BSR LNG Competence Centre - Providing knowledge and expertise for LNG business development in BSR

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1. Klaipeda Science and Technology Park
2. NPPE Klaipeda Shipping Research Centre
3. Hochschule Wismar, University of Applied Sciences: Technology, Business and Design
4. World Maritime University
5. Blekinge Institute of Technology
6. Maritime University of Szczecin
7. Motus Fundation
8. Klaipeda University
9. Lithuanian Maritime Academy
10. Wroclaw University of Science and Technology
11. Tallinn University of Technology
12. Municipality of Samsø
13. Lithuanian Energy Institute
Why?
• LNG is not so easy going fuel like the traditional ones
• LNG has additional danger - extremely low temperature
• LNG has an expiration date - needs to be used in specific time, if no possibilities to re-liquefy
• All professional activities needs to be conducted at minimum acceptable risk level
How to achieve the minimum acceptable risk level

• By giving competence required on specific position

• Identified target groups:
  • Business management level
  • Port authority
  • Maritime administrations
  • Policy makers
  • Crews of tugs and other port auxiliary vessels
  • Port personnel
  • Business operational level
  • Masters, engineer officers and all personnel with immediate responsibility for the care and use of fuels and fuel systems on ships subject to the IGF Code
  • LNG bunker /refueling stations operators, LNG cisterns drivers, etc.
Target groups

Bunker barge / bunker vessels
Vessels powered by LNG
Truck cisterns
Port's bunker infrastructure
Port equipment
Inland vessels
LNG powered trucks
LNG powered trains

LNG management level
LNG support level
LNG operational level
## Target groups

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<tr>
<th>groups</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
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<tbody>
<tr>
<td>LNG management level</td>
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<td>LNG support level</td>
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<td>LNG operational level</td>
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- **LNG Value Chain training**
- **LNG Maritime Basic training**
- **LNG Maritime Advanced training**
Target groups

- Value Chain Training (LNG management level)
  - Business management level
  - Port authority
  - Maritime administrations
  - Policy makers

- Maritime Training
  - Basic (LNG support level)
    - Required for seafarers responsible for designated safety duties associated with care, use or emergency response to the fuel on board IGF ships
    - Crews of tugs and other port auxiliary vessels
    - Port personnel
    - LNG cisterns drivers,
  - Business operational level

- Advanced (LNG operational level)
  - Masters, engineer officers and all personnel with immediate responsibility for the care and use of fuels and fuel systems on ships subject to the IGF Code
  - LNG bunker /refueling stations operators, etc.
LNG Maritime Basic training

1. **Contribute to the safe operation of a ship subject to the IGF Code**
   Explanation of physical and chemical properties of LNG and other low flash point fuels; description of fuel and storage systems for cryogenic liquids; procedures and devices providing the safety during LNG operations; Transfer/bunkering operation of LNG.

2. **Take precautions to prevent hazards on a ship subject to the IGF Code**
   Description of health, ship, equipment and environmental hazards associated with LNG operations and explanation on how to control these hazards; understanding of fuel characteristic presented on a Safety Data Sheet.

3. **Apply occupational health and safety precautions and measures**
   Description of safety means applied during LNG operation; basic knowledge on Medical First Aid with references to a Safety Data Sheets.
LNG Maritime Basic training

4. **Fire fighting**
   - Organization of fire fighting actions, firefighting agents and methods, firefighting system operations. Theoretical only

5. **Respond to emergencies**
   Description of emergency procedures and requirements for: emergency breakaway, emergency Shut Down etc.

6. **Take precautions to prevent pollution of the environment from the release of fuels found on ships subject to the IGF Code**
   Description of measures and procedures to be taken in the event of leakage, spillage, venting of the fuels.
Thank you for your attention