
**Refrigerated hydrocarbon and non-
petroleum based liquefied gaseous
fuels — Metering of gas as fuel on
LNG carriers during cargo transfer
operations**

*Hydrocarbures réfrigérés et combustibles gazeux liquéfiés à base non
pétrolière — Mesurage du gaz comme carburant sur les transporteurs
de GNL pendant les opération de transfert de cargaison*

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Foreword

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The committee responsible for this document is ISO/TC 28, *Petroleum products and related products of synthetic or biological origin*, Subcommittee SC 5, *Measurement of refrigerated hydrocarbon and non-petroleum based liquefied gaseous fuels*.

Introduction

Concerns over the emission of pollutants from ship exhausts prompted IMO to enact MARPOL Annex VI to the IMO Protocol of 1997 which sets limits on sulfur oxide and nitrogen oxide emissions. As for sulfur, as from 1 January 2012, the annex specifies a global cap mass fraction of 3,5 % on the sulfur content of fuel oil and special SO_x emission control areas (SECAs) where the sulfur contents shall not exceed a mass fraction of 1,0 %. In order to comply with these requirements, the ships in general need to fit special facilities to limit SO_x emissions unless they use low sulfur fuel oil.

However, liquefied natural gas (LNG) carrier is capable of utilizing BOG in ship's and shore tanks, and return gas during cargo transfer operation as fuel for their own power generation, if commercial value of such energy consumed on board is accountable as an element of custody transfer measurement.

This document provides the procedures needed for metering gas and assessing its calorific value and the requirements for metering devices.

Aspects of safety are not dealt with in this document. It is the responsibility of the user to ensure that the system meets applicable safety regulations.

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