

No: FSN 22-01 | Date 13th April 2022

Reported compatibility issues for dry-disconnect/connect coupling (DD-CC) manufactured in accordance with ISO21593-2019.

The following Formal Safety Notice (FSN) has been issued by the Society for Gas as Marine Fuel (SGMF) www.sgmf.info to the industry to address concerns regarding the safe operations of LNG fuelled vessels and their equipment and to prevent an increase in the risk for assets, people and environment.

Applicability:	<ul style="list-style-type: none"> • LNG bunkering operations, ship to ship, shore to ship and truck/mobile to ship • All sizes of dry-disconnect/connect couplings manufactured in accordance with ISO21593-2019
Status:	<ul style="list-style-type: none"> • Active
Duration:	<ul style="list-style-type: none"> • No time limitations
References:	<ul style="list-style-type: none"> • <i>SGMF: Safety and Operational Guidelines – Bunkering – FP07-01 Ver3.0</i> • <i>SGMF: LNG bunkering with hose bunker systems: considerations and recommendations – TGN06-06</i> • <i>ISO 21593-2019 Ships and marine technology — Technical requirements for dry-disconnect/connect couplings for bunkering liquefied natural gas</i>
Distribution:	<ul style="list-style-type: none"> • Not Restricted
Note:	<ul style="list-style-type: none"> • None

Introduction:

The Society for Gas as a Marine Fuel (SGMF) has received reports related to compatibility issues among dry-disconnect/connect couplings (DD-CC) manufactured by different OEMs in accordance with ISO21593-2019.

Report:

It is understood that some DD-CC couplers manufactured by different OEMs can have compatibility issues during connection before bunkering and this might lead to a DD-CC nozzle and receptacle:

- not making a positive connection or
- making a positive connection but not guaranteeing that the seal is gas and/or liquid tight

In both cases this can result in leakage and therefore safety, operational, and environmental risks.

Some OEMs have performed compatibility testing and should be consulted prior to bunkering (using the serial numbers of the DD-CCs) to determine whether any compatibility issue is anticipated.

It is recommended that vessels owners and operators ensure:

- that DD-CC nozzle and receptacle to be used are compatible as part of the bunkering compatibility assessment and
- that pressure-leak testing is performed prior to bunkering.

Guidance for the bunkering compatibility assessment and line pressure-leak testing can be found in *SGMF guidance Safety and Operational Guidelines – Bunkering – FP07-01 Ver3.0* respectively in sections 3.7 and 7.5.3.3

Risk Impact Rating:

<p>Yellow:</p> <p>This presents a low risk and impact to assets, people and environment and might cause some disruption to the normal operations.</p> <p>Stakeholders should be aware of the matter, evaluate the impact on their operations and plan their actions accordingly and as applicable.</p>	<p>Amber:</p> <p>This presents a medium risk and impact to assets, people and environment and can cause disruptions to the normal operation if not addressed.</p> <p>Stakeholders should evaluate the impact on their operations and plan to address the matter as part of their safety management plan.</p>	<p>Red:</p> <p>This presents potentially a high risk and impact to assets, people and environment and it should be immediately addressed.</p> <p>Stakeholders are invited to evaluate the impact on their operations and promptly take actions addressing the matter.</p>

Definitions:

Dry-Disconnect/Connect Coupling (DD/CC)

A manually-operated mechanical device enabling quick and safe connection and disconnection of the hose bunkering system to the manifold of the receiving vessel without employing bolts. The coupling consists of a nozzle and a receptacle.

Coupling nozzle

The half part of the dry-disconnect/connect coupling, bolted to the bunkering transfer system, which permits quick connection and disconnection to the receptacle installed on the gas-fuelled vessel's manifold. It includes an internal valve to seal the nozzle/transfer system when disconnected.

Coupling receptacle

The half part of the dry-disconnect/connect coupling bolted to the gas-fuelled vessel's manifold to which the nozzle installed on the bunkering transfer system will be connected. It includes an internal valve to seal the receptacle/ manifold when disconnected.

Note:

Please note, reporting of details of any such instances is requested to the SGMF Secretariat: office@sgmf.info