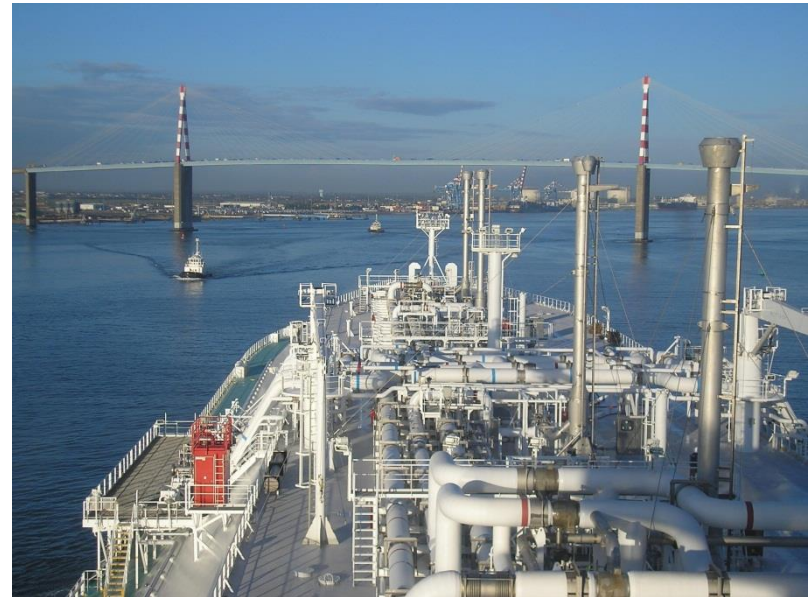


SIGTTO

# SIGTTO Update to UNECE

Geneva

27<sup>nd</sup> March 2017



35  
years  
SIGTTO  
1979-2014

SIGTTO

Continually promoting best  
practice in the liquefied gas  
shipping and terminal industries



50  
years  
LNG shipping  
by sea  
1964-2014

# SIGTTO

---

- SIGTTO is a “not-for-profit” organisation
- The global industry body for liquefied gas shipping and terminals
- Only remit is safety – has no commercial role
- Membership of 200+ from across the LNG/LPG industry
- About 97% of LNG tonnage and terminals are members
- Publishes guidelines, recommendations and best practice
- NGO status at IMO
- Issues technical Advice
- Liaise with other industry bodies
- Safety – in particular, loss of containment and emissions reduction is our priority
- LNG Shipping’s safety record is the licence to operate

# LNG Shipping Safety Record

---

- Over 50 years of commercial operation (Oct 64)
- Over 85,000 cargoes (up to end of 2015 -83847, 2015-4107)
- No loss of cargo tank containment
- No onboard fatalities directly attributable to the cargo



An very impressive, in fact, unprecedented, safety record for the carriage of liquid hydrocarbons at sea in bulk.

# Publications

- Five recent publications
- Three more due in next 12 months
- Revised IGC code and IGF code published
- (update) LPG Ship/shore interface
- (update) Manifold guidelines revision - Joint with OCIMF
- (new) Gas Detection
- (update) Alleviation of Surge on ESD



# IMO

---

## IGC Code

- Entered into Force **1 January 2016**
- Application/Implementation date **1 July 2016**
- SIGTTO commenced process of revision in 2007
- Section 7.1.3 Venting no longer acceptable except for emergency situations



## MEPC

MEPC 70 in October 2016 agreed Global 0.5% sulphur cap to come into force from 2020

# Reduction of Methane Emissions

---

- Best practice guidance to the LNG shipping industry
- Loss of containment avoidance in all aspects of operations
- Reduction of methane slip in propulsion
- Vessel speed reduction benefits
- Promoting LNG as a marine fuel – SGMF
- Education and awareness of public
- Encouraging safe use of liquefied gases
- Retention of impressive safety record

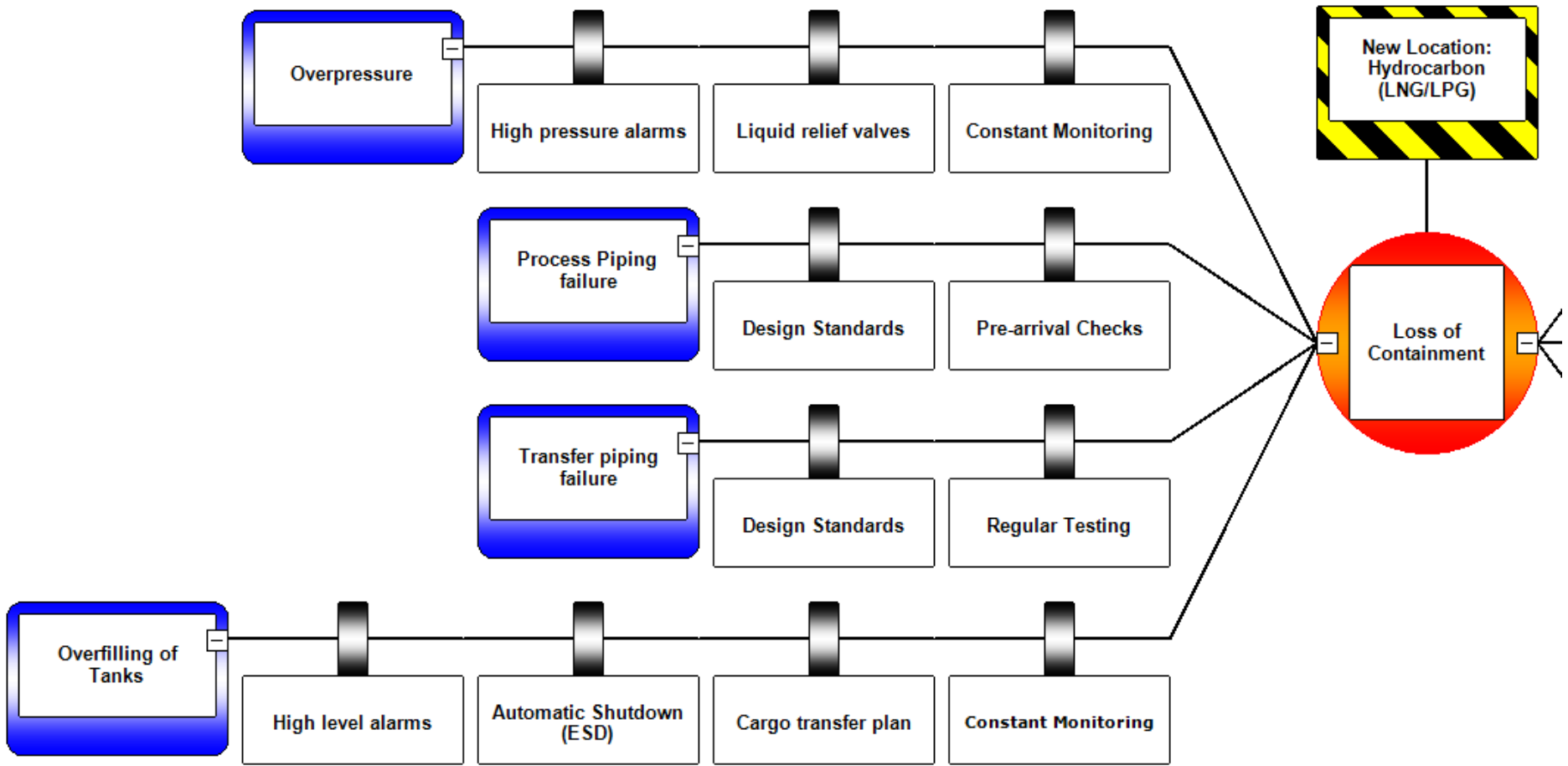


# Industry incidents - action

---

- SIGTTO is using a risk based philosophy
- Industry well equipped for addressing SIRE type observations
- Apparent focus on slips, falls, minor incidents etc
- A need to focus more on major accident prevention
- Use of major accident/process safety risk management tools like “Bow tie”
- Prioritise training on major incident risks and avoidance
- “Engineer out” the human factor in design where possible
- For example - Interlocks to prevent running of pumps when high level alarms disabled

# Generic Loss of Containment example





Thank you!



SIGTTO