

China Regulatory Update

Air Emission Regulations Entered into Force on Jan 1, 2019

- China Domestic Emission Control Area
- Ship's Energy Consumption Data Reporting

Jan 18, 2019



Introduction

China's Ministry of Transport released two regulations in the 4th quarter of 2018, which entered into force on Jan 1, 2019.

- **Implementation Plan for Marine Air Pollutant Emission Control Areas** – This plan is an upgraded version of the previous plan released in 2015, which specifically requires all ships operating within ECAs to comply with the fuel sulfur limit.
- **Regulation on Data Collection of Energy Consumption for Ships** – This is a new regulation for ships having a gross tonnage of 400 and above or powered by propulsion machinery of 750 kW propulsion power and above calling for China ports to report fuel consumption and transport work details to China MSA.

The above regulations apply to the majority of merchant ships (regardless of flag operating domestically and/or internationally) navigating, operating and berthing in China waters. ABS is aware that a number of questions have been raised, especially for shipowners/operators operating non-Chinese flagged vessels calling to China ports.

1. China Domestic ECA Plan 2018

The Scope of China Domestic ECA

The Chinese government announced in late 2015 their three-year plan to reduce SO_x emissions starting on January 1, 2016, with the issuance of *Implementation Plan for Marine Air Pollutant Emission Control Areas for Pearl River Delta, Yangtze River Delta, and Bohai Rim Area*. The three emission control areas are indicated in Figure 1. It's known as the China Domestic ECA 2015.



Figure 1. China Domestic ECA - 2015

Three years later, an upgraded Plan was released on 30 November 2018 by the Ministry of Transport of P.R.C. named as "*Implementation Plan for Marine Air Pollutant Emission Control Areas*". The three

specific ECAs have literally been removed from the title, which reflects the change to the scope of China Domestic ECA 2015.

According to the officially published document, the emission control areas are categorized as:

- Coastal Emission Control Area
- Inland Water Emission Control Area

The scope of Coastal Emission Control Area has been extended to cover all China coastal territorial waters (12 nautical miles from the coastal line¹), excluding the territorial waters from the coastline of Hong Kong, Macao and Taiwan. Hainan Island territorial coastal waters are within China ECA and are specifically defined. The Inland Water Emission Control Area includes the navigable waters of Yangtze River and Xi-Jiang River.

The previous ECAs are naturally included in the upgraded China Domestic ECA 2018. The new China ECA extension is illustrated in Figure 2.

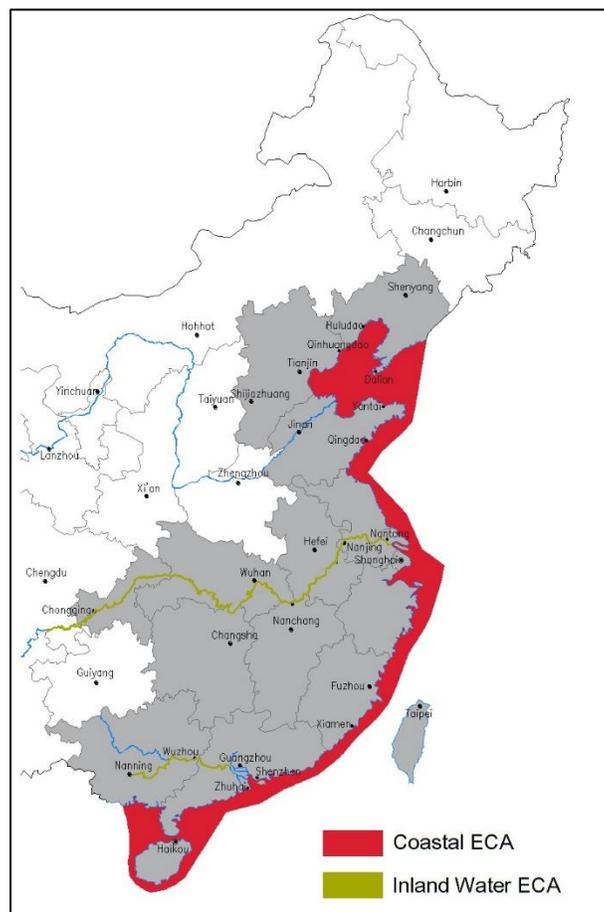


Figure 2. China ECA - 2018

¹ The extension of 12 nautical miles is an interpretation with referred to Chinese local authority, which is not officially defined in the 2018 China ECA plan.

Emission Control Requirements

The latest China ECA plan requires ships to comply with the SO_x emission and particulate matter control requirements:

- Beginning January 1, 2019, ships entering the new China ECAs must use fuel with ≤0.5% sulfur content.
- Starting January 1, 2020, ships entering the Inland Water ECA must use fuel with ≤0.1% sulfur content.
- Beginning March 1, 2020, ships, not equipped with an EGCS, entering China's ECAs must carry the required sulfur content fuel (≤0.5% sulfur content for the Coastal ECA and ≤0.1% sulfur content for the Inland Water ECA).
- Starting January 1, 2022, ships entering the regulated waters of Hainan Island must use fuel with ≤0.10% sulfur content.

An exhaust gas cleaning system (EGCS) is currently accepted as an equivalent measure for complying with the above requirements. The possibility of implementing 0.1% Sulphur cap in all China ECAs from 2025 is expected to be considered at a later date.

In addition to SO_x emission control, there are also requirements regarding NO_x control and use of shore power (cold ironing). Currently, the NO_x emission control requirements only apply to Chinese-flagged vessels, so the following only summarizes the requirements for use of shore power:

- Starting July 1, 2019, ships (except tankers) equipped with shore power capability shall connect to shore power while berthing for more than 3 hours in Coastal ECA ports with available shore power supply or berthing more than 2 hours within the Inland Water ECA with available shore power supply.
- Starting January 1, 2022, cruise ships shall connect to shore power while berthing more than 3 hours at China ECA ports with available shore power supply.
- Use of clean energy, new energy and onboard battery can be treated as equivalent alternative measures to comply with the above two requirements.

Does China Ban Open-loop SO_x Scrubbers?

Following the release of the 2018 China ECA plan, the China MSA published a notice regarding supervision of the implementation of the updated ECA plan. For those who have ships with installed open-loop SO_x scrubbers, the following points should be considered:

- The discharge and treatment of water pollutant generated by EGCS shall comply with the relevant requirements.
- Discharge of open-loop scrubber washwater is prohibited in most portions of the new ECAs, including the Inland Water ECA, Bohai Rim waters and ports within the Coastal Water ECA.
- The prohibition of discharging washwater from open-loop scrubbers in the rest of the Coastal Water ECA is still being considered.

Currently, China does not ban open-loop scrubbers in all China domestic ECAs. However, restrictions on washwater discharge from open-loop scrubbers exists for inland waters, port waters within coastal ECAs, and the Bohai rim waters.

What are the Changes?

The broader ECA and stricter sulfur control requirements may result in higher fuel costs while operating in China waters. The 2018 China ECA plan is an earlier implementation of the IMO Global Sulfur Cap, stakeholders should take actions in advance to avoid non-compliance issues and disruptions.

A comparison table of requirements between the old and new ECA plan is as follows:

	China ECA Plan 2015	New ECA Plan 2018
ECA Scope	Pearl River Delta, the Yangtze River Delta and Bohai Rim	All coastal territorial waters ^[1] and navigable waters of Yangtze River and Xi-Jiang River
0.5% Sulfur from Jan 1, 2019	All ECAs	All ECAs, wider extension
0.1% Sulfur from Jan 1, 2020	Not required	Within inland water control areas
0.1% Sulfur from Jan 1, 2022	Not required	Territorial coastal waters of Hainan Island
Use of shore power	Not required	Connect to shore power if available

[1] excluding the territorial waters from the coastline of Hong Kong, Macao and Taiwan

Table 1. Summary of China ECA Plans

2. Ship's Energy Consumption Data Reporting

The China MSA released the *Regulation on Data Collection of Energy Consumption for Ships* in November 2018. This regulation requires ships calling on China ports to report fuel consumption and transport work details directly to the China MSA.

This regulation includes the requirements for both Chinese-flagged vessels (domestic and international) and other non-Chinese flagged international navigating vessels. This document mainly focuses on the key requirements which are applicable to non-Chinese flagged operating internationally.

What Ships are Applicable?

- All non-Chinese flag ships not less than 400 GT or with propulsion power 750 kW and above, which
- Call on China ports (excluding ports in Hong Kong, Macao and Taiwan)

What to Do?

The vessel's owner/master/operator shall report the energy consumption data to China MSA for voyages calling at a China port. This means that only the last voyage before arriving at a China port should be reported. The outbound voyage once departing a China port does not need to be reported.

When to Do?

The reporting will be done when preparing the documents for departing a China port. So, the data should be reported each time a vessel departs from a China port.

Who to Do?

The ship's owner/master/operator and the authorized agent can conduct the reporting task.

How to Do?

The required data items to be reported are contained in the standard forms provided by the China MSA. The forms include three parts:

- Ship specific information
- Transport work details, including cargo amount, distance traveled, time underway and in operation
- Energy consumption, including fuel type, quantity and data collecting measures, shore power consumption, whether use an EGCS, etc.

Once the fuel oil consumption data is collected, then it is to be reported via the Maritime Information Platform maintained by China MSA. The reporting entity should register an account to the portal in advance via the link <http://csp.msa.gov.cn/>. The data can be filled into the web-based forms.

If the web-based platform is not working, it is recommended that the paper form be filled out and submitted to the local China MSA prior to the vessel leaving port.

What are the Differences?

The China's energy consumption data collection regulation has similar methodology with IMO Data Collecting System (DCS) and EU Monitoring, Reporting, Verification (MRV).

The following table summarizes the key differences among the three regulations:

	China's Energy Consumption Data Collection	IMO DCS	EU MRV
Applicable to	Ships to/from China ports: - 400 GT and above or - 750kW ME and above	Ships engaged on international voyages with 5,000 GT and above	Ships to/from and between EU ports with 5,000 GT and above
Monitoring start	Jan 1, 2019	Jan 1, 2019	Jan 1, 2018
Reported voyage	Voyages to China ports	All voyages	Voyages to/from and between EU ports
Reported data	- fuel consumption - transport work - hours underway - distance travelled - operational hours ^[1]	- fuel consumption - transport work - hours underway - distance travelled	- cargo carried - hours underway - distance travelled - emissions at berth - total transport work - average energy efficiency
Reporting period	Each voyage calling to a China port	A calendar year	A calendar year
Reporting time	While departing a China port for each voyage	By May 31 of each year	By April 30 of each year
Data verification	No specified requirement	Flag administration/RO	Accredited verifier
Report to	China MSA	Flag administration	European Commission
Documents Preparation	Data Report for the Energy Consumption of Ships provide by China MSA	Updated SEEMP part B	Monitoring plan
Report route	Maritime Information Platform maintained by China MSA	IMO standardized reporting form	THETIS MRV

[1] The operational time includes the time underway, time at berth and other working time.

Table 2. Summary of Data Collection Regulations

This table summarizes only the major requirements among the IMO DCS, EU MRV and the newly released *Regulation on Data Collection for Energy Consumption of Ships* by China MSA. The column "China's Energy Consumption Data Collection" is only applicable to **non-Chinese flagged ships**. The purpose of this table is to show the most common differences among the three regulations, so for the details please refer to each regulation respectively.

ABS Support

If you have any specific questions which have not been addressed in this document, please feel free to reach out to us at advisoryservices@eagle.org.