2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 China Regulations **Global Regulations** Sulfur Year BWMS The committee was concerned about the lack of international agreement on how to implement the BWM treaty, it may decide to give shipowners more time to BWM compliance at the ship's first five-year IOPP survey January 1 Content Applicable after Sept. 2017. All areas. Local ports in ECAs may in view of its own 2016 Current standard as stipulated in MEPC will decide whether to require BWM compliance from Sept. 2017, or international situation exercise its May push the requirement back until the first IOPP whether to push the requirement back until the first such survey after the autumn conventions discretion to raise higher of 2019 (under certain conditions). survey after autumn 2019. requirements than current unchanged. standard, such as requiring ships to use fuel with sulfur content of .0.5% during berthing.** Each vessel will also have to have a certified Ship Energy Efficiency Management Plan outlining its methods for From 2019 vessels over 5,000 gt on CO₂ collecting and reporting the data. Each year, the shipowner will collect data for a fleet, aggregate it into annual international voyages must record: values and report it to the appropriate flag administration or recognized organization. The IMO will collect this Geographical area: key ports in ECAs Time period: berthing period 2017 ≤0.5%m/m annualized data from the flag states. Fuel consumption for each type of fuel used. Distance travelled and hours under way. IMO CO2 strategy not finalized until 2023, when data on fleet fuel consumption will be available. excluding 1 hour after berthing and 1 hour before Euro: Vessels built on or after January 1, 2021 must comply with NOx Tier III standards when operating in the North Sea or Baltic Sea NECA. NOx 2018 ≤0.5%m/m Geographical area: all ports in ECAs Tier II Europe Time period: whole berthing Vessels blt after 1/1/21 Tier II North America Geographical area: whole area of ECAs Vessels blt after 1/1/16 2019 ≤0.5%m/m N.A.: Vessels built on or after January 1, 2016, must comply with NOx Tier III standards Tier III Europe Time period: whole period when the ship is in the ECAs when operating in the North American, Hawaii or the U.S. Caribbean Sea NECA. Tier III North America *China is a contracting state to Marpol 73/78 and Annex VI came into effect from 23 Aug 2006 in China. The current Marpol limit in terms of SOx is: SO_X 5.0 (1) outside ECAs: 3.5%m/m since 01 Jan 2012; (2) within ECAs:0.1% as from01Jan 2015. **GLOBAL CAP: 4.5% S** Oct 2016 decision for **We understand that most of the port authorities don't have the intention to adopt higher requirement than the current standard in enforcement from 2020 2016, except Shanghai. We understand that it is likely Shanghai MSA will start to require the calling ships to use fuel with sulfur content of 0.5%m/m while at berth excluding 1 hour after berthing 4.0 and 1 hour before departure in 2016, however an accurate timetable is still under consideration now 3.5% S Pearl River Delta 3.5 **Emission Control Area** Inland water areas: navigable inland waters under administrative jurisdiction of 9 cities including Guangzhou. 3.0 Dongguan, Huizhou, Shenzhen, Zhuhai, Zhongshan, Foshan, Jiangmen and Zhaoqing. Key ports: Shenzhen, Guangzhou and Zhuhai 2.5 Guangzhou 2.0 Shanwei Huizhou (S)ECA CAP: 1.5% S 1.5 1.0% S North Sea ECA 1.0 Baltic Sea USA + Territories 0.5% S 0.5 Canada **China ECA Zones** Hong Kong 0.1% S 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 **2016 2017 2018 2019 2020 2021** 2022 2023 2024 2025 Huludao Panjin Yangtze River Delta Bohai-rim Before 31 Dec 2019, the government will evaluate the Yinakou **Emission Control Area** effect of the above requirements in order to determine **Emission Control Area** whether to take the following steps in the Inland water areas: navigable inland Qinghuang Inland water areas: navigable waters under the waters under the administrative (i) When entering the ECAs, ship shall be required to use administrative jurisdiction of 15 cities including jurisdiction of 13 cities including Dalian, fuel with a sulfur content of no more than 0.1% m/m; Tianiin Nanjing, Zhenjiang, Yangzhou, Taizhou, Nantong, Yingkou, Panjin, Jinzhou, Huludao, (ii) Enlarge the geographical scope of ECAs; Changzhou, Wuxi, Suzhou, Shanghai, Jiaxing, Huzhou, Qinghuangdao, Tangshan, Tianjin, (iii) Other further measures. Hangzhou, Shaoxing, Ningbo, Zhoushan and Taizhou

Key ports: Shanghai, Ningbo-Zhoushan, Suzhou,

Cangzhou, Binzhou, Dongying, Weifang,

Key ports: Tianjin, Qinhuangdao,

Tangshan and Huanghua.

According to the regulation, MSA shall enhance inspection of IAPP certificate, oil record book, fuel supply

implementation of the relevant requirements.

document and check of fuel quality, etc. to ensure