LNG 인력양성의 국제동향과 대응방안

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요. 약: LNG 선박의 급증에 의한 승무원 수요가 급격히 부족현상을 보이게 되어, IMO에서는 STCW의 전면 개정 등의 대응방안을 마련하고 있다. 이러한 국제기관의 대응은 물론 향후 최대 수입국이 될 것으로 예상되는 미국에서는 미국인에 들이오는 전 LNG 선박의 미국적 전화를 목표로 하는 방안을 수립하는 등 LNG 선박의 안전과 보안으로 인하여 세계 LNG 배후에 있어서의 커다란 변화가 발생된다. 한국해양대학교에서는 이러한 변화의 물결에 맞추어 대처하고자 아시아 LNG 교육훈련센터의 설립과 함께 IMO 및 미국의 해양대 학과의 협력 통한 대응방안을 검토하고 있다. 이 발표에서는 LNG 인력양성을 위한 국제적인 동향을 살펴본 후, 이러한 국제적 변화의 물결에 대비하기 위한 방안에 대하여 설명하고자 한다.

핵심요의: IMO STCW 개정, 전의적, Coast Guard and Maritime Transportation Act of 2006, 평질평가, Competency Standard

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**Flags of Convenience (FOC)**
- Purpose of FOC: Maximum Profit
- Globalization of Shipping
- Lack of Quality Control Mechanism
- Sub-standard Vessels

**Signs to National Fleet and Crew**
- Republic of Korea: Inevitable National Fleet
- USA: Coast Guard and Maritime Transportation Act of 2006
- Japan: FOG vessels: can fly Japanese Flag

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**Unified Competency Standards**
- Revision of the STCW Convention
- Effectuation: 2010 or later

**The 2nd IAMU Round Table on LNG**
- 3rd May 2006, Washington DC, USA

- Separate Efforts to Develop
  - Competency Standards for Qualified LNG Officers
  - Train the Trainer Course
  - Meeting for Action Plan
  - Government Officers, Professionals, Professors, etc.

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**How about LNG sector?**
- Oligopoly by "The Club" Members
- European Oil Majors: Shell, BP
- European Owners: Golar, Hoegh
- Japanese 2 (MOL, NYK) from 1983
- Korean Owners from 1993

- Sharing Process: Very Slow
  - Rapid Expansion from 2000 led by USA Oil Majors
  - New Entries to LNG Business and Shipping
  - Favored ship managers have been allowed to have an access.
  - Dorchester, V. Ships, Anglo-Eastern, Thome, etc.

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**Separate Development of Competency Standards**
- 166 Member States in IMO
- LNG Exporting and Importing Countries: Less than 20
- Member States directly related to LNG should urge IMO to develop appropriate Standards for LNGC Officers separately and urgently.

- **Interim Agreement**
  - Still Time Gap 1-2 Years before the Effectuation
    - Between Government, Organizations, ME, Facilita, etc.
    - Regulations Considered
      - STCW 78 (Training and Assessment)
      - STCW Code A-13 (Guidance for Training and Assessment)

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**The Infrastructure of Safety in LNG Sector**
- Conclusion: Money was spent sufficiently
  - European Oil Majors: Out of Champing Profits
  - Japanese: Governmental and Clients Support
    - LNG dependency as a National Energy Policy decision
    - National shipping construction plans as Scheme for LNG
  - 100% amortization in 10 years (the rest of the contract period of 15 years with no capital loss burden)
  - The cost coverage of the operating cost, including that of the withholding costs of Japanese sailors.
  - Special Education and Training Cost subsidy.
  - The financial resources for expensive simulators and mannequins: LNG officer training capacity.

- **The POINT**
  - Citizen eventually paid in the form of utility bills.

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**The 3rd Party Assessment and Quality Control**
- Legal Aspects
  - Minimum Requirements: STCW, National Rules, etc.
  - Competency Standards and Related Model Courses

- Facilities and Equipments
  - Quality and Quantity
  - Maintenance and Operation

- Human Resources
  - Qualified Instructors
  - Certification
  - Examination and Assessment, etc.
- International Tripartite Collaboration
  - Governments
  - Academia (AMU)
  - Industries
- Unified Competency Standards
  - Separate Development of LNGC Standards
  - Interim Agreements between Parties
- Human Resource
  - Standards for Instructors
  - Onboard and on-the-job Training
- The 3rd Party Assessment and Quality Control
  - MET Institutions and Centers