispute review mechanism of the MOU.

4.3.1 Issues of domestic dispute settlement route

In the domestic remedy procedure of ship detention, parties involved face various difficulties, the procedure of administrative litigation and review is tedious and time-consuming, the judicial system has a cautious attitude towards the decision of PSCOs, and there are also other legal techniques and evidences in the process of specific appeal. In 1997, for example, a Malaysian ship docked in Canada, was inspected and considered to be excessively corroded, the PSCO detained the ship for non-compliance with maritime safety standards. In 1999, the shipowner prosecuted the Canadian government on the grounds that the PSCO was negligent after detaining ship and did not comply with the principle of making possible efforts to avoid undue detention in Tokyo MOU, and requested compensation of nearly 6 million Canadian dollars. In the opinion of the Court of First Instance, although

¹³ See Regulation 19 of Chapter I in SOLAS74, Regulation 11 of Annex I in MARPOL73/78.

Tokyo MOU did not confer legal obligations to member States, PSCO should still follow provisions of the MOU and pay attention to avoid the occurrence of undue detention at all times. And according to provisions of the Non-Canadian Ship Safety Order, the PSCO could only inspect ship certificates and have no right to detain the ship, so the PSCO was deemed to be negligent in the detention of the ship. However, the Court of Second Instance argued that the Canada Shipping Act had given PSCO the power to detain the ship, and it is believed that domestic law is more effective than the MOU, so it overturned the judgment made by the Court of First Instance . After a series of trials, the case was ended by the Supreme Court with rejecting the shipowner's appeal (Southcott & Walsh, 2008). The entire case lasted for seven years from 1999 to 2006, the shipowner had not only consumed a lot of time and energy, but also had not been compensated accordingly.

In China, the administrative counterpart can litigate or review the specific administrative act such as the PSC behavior and the detention or other disposal opinions according to the Administrative Litigation Law or the Administrative Review Law. In article 2 of the Administrative Litigation Law, “administrative act includes behaviors made by organizations authorized by laws, regulations and rules”. The PSC behavior is the specific administrative act implemented by China MSA under the Rules of Ship Safety Supervision, which is within the scope of the Administrative Litigation Law. The PSC behavior and the detention or other disposal opinions are not specified as review items in the Administrative Review Law, but on the basis of the article 6, the administrative counterpart may apply an administrative review for the matter "other specific administrative acts of the administrative organ infringe upon their legitimate rights and interests". PSC behavior and detention or other disposal opinions are specific administrative acts, so administrative counterparts can adopt the way of review to safeguard their rights and interests.

Article 99 of the Administrative Litigation Law stipulates that " this Law is applicable for foreigners, stateless persons and foreign organizations which conduct administrative litigation in China, and the same requirement is stipulated in article 41 of Administrative Review Law. Therefore, the two laws are applicable for shipowners, operators and company of foreign ships to protect their lawful rights and interests.

Furthermore, the undue detention can also be settled according to the ship Dispute Review Expert Committee work Procedure of the People's Republic of China MSA (hereinafter referred to as "Expert Review Procedure of ship detention "). The paragraph 3 and paragraph 4 of article 1 in the Expert Review Procedure of ship detention stipulate if the foreign ship is inspected by China MSA, and the shipowner or ship operator assumes that the detention is undue, but the administrative review procedure will not be adopted, and the case may be submitted directly to China MSA for litigation, or directly to the dispute review panel of Tokyo MOU for review. China MSA will establish an expert review panel for the application of the shipowner or ship operator to conduct the research and analysis of the detention. And in principle, the opinions and recommendations of the Review Expert Committee shall be adopted.

However, there are certain limitations in the above two methods, administrative litigation and administrative review are time-consuming¹⁴ and costly, the ship can not be released from the detention immediately. Remedies can be obtained only after the process of administrative litigation or administrative review is finished, and it

¹⁴ The first instance of administrative litigation procedure shall be completed within 6 months, and the administrative review procedure shall be completed within 60 days. There is the possibility of immediate theoretical settlement after application, but the decision on the completion time cannot be ruled out after the expiration.

may be a challenge to the administrative power of a State in accordance with domestic procedures, the risk is higher and it is easy to deteriorate the relationship with the port State. An extra day in detention means more loss to the ship, and administrative litigation and review are not the best way for port States, shipowners or operators. The Expert Review Procedure of ship detention has not clarified the time limit for review, and the decision of the expert panel will not be fully adopted by China MSA. Similarly, article 14 of the Expert Review Procedure of ship detention stipulates that “the conclusion of the expert review panel shall not be the basis for the economic compensation of the applicant”, so the result of the expert review panel does not have the effect of evidence. Thus it can be seen that the Expert Review Procedure of ship detention is a legal document specially issued for the undue detention of ship, but it still needs to be further improved.

Besides, member States of Tokyo MOU also submit the appeal system that can be adopted in these States to the MOU. However, this measure cannot fully protect the legitimate rights and interests of ships due to the inconsistent level of legislation in various countries and even the absence of legislation in some countries. For example, Indonesia has clarified in the report of remedy system of the MOU that there is no legislation related to the appeal system for detention under PSC, and the PSC headquarters is responsible for handling the appeals against detention; Malaysia has only clarified the time limit for the undue detention but has not submitted the appeal system that can be taken; Vanuatu do not make any submission.¹⁵ Other MOUs have also adopted the method of submitting the appeal system of ship detention in member States. However, except for Paris MOU, the submitting status of other MOUs is not ideal.

¹⁵[http://www.tokyo-rnou.org/doc/Appeal%20Procedures01020of0/a20Member%20Authorities%20of0f020the0/a20Tokyo%20MOU%20\(2018\).pdf](http://www.tokyo-rnou.org/doc/Appeal%20Procedures01020of0/a20Member%20Authorities%20of0f020the0/a20Tokyo%20MOU%20(2018).pdf), accessed on June 6, 2018.

4.3.2 Issues of dispute review mechanism in regional MOUs

Tokyo MOU stipulates the dispute review mechanism, the same as other MOUs, but there is a slight difference between them. According to the regulation of Tokyo MOU, when a shipowner or operator declines to use the official procedure but still wishes to complain about a detention decision, such a complaint should be sent to the flag State or the RO (acting on behalf of the flag State). The flag State or the RO may then ask the port State to reconsider its decision to detain the ship. In such cases the port State should investigate the decision and inform the flag State or the RO of the outcome. If the port State agrees to reverse its decision, it should also inform the Secretariat and the APCIS Manager. If the flag State or the RO disagrees with the outcome, a request for review may be sent to the Secretariat within 120 days from the date of release of the detention. The Secretariat will set up a “Detention Review Panel” (hereafter referred to as the “Panel”) comprising of 3 Authorities chosen by alphabetical order, excluding the port and flag State (if applicable). The Secretariat will also inform the port State of the request for review and invite the port State to submit relevant information. The Panel will consider the procedural and technical aspects of the inspection based on the information provided by the flag State and/or the RO and the port State. The Secretariat will prepare a final summary of the opinions of the Panel and will inform the flag State or the RO. If the views of the Panel support the flag State or the RO’s complaint, the port State will be requested to reconsider its decision again. The findings of the Panel are not binding but may provide justification for the port State to amend its inspection data already inserted in the APCIS and to inform the Secretariat and the APCIS Manager accordingly. The recommendation of the Panel could not be used as a ground for claiming a financial compensation.

Similarly, regulations for review in other MOUs are based on the above procedure.

However, there are differences in the composition of the review panel and the time point of application for review. Indian Ocean MOU stipulates that the application for review shall be within 90 days from the date of detention,¹⁶ and the panel consists of three member States excluding the port State, the flag State and the authority of operator. Black Sea MOU stipulates that the application for review shall be within 90 days from the date of the release of detention.¹⁷ Paris MOU stipulates that the review panel is composed of four member States excluding the port and flag State.¹⁸ The Paris MOU does not clarify that any findings of the review panel can not be used as a basis for economic claims, while other MOUs deny the effect of the evidence of findings mentioned above. As a result, the review result can be thought without legal effect in theory, port States can still decide to detain the ship which cannot obtain economic compensation according to the opinion of the review panel.

Although each MOU has stipulated the corresponding review mechanism, due to lack of legal effect, the actual effect is not satisfactory. First of all, there is a precondition to initiate the review procedure prescribed by MOUs, when the port State is required to reconsider under the request of the flag State or the RO and the outcome of the review of the port State is not agreed by the flag State or the RO, a request for review can be sent to the Secretariat, which requires a certain time cost. Secondly, the MOU does not have legal effect, the result of review mechanism can not be used as the basis for economic claim, the port State can still maintain the original decision without following the opinion of dispute review panel in the MOU. Thirdly, in addition to Indian Ocean MOU, other MOUs stipulate a request for review can be sent to the Secretariat from the date of release of the detention within a

¹⁶ <http://iomou.org/historymain.htm>, accessed on June 6, 2018.

¹⁷ <http://www.bsmou.org/detention-review-board>, accessed on June 6, 2018.

¹⁸ <http://www.parismou.org/inspections-risk/appeal-procedure/detention-review-panel-procedure>, accessed on June 6, 2018.

period of time. In practice, although the Secretariat will directly receive the request for review of the flag State and the RO after the detention, it is not clear whether it will accept the request for review before the release of detention. The MOU does not clearly define the application period for review, and the dispute is basically settled after the event rather than in time, so rights and interests of the party cannot be maintained immediately. Finally, the application subject is limited to the flag State and the RO for the dispute review, the party is not qualified to apply for. But under the implementation of the NIR of Paris and Tokyo MOU, ship performance under the PSC is directly linked to performance evaluation of the flag State and the RO. Within the above-mentioned MOUs, the initiative of the flag State and the RO to settle disputes can be ensured to some extent, but it still requires a certain amount of time cost. Moreover, the scope of the review is limited to the detention, and it does not include any other measures such as rectifying deficiencies before departure, the scope of settlement is relatively narrow.

In conclusion, the existing disputable detention settlement mechanism and the PSC dispute settlement mechanism cannot meet the requirements of ship development well. Domestic litigation and review system is time-consuming, and the win rate is low. The appeal system submitted in the MOU does not ensure that all ports can provide adequate legal protection for foreign ships, and the MOU is not legal binding, and opinions of the review panel of the MOU cannot be used as the basis for economic claims. At present, the effective way is only the communication and coordination between the port State and the flag State or the RO. Because the principle of "Genuine link" is not applicable for ship of flag of convenience, the convenient flag State may be idle to fulfill its responsibilities and make it more difficult to solve the problem when the ship is unduly detained. Furthermore, as mentioned in the above case, the port State may ignore the communication with the

flag State and the RO, and maintain the decision on the detention of the ship. Under the background of strengthening regional PSC cooperation, it is necessary to establish a quick dispute settlement mechanism which can be set up based on the development of information, the detention or other disputes under the PSC can be settled online for time-saving and legitimate rights and interests of the ship can be protected in time. It can also prevent disputes and damage expanding, and the coordination of regional PSC law enforcement standards and legal safeguard system will be guided.

Chapter V Suggestions and countermeasures of improving regional PSC coordination

In order to strengthen regional PSC coordination, it is necessary to improve the existing PSC system. The regional PSC coordination should not be limited to the international perspective, but also be focused on domestic level. As a class A member of IMO and the main initiative country of the 21st century Maritime Silk Road, China should make contributions to the development of PSC and improve the domestic PSC system for the regional PSC coordination to facilitate maritime transport.

5.1 Improvement of ship inspection regime

At present, the ship inspection regime of main MOUs has covered most factors, but there is still a space for improvement. For example, crew or human factors have not been incorporated into the risk parameters of the NIR; There is a gap between the NIR and the IMO auditing mechanism such as detention percentage. The data collection of ship management company performance is not comprehensive and cannot fully reflect the real performance of the company. If ships are surveyed by the same RO but built by different shipyards, it is better to evaluate the shipyard respectively. Similarly, if ships are managed by the same management company, the ship management company and the crew management company should be distinguished. For deficiencies, it will be helpful in the selection scheme if it is

possible to distinguish which deficiencies are related to design, construction, equipment itself and maintenance.

As for the improvement of ship inspection regime, firstly, it is suggested to maintain the consistency with III Code and improve the weight of ship detention to reflect the performance of the flag state. Secondly, the weight calculation of crew factors should be increased according to the blacklist of flag States of crew. Thirdly, it is suggested to coordinate the unified PSC selection criteria to promote the uniform implementation of the safety and environmental protection standards of all flag States.

5.2 Improvement of the PSC system in China

In the field of PSC, China has developed rapidly in the legislative and the law enforcement level. The average number of ships inspected annually, average detention percentage and average number of deficiencies per ship are far higher than those in other member States of Tokyo MOU¹⁹, and the detention percentage is much higher than that in Europe and America (Guo, 2013). Unfortunately, the PSC inspection level in China is still far from that in the United States, Australia and Japan. This is not only related to the delay of legislation in China but also to the status of law enforcement and the quality of law enforcement personnel. Therefore, it is necessary to improve the domestic PSC system from domestic legislation and law enforcement level.

5.2.1 Improving PSC legislation in China

The enactment of the law is a special activity of the administrative organ in

¹⁹ See ANNUAL REPORT ON PORT STATE CONTROL IN THE ASIA-PACIFIC REGION 2017.

formulating, revising and abolishing normative legal documents in accordance with statutory functions and procedures, usually referred to as legislation (Ge, 2015). There are some shortcomings in the legislative level of the PSC system in China, mainly reflected in the following two aspects.

Firstly, the domestic legislative transformation of the MOU shall be improved. The previous part has already stated that the MOU is not legal binding on member States because of the lack of legal effect, and its compliance mainly depends on the self-consciousness of member States. The domestic implementation of the MOU relies on the transformation of domestic legislation by member States, which has legal effect on member States. During the transformation of the MOU in China, the content of the transformation should be clarified. Secondly, it is necessary to clarify the type of administrative act of disposal opinions under PSC. As mentioned above, detention is an administrative compulsory measure, and ship expelled is similar to the administrative penalty, other disposal opinions are administrative orders. At present, China does not explicitly stipulate the legal nature of these acts in the field of administrative law. As a result, China needs a complete set of maritime administrative laws to regulate and explain this acts, for example, the detention and other disposal opinions can be incorporated into the Administrative Compulsion Law.

5.2.2 Establishing a clear and stable domestic law enforcement system

The PSC law enforcement subject needs to be improved and coordinated. The Rules of Ship Safety Supervision stipulates that the law enforcement subject of PSC is China MSA. However, with the entry into force of the BWM Convention, the law enforcement subject has the tendency of enlargement. Therefore, China MSA should actively cooperates with the State Oceanic Administration, General Administration of

Customs and Fishery Administration to strengthen inter-departmental coordination and reasonably exercise the power of PSC, such as carrying out the joint board inspection. During the inspection, each department checks their professional field and actively assists other departments. After inspection, the ship information is shared to facilitate the development of the highly efficient PSC law enforcement subject to better cope with difficulties caused by the diversification of international PSC law enforcement standards.

The PSC law enforcement personnel should also be improved. China has a relatively complete training system for PSC, but there is still a gap comparing with the developed countries in the level of law enforcement. In Australia, for example, there are less than 100 PSCOs, but the law enforcement level is excellent, and the stability of the team is strong, the number of cases per capita is extremely high. However, although China's PSC law enforcement team is large in scale, due to the large mobility of the team and relatively inadequate experience, the high level of law enforcement cannot be guaranteed. It is necessary to strengthen the construction of PSC law enforcement team by exchanging law enforcement experience with other countries, to establish good training and cooperation relationships with other port States.

5.3 Coordination and improvement of PSC MOUs

The main issues of the MOU are the absence of information sharing and mutual recognition mechanism between MOUs and the lack of legal effect, which causes the difficulties in the implementation of the MOU and the imperfect of dispute settlement mechanism. The following parts provide some suggestions and ideas for the issues mentioned above.

5.3.1 Establishing information sharing and mutual recognition mechanism

The ship data information system of each MOU does not record the inspection within other MOUs, which directly leads to multiple PSC inspections of ships sailing between different MOUs. Therefore, it is necessary to establish a information sharing and mutual recognition mechanism to provide information for the shipping interconnectivity.

There is no sharing and mutual recognition of the ship inspection result between different MOUs, mainly due to the different inspection cycle and selection scheme specified in each MOU. Under the different law enforcement standards, it is difficult for the port State to believe the ship inspection result carried out with the selection scheme in other MOUs. According to the inspection cycle in the MOU, in principle, the port State will not inspect the ship in a certain exemption period, which is a limitation of the excessive exercise of the PSC power. However, due to the absence of information sharing and mutual recognition mechanism between MOUs, this limitation can only be effective under this MOU.

In the case of different operating mode of each MOU, it is not difficult to establish a ship information sharing mechanism, which will be initially realized by establishing a data sharing platform for ship information on the basis of signing bilateral or multilateral ship information sharing agreements between MOUs and other member States, and authorizing member States to upload and update the ship information and query the ship historical information. On the other hand, there are some difficulties in the establishment of information mutual recognition mechanism. Each MOU has different calculation standards for the weight of ship, resulting in different ship risk level under different MOUs' information database. Therefore, after the PSC

inspection, the exemption period that the ship can enjoy in principle should be different. Under the scope of other MOUs with information sharing, the mutual recognition of ship inspection results can be carried out by means of a reasonable exemption period specified in the agreement. For example, the ship can still enjoy the original exemption period according to the provision of A MOU, and after sailing to B MOU, the corresponding exemption period can be agreed according to the different risk level in the mutual recognition agreement.

Besides, China can also sign agreements with member States of other MOUs to recognize each other's PSC inspection results, and gradually expand the number of countries participating in information mutual recognition mechanism. Based on the cooperation between China and Asean countries in geographical location, cultural background and other aspects, and combining with the requirement of the 21st century Maritime Silk Road, China can take the lead in developing the ship information sharing and mutual recognition cooperation with Asean, and gradually promoting this system from the beginning. For example, Myanmar, one of the Asean members, is a member of Indian Ocean MOU, while other countries in Asean except Laos and Cambodia are members of Tokyo MOU. China and Myanmar belong to different MOUs, ship information cannot be shared and recognized directly. China can sign a cooperation agreement on information sharing and mutual recognition of ships with Myanmar. It is possible to agree the corresponding exemption period according to different risk levels and apply it in the mutual recognition agreement of the ship to eliminate the distrust of ship inspection results caused by different rules of selection scheme and inspection cycle. On this basis, along with the implementation of the 21st Century Maritime Silk Road, other countries are advocated to join the ship information sharing and mutual recognition agreement from the point to line and from the line to the surface.

5.3.2 Building a rapid dispute settlement mechanism

PSC system is the exercise of the administrative power of a State based on territorial jurisdiction. At present, there are some disadvantages in the appeal system of the MOU, domestic appeal route and legal remedy system. As for regional PSC coordination, it is necessary to build a rapid dispute settlement mechanism to reduce the occurrence of undue detention with a timely way and prevent economic loss or damage expanding. When disputes occur and the parties apply for settlement of disputes, the internet and other information communication technology can be used to achieve online evidence transmission and online debate for rapid settlement of disputes. Although the infrastructure construction in most areas is still relatively backward and the technology level is underdeveloped, with the implementation of the 21st century Maritime Silk Road, these technical problems will be solved, making the online rapid dispute settlement model possible.

On the other hand, this kind of dispute settlement is a challenge to the administration and the judicial sovereignty of a State. Generally, the core of the internationalization of administrative remedy is the accountability (Nan, 2017). If a regional PSC dispute settlement mechanism is built, such as the above-mentioned mechanism, which is equivalent to build a regional accountability mechanism. In order to make the outcome of such regional dispute settlement mechanism have the effect of evidence and to determine whether PSC behavior or detention is legal, it is necessary for regional countries to reach agreements or even conventions on recognition of the mechanism. It is obvious that there is a great resistance in this way. In a large number of sovereign countries and regions, it is difficult to persuade other countries to coordinate their own judicial sovereignty to participate in and apply a regional PSC dispute settlement mechanism in the context of different political, economic and

legal development. However, the existence of WTO and UN make the idea of building a regional administrative remedy system for PSC possible.

The parties may choose to apply the rapid dispute settlement mechanism when the ship suffers undue detention or even other unreasonable administrative acts under PSC. The rapid dispute settlement may involve the legal remedy system at the administrative level, which belongs to the state accountability system and is connected with the state compensation system. Such dispute settlement mechanism is characterized by efficiency, flexibility, timing and authority. It is similar to the expert database, the dispute settlement panel contain both well-experienced people in the field of practice and experts in the field of PSC supervision and law enforcement. In the event of undue detention or other improper PSC behavior, the administrative counterpart or the port State may apply to determine the legal and reasonable basis for the detention and transfer the photo information or the record of the testimony timely to obtain the result quickly with advanced electronic information technology and network communication technology. When countries in the region have reached an understanding of the rapid dispute settlement mechanism, the verdict should be authoritative and be approved by other port States. This kind of dispute settlement mechanism is built on top of the country, and the most appropriate supervising subject may be IMO or even UN. This regional consensus is dependent on national lobbying and time deposits.

In order to settle PSC disputes quickly, a rapid technology arbitration mechanism for PSC disputes can also be established. This mechanism is a kind of compensation for the outcome of the MOU's review mechanism without evidence effect. Moreover, this dispute settlement mechanism is limited to the scope of technology, that is to determine whether the deficiency found by PSC is existed or not, and whether the

ship should be detained or not without interfering with the decision of the port State, but at the same time, it has the evidence effect. For instance, article 10 of MARPOL convention stipulates “Any dispute between two or more Parties to the Convention concerning the interpretation or application of the present Convention shall, if settlement by negotiation between the Parties involved has not been possible, and if these Parties do not otherwise agree, be submitted upon request of any of them to arbitration as set out in Protocol II to the present Convention.” In the case of a dispute under the MARPOL convention, requesting Party shall inform the Secretary-General of the IMO of the fact that it has applied for the establishment of a Tribunal. The Tribunal shall consist of three members: one Arbitrator nominated by each Party to the dispute and a third Arbitrator who shall be nominated by agreement between the two first named, and shall act as its Chairman. Then, the interpretation or application of the Convention or Regulations will be determined, The Tribunal shall render its award within a period of five months from the time it is established unless it decides, in the case of necessity, to extend the time limit for a further period not exceeding three months. However, this dispute has been tried for too long and still belongs to the afterward remedy system. In this way, China can apply for the establishment of the PSC arbitration institution under the IMO framework. When considering the PSC behaviour is improper, the Party can apply for the establishment of a Tribunal which conducts the online technical arbitration on the deficiency without interfering with the disposal result of the port State, only judging whether the deficiency exists or not and whether it is sufficient to lead to detention or not, and the evidence is effective to provide a basis for the protection of lawful rights and interests of the Party. When the award of the Tribunal determines the deficiency does not exist or not sufficient to lead to detention, the port State can still maintain the original decision but may lose a lawsuit because the award has the evidence effect. It has a huge effect on the reduction of undue detention percentage, and the case trial

can be heard online quickly, which is conducive to resolving disputes timely, eliminating conflicts and preventing the expansion of losses. The establishment of the above system requires the approval of port States and the support with large data of cases and deficiencies. It should be recognized that the establishment and implementation of any system cannot be achieved overnight, the implementation of the 21st century Maritime Silk Road is an opportunity for the implementation of a unified rapid dispute settlement mechanism. China can sign a agreement with the neighboring port States and even Asean countries, and advocate other countries to join in. Then, the regional PSC law enforcement standards can be indirectly regulated and coordinated by quickly determining whether the deficiencies found by port States are reasonable.

5.3.3 Proposal for the reconstruction of MOU

The traditional MOU is not legal binding, but its establishment and amendment are characterized by flexibility and convenience. Therefore, China can advocate the establishment of a new MOU system under the 21st century Maritime Silk Road and call for more countries to participate in it to promote the active implementation of the selection scheme under the new MOU, then, the coordination and unification of ship selection scheme, ship inspection cycle, information sharing and mutual recognition mechanism and rapid dispute settlement mechanism can be promoted.

The new MOU should stipulate a unified ship selecting criteria, ship inspection cycle, appeal system, and also the information sharing mechanism. According to the operating mode of traditional MOU, there is no obstacle to recognize the ship inspection result among member States in the same MOU. The above-mentioned rapid technical arbitration mechanism and the expert database can be incorporated

into the new MOU system, States are encouraged to carry out domestic law transformation on the new MOU system or sign convention or agreement with each other actively to ensure that opinions of the expert database are fully respected and the results of the rapid dispute settlement mechanism are recognized.

Under the new MOU system, ships enjoy different exemption periods according to the risk level, and the system such as the authoritative and effective rapid dispute settlement mechanism and expert database can quickly deal with the dispute under the PSC including the undue detention to regulate the PSC law enforcement behavior of member States. The establishment of new MOU system under the 21st century Maritime Silk Road provides adequate legal guidance and legal protection for ships sailing within this MOU and provides legal convenience for shipping development without excessive limitation of the PSC.

The construction of this new MOU is a comprehensive and final solution to the issues presented in this paper, since it is still not legal binding, the implementation is still dependent on the voluntary compliance by States. Although the establishment of this MOU is feasible and necessary, it should take full account of the impact of geographical factors on the navigation of ships, the new MOU shall adopt different standards according to different regions in the law enforcement basis. For example, ships sailing in the Caribbean sea still apply the CCSS Code to carry out PSC inspection under the new MOU, but deficiencies found under this code only affect the navigation of ships in the Caribbean sea. If deficiencies found are specified in other conventions such as SOLAS, which will affect the navigation of ships in the waters under the jurisdiction of the new MOU. The new MOU adopts the method of discriminating international standards and regional standards to standardize the law enforcement of PSC and promote the cooperation of PSC.

In addition, the regional PSC coordination fund should be established under the new MOU system to make up for the ability of implementing PSC in regional and inter-regional developing countries. Firstly, the rule of payment, management and usage of the fund should be established and corresponding procedures should be clearly identified to ensure exclusive use. Secondly, the source and payment of the fund may be proportionally allocated according to the factors such as number of ports owned by each member State or the ship throughput, which shall be uniformly managed and used by the new MOU system. On the scope of use, the principle of moderate tilt in developing countries should be reflected, and the capacity of developing countries to implement PSC should be improved through personnel training, financing and technical support.

The above series of suggestions and ideas are proposed in the context of the 21st century Maritime Silk Road. The regional PSC coordination is based on the MOU, but the MOU is a factor that hinders the further cooperation and coordination of the regional PSC, and these disadvantages cannot be solved without the participation and support of many countries all over the world. Meanwhile, it also needs to use certain legal means to promote the coordination of regional PSC and the interconnectivity of shipping with legal convenience.

Conclusion

At present, under the flag of convenience and the continuous lack of supervising by flag States, the establishment of regional PSC coordination mechanism is not only in line with practical needs, but also has legal basis and economic feasibility. The implementation of 21st century Maritime Silk Road under the One Belt and One Road is an important opportunity for the unification of regional law enforcement standards and legal guarantee system in the field of PSC. Under the traditional PSC system, due to the insufficient legal effect of the MOU, its compliance depends on the self-consciousness of member States. Each port State only adopts the ship inspection regime specified by the MOU and the ship information data sharing platform for the PSC inspection, which has a large amount of discretion in terms of ship selection, and the ship inspection result can only be recognized within the same MOU. Based on the regional PSC coordination, this paper discusses how to provide convenience for shipping development and summarizes the existing issues in PSC coordination including the inconsistent ship inspection regime, the lack of legal effect and the absence of information sharing and mutual recognition mechanism with other MOUs. The lack of legal effect leads to the PSC dispute review mechanism without evidence effect in the MOU, the absence of information sharing and mutual recognition mechanism results in repeated inspection. In terms of the PSC dispute settlement, in general, the litigation, appeal and review systems in the port State are time-consuming and the win rate is extremely low. Negotiation

between countries is often flexible and feasible, but interests of the ship cannot be fully guaranteed because the port State may refuse to communicate, and appeal system submitted by member States in the MOU is not complete, the review mechanism in the MOU is not legal binding and difficult to stop the loss timely.

It is well known that the strict implementation of PSC in a State or a region cannot effectively eliminate substandard ships, it requires effective cooperation and mutual support among countries and regions to establish the balanced and coordinated PSC system. The only way to effectively eliminate substandard ships is to form a unified PSC network around the world (Yu, 2006). As IMO Secretary-General Mitropoulos said at the second Paris and Tokyo MOU ministerial joint conference in 2004, “there is no doubt that cooperation between countries can promote the sharing of PSC information, the effective use of existing resources to organize and coordinate inspections, all of which greatly pose the pressure on substandard ships. The unified implementation of the PSC system around the world will be a mutual objective of the existing regional MOUs and USCG”.

In order to improve the PSC system and solve the above issues, this paper argues that the PSC system should be improved at the domestic level and coordinated at the international level. At the domestic level, China, as the initiator of the 21st century Maritime Silk Road, is obliged to improve the domestic PSC system to promote regional shipping interconnectivity and enhance the PSC image. The major improvements include improving the ship inspection regime, the existing PSC legislation and the construction of a high-level law enforcement system, and the establishment of the PSC expert database. The coordination of international level mainly includes the construction of the ship information sharing and mutual recognition mechanism between MOUs or countries and the establishment of the

rapid PSC dispute settlement mechanism such as the regional PSC technical arbitration. It is also believed that the establishment of a new MOU system can comprehensively and preliminarily solve the above issues, but the entry into force and implementation of the new MOU requires a great deal of economic costs and time costs, as well as the active participation and support of other port States. Therefore, the establishment of the new MOU still faces a big challenge. The proposal of the 21st century Maritime Silk Road provides the feasibility of establishing a new MOU, China should make good use of this opportunity not only to play a leading role in the coordination field of PSC, but also to strengthen cooperation with other port States, and actively advocate the promotion and implementation of the above-mentioned suggestions to contribute to regional PSC coordination.

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