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Interested committees:

Title: Draft BS ISO 19970 Refrigerated hydrocarbon and non-petroleum based liquefied gaseous fuels - Metering of gas as fuel on LNG carriers during cargo transfer operations.

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



DRAFT International Standard

ISO/DIS 19970

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

ICS: 75.180.30

ISO/TC 28/SC 5

Secretariat: JISC

Voting begins on:
2024-03-28

Voting terminates on:
2024-06-20

This document is circulated as received from the committee secretariat.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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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*.

This second edition cancels and replaces the first edition (ISO 19970:2017), which has been technically revised.

The main changes compared to the previous edition are as follows:

- BOG measurement system is defined
- Uncertainty calculation examples are introduced in [Annex C](#)

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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.