



GRIMALDI EUROMED S.p.A.

Company of Grimaldi Group S.p.A. - Palermo

Registered Office: Via Emerico Amari, 8 90133 Palermo, Italy - Share Capital € 120.000.000 full paid-up
Register of Company of Palermo, Fiscal Code 00278730825 and VAT n° IT00278730825
Company with a sole shareholder

Naples, 14/10/2019

TO: ALL CLIENTS
ALL NETWORK AGENCIES

SUBJECT: "SULFUR CAP 2020" DIRECTIVE

Dear client,

The EU DIRECTIVE 2016/802 of the European Parliament and the Council of 11 May 2016 transposes the new **International Maritime Organization (IMO)** regulation concerning the **reduction of the sulfur content of certain liquid fuels**.

The aforementioned IMO regulation, destined to change the world of shipping to a global level, will come into force starting from **1 January 2020**.

To date, ships can use fuel with a maximum sulfur content of up to 3.5% mass / mass (corresponding to the grams of sulfur dissolved in 100 grams of fuel). From 1 January 2020, by effect of the new European legislation, **the so-called "Sulfur Cap" limit will be reduced up to a maximum of 0.5%**.

Emissions from maritime transport due to the use of fuels for marine use with high sulfur content contribute to air pollution in the form of sulfur dioxide and particulate, damaging human health and the environment and contributing to the formation of acid deposits. Without the regulatory measures in the Directive, acidification and atmospheric sulfur dioxide would over time damage sensitive ecosystems, biodiversity and landscape value with a negative impact on crops and on the forest growth. Pollution due to sulfur dioxide can also have a significant impact on human health, especially for those sections of the population suffering from respiratory diseases.

The obligation to use fuels for marine use with low sulfur values will lead to a significant increase in the price of these fuels.

The available options for ship-owning companies to meet the requirements of the regulations by 2020 are in fact, the following:

1. Switching from high sulfur fuel oil (HSFO) to marine gas oil (MGO) or distillates.
2. Using fuel with low sulfur content or blends compatible with the 0.50% sulfur content limit
3. Modernizing ships in operation in order to allow the use of alternative fuels such as Liquefied Natural Gas (LNG) or other types of sulfur-free fuels.
4. Installing exhaust gas scrubbing systems (scrubbers) that allow fueling with high sulfur fuel (HSFO).

Due to the short lead-time until 1 January 2020, since the Authorities have the duty of correctly and strictly controlling all the ship-owning companies to comply with the new legislation, all IMO States have to immediately establish the appropriate mechanisms for monitoring compliance of the sulfur content of the fuels used by ships. Thus, in order to ensure the uniform application of the legislation and to avoid any distortion of the international competitiveness.

It is a no mean commitment for the Maritime Authorities to verify the regulatory compliance through the



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Bunker Delivery Note reporting the content of sulphur in the bunker delivered to the ship. The Authority will also check the inventory on board the ships, since keeping on board the not complying fuel will not be allowed starting from 31/03/2020.

Naturally, the Authorities will check by sampling the sulphur content of the used fuels and carry out the necessary analyzes or any other techniques to identify potential violations also by means of drones analyzing in real time the quality of the emitted fumes. Any infringement shall be subject to the penalties provided for and whose extent is determined by the State where the port that carried out the checks is located, or of the flag state of the controlled ship.

The so far mentioned alternatives entail huge investments and therefore cost adjustments, and it is for this reason that some of the most important maritime companies have already announced increases (between 20% and even up to 30% for the less efficient maritime companies) that will affect transportation freights.

It follows from the above that it is estimated a surcharge in terms of costs of more than 50% (compared with those currently practiced) for the new fuel. Furthermore uncertainties are assumed not only concerning the availability of a sufficient quantity of product on the market to satisfy the new global demand, but also in relation to the sector of storage and distribution of the new refined product with the obvious repercussions on the entire intermodal chain and the production chain.

In order to fulfil its mission of eco-sustainability of maritime and intermodal transport and taking into account the low average age of its fleet, GRIMALDI GROUP has chosen to equip most of its ships with exhaust gas scrubbers, which entails a total investment of over 300 million euros.

The benefits of the choice made by Grimaldi Group are many; thanks to the scrubbers Grimaldi fleet will be technologically advanced and greener, ensuring in the coming years to remain constantly in compliance with increasingly stringent environmental regulations. Thus, allowing the reduction of Co2 emissions, the particulate matter and the sulfur dioxide itself even at 1/5 of the limits imposed by the directive itself.

This information is disseminated in order to provide partners with as detailed information as possible on the content of the **SULFUR CAP 2020 DIRECTIVE** and to ensure the maximum transparency of information.

Best regards
DIRCOMM Naples