

TR 56 : Part 1 : 2020
(ICS 01.140.30; 47.020; 47.040)

TECHNICAL REFERENCE

LNG bunkering

– Part 1 : General introduction

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Secretary	: Ms Elane Ng	<i>Standards Development Organisation @ Singapore Chemical Industry Council</i>
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	Ms Pamela Phua	<i>Singapore Paint Industry Association</i>
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	Dr Teo Tang Lin	<i>Chemical Metrology Division, Health Sciences Authority</i>
	Mr Yao Yikai	<i>Maritime and Port Authority of Singapore</i>
	Ms Suzanna Yap	<i>National Environment Agency</i>
Co-opted Members	: Ms Christina Loh	<i>Individual Capacity</i>
	Mr Pitt Kwan Wah	<i>Individual Capacity</i>

CSC set up the Technical Committee on LNG Bunkering to oversee the preparation of this standard. The Technical Committee consists of the following members:

	Name	Representation
Chairman	: Mr Goh Tiak Boon	<i>Individual Capacity</i>
Secretary	: Ms Elane Ng	<i>Standards Development Organisation @ Singapore Chemical Industry Council</i>
Members	: Dr Khorshed Alam	<i>Singapore Shipping Association</i>
	Dr Giulio Gennaro / Mr Foo Nan Cho	<i>Society of Naval Architects and Marine Engineers Singapore</i>
	Dr Lim Ee Meng	<i>National Metrology Centre</i>
	Mr Sandeep Mahawar	<i>Singapore LNG Corporation Pte Ltd</i>
	Mr Varun Iyer Mani	<i>Maersk Line</i>
	LTC Ng Geok Meng	<i>Singapore Civil Defence Force</i>
	Mr Cristian Popescu	<i>CMA CGM</i>
	Mr Saunak Rai	<i>FueLNG Pte Ltd</i>
	Capt Say Eng Sin	<i>Singapore Nautical Institute</i>
	Mr Soh Zi Quan	<i>Ministry of Manpower</i>
	Mr Richard Tan	<i>Pavilion Energy Singapore Pte Ltd</i>
	Mr Alex Tang	<i>The International Bunker Industry Association</i>
	Capt Satinder Singh Viridi	<i>Singapore Maritime Academy</i>
	Mr Yao Yikai	<i>Maritime and Port Authority of Singapore</i>
	Mr Zheng Huijian	<i>Energy Market Authority</i>

The Technical Committee set up the following three Working Groups to prepare this standard. The Working Groups consists of the following experts who contribute in their *individual capacity*:

Working Group on LNG Bunkering Specification

	Name
Co-Convenors	: Mr Chua Hock Ann Mr Sanjay Verma
Members	: Mr Steve Allen Mr Costas Arvanitis Mr Naveen Hegde Dr Kai Fuu Ming Mr Gary Lim Dr Serena Lim Mr Andrew J Manton Mr Bhavin Mehta Ms Katelyn Ng Mr Pang Jun Jie Mr Andreas Salim Mr James Seow Mr Dennis Sim Ms Faith Tan Mr Tan Yew Hui

Members : Mr Teoh Seng Eng
Mr Wu Meng Hsien
Dr Zeng Yan

The organisations in which the experts of the Working Group are involved are:

Ascenz Solutions Pte Ltd
Emerson Process Management Marine Solutions Singapore Pte Ltd
Endress+Hauser (S.E.A.) Pte Ltd
Enterprise Singapore
ExxonMobil Research and Engineering Company
FueLNG Pte Ltd
Intertek Testing Services (S) Pte Ltd
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National Metrology Centre
Pavilion Energy Singapore Pte Ltd
SGS Testing Services Pte Ltd
Shell Eastern Trading (Pte) Ltd
Singapore LNG Corporation Pte Ltd
Wartsila Singapore Pte Ltd

Working Group on LNG Bunkering Procedures and Safety Distances

Name

Co-Convenors : Mr Julien Boulland
Ms Shanice Koh

Members : Mr Aw Teck Leong
Capt Andy Chew Kian Kwee
Ms Marion During
Ms Ina Foo
Mr Gan Shaowei
Mr Jeremy Lee
Mr Rajesh Mahesan
Mr Stephane Maillard
Mr Subhendu Mukherjee
Capt Tomoyoshi Nasuno
LTA Shavithiya Shanmugam
Mr Siah Poh Chiang
Capt Anthony Sim
Mr So Kah Meng
Mr Yang Zhan Ming

The organisations in which the experts of the Working Group are involved are:

Bureau Veritas Marine (Singapore) Pte Ltd
China Classification Society
FueLNG Pte Ltd
Gas Technology Development Pte Ltd
Gaztransport & Technigaz
Jurong Port Singapore
Keppel Smit Towage Pte Ltd
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Pavilion Energy Singapore Pte Ltd
PSA Marine (Pte) Ltd
Shell International Eastern Trading Co
Sinanju Marine Services Pte Ltd
Singapore Civil Defence Force
Total Marine Fuels Singapore

Working Group on LNG Bunkering Crew Training

	Name
Co-Convenors	: Capt I G Sangameswar Mr Thomas Stott
Members	: Mr Frank Remigius Ambrose Mr Andre D'Costa Capt Manu Dhaul Er. Lim Liang Hong Capt Tomoyoshi Nasuno Mr David Pullin Mr Andreas Salim Capt Anthony Sim Capt Satinder Singh Viridi Mr Robert Whillock

The organisations in which the experts of the Working Group are involved are:

Bernhard Schulte Shipmanagement (Singapore) Pte Ltd
DNV GL Singapore Pte Ltd
FueLNG Pte Ltd
Hong Lam Marine Pte Ltd
Maritime and Port Authority of Singapore
Ministry of Manpower
Mitsui O.S.K. Lines (MOL)
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Foreword

This Technical Reference was prepared by the Working Group on LNG Bunkering Specification, Working Group on LNG Bunkering Procedures and Safety Distances and Working Group on LNG Bunkering Crew Training set up by the Technical Committee on LNG Bunkering under the purview of CSC.

TR 56 consists of the following parts under the generic title “LNG bunkering”:

- Part 1 : General introduction
- Part 2 : Requirements for custody transfer
- Part 3 : Procedures and safety distances
- Part 4 : Competency requirements for personnel

In this revision, new terms and definitions were included.

In preparing this TR, reference was made to the following documents:

1. DNVGL-RP-G105 Development and operation of liquefied natural gas bunkering facilities
2. ISO 9000 Quality management systems – Fundamentals and vocabulary
3. ISO/IEC Guide 99 International vocabulary of metrology – Basic and general concepts and associated terms (VIM)
4. ISO/TS 18683 Guidelines for systems and installations for supply of LNG as fuel to ships
5. SS 648 Code of practice for bunker mass flow metering
6. SGMF Training and competency guidelines
7. SGMF Quality and quantity – contractual guidelines
8. SGMF Recommendation of controlled zones during LNG bunkering

Some of the definitions in Clause 3 were reproduced from the above publications with permission from the respective organisations as indicated in brackets after the definitions. Clause 5 of ISO/TS 18683 was adapted as Clause 4 in this Part of the TR. All rights are reserved by the respective organisations.

Acknowledgement is made for the use of information from the above publications.

Acknowledgement is also made to The Society for Gas as a Marine Fuel (SGMF) for their kind assistance in the development of this Technical Reference and for their permission to reproduce/adapt the works from the following SGMF Guidelines:

- SGMF Quality and Quantity – Contractual Guidelines (definitions into TR 56 : Part 1 : 2020 and clause 5.4 into TR 56 : Part 2 : 2020)
- SGMF LNG Bunkering Safety Guidelines (clauses 4.1.1 and 4.2 into TR 56 : Part 3 : 2020)
- SGMF Training and Competency Guidelines (definitions into TR 56 : Part 1 : 2020 and clauses 4.1 to 4.8 and clause 5 into TR 56 : Part 4 : 2020)
- SGMF Recommendation of Controlled Zones during LNG Bunkering (clause 4 controlled zones definitions into TR 56 : Part 1 : 2020)

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This TR is expected to be used by all stakeholders involved in the LNG bunker supply chain including LNG bunker suppliers, bunker tanker owners / operators, LNG fuel receiving vessels, ship owners / operators, training institutions, third party agencies and relevant authorities.

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Technical Reference – LNG bunkering – Part 1 : General introduction

0 Introduction

This TR is applicable to bunkering of both seagoing and inland trading vessels. It covers LNG delivery from LNG bunkering facilities to receiving ships through four modes of transfer as shown in Figure 1.

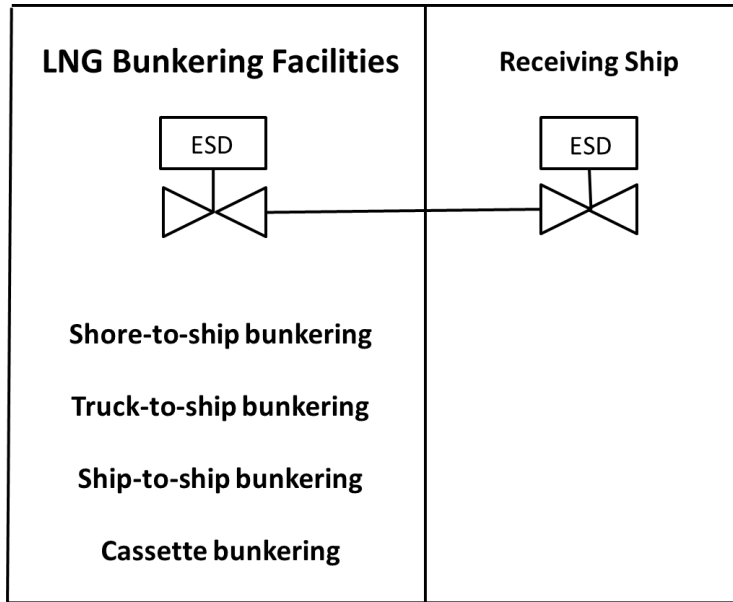


Figure 1 – Four modes of LNG bunkering

1 Scope

This part provides the list of terms and definitions for this TR. It also includes an introduction to the properties of LNG.

2 Normative references

There are no normative references in this part of the TR.