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Date: 14/10/2018

Dear Captain  
Good Day,

Kindly find the attached informative document titled "**CHINA EMISSION CONTROL AREAS IMPLEMENTATION, FOURTH EDITION OCTOBER 2018**" for your kind attention and necessary precaution measures.

You are requested to confirm receipt, discuss the contents in the next consolidated meeting on board & keep a copy in the file DA-11 .

Best Regards,

Capt. A. Amini

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# China Emission Control Areas Implementation



**China Classification Society  
European Center**

Fourth edition, October 2018

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# 1. Introduction

The Ministry of Transport (MOT), the People's Republic of China (hereinafter referred to as "China") issued Marine Emission Control Areas Implementation Scheme for Pearl River Delta, Yangtze River Delta, Bohai-rim Waters (hereinafter referred to as "China ECAs Implementation Scheme") on 4 December 2015, which have entered into force from 1 January 2016.

4 core ports in Yangtze River Delta including Shanghai, Ningbo-Zhoushan, Suzhou and Nantong issued formal notices to implement the requirement of fuel sulphur content  $\leq 0.5\%$  m/m in advance since 1 April 2016. Subsequently Shenzhen Authority announced vessels calling Shenzhen ports (including Yantian, Shekou, Chiwan, Mawan, Dachan Bay) are required to use fuel with sulphur content  $\leq 0.5\%$  m/m since 1 October 2016.

On 1 January 2017 all 11 core ports in China ECAs implemented low sulphur content control measures at berth. Subsequently all remaining ports in the Yangtze River Delta ECA declared the implementation in advance from 1 September 2017.

Since 1 January 2018 all ports in China ECAs implemented low sulphur content control measures at berth. The updating news is the control areas of within Shanghai, Suzhou, Nantong, Ningbo-Zhoushan in Yangtze River Delta ECA implementing the low sulphur content control measures.

Furthermore the MOT, China was soliciting public opinion on the Draft of China ECAs Implementation Scheme Amendment which may extend the scope of ECAs and take stricter content limit. The emission control may aim at both SO<sub>x</sub> and NO<sub>x</sub>.

One case occurred on 23 February 2017 when MSA officers in Jingtang port, Hebei inspected a Malta-flagged bulk carrier and took sample of fuel oil which was sent to Hebei Entry-Exit Inspection and Quarantine Bureau



Photo courtesy of China Shipowners Mutual Assurance Association

for test. Test result obtained on 27 February indicated sulphur content 1.11%<sub>m/m</sub> exceeding 0.5% <sub>m/m</sub> as required. Consequently Jingtang port MSA informed MSA in Tianjin where the vessel was berthing. On 28 February Tianjin MSA officers attended onboard and took sample again indicating sulphur content 0.866%<sub>m/m</sub>. China MSA had grounds to believe the vessel using non-compliant fuel which constitutes breach of “Air Pollution Prevention and Control Law of the People’s Republic of China” and imposed penalty 60,000RMB. As per further investigation the breach resulted from loss of management onboard. The chief engineer was not familiar with fuel change-over procedure. In the case where the fuel was not identified clearly high and low sulphur fuels were pumped to mix up wrongly and result in excess of limitation.

According to the statistics, from April to November 2016, Shanghai MSA inspected 1858 vessels and found 55 vessels in breach of the requirements. The environmental monitoring data shows, from April to December 2016, SO<sub>2</sub> content of atmosphere declined 52% compared to 2015 in Gaoqiao port of Shanghai Pudong and fell 23% in Shanghai New Jiangwan port. In the first half of 2017, SO<sub>2</sub> content declined 31% in Zhenhai port of Ningbo and 21% in Beilun port. In the eastern port of Shenzhen, SO<sub>2</sub> content fell around 38% compared to before ECA implementation. Within one month after ECA implementation, SO<sub>2</sub> content in Jingtang port declined 56%.

This publication collects and summarizes the updated China ECAs Implementation scheme, notices, guides issued by Competent Authority and circulars issued by China Classification Society, and focuses on the distinction in emission control requirements among ports of Europe Union, the Hong Kong Special Administrative Region of the People’s Republic of China (hereinafter referred to as “Hong Kong, China”) and China.

The fourth version mainly updates the earlier implementation in Yangtze River Delta ECA.

## 2. China ECAs Specification

Currently there are three Emission Control Areas are defined, including Pearl River Delta, Yangtze River Delta, Bohai-rim Waters.

### (1) Bohai-rim Waters (Beijing, Tianjin and Hebei Province)

The ECAs of Bohai-rim Waters have the following inland water boundary:

Inland navigation waters under the administrative jurisdiction of Dalian, Yingkou, Panjin, Jinzhou, Huludao, Qinghuangdao, Tangshan, Tianjin, Cangzhou, Binzhou, Dongying, Weifang, Yantai, totally thirteen (13) cities.

Four(4) core ports: Tianjin, Qinhuangdao, Tangshan and Huanghua Port.



### (2) Yangtze River Delta

The ECAs of Yangtze River Delta have the following inland water boundary:

Inland navigation waters under the administrative jurisdiction of Nanjing, Zhenjiang, Yangzhou, Taizhou, Nantong, Changzhou, Wuxi, Suzhou, Shanghai, Jiaying, Huzhou, Hangzhou, Shaoxing, Ningbo, Zhoushan and Taizhou, totally sixteen (16) cities.

Four(4) core ports: Shanghai, Ningbo-Zhoushan, Suzhou, Nantong Port.

### (3) Pearl River Delta

The ECAs of Pearl River Delta have the following inland water boundary:

Inland navigation waters under the administrative jurisdiction of Guangzhou, Dongguan, Huizhou, Shenzhen, Zhuhai, Zhongshan, Foshan, Jiangmen and Zhaoqing, totally nine (9) cities.

Three(3) core ports: Shenzhen, Guangzhou, Zhuhai Port.

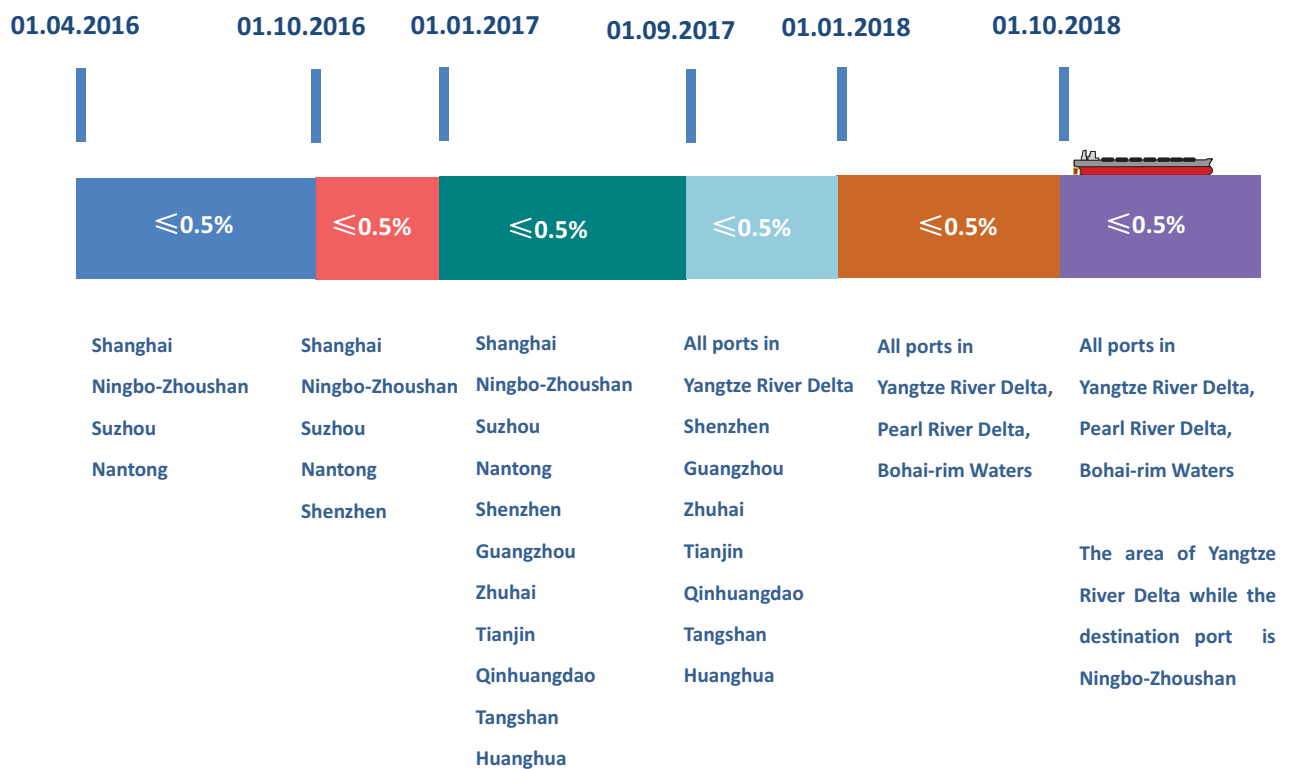
### 3. Implementation Roadmap

In general NO<sub>x</sub> emission control in Chinese waters shall be in line with the requirements stipulated in current MARPOL Annex VI for these international voyage ships, while SO<sub>x</sub> emission control must follow roadmap as below according to China ECAs Implementation Scheme.

Phase	Sulphur content (m/m)	Applicable Area	Time
01.01.2016 - 31.12.2016	≤0.5%, or equivalent measures*	The ports which are in favorable conditions (voluntary)	At berth (except within 1 hour after arrival and within 1 hour before departure)
	≤3.5%	Area within China ECAs other than these ports which are in favorable conditions (mandatory)	All time
01.01.2017 -31.12.2017	≤0.5%, or equivalent measures*	Core ports (mandatory)	At berth (except within 1 hour after arrival and within 1 hour before departure)
	≤0.5%, or equivalent measures*	Ports other than core ports which are in favorable conditions (voluntary)	At berth (except within 1 hour after arrival and within 1 hour before departure)
	≤3.5%	Area within China ECAs other than core ports and other ports which are in favorable conditions (mandatory)	All time
01.01.2018 -31.12.2018	≤0.5%, or equivalent measures*	All ports (mandatory)	At berth (except within 1 hour after arrival and within 1 hour before departure)
	≤3.5%	Area within China ECAs other than all ports (mandatory)	All time
01.01.2019 -31.12.2019	≤0.5%, or equivalent measures	Area within China ECAs (mandatory)	All time
From 01.01.2020	≤0.1%, or equivalent measures*	Area within China ECAs; Expansion of China ECAs; Other possible measures	Possible implementation after completion of assessment before 2019.12.31

\* Equivalent measures mean using ashore cold iron, using clean energy such as liquefied natural gas (LNG), or using an exhaust gas cleaning system (EGCS).

It is noteworthy that the Port Authorities may release the implementation notice ahead of timetable set in Scheme. So far there are several ports declaring the implementation in advance that ships calling those ports have to use fuel with sulphur content not exceeding 0.5%*m/m*. CCS is paying close attention to possible information released by Authorities.





## 4. Operational requirements

In order to implement the China ECAs Implementation Scheme, facilitate ships navigating, at berth and operating within the ship emission control areas, strengthen the supervision and management on the prevention and control of air pollution by ships and improve the quality of atmosphere environment, China MSA issued Notice on Strengthening Supervision and Management on Ship Emission Control Areas of Maritime Safety Administration of the People's Republic of China on Jan. 29 2016 to provide the parties concerned with specific operational requirements for the implementation of the Scheme.

According to the Scheme, for ships needing a changeover to low sulphur fuel within the Control Areas, information such as start and finish dates, time and marine longitude and latitude of the changeover, sulphur content in fuel, consumption of low sulphur fuel and changeover operators should be recorded in the machinery logbook. Any ship needing the changeover should provide a fuel changeover procedure in written form as part of its safety management system.

The ships should keep bunker delivery note for three (3) years and the samples until the fuel is used up but at least for one year.

For ships and terminals equipped with shore-based power supply/receiving and properly arranged according to the power supply and receiving procedure, without affecting ship-shore safety, the ships can give priority to ashore cold iron. Information such as start and finish dates, time and operators of using ashore cold iron should be recorded in the machinery logbook.

For dual-fuel fueled ships, information such as consumption of each kind of fuel, fuel changeover date, time and marine longitude and latitude and operators should be recorded in the machinery logbook.

For the ships using exhaust gas cleaning devices as an equivalent measure, the information such as start and finish dates, time and marine longitude and latitude of using the device and operators should be recorded in the machinery logbook.

In order to ensure marine safety or implement the rescue at sea, or in the case of any non-conformity with the emission control requirements of the Scheme caused by damage and malfunction of ship and equipment, the ships involved should report the relevant information to the nearest maritime authority in time and record it in logbook.



# 5. Port state control

## Inspection requirements for ship changeover to low sulphur fuel

### Documentation inspection

- Machinery Logbook: checking correct record such as start and finish dates, time and marine longitude and latitude of the changeover. checking sulphur content in fuel, consumption of low sulphur fuel. checking the record of fuel oil stored in per tank.

- Bunker delivery note
- Fuel changeover procedure and operation record.

### Fuel inspection

For ships which fail the document inspection or which have violation records or which are suspected of violation after supervision, the maritime authority should carry out a fuel test.

For ships which pass the document inspection and do not have any violation records and not come under suspicion of violation, the maritime authority may carry out the fuel test randomly.

For ships subject to the fuel test, the maritime authority should make arrangements for law enforcers to take samples from the fuel on board the ship and deliver them to a testing company with the proper qualifications stipulated by the State for test. The testing company should issue a test report.

It should be paid attention to that portable sulphur content detectors are widely used for fuel local inspection by MSA of Shanghai, Dalian, Jiangyin etc. The detector may give result around 2 minutes.

In certain ports, emission monitoring devices have been used for ships en route. The suspected ships based on preliminary screening will be targeted for port state inspection.



Photo courtesy of Chinanews.com

### Penalties

Ships using the fuel which does not meet the standards or requirements should be, according to the circumstances of violation, subjected to one or more of the followings in accordance with the provisions of laws and regulations or international conventions:

- Warning education;
- Corrective actions;
- Detention;
- Punishment according to the Regulation106 of the Air Pollution Prevention and Control Law of the People's Republic of China. If the ship has departed from the port, the local maritime authority may ask the maritime authority responsible for the next port to offer its assistance with investigation.

## Inspection requirements for equivalents

### Document inspection

The maritime authority should, in conjunction with site supervision and safety inspection, check the documents of the ship. Details are as follows:

For ships using ashore cold iron, it should be checked that the start and finish time of using ashore cold iron is recorded completely and normatively in the machinery logbook; it should be ensured that the start and finish time of using ashore cold iron is in accordance with the requirements of control areas; and that the ship has been equipped for the use of ashore cold iron.

For ships using clean energy, it should be checked that the use of clean energy on board has been marked on the Air Pollutions Prevention Certificate. For dual-fuel fueled ships, it should be checked that the time of fuel

changeovers recorded completely and normatively; and that the marine longitude and latitude at the time of changeover are recorded completely and normatively; it should be ensured that positions of the ship at the time of changeover meet the requirements of the control areas; and it should be checked that the consumption of clean energy and fuel is recorded completely and normatively.

For ships using exhaust gas cleaning devices, it should be checked that the start and finish time of using the device is recorded completely and normatively in the machinery logbook; and that the marine longitude and latitude at the time when the device is started and stopped are recorded completely and normatively; it should be ensured that positions of the ship at the time when the device is started and stopped meet the requirements of the control areas; and it should be checked that a product certificate of the device is provided and the Air Pollutions Prevention Certificate has been endorsed accordingly.

### Site inspection

For ships which fail the document inspection or which have violation records or which are suspected of violation after supervision, the maritime authority should patrol in the field to inspect ship's use of ashore cold iron and clean energy and installation of exhaust gas cleaning device.

### Penalties

Ships adopting equivalents which fail to meet the requirements of emission equivalent to the one of low sulphur fuel oil should be, according to the circumstances of violation, subjected to one or more of the followings in accordance with the provisions of laws and regulations or international conventions:

- Warning education;
- Corrective actions;
- Detention.



Photo courtesy of Jiangsu MSA

## 6. Definition and interpretation

In order to meet requirements of China ECAs Implementation Scheme, there are several important definitions of terms as follows which were issued by China MSA. For a port requiring 0.5% maximum sulphur fuel at berth, the ship should calculate the start time of changeover operation to ensure the compliant fuel used on board within 1 hour after berthing.

**At berth** refers to the period between the moments when the ship being securely moored at a berth and unmoored from its berth.

**Berth** doesn't include anchoring and buoys mooring.

**Securely moored** as mentioned above means the status in which all mooring cables are secured. In extreme sea condition, provided that the main engines need standby condition to ensure the ship's safety, "securely moored" means the status in which the ship finishes with engines.

**Note:** there is different definition in Shenzhen, ie. **berthing time** is defined as the period of time when the first cable fastened till all the cables of the ship are untied.

**Unmoored from its berth** means the status in which all mooring lines are untied.



**Use fuel with sulphur content  $\leq 0.5\% \text{m/m}$**  means that all fuel used equipment on board (including the main engine, auxiliary engine, boilers, generators, etc.) should use the fuel sulphur content  $\leq 0.5\% \text{m/m}$ .

According to implementation plan of China ECA, ships at the core ports within ECAs must use fuel oil containing 0.5% m/m or less from the moment 1 hour after being securely moored. It should be noted at the moment fuel changeover operation should have completed and compliant fuel has been burned on board. In light of above definitions, the crew could decide when changeover operation starts.

For the whole ports requiring 0.5% maximum sulphur fuel, either sail or berth, the ship should ensure the completion of fuel changeover operation before entering control areas of the ports.

For a ship sailing to Ningbo-Zhoushan port, the fuel changeover operation should be completed before entering Yangtze River Delta ECA.

## 7. Regulation Comparison

Nowadays the Authorities of Europe Union (hereinafter referred to as “EU”), Hong Kong, China and Mainland, China have emission control policies for ports respectively. Due to unawareness of existing distinction among different ports, ships may be in breach of such requirements and lead to penalty even detention. This section gives a summary of emission control requirements in these Authorities as reference.

Implementation date	
<b>EU</b>	01.01.2010
<b>Hong Kong, China</b>	01.07.2015
<b>Mainland, China</b>	01.01.2017 (several ports implementation in advance)
Sulphur content limitation in fuel	
<b>EU</b>	≤0.1%m/m
<b>Hong Kong, China</b>	≤0.5%m/m
<b>Mainland, China</b>	≤0.5%m/m
Applicable area	
<b>EU</b>	EU ports, excluding ports in the French overseas departments, the Azores, Madeira and the Canary Islands. Directive 1999/32/EC does not contain a definition of port area, which is established by the Competent Authority of Member State
<b>Hong Kong, China</b>	Any location in the waters of Hong Kong can be a berth as long as the vessel is not underway, including container terminals, cruise terminals, wharf, buoys, anchorages etc
<b>Mainland, China</b>	2017.1.1 -2017.12.31 Core ports in ECAs (several ports implementation in advance) 2018.1.1- 2018.12.31 All ports in ECAs (several ports implementation in advance) 2019.1.1- 2019.12.31 All areas in ECAs
Definition of berth	
<b>EU</b>	Including moored or anchored
<b>Hong Kong, China</b>	Including moored or anchored
<b>Mainland, China</b>	Not including anchoring and buoys mooring.
Start time of using compliant fuel	
<b>EU</b>	No exact requirement. Crew should start fuel-changeover operations as soon as possible after the ship is securely moored or anchored in port.
<b>Hong Kong, China</b>	1 hour after the moment the vessel is securely anchored or moored at berth.

**Mainland, China** For the port implementing emission control at berth, 1 hour after the moment the ship is securely moored\* at berth.  
 For the port implementing emission control at both sail and berth, the moment the ship entering control area of port.  
 For Ningbo-Zhoushan port, the moment the ship entering Yangtze River Delta ECA.

#### End time of using compliant fuel

**EU** No exact moment requirement. Crew should start fuel-changeover operations as late as possible before departure, when it is allowed to start fuel changeover to be ready for departure.

**Hong Kong, China** 1 hour before the ship is untied from its berth

**Mainland, China** For the port implementing emission control at berth, 1 hour before the vessel is untied from its berth.  
 For the port implementing emission control at both sail and berth, the moment the vessel departing control area of port.

#### Applicable machinery using compliant fuel

**EU** All engines and boilers onboard the ship which are kept running while at berth

**Hong Kong, China** The main engine (except when it is used for the propulsion of the vessel), the auxiliary engine, the boiler and the generator

**Mainland, China** All fuel used equipment on board (including the main engine, auxiliary engine, boilers, generators, etc.)

#### At which moment does a ship has to changeover fuel?

**EU** As soon as possible after arrival at berth.

**Hong Kong, China** In the case where 1 hour fuel switching time is sufficient, change over operation start as soon as possible after arrival. However, in a rare case where it takes longer than 1 hour to switch fuels, the ship management or master should start fuel switching well in advance to ensure that switching to compliant fuel is completed within the first hour after arrival. (Quotation from Guide to the Air Pollution Control (Ocean Going Vessels)(Fuel at Berth) Regulation)

**Mainland, China** As early as possible to ensure that changeover operation is completed within the first hour after arrival (securely moored\*), for the port requiring low sulphur fuel oil at berth.  
 As early as possible to ensure that changeover operation is completed before entering control area, for the port requiring low sulphur fuel oil at both sail and berth.

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\*The definition of berthing time may be different at individual port such as Shenzhen.

## 8. Frequently Asked Questions

Since the China ECAs Implementation Scheme was published in 2015 CCS received various questions from shipowners and management companies. For the purpose of assisting the parties concerned to understand the requirements CCS collected frequently asked questions and developed below responses for reference. It should be noted the responses are from understanding based on documentation released by China MSA which will be responsible for the actual implementation and final decision made.

**Q: What kinds of vessels have to follow the China ECAs requirement?**

**A:** The requirements apply to these vessels when they are sailing, anchoring or operating in China ECAs, however, warships/military ships, sport ships/boats, or fishing ships/vessels are excluded.

**Q: What areas in China have implemented the emission control in 2018?**

**A:** (1) **Pearl River Delta:** All Ports  
(2) **Yangtze River Delta:** All Ports  
(3) **Bohai-rim Waters:** All Ports

**Q: For a vessel without using ashore cold iron, clean energy or exhaust gas cleaning system (EGCS), what documents and records should be kept on board?**

**A:** 1. Machinery logbook, recording the information such as start and finish dates, time and marine longitude and latitude of the ship changeover, sulphur content in fuel, consumption of low sulphur fuel and changeover operators etc.  
2. Oil record book.  
3. Fuel changeover procedure.  
4. Bulker delivery note, kept on board for 3 years.

**Q: What may the penalties be taken after the port authorities have found violations of the sulphur emission control requirements?**

**A:** 1. For ships using non-equivalent measures, the penalty may be:  
a) Warning education;  
b) Corrective actions;  
c) Detention;  
d) Punishment according to the Regulation 106 of the Air Pollution Prevention and Control Law of the People's Republic of China. If the ship has departed from the port, the local maritime authority may ask the maritime authority responsible for the next port to offer its assistance with investigation.  
2. For ships using equivalent measures, the penalty may be:  
a) Warning education;  
b) Corrective actions;  
c) Detention.

**Q: In 2018, can a ship start to switch fuel changeover from 1 hour after berthing at port within the ECAs?**

**A:** NO. According to the China ECAs Implementation Scheme, for the ports requiring low sulphur fuel oil at berth, all of ships have to use the low sulphur fuel at the moment 1 hour after berthing. It means that all of ships have to complete fuel changeover within 1 hour. For the ports implementing emission control at both sail and berth, the fuel changeover operation should be completed before ship entering control areas of the ports. (For Ningbo-Zhoushan port as destination, the fuel changeover operation should be completed before ship entering Yangtze River Delta ECA.)

**Q: For the port requiring low sulphur fuel oil at berth, if a ship needs more than 1 hour to complete the fuel changeover, does it have to start earlier before berthing?**

**A:** YES. Please strictly implement one hour time limit. So check the changeover time on board carefully according to changeover procedure. If it will cost more than 1 hour to complete, please prepare for fuel changeover in advance.

For example, according the procedure, the changeover will need half an hour; the ship can start to switch to compliant fuel after berthing. If it will need one and half an hour, please operate the switching half an hour before the ship berthing.

**Q: For the port requiring low sulphur fuel oil at berth, does ship berth at anchorage need to meet the requirements?**

**A:** Before 2019, the requirements only apply to the ship's berth at port except for Yangtze River Delta. However some ships which need longer time to complete the fuel changeover may need to start the operation in the anchorage.

And, it is recommended to consult local agent before arrival at any port, due to the local authorities may impose optional higher standards on their territory.

**Q: What equipment on board have to use compliant fuel?**

**A:** All fuel used equipment on board including the main engine, auxiliary engine, boilers, generators, etc.

**Q: For the port requiring low sulphur fuel oil at berth, whether the ports in ECAs implement unified standard? If the difference exists, how to deal with?**

**A:** Generally the implementations in ports are same. However certain ports may formulate individual implementation requirements. For example, "securely moored at berth" is defined either the status in which all mooring cables are secured or the status in which the first cable is fastened. It is recommended to consult local agent for any special requirements before arrival.

**Q: For the port fitting with shore power equipment, whether the ship has to use shore power mandatorily?**

**A:** In certain ports for the ships and terminals equipped with shore-based power supply/receiving and properly arranged according to the power supply and receiving procedure, without affecting ship-shore safety, the ships at berth shall use ashore cold iron. The requirement varies at different ports. It is suggested to focus on the local administrative order before entering ports.

**Q: Can ships have exemption of fuel test if document inspection is satisfied?**

**A:** For ships which pass the document inspection and do not have any violation records and not come under



suspicion of violation, the maritime authority may carry out the fuel inspection randomly. So please pay attention to the changeover time and finish operation on time.

**Q: Do the changeover operation requirements apply to main engines?**

**A:** Before 2019, there are several core ports requiring low sulphur fuel at both sail and berth. The remaining ports only require low sulphur fuel at berth. In this case, the majority of vessels will shut down main engines while at berth. It is not necessary to operate fuel changeover for the main engines. However, there are some vessels using their main engines for the purposes other than propulsion, eg. shaft generators for electricity generation. In these cases they have to switch to compliant fuel.

For ports requiring low sulphur fuel at both sail and berth, the emission control is enlarged to whole waters since 1 October 2018. The ships entering the areas should meet low sulphur fuel requirements. Similar as SECA requirements of MARPOL, main engine should be switched to compliant fuel timely.

**Q: Under what circumstances can ships be granted the exemption?**

**A:** There is no exemption mentioned in China ECAs Implementation Scheme. While, most ports have released their own provision for exemption, i.e. Shanghai port regulates 5 cases of exemption. The ship company or agent may submit applications and supporting materials, obtain exemption after approval.

**Q: What are acceptable equivalents for using low sulphur fuel?**

**A:** Equivalents means the measures by using any devices, equipment or alternative fuel to get same emission or better, including using ashore cold iron, clean energy such as liquefied natural gas (LNG), or exhaust gas cleaning system.

**Q: What onboard inspection of a ship may be undertaken to verify 0.5% maximum sulphur fuel being used?**

**A:** Document inspection and fuel inspection are to be undertaken on board. Document inspection covers machinery logbook, bulker delivery note and fuel changeover procedure. Fuel inspection means sampling and analysis by the company with the proper qualifications stipulated by the State. Additionally, PSCO may check it on spot with portable sulphur content detector.

**Q: For ports requiring low sulphur fuel oil at berth, will the change-over requirement apply to ships which are at berth for less than two hours?**

**A:** NOT applicable.

According to the Implementation Scheme, all of ships have to use low sulphur fuel at berth does not include one hour after arrival and one hour before departure. However, apart from those vessels with a clear departure schedule, such as a ferry, the most of ships will berth likely to be more than two hours.

To avoid violation of the requirements due to delays in departure, it is recommended to switch and use low Sulphur fuel within one hour.

**Q: Do the requirements apply to fuel oil fired inert gas generators?**

**A:** YES.

The low sulphur fuel requirement applies to all fuel used equipment on board.

**Q: When is a ship considered to be “at berth”?**

**A:** “At berth” means the moment when the ship being securely moored at a berth. In general it refers to the status in which all mooring cables are secured. In extreme sea condition, provided that the main engines need standby condition to ensure the ship’s safety, “securely moored” means the status in which the ship finishes with engines. It should be noted Shenzhen MSA defines “at berth” to start from the moment while the first cable is fastened.

**Q: What content should be recorded in the ship’s logbook?**

- A:**
1. For ships needing a changeover to low sulphur fuel within the Control Areas, the information such as start and finish dates, time and marine longitude and latitude of the changeover, sulphur content in fuel, consumption of low sulphur fuel and changeover operators should be recorded in the machinery logbook .
  2. For ships using ashore cold iron, the information such as start and finish dates, time and operators of using ashore cold iron should be recorded in the machinery logbook.
  3. For dual-fuel fueled ships, the information such as consumption of each kind of fuel, fuel changeover date, time and marine longitude and latitude and operators should be recorded in the machinery logbook.
  4. For the ships using exhaust gas cleaning devices as an equivalent measure, the information such as start and finish dates, time and marine longitude and latitude of using the device and operators should be recorded in the machinery logbook.
  5. In order to ensure marine safety or implement the rescue at sea, or in the case of any non-conformity with the emission control requirements of the Scheme caused by damage and malfunction of ship and equipment, the ships involved should report the relevant information to the nearest maritime authority in time and record it in logbook.

**Q: For ports requiring low sulphur fuel oil at berth, if a ship is required to change berth within a port, does it may not use the low sulphur fuel during the shift?**

**A:** The Implementation Scheme only requires the ships to use low sulphur fuel when they are at berth. During the ship’s shift, it can use non-compliant fuel technically. There is not clarification for the use of fuel during the ship’s shift. However, some local authorities can impose it for their own purpose, please check with local agent in advance.

**Q: For ports requiring low sulphur fuel oil at berth, when ships sail to shipyard which is located in the Sulphur Controlled ports for repair, do they need meet the low Sulphur Fuel requirement?**

**A:** There is not clear definition the term “port” in the Implementation Scheme. However, for the objective to control emission the shipyards should be regarded as port so that the low sulphur requirement is applicable.



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