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COMMISSIONAIRE OF MARITIME AFFAIRS**

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DATE: 18th August 2020

To : Representatives of Gabon flagged vessels, Deputy Registrars, Ship-owners & Ship-operators, Masters and Flag State Surveyors (relevant for ship owners and managers sailing vessels to South Korean ports).

Subject: “A New E.C.A. and Speed Reduction Limits in the Republic of Korean Ports (S. Korea)- The Republic of Korea Ministry of Maritime Affairs and Fisheries (“MOF”) Air Quality Control Program”.

Scope: This Merchant Marine Notice aims to inform interested parties that from 1 September 2020, the South Korea government will implement mandatory SOx Emission Control Areas (ECAs) requiring the use of 0.1% sulfur fuel by ships in specified port areas. The South Korea government has also released a voluntary speed reduction program in the same ports. South Korea’s Special Act on Air Quality Improvement in Port and Other Areas introduces a series of measures, some of which will have direct impact on ships’ operational practices.

References:

- a. South Korea’s Special Act on Air Quality Improvement in Port and Other Areas¹.
- b. IMO MARPOL Annex VI.
- c. ISR Gabon, “Limiting the Maximum Sulphur Content of the Fuel Oils: MARCIR 02/2019 dated 17th July 2019”.
- d. ISR Gabon, “Guidance on the “International Maritime Organization Data Collection System for Fuel Oil Consumption of Ships (IMO DCS)” and the European Union System for Monitoring, Reporting, and Verification of Carbon Dioxide Emissions from Maritime Transport (EU MRV) MARCIR 09/2020 dated 25th Apr 2020”.

1. The South Korean Ministry of Maritime Affairs and Fisheries (“MOF”) has announced an air quality control program that defines selected South Korean ports and areas as Emission Control Areas (ECA). A program with maximum Sulphur limits (0.1%) and speed limits will support the effectiveness of the program. The act introduces a series of measures, some of which will have

¹ (<http://www.mof.go.kr/eng/article/view.do?articleKey=25360&boardKey=41&menuKey=485¤tPageNo=1>)



direct impact on ships’ operational practices, and we advise ship operators and masters to make note of the following: The bellow ports/areas are covered by the air quality control program:

- a. Incheon, Pyeongtaek, Dangjin area;
- b. Yeosu, Gwangyang area;
- c. Busan;
- d. Busan(west) area;
- e. Ulsan area.

2. Applicable Regulatory Context: Matching the recent changes in the environment preservation such as ECA designated by IMO, the Ministry of Maritime Affairs and Fisheries in South Korea has given the plan with related law called “the special Act on Improvement of Air Quality in Port Areas” on 2 April 2019 and then, has taken the necessary steps to establish relative regulations in all Korean ports so far, with enforcing the Act starting from 1 Jan 2020 (officially effective since 1 Jan 2020). Under “the special Act on Improvement of Air Quality in Port Areas”, the S. Korean government newly designated the major Korean ports as “the areas for air quality control” and also, designated “Emission Control Areas (ECA)” & “Vessel Speed Reduction Program” within those areas for air quality control, to reduce the fine dust from ocean-going ships in Korean ports from the year 2020 onwards.² The Korean Register (KR) has issued technical information in English outlining the Korean regulations on the domestic ECAs.³

3. Relevant Ports: Effective from 1 September 2020, the following seaport areas become Korean SECAs: Incheon (including Gyeongin port), Pyeongtaek·Dangjin, Yeosu·Gwangyang (including Hadong port), Busan and Ulsan.⁴

4. New Sulphur Fuel Limits – Applicable Dates: Effective from **1 September 2020**, all ships (including foreign-flagged vessels) berthed or at anchorage in the above ECAs must ensure that, one hour after mooring (or anchoring) and one hour before de-berthing (or heaving anchor), the sulfur content of fuel oils used onboard does not exceed 0.1% m/m (or an approved equivalent arrangement is used). Effective from **1 January 2022**, all ships (including foreign-flagged vessels) entering or leaving the SECAs must comply with the same 0.1% m/m sulfur fuel limit using the appropriate fuel oils (or approved equivalent arrangement).

5. Approved equivalent arrangements: The use of an exhaust gas cleaning system (EGCS) will be allowed as an equivalent arrangement if the EGCS is at least as effective in terms of SOx emission reductions (4.3 SO₂(ppm)/CO₂ (% , v/v)) as compared to using fuel oil with a sulfur content not exceeding 0.1% m/m and satisfies the criteria set by South Korea.

6. Recording requirements: Ships operating inside Korean ECAs shall record the fuel oil change-over, etc. in the engineer’s logbook, or record the operation status of the EGCS. Ships

² See Eastern Shipping Co. Ltd. “Pre-Notification for Korea ECA”, 29.12.2019.

³ [http://www.krs.co.kr/TECHNICAL_FILE/2020-ETC-01\(E\).pdf](http://www.krs.co.kr/TECHNICAL_FILE/2020-ETC-01(E).pdf)

⁴ See attachment to this note with relevant sea maps.



using fuel oils with a sulfur content not exceeding 0.1% m/m to comply with the requirements, and changing fuel oils for Korean ECAs shall record:

- Kind of fuel oil and the date, time and position of the ship when the fuel-oil-change-over operation is completed;
- The remaining volume of fuel oil in each tank (only applicable to fuel oil with a sulfur content not exceeding 0.1% m/m); and
- Sulfur content of fuel oil.

The ship shall keep the above engineer's logbook on board for a period of not less than 12 months from the time of delivery of the fuel oils to the ship.

7. Fuel changeover procedure – Imposing Penalties and fines: Those ships using separate fuel oils stored in separate tanks (to comply with sulfur content limit requirements) shall carry a written procedure showing how the fuel oil change-over is to be done before entering or leaving a Korean SECA. Failure to comply with the requirements above could result in fines of up to 10 million won, or imprisonment.

8. Guidelines on implementation: The methods of verification used by South Korean inspectors could be expected to be in line with those set out in MARPOL Annex VI and include:

- for ships using low sulfur fuel, check of bunker delivery notes, fuel change-over procedures, engine room logbook records and fuel oil
- quality/samples; and
- for ships using alternative measures, such as LNG or exhaust gas scrubbers, check of the International Air Pollution Prevention (IAPP) Certificate/Record and engine room logbook records.

In order to avoid any delay or penalty being incurred by the ship, it should also be ensured that:

- bunkering strategies and fuel change-over procedures are revisited to ensure compliance with the new Korean requirements;
- dates and times of the ship's arrival and departure in a Korean port, and of the commencement and completion of fuel change-over
- operations, are recorded as soon as practicable after each occurrence and that such records are kept onboard readily available for inspection;
- the quality of fuel purchased can be documented, e.g. by obtaining and retaining onboard bunker delivery notes (BDNs) and representative samples of the low sulfur fuel oil delivered; and
- the applicable port requirements and relevant control measures at any given time are verified with the local agent or port authorities well before arrival.

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9. Voluntary Speed Reduction Program⁵: The scheme applies to 5 ports (Busan Port, Ulsan Port, Yeosu Port, Gwangyang Port, and Incheon Port), participating ships will receive discounts on port entry/leave fees for complying with the slow-steaming requirements. The port areas selected will be designated as “VSR program Sea Areas”.⁶ Each Sea Area will span 20 nautical miles in radius, measured from a specific lighthouse in each port. Ships should navigate no faster than a maximum speed of 12 knots for container ships and car-carriers, 10 knots for other ship types when moving from starting point to an endpoint within a Sea Area. Under the VSR Program, ships will have their port facilities fees lowered when they enter defined port areas at speed levels as defined above. For affected ships, the port entry/leave fee (current 111 KRW per ton), will be discounted. The discount ceiling will differ between the ports. Container ships, for example, which traditionally enter port at relatively high speeds, will enjoy up to a 30% discount, while other ships will be granted a 15% discount. For additional information on the vessel speed reduction program and eligible ships, please refer to the Korean Ministry of Oceans and Fisheries’ announcement on 12 December 2020 (<http://www.mof.go.kr/eng/article/view.do?articleKey=28138&boardKey=41&menuKey=485¤tPageNo=1>) (English).

Encl.:

1. “Sea Maps, Applicable sea & port areas”.
2. “Sea Maps, Vessel Speed Reduction program”.
3. Korean Register, “Designation of SOX Emission Control Area in the Republic of Korea”

⁵ Korean Ministry of Ocean and Fisheries

<http://www.mof.go.kr/eng/article/view.do?articleKey=28138&boardKey=41&menuKey=485¤tPageNo=1>

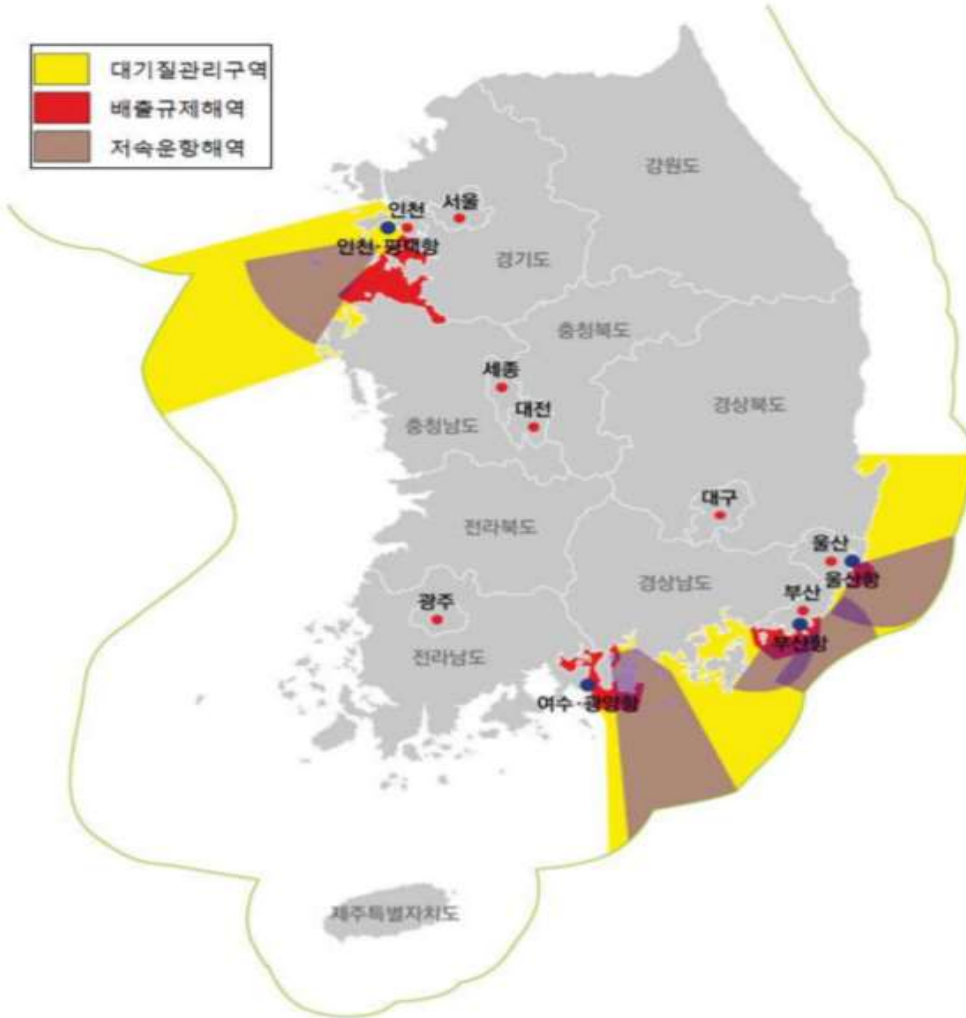
⁶ See Enclosure 2 “vessel speed reduction program (V.S.R)



"the areas for air quality control"

"Emission Control Areas(ECAs)" for sulfur oxides restriction on sea area"

"Vessel Speed Reduction(VSR) Program"





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No : 2020-ETC-01
Date : 20 January, 2020

Subject : Designation of 「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 0.1% or less according to Article 10 (1) of the 「The Special Act on the Improvement of Air Quality in Port Areas, Etc」.

1. Content

A. Emission Control Port : Busan Port, Incheon Port, Ulsan port, Yeosu Port, Gwangyang

Port(Including Hadong port), Pyeongtaek-Dangjin Port

B. Emission Control Area

- 1) (Incheon, Pyeongtaek-Dangjin Area) 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 (south-end of Mungap island in Incheon), 37 degrees 02 minutes 54 seconds north latitude, Sea level inside the line that connects 126 degrees 29 minutes 00 seconds (near Seokmungak, Dangjin-si)
- 2) (Yeosu and Gwangyang Ports) 34 degrees 35 minutes 24 seconds north latitude, 127 degrees 48 minutes 20 seconds east longitude (Southeast end of Dolsan-do, Yeosu) 34 degrees 35 minutes 24 seconds north latitude, 128 degrees 00 minutes 26 seconds north latitude 34 degrees 42 minutes 42 Cho, line connecting the branch at 128 degrees 00 minutes 26 seconds (Namhae-gun Imman) and 34 degrees 56 minutes 22 seconds north, 127 degrees 52 minutes 06 seconds east and 34 degrees 56 minutes 46 seconds north, and 127 degrees 51 minutes



56 seconds east Sea level inside the line connecting points (Noryang Bridge)

- 3) (Busan sea area) 35 degrees 09 minutes 36 seconds north latitude, 129 degrees 11 minutes 32 seconds east longitude (Southeast end of Cheongsapo, Middle East, Busan), 35 degrees 09 minutes 04 seconds north latitude, 129 degrees 11 minutes 44 seconds east long, Appendix 1 of Enforcement Decree of the Maritime Safety Act The outer arc of the special area of traffic safety in Busan area, 34 degrees 58 minutes 46 seconds north, 129 degrees 04 minutes 14 seconds east, 34 degrees 55 minutes 00 seconds north, 128 degrees 50 minutes 00 seconds east, 34 degrees 58 minutes north latitude 41.5 Second, east of 128 degrees 49 minutes 19.5 seconds (east side of the entrance of the port of Gadeok-su-do), north latitude 35 degrees 02 minutes 01.4 second, east of 128 degrees 47 minutes 37.8 seconds (buoy of the 12th port of Gadeoksudo arrival port), 35 degrees 03 minutes north of 19.5 Sea level inside the line that connects the points at 128 degrees 43 minutes 23.5 seconds (East Route No. 20 Buoy, Gadeok-Su Island), 35 degrees 05 minutes 42 seconds north, and 128 degrees 42 minutes 53 seconds east (western end of Deok-dong, Changwon-si)
- 4) (Busan port west side sea area) 35 degrees 03 minutes 19.5 seconds north latitude, 128 degrees 43 minutes 23.5 seconds east longitude (buoy No. 20 route of entry port of Gadeoksudo island), 34 degrees 58 minutes 30 second north latitude, 128 degrees 45 minutes 21 second longitude (Garsan-do, Geoje-si)), 34 degrees 55 minutes 00 seconds north latitude, 128 degrees 50 minutes 00 seconds east longitude, 34 degrees 58 minutes north latitude 41.5 seconds northeast, 128 degrees 49 minutes 19.5 seconds east longitude (east side of the entrance to the port of Gadeoksudo), 35 degrees 02 minutes 01.4 seconds north latitude, Line that connects the points at 128 degrees 47 minutes 37.8 seconds in Tokyo, buoyed at No. 12 entry port of Gadeok-Sudo, 35 degrees 03 minutes and 19.5 seconds north latitude, and buoys at No. 20 buoy at No. 20, 128 degrees 43 minutes and east longitude. Sea surface inside (only for ship using Busan New Port)
- 5) (Ulsan port area) Sea area within the arc of 6.0 mile (outside arc of the special traffic safety



area in Ulsan area) centered on 35 degrees 24 minutes 37 seconds north latitude and 129 degrees 27 minutes 52 seconds long east and Ulsan port according to Article 3 of the Port Act Sea level (including Mipo Port)

*** Refer to below drawing**

C. Effective date

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

: From 1 hour after completion of anchoring or mooring to 1 hour before completion of heave in anchor or de-berthing

2) On or after 1st January, 2022

: From entry into Sox Emission control Area until the exit

Distributions : KR surveyors, Ship owners, Other relevant parties

Disclaimer :

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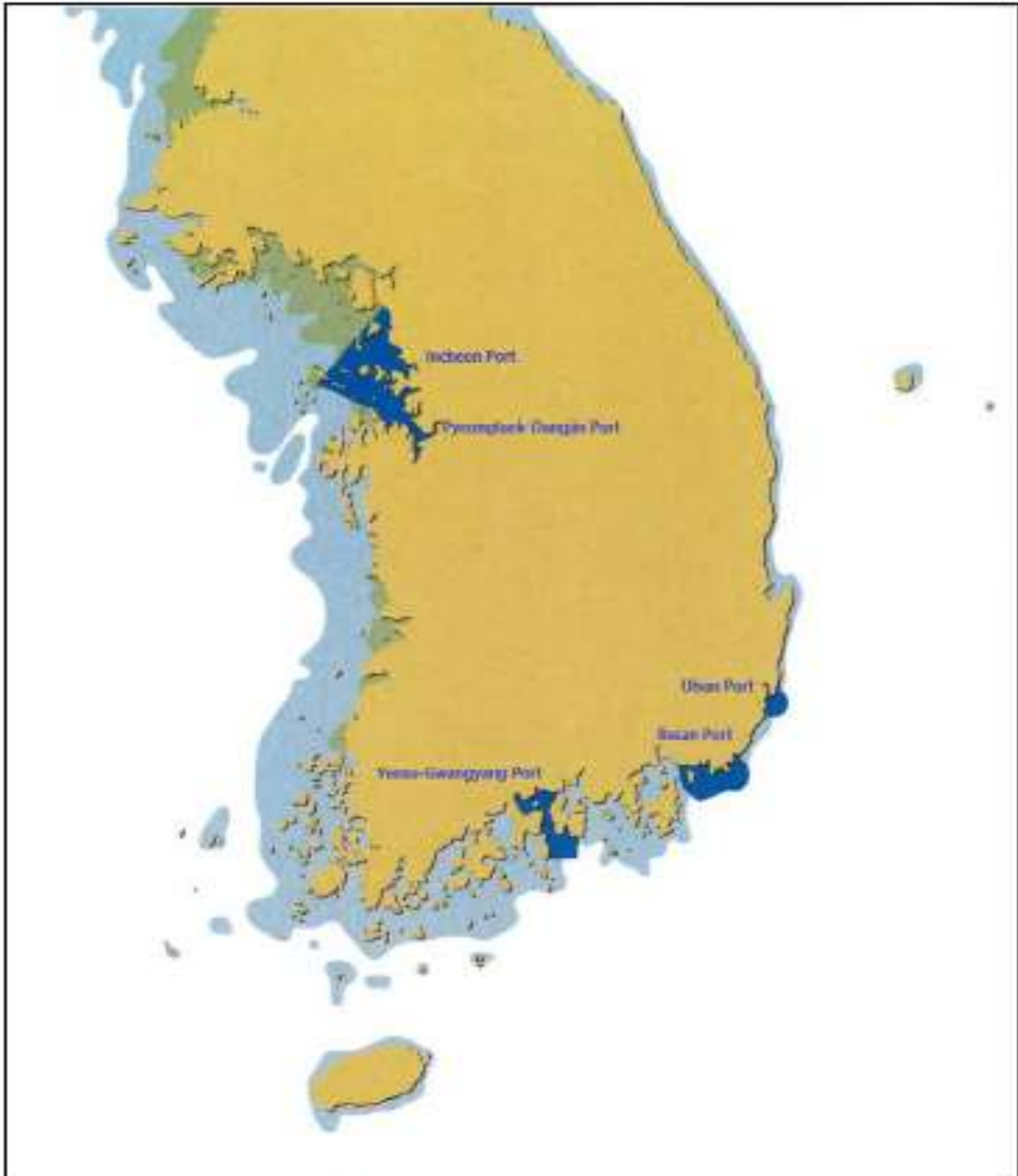


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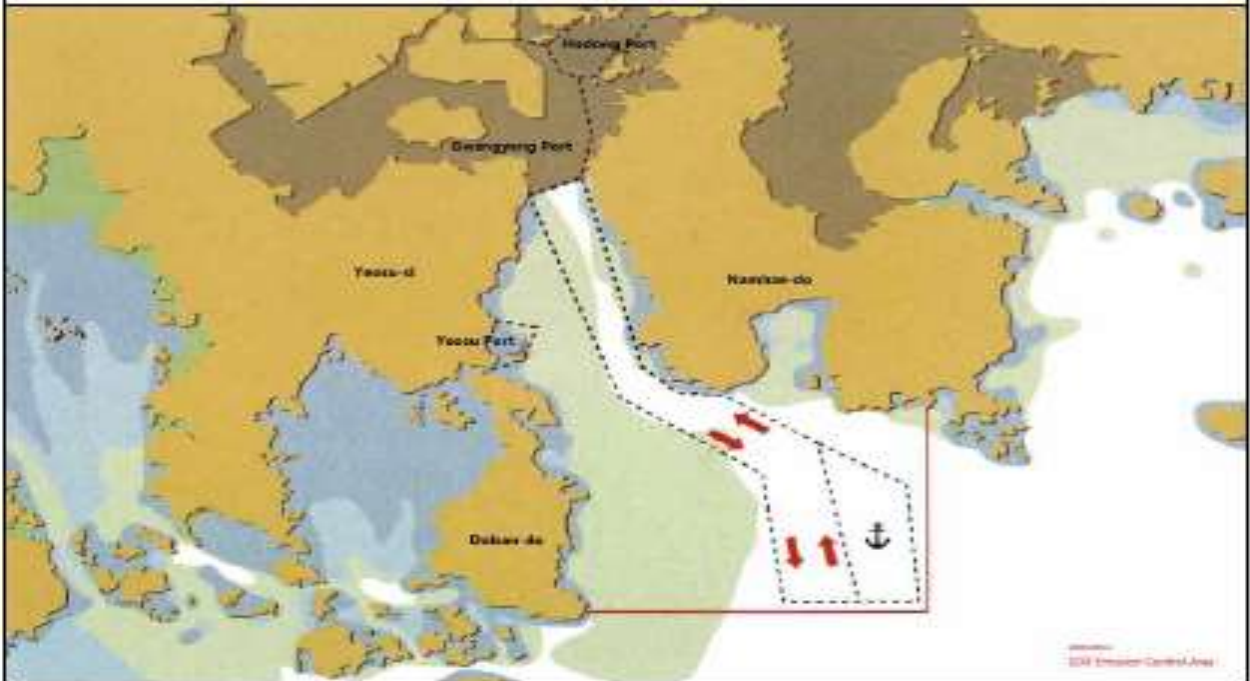
Drawing for Sox Emission Control Area



SOX Emission Control Area



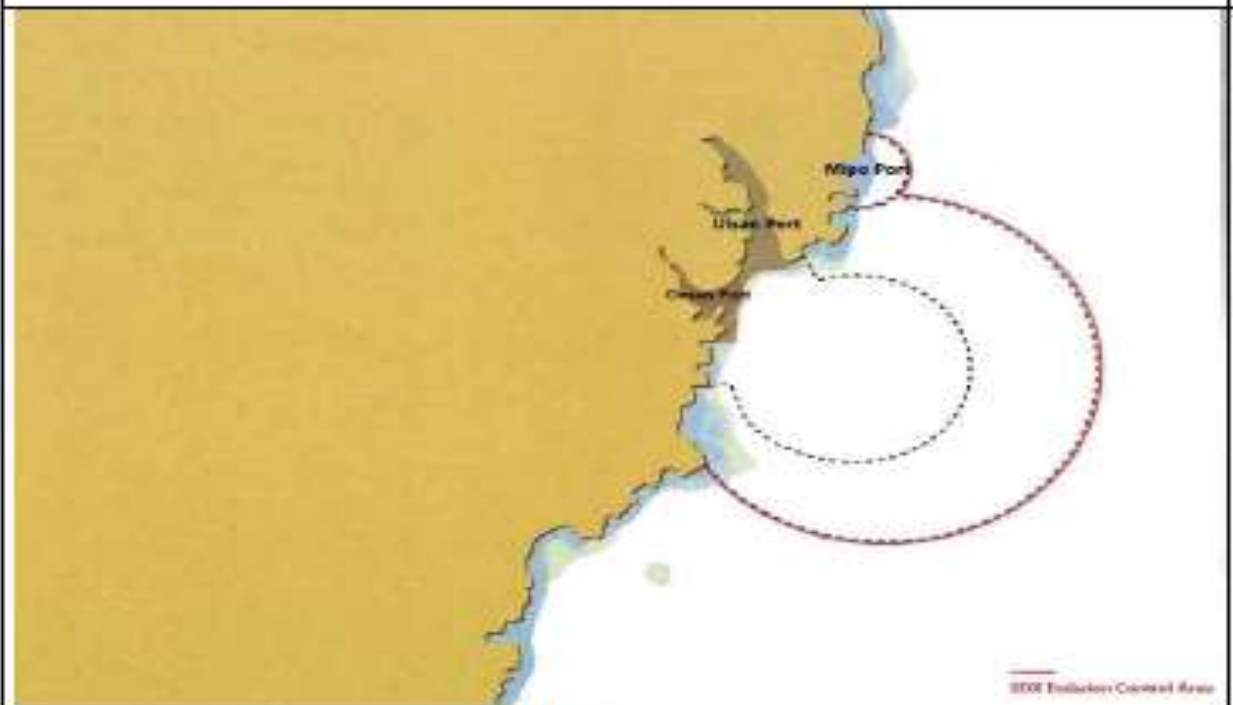
Incheon, Pyeongtaek-Dangjin Area



Yeosu, Gwangyang Area



Bisan Area



Ulsan Area