

# MARPOL VI AND FUELS

## MARPOL VI AND THE INSUFFICIENCY OF RESIDUAL FUELS WITH 1.5% SULPHUR

According to published data and information from Refineries, Fuel Suppliers and Maritime issues, the total demand of Residual Marine Fuels in general, calculated by the balance of numbers of existing ships, new ships on order and estimated to be withdrawn, it is estimated in the area of 300 to 320 million tons yearly by the year 2010.

Out of this, the total yearly demand of Low Sulphur Residual Fuels of 1.5% by the year 2010, it is estimated to 150 million tons, if present SECA controlled areas of Baltic, North Sea and between European Ports, is extended to Mediterranean, North America and Canada. Already Port of Calais impose the European Directive EU/2005/33/EC to Ferries.

The overoptimistic issues about sufficiency of Low Sulphur 1.5% Residual Fuel are far distant of the developing worldwide cost reality as mentioned below.

## COST OF CONVERSION OF RESIDUAL FUELS TO FUELS OF LOW SULPHUR 1.5%

For the conversion of regular Residual Fuels to Residual Fuels of low Sulphur 1.5%, in order to cope with European demands by 2010, according to Marpol VI and European Directive EU/2005/33/EC, the European Refineries must make new installations up to 15 billion dollars.

Something analogous is expected to happen in the States as soon as the damages from Katrina in the Oil Platforms and Storage Installations in the Gulf of Mexico are recovered.

It is estimated that the average cost for Low Sulphur 1.5% Residual Fuels after such new Refinery investments, it will be in the area of 35 dollars/ton.

As a result, in order to amortize the initial cost for the new installations and make a profit, the Residual Fuels of 1.5% Sulphur must be sold at least 100-110 dollars on top of High Sulphur Residual Fuel Oils prices. We were recently informed of two cases of increased prices in the SECA areas by 68 and 75 dollars premium per ton from two different Ferry Companies.

## THE PROMPT INSTALLATION OF SCRUBBERS IN THE EXHAUSTS OF SHIPS IS THE MOST ECONOMICAL DECISION

The SCRUBBERS in the exhausts of engines give a prompt solution. The best Technically, Economically and Environmentally.

Therefore, Shipowners or Ship Managers should not deviate from the decision to install soonest possible on their ships the SCRUBBER System, which will enable them to continue using the current Residual High Sulphur Fuels and comply with the rules by washing the exhaust gases from Sulphur Dioxide, Soot and Carcinogenic Particular Matter with seawater.

The cost of an installation on a ship under construction is in the area of 2%-4% of the cost of vessel. However, this is amortized in 3-4 years, and thereafter the Shipowner or Manager economizes millions of dollars by continuing to use the regular Fuels up today. And the most important, without disturbing the lubrication practice of their engines, originally designed to burn High Sulphur Residual Fuels.

Installing the SCRUBBER exhaust system without hesitation to all ships under construction, it would be a wise decision so as to avoid the extra cost of retrofitting it at a later date, because this equipment is going to be a basic term in the time charters.

Otherwise, the cost of 1.5% Sulphur Fuels will be almost equal to the cost of Diesel Oils. The blending of Fuels is not as simple as it sounds. Two Scandinavian Shipping Companies were forced to defuel the tanks of their ships due to wrong mixing of fuels.



*George S. Kaminis introduced and applied the SCRUBBER Technology for first time in 1978 to the Greek Shipping with the introduction and application of Inert Gas Systems of Moss, Norway. He analyzed the Principle of their Operation in detailed technical articles published in the 5th Issue 1978, of MARINE TECHNOLOGY REVIEW, of the Hellenic Institute of Marine Technology, and in NAFTILIAKI of 26 September 1979, which thereafter became the document of education of Officers of the Ministry of Merchant Marine, of Inspectors of the Inspection of Merchant Ships, and of Ships Officers in the School of Ministry of Merchant Marine KESEN (e.mail: george@kaminis.com)*



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**In the interest of fairness, deliveries will be served in the priority of Enquiries or Letters of Intent received.**

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