



## TECHNICAL INFORMATION

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**Subject : Notice of the information regarding to the vessel operation in the SOx Emission Control Area in Republic of Korea**

The Ministry of Oceans and Fisheries has announced the 『SOX Emission Control Area』 in major Korea Port, which strengthens the sulfur content standard of ship fuel oil to 0.10% or less according to Article 10 (1) of the 『The Special Act on the Improvement of Air Quality in Port Areas, Etc.』. So, we are notified the information regarding to the vessel operation in the Sox Emission Control Area in Republic of Korea(hereinafter in “Korea SECA”) as bellows.

### 1. SOx Emission Control Area

- : Each port area and nearby sea area of the Incheon Port(Including Kyongin Port), Pyeongtaek·Dangjin Port, Yeosu Port, Gwang-yang Port(Including Hadong port), Busan Port, Ulsan port (Details are refer to the attachment 1.)

### 2. Application Vessel and effective date

A. Application : All vessel in operation(sailing and anchoring/mooring) within Korea SECA

B. Effective date

- 1) From 1st September 2020, ships at berth or at anchor in the Korea SECA will be required to use fuel with a maximum sulphur content of 0.10 %. Ships should be completed the fuel oil change over to 0.10% low sulphur fuel oil, within 1 hour after completing anchoring or mooring and will have to continue using compliant fuel up to 1 hour before completion of heaving in anchor or de-berthing.
- 2) From 1st January 2022, ships should be completed fuel oil change over to 0.10% low sulphur fuel oil, at the entrance in Korea SECA, and will be required to continue use compliant fuel while they are inside the designated Korea SECA.
- 3) Despite the above, the using of EGCS(Exhaust Gas Cleaning System) compliance with MARPOL requirements instead of using 0.10% low sulphur fuel oil is allowed.( No restrictions on wash-water for open-loop scrubber)

### 3. Measures for vessels operating in Korea SECA

A. The Vessels is operation(sailing and anchoring/mooring) within Korea SECA, the following item shall be recorded in Engine log book.

1) Vessel with EGCS

A) The date, time, and position of the vessel, when the EGCS operation mode change-over is completed prior to entry into Korea SECA (0.50% → 0.10 %)

B) Vessels of approved by Scheme A, the result of parameter check prior to entry into Korea SECA

C) Vessels of approved by Scheme B, sulfur contents of fuel oil prior to entry into Korea SECA

D) Other remarkable item related to the operation status of the EGCS (if applicable)

2) The Vessels to changeover using compliance fuel oil

A) The kind of fuel oil, date, time and position of the vessel when the fuel oil changeover operation is completed prior to entry Korea SECA.

B) The remaining volume of low sulphur fuel oil in each tank(only 0.10% or less fuel oil tank)

C) Sulphur content of fuel oil(sulphur content in the most recent supplied bunker delivery note)

※ (law) Article 10 (3) of the 「The special Act on the Improvement of Air Quality in Port Areas, Etc.」 and Article 4 (3) of the Enforcement Rules of the same Act

B. The engine log book accordance with above A. shall be keep in the vessels for one year from the date of supplied each fuel oil.

C. Those vessels using separate fuel oils to compliance with SOx regulation, shall be provide onboard “Fuel Oil changeover procedure” written how the fuel oil changeover is done.

※ (law) Article 10 (5) of the 「The special Act on the Improvement of Air Quality in Port Areas, Etc.」

D. Please refer to the attached law for the standards of penalties and fines when violations.

#### Attachment.

1. The Special Act on the Improvement of Air Quality in Port Areas, Etc.

2. Public notice on Designation of SOX Emission Control Area

Distributions : KR surveyors, Ship owners, Other relevant parties

#### Disclaimer :

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# Attachment 1. The Special Act on the Improvement of Air Quality in Port Areas, etc.

\* The interpretation of Korea law, the Korean version takes precedence over the English version.

| the Special Act on the Improvement of Air Quality in Port Areas, etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Enforcement Decree of the Special Act on the Improvement of Air Quality in Port Areas, etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Enforcement Rules of the Special Act on the Improvement of Air Quality in Port Areas, etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| <p><b>Article 10 (Designation of Emission Control Area, etc.)</b> (1) In order to achieve the master plan to improve the air quality in port areas, etc. (hereinafter referred to as “master plan”) pursuant to Article 7(2) 1, the Minister of Oceans and Fisheries may separately designate SOX emission control areas (hereinafter referred to as “emission control area”) within air quality control areas in ports and publicly notify it.</p> <p>(2) In emission control areas, no ship owner shall use fuel oil exceeding the sulfur content standards prescribed by Presidential Decree in emission control areas: Provided, That the same shall not apply where the quantity of sulfur oxide emissions is reduced to below the permissible emission level of sulfur oxides prescribed by Ordinance of the Ministry of Oceans and Fisheries, with the mounting of an exhaust gas cleaning system that meets the standards set by Ordinance of the Ministry of Oceans and Fisheries.</p> <p>(3) Each ship owner shall record the matters prescribed by Ordinance of the Ministry of Oceans and Fisheries, including the changeover of fuel oil, in the engine room logbook in the event that the ship navigates in emission control areas.</p> <p>(4) Each ship owner shall keep the engine room logbook referred to in paragraph (3) in</p> | <p><b>Article 6 (Sulfur content levels, etc.)</b> (1) “Sulfur content standards prescribed by Presidential Decree” in Article 10(2) of the Act means Attached Table 3.</p> <p>(2) “The period set by Presidential Decree” in Article 10(4) of the Act means one year.</p> <p>[Attached Table 3]</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Sulfur Content Standards for Fuel Oil (Related to Article 6)</b></p> <ol style="list-style-type: none"> <li>1. From 1st September, 2020 to 31st December 2021: Not exceeding 0.1 percent(wt%) of fuel oil limited to the case where a ship is mooring in accordance with Act on the Arrival, Departure, etc. of Ships</li> <li>2. On or after 1st January, 2022: Not exceeding 0.1 percent(wt%) of fuel oil in every case where fuel oil is used</li> </ol> </div> | <p><b>Article 3 (Designation of Emission Control Area)</b> (2) When designating emission control areas, the Minister of Oceans and Fisheries shall give a public notice regarding the location of emission control areas, the purpose of designation, how to operate them, etc.</p> <p><b>Article 4 (Standard of Exhaust Gas Cleaning System, etc.)</b> (1) “The standard prescribed by Ordinance of the Ministry of Oceans and Fisheries” in Article 10(2) of the Act means the technical standard of the exhaust gas cleaning system for sulfur oxide in accordance with Article 30(2) and Attached Table 20(3) of Rules on Prevention of Pollution from Ships.</p> <p>(2) “Permissible emission level of sulfur oxides prescribed by Ordinance of the Ministry of Oceans and Fisheries” in Article 10(2) means exhaust gas whose SO<sub>2</sub>-to-CO<sub>2</sub> ratio is 4.3 SO<sub>2</sub>(ppm)/CO<sub>2</sub>(%, v/v).</p> <p>(3) Where a ship navigates in emission control areas, the shipowner shall write the followings on an engine room logbook.</p> <ol style="list-style-type: none"> <li>1. A ship equipped with an exhaust gas cleaning system in accordance with Article 10(2): operating condition of the exhaust gas cleaning system.</li> </ol> |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>the ship from the supply of the fuel oil for the period set by Presidential Decree.</p> <p>(5) Each ship owner shall keep a procedure stating the methods for the changeover of fuel oil (hereinafter referred to as " fuel oil changeover procedure") in the ship, which must be followed by the ship using fuel oil with different sulfur content stored in different tanks to meet the sulfur content standards for fuel oil referred to in paragraph (2) before entering or leaving emission control areas.</p>                                                                                                             |  | <p>2. A ship that exchanged its fuel oil to navigate in emission control areas:</p> <p>(a) The type of fuel oil and the date, time and place that the ship completed the exchange of fuel oil;</p> <p>(b) The amount of fuel oil (limited to the case where it meets the sulfur content standards in Article 6(1)) in the tank;</p> <p>(c) Sulfur content of fuel oil.</p> |
| <p><b>Article 22 (Penalty Provisions)</b> Any of the following persons shall be punished by imprisonment with labor for up to one year or by a fine of up to 10 million won:</p> <p>A person who used fuel oil exceeding sulfur content standards prescribed by Presidential Decree in violation of Article 10(2)</p>                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                            |
| <p><b>Article 23 (Joint Penalty Provisions)</b> If the representative of a corporation, or an agent, employee, any other servant of the corporation or an individual commits an offence under Article 22 in connection with the business of the corporation or the individual, not only shall such offender be punished, but the corporation or the individual also shall be punished by a fine under the relevant provisions: Provided, That this shall not apply where such corporation or individual has not been negligent in giving due attention and supervision concerning the relevant duties to prevent such offence.</p> |  |                                                                                                                                                                                                                                                                                                                                                                            |

**Article 24 (Administrative Fines)** (1) Any of the following persons shall be subject to an administrative fine not exceeding one million won:

1. Any person who does not fill in an engine room logbook in violation of Article 10(3);
2. Any person who does not keep an engine room logbook for the period set by Presidential Decree in violation of Article 10(4);
3. Any person who does not place a fuel oil changeover procedure in the ship in violation of Article 10(5).

■ [Attached Table 5] **Standards for imposing administrative fines**

(Korean Won)

| Violation                                                                                          | relevant provision | Primary | Secondary | Over Tertiary |
|----------------------------------------------------------------------------------------------------|--------------------|---------|-----------|---------------|
| 1. Where an engine room logbook is not written in violation of Article 10(3) of the Act;           | Act Airticle 24-1  | 300,000 | 450,000   | 600,000       |
| 2. Where an engine room logbook is not kept for one year in violation of Article 10(4) of the Act; | Act Airticle 24-2  | 500,000 | 750,000   | 1,000,000     |
| 3. Where a fuel oil changeover procedure is not placed in violation of Article 10(5).              | Act Airticle 24-3  | 300,000 | 450,000   | 600,000       |

## **Public notice on Designation of SOX Emission Control Area**

\* The Interpretation of public notice takes precedence Korean than English

**Article 1 (Purpose)** The purpose of this public notice is to specify matters including the designation of SOX emission control area in accordance with Article 10(1) of the Special Act on the Improvement of Air Quality in Port Areas, Etc. and Article 3(2) of Enforcement Rules of the same act.

**Article 2 (The Range of Emission Control Area)** The ranges of Emission Control Area (ECA) is as follows:

1) (Incheon, Pyeongtaek-Dangjin Ports Area) Sea area within the line consecutively connecting 37 degrees 36 minutes 00 seconds north latitude, 126 degrees 33 minutes 42 seconds east longitude (near Daebeok-ri, Gimpo-si), 37 degrees 10 minutes 00 seconds north latitude, 126 degrees 06 minutes 30 seconds east longitude (southeastern end of Mungap island in Incheon), and 37 degrees 02 minutes 54 seconds north latitude, 126 degrees 29 minutes 00 seconds east longitude (near Seokmungak, Dangjin-si)

2) (Yeosu and Gwangyang Ports Area) Sea area within the line connecting 34 degrees 35 minutes 24 seconds north latitude, 127 degrees 48 minutes 20 seconds east longitude (southeastern end of Dolsan-do, Yeosu), 34 degrees 35 minutes 24 seconds north latitude, 128 degrees 00 minutes 26 seconds east longitude, 34 degrees 42 minutes 42 seconds north latitude, 128 degrees 00 minutes 26 seconds east longitude (Namhae-gun Immangmal), and the line connecting 34 degrees 56 minutes 22 seconds north latitude, 127 degrees 52 minutes 06 seconds east longitude and 34 degrees 56 minutes 46 seconds north latitude, 127 degrees 51 minutes 56 seconds east longitude (Noryang Bridge)

3) (Busan Port Area) Sea area within the line consecutively connecting 35 degrees 09 minutes 36 seconds north latitude, 129 degrees 11 minutes 32 seconds east longitude (Southeastern end of Cheongsapo, Jungdong, Busan), the outer arc of the traffic safety designated area in the Busan area under Attached Table 1 of Enforcement Decree of the Maritime Safety Act, 34 degrees 58 minutes 46 seconds north latitude, 129 degrees 04 minutes 14 seconds east longitude, 34 degrees 55 minutes 00 seconds north latitude, 128 degrees 50 minutes 00 seconds east longitude, 34 degrees 58 minutes 41.5 seconds north latitude, 128 degrees 49 minutes 19.5 seconds east longitude (east side of the entrance route of Gadeoksu Island), 35 degrees 02 minutes 01.4 seconds north latitude, 128 degrees 47 minutes 37.8 seconds east longitude (No.12 buoy, the entrance route of Gadeoksu Island), 35 degrees 03 minutes 19.5 seconds north latitude, 128 degrees 43 minutes 23.5 seconds east longitude (No. 20 Buoy, entry route of Gadeoksu Island) and 35 degrees 05 minutes 42 seconds north latitude, 128 degrees 42 minutes 53 seconds east longitude (western end of Deok-dong, Changwon-si)

4) (Western Area of Busan Port) Sea area within the line consecutively connecting 35 degrees 03 minutes 19.5 seconds north latitude, 128 degrees 43 minutes 23.5 seconds east longitude (No. 20 Buoy, entry route of Gadeoksu Island), 34 degrees 58 minutes 30 seconds north latitude, 128 degrees 45 minutes 21 seconds east longitude (Galsan Island, Geoje-si), 34 degrees 55 minutes 00 seconds north latitude, 128 degrees 50 minutes 00 seconds east longitude, 34 degrees 58 minutes 41.5 seconds north latitude, 128 degrees 49 minutes 19.5 seconds east longitude (east side of the entrance route of Gadeoksu Island), 35 degrees 02 minutes 01.4 seconds north latitude, 128 degrees 47 minutes 37.8 seconds east longitude (No.12 buoy, the entrance route of Gadeoksu Island), and 35 degrees 03 minutes 19.5 seconds north latitude, 128 degrees 43 minutes 23.5

seconds east longitude (No. 20 Buoy, entry route of Gadeoksu Island) (Limited to the ships using Busan New Port)

5) (Ulsan Port Area) Sea areas within a six-mile radius centered on 35 degrees 24 minutes 37 seconds north latitude, 129 degrees 27 minutes 52 seconds east longitude (the outer arc of the traffic safety designated area in the Ulsan area) and Ulsan port (Mipo Port) according to Article 3 of Harbor Act

**Article 3 (Enforcement date)** The enforcement dates of SOX ECA are as follows:

1) From 1st September, 2020 to 31st December 2021

: From 1 hour after completion of anchoring or mooring to 1 hour before completion of heaving in anchor or unberthing

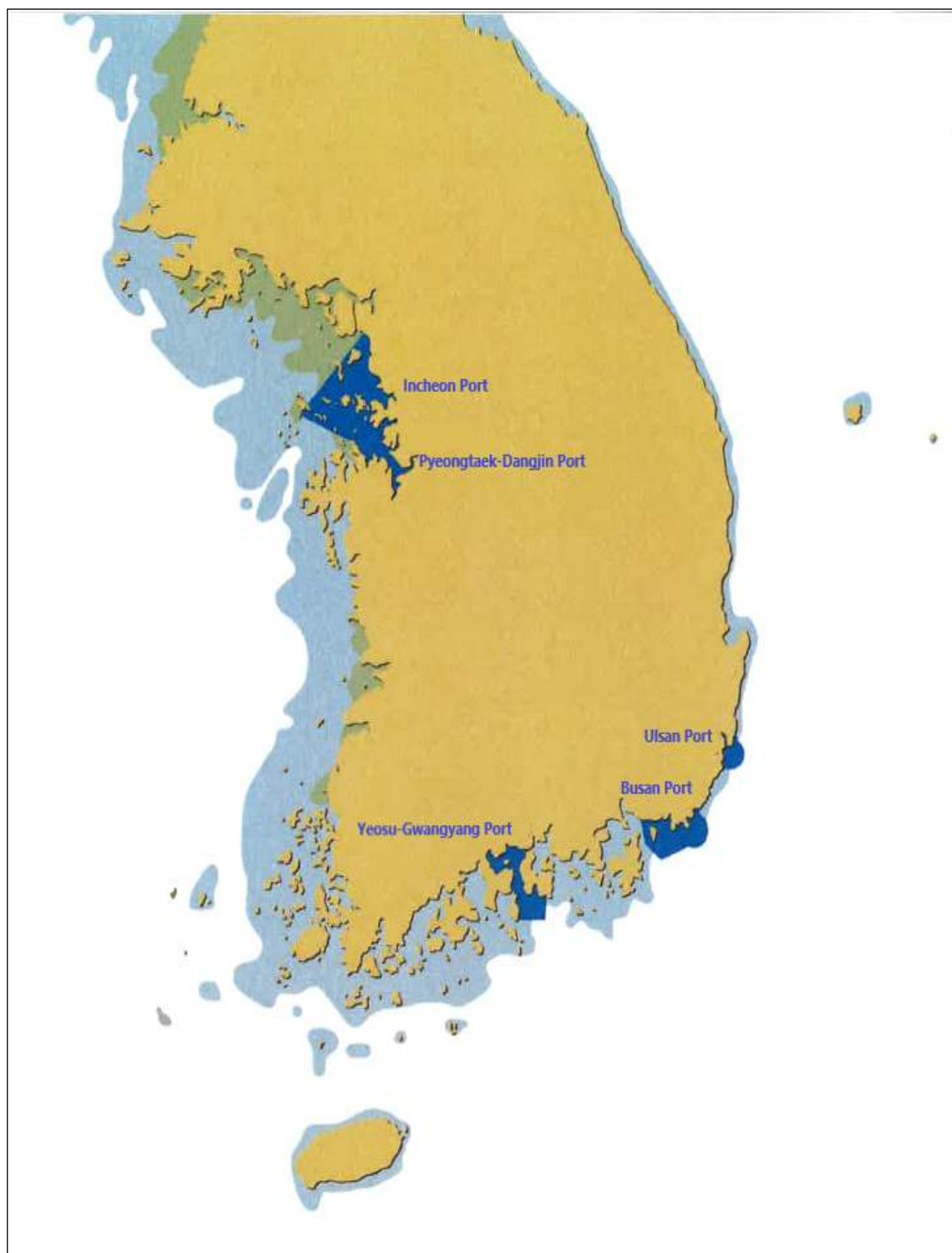
2) On or after 1st January, 2022

: From entry into Sox emission control area until the exit

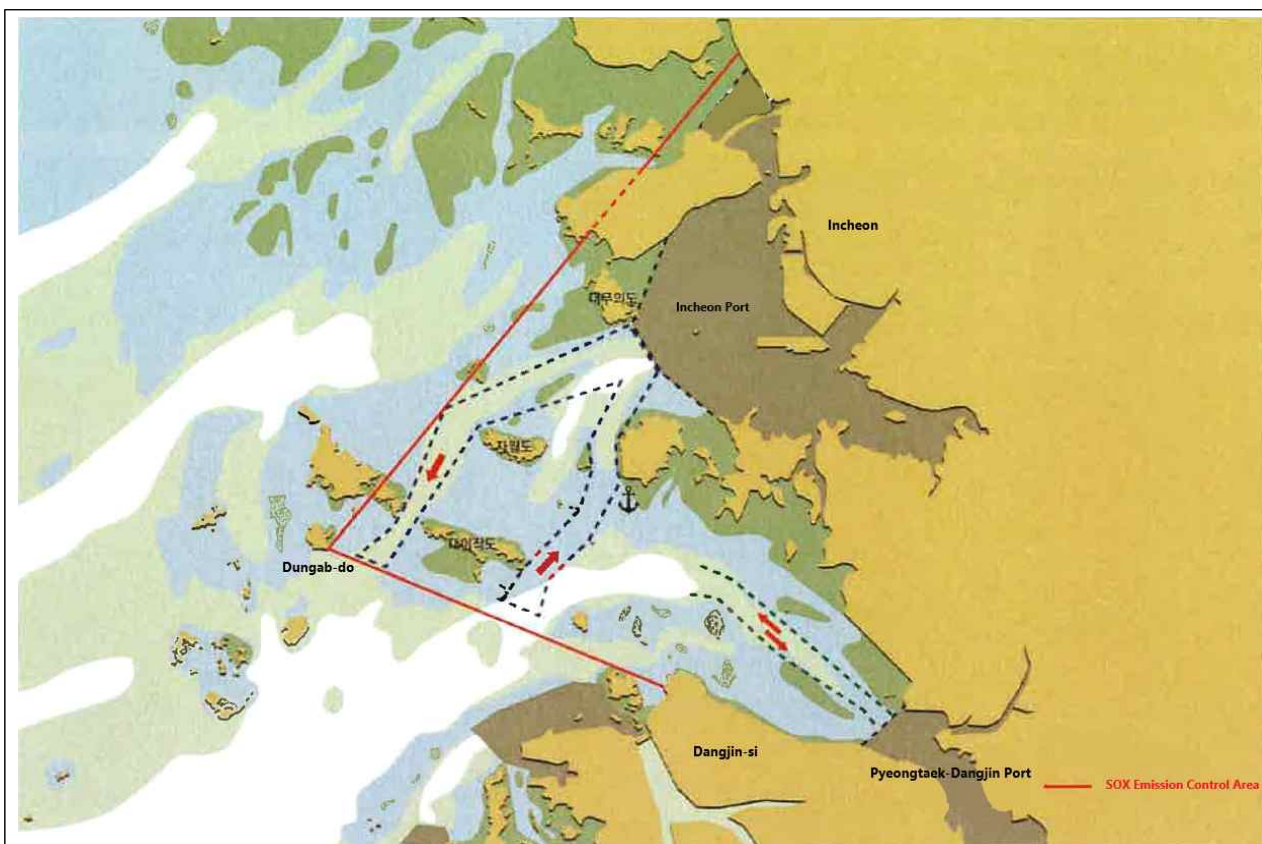


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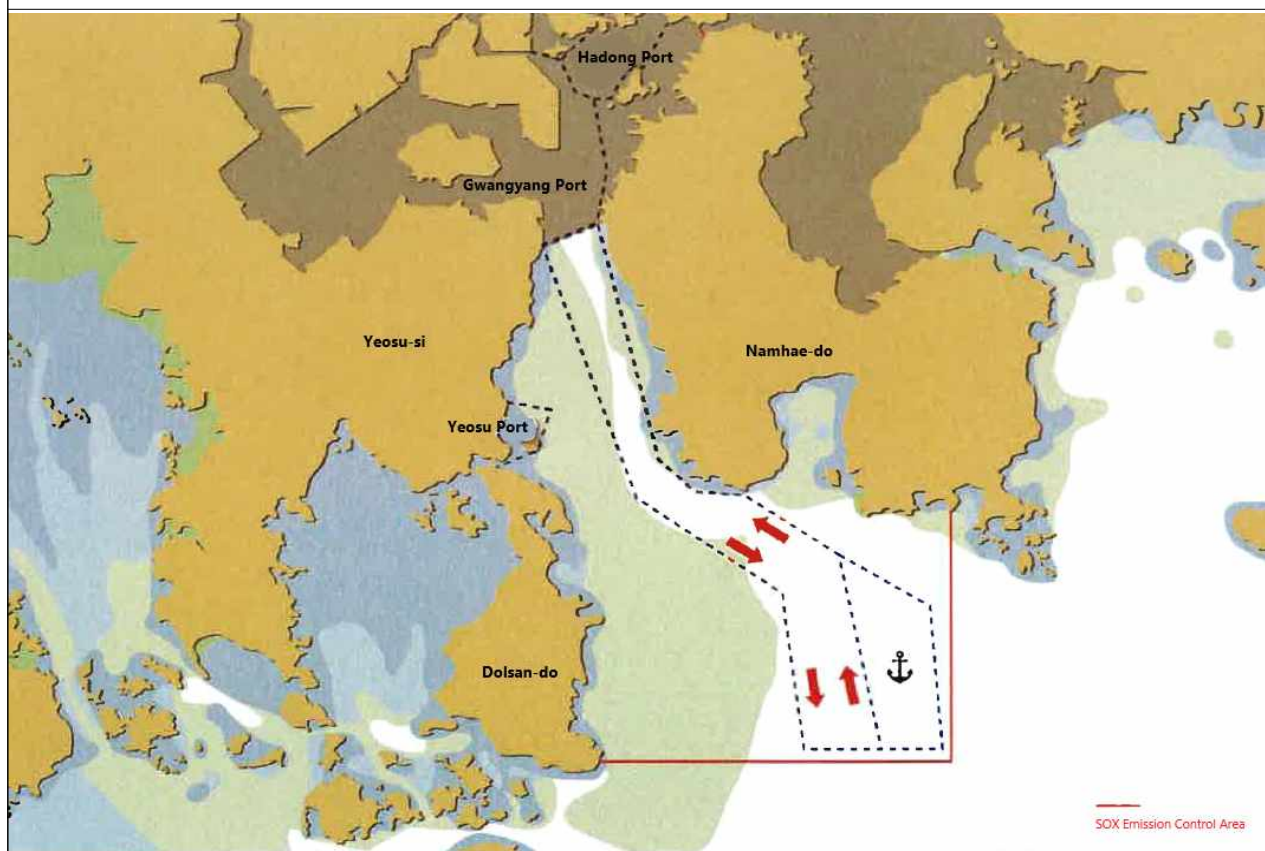
## Drawing for Sox Emission Control Area



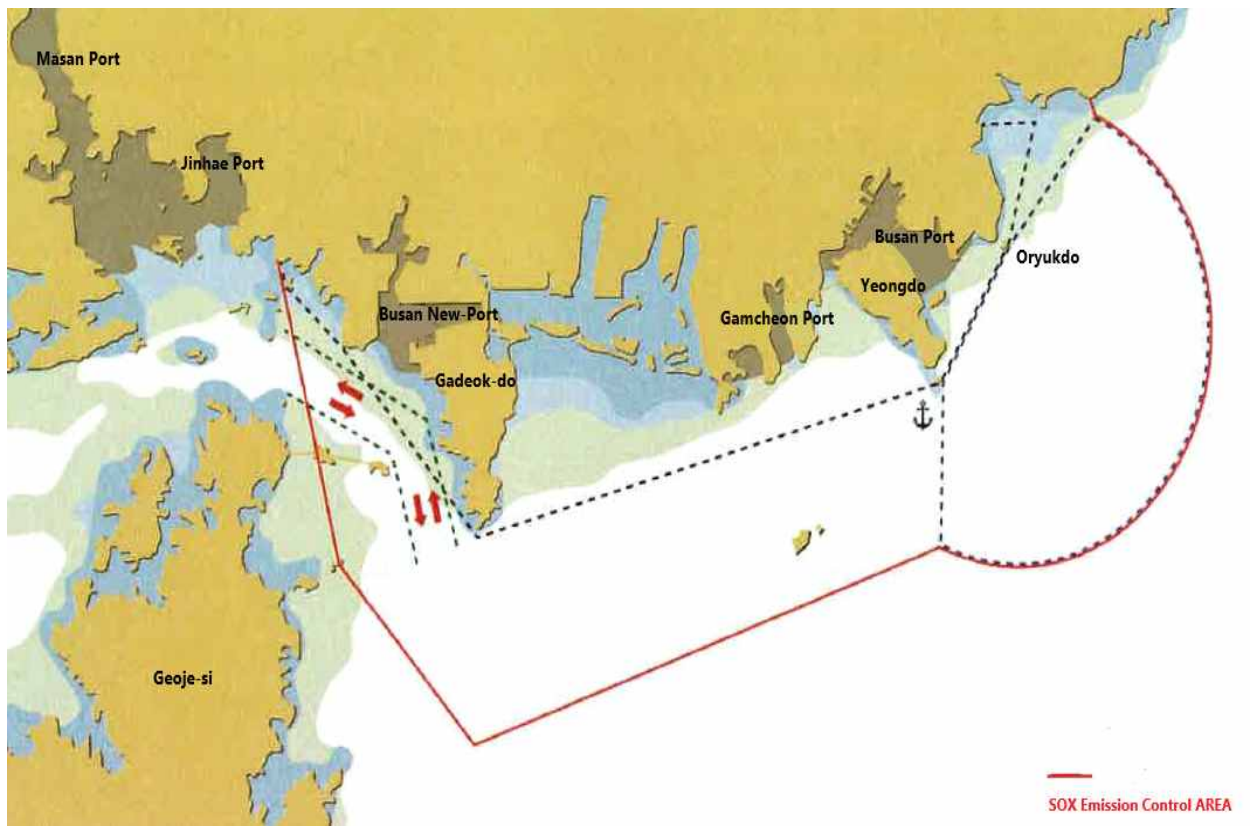
**SOX Emission Control Area**



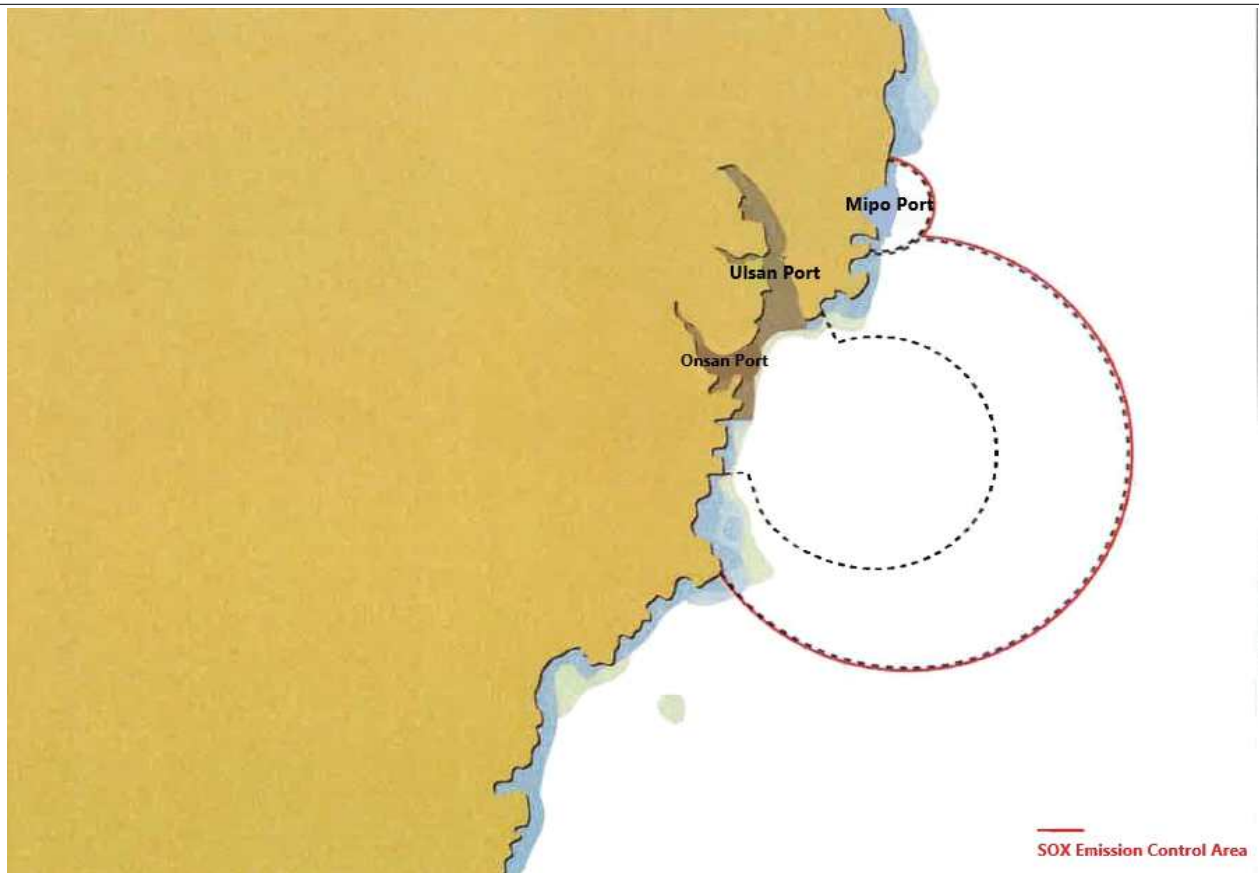
**Incheon, Pyeongtaek-Dangjin Area**



**Yeosu, Gwangyang Area**



## Busan Area



## Ulsan Area