

1. LNG and Gas Quantity, Quality and Pressure Specifications

The User shall notify the Operating Company of the LNG composition in the Cargo Information Notice in accordance with the Terminal Manuals, including the physical properties such as Wobbe Index, Gross Calorific Value, density as loaded, and density as predicted at time of arrival at the Terminal. The data also shall include the actual composition and level of contaminants (such as sulphur and oxygen) to allow the Operating Company to determine whether vaporized LNG can meet the SRG Network Code specifications.

1.0. LNG Quality Specifications for the Delivery Point

The LNG Quality Specifications, based upon the SRG Network Code specifications, are as follows:

Tabella 1: LNG quality specifications ()**

Property		Specification	Unit
Wobbe Index	Minimum	47,31	MJ/Sm ³
	Maximum	53,00	MJ/Sm ³
Gross Calorific Value	Minimum	(*)	MJ/Sm ³
	Maximum	(*)	MJ/Sm ³
H ₂ S + COS (as sulphur)	Maximum	6.6	mg/Sm ³
Mercaptans (as sulphur)	Maximum	15.5	mg/Sm ³
Total sulphur (as sulphur)	Maximum	150	mg/Sm ³
Mercury (Hg)	Maximum	10	Nano g/Sm ³
Hydrocarbon dew point (cricondenthem)	Maximum	- 5	°C (1-70bara)
Water (H ₂ O)	Maximum	0,1	ppm (vol)
Oxygen (O ₂)	Maximum	100	ppm (vol)
Carbon dioxide (CO ₂)	Maximum	100	ppm (vol)
Solids		No deposits on 60 mesh strainers	
LNG density	Minimum	430	kg/m ³
	Maximum	470	kg/m ³

GCV, Wobbe Index reference standards: ISO 6976:1995 for calorific values (combustion reference temperature: +15 °C, standard cubic meter +15 °C @ 1,01325 bara)

(*): if Wobbe Index is inside the specification range GCV and single components compositions are acceptable

(**): at the time of current revision, SRG is revising quality specifications due to change of GCV/WI units from MJ to kWh. Please consider that 1 kJ/Sm³_{15°/15°} = 0.0002775 kWh/ Sm³_{25°/15°} and 1 kWh/ Sm³_{25°/15°} = 3603.6 kJ/Sm³_{15°/15°}. Once official specifications will be issued, present Manual will be revised accordingly.

1.1. Impurities

The delivered LNG shall not contain solid matter, contaminants, or extraneous material that might interfere with its merchantability or cause injury to, or interference with, the proper operation of the Terminal.

If the total sulphur content is less than five (5) mg/Sm³, it is not necessary to analyse the sample for hydrogen sulphide and mercaptans sulphide.

To avoid internal clogging or erosion of equipment, the delivered LNG shall not contain any fluid component (*e.g.*, aromatics, C₆H₆, CO₂, CH₃OH, etc.) in a concentration higher than fifty per cent (50%) of the solubility limit in LNG of that particular fluid component in the operating pressure range of 0 to 100 bar absolute and operating temperature range of -162 to + 50°C. C₆H₆: max. 1 ppm, CH₃OH: max. 0.5 ppm.

The LNG Quality Specifications are subject to change at any time as required to conform with the Gas Quality Specifications.

1.2. Gas Quality Specifications for the Delivery Point

Once the LNG is regasified and treated using the nitrogen injection facility onboard the FSRU, it shall meet the Gas Quality Specifications.