

Working towards a comprehensive framework of rules, standards and guidelines for provision and use of LNG

Pia Berglund
EMSA

Outline

What could be done?

- EU wide guidelines – what could they look like
- What is already in place
- Potential GAP:s
- What to do next?

The bunker operation!

Large
scale
import
terminal

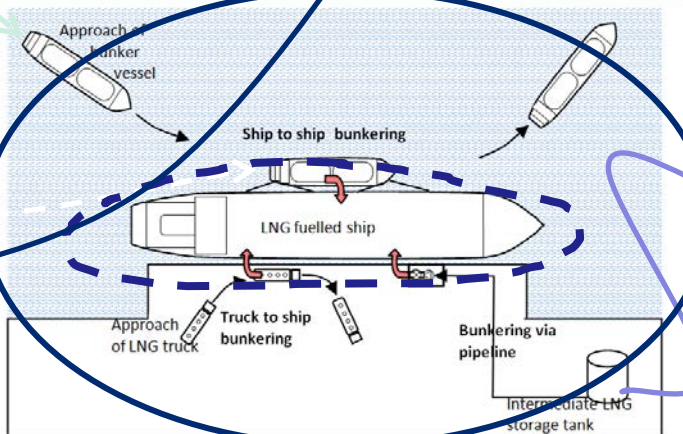
Import, production or
intermediate terminal

Loading of feeder
vessel or bunker
vessel/barge

Transit of feeder vessel
or bunker vessel/barge
in the port area

Other ship traffic and
port characteristics

Port gate



Intermediate
LNG terminal

Source: SSPA

Examples of common Guidance for LNG bunkering

Table of contents

- A. General guidelines for certification of LNG fuelled ship (incl. inland vessels)
- B. General guidelines for the certification of bunker ship
- C. General guidelines for the port and terminals
- D. General Guidelines for LNG Bunkering
- E. Operational guidelines for LNG Bunkering

What is already in place?

IGF-code (Draft International Code of Safety for ships using gases or other low flashpoint fuels)

- Developed within the IMO to be ready by 2014. *Interim solution:* Resolution MSC.285(86) on Interim guidelines on safety for natural gas-fuelled engine installations in ships was adopted in June 2009

ISO TC 67/WG 10 (Guidelines for systems and installations for supply of LNG as fuel to ships)

- Minimum requirement for the procedures, training and equipment necessary to ensure the safe LNG bunkering operations of gas fuelled ships from; bunkering vessels and barges, and onshore installations, either from fixed storage tanks or LNG trucks.

What is already in place?

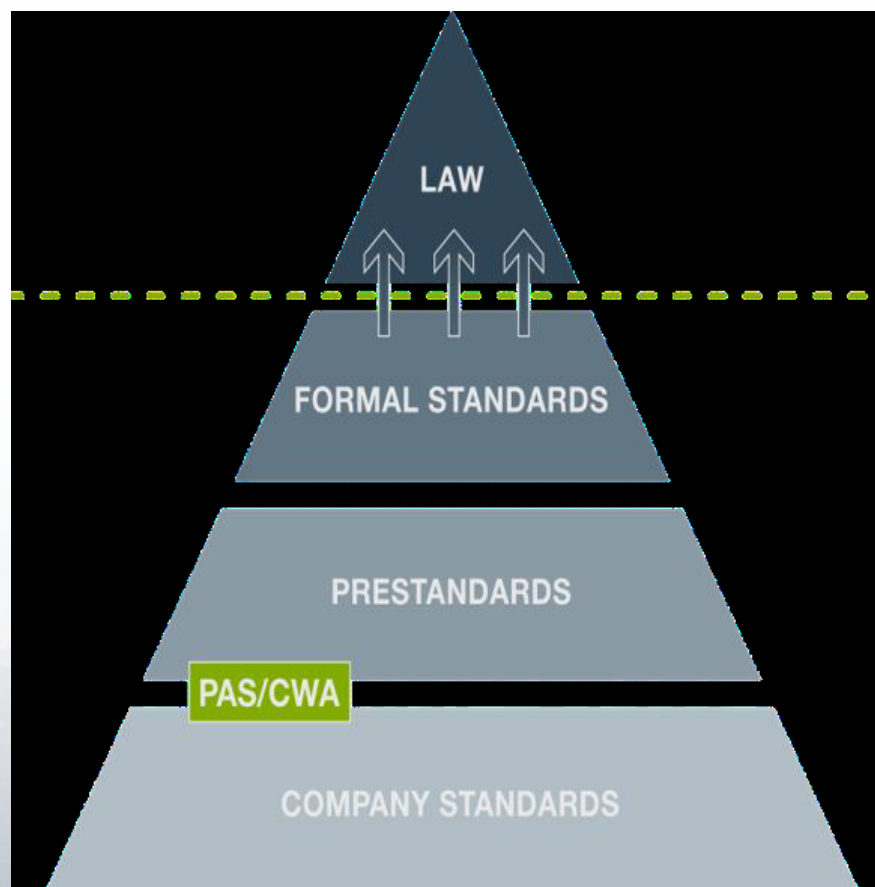
IGC-Code (International Code for the Construction and Equipment of Ships Liquefied Gases in bulk)

- The Code applies to ships regardless of their size, including those of less than 500 tons gross tonnage, engaged in the carriage of liquefied gases having a vapour pressure exceeding 2.8 bar absolute at a temperature of 37.8 C, and other products as shown in chapter 19, when carried in bulk.

Other work done in EU

- LNG ship to ship bunkering procedure (Swedish Maritime Technology Forum SMTF et. Al. 2010)
- Examples of Operational Guidelines on LNG Bunkering (Appendix H, North European LNG Infrastructure Project, 2012)
- Beanport toolkit (Ports of Antwerp, Amsterdam and Rotterdam, 2012)

Standardisation contra legislation



Source: LESAS

A. General guidelines for a LNG fuelled ship

1. Goal/Functional

- ✓ IGF-Code

2. Technical

- ✓ IGF-Code

3. Operational/Training

- ✓ IGF-Code, STCW-Convention

4. Plan Approval (Documentation)

- ✓ IGF-Code
- ✓ Classrules

B. General guidelines for the bunker ship

1. Goal/Functional

- ✓ IGC-Code (for ships on international traffic regardless of GT)
- ✗ For bunker ships on national voyage

2. Technical

- ✓ IGC-Code (for ships on international traffic regardless of GT)
- ✗ For bunker ships on national voyage

3. Operational/Training

- ✓ IGC-Code (for ships on international traffic regardless of GT)
- ✗ For bunker ships on national voyage

4. Plan Approval (Documentation)

- ✓ Class rules
- ✗ No international standard

5. Safety of Navigation and Operation

- ✓ Beanport?

C. General guidelines for the port and terminals

1. Goal/Functional

✓ ISO?

2. Technical (Siting)

✓ ISO?

3. Operational/Training

✓ ISO?

4. Plan approval (Documentation, risk assessment)

✓ ISO?

5. Safety of Navigation and Operation

✓ ISO?

D. General Guidelines for LNG Bunkering

1. Goal/Functional

- ✓ STS Bunkering
- ✓ IGF-code ?

2. Technical

- ✓ STS Bunkering
- ✓ IGF-code ?

3. Operational/Training

- ✓ STS Bunkering
- ✓ IGF-code ?

4. Plan Approval (Documentation)

- ✓ IGF-code ?

5. Safety of Navigation and Operation

- ✓ Beanport?

6. Accident and incident reporting

- ✗ Have to ensure a coherent approach.

E. Operational guidelines for LNG Bunkering

1. Operational guidelines for Ship to Ship Bunkering of LNG (STS)

✓ North European LNG Infrastructure Project

2. Operational guidelines for Truck to Ship Bunkering of LNG (TTS)

✓ North European LNG Infrastructure Project

3. Operational guidelines for Intermediary Terminal to Ship via pipeline of LNG (ITPS)

✓ North European LNG Infrastructure Project



Thank you!

Pia.Berglund@emsa.europa.eu
www.emsa.europa.eu