



## **Proposed Agenda 2005 Marine CNG International Standards Forum**

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August 18-19, 2005. Delta Hotel, St. John's NL

## DAY 1 - AUGUST 18, 2005

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- 7:00-8:00 am Registration
- 8:00-9:00 am Breakfast with Guest Speaker
  - Premier Williams (invited)
- 9:00-9:30 am **“Developers’ Perspective – Managing the risk of new technologies when planning development”**
  - Mr. Jim Keating, Vice President, Norsk Hydro (invited)
- 9:30-10:00 am **“CNG Proponents - A summary of technical innovation in marine CNG transportation systems”**
  - Jan Wagner, Manager Process Engineering, Aker Kvaerner (invited)
- 10:00-10:30 am Questions and Answers
- Facilitator
  - Jim Gaughan
- 10:30-10:45 am Networking and Coffee Break
- 10:45-11:15 am **“Centre for Marine CNG Inc. - Making it Possible”**
  - Michael Hanrahan, Managing Director, Centre for Marine CNG Inc.
- 11:15 am-12:00 pm **CNG Proponents – Panel Discussion**  
**“Major obstacles to commercialization”**
  - Alf-Petter Olsen, General Manager, CETech (invited)
  - Paul Britton, Managing Director, EnerSea Transport LLC (invited)
  - Jean Falcimaigne, Institut Français de Pétrole (invited)
  - Per Lothe, Project Director, Knutsen OAS (invited)
  - Greg Cano, Director CNG Business Development, TransCanada (invited)
  - Stephen Campbell, President, Trans Ocean Gas (invited)
  - David Williams, Director, Williams Companies Inc. (invited)
- Facilitator:
  - Michael Hanrahan, Managing Director, Centre for Marine CNG Inc.
- 12:00-1:30 pm Luncheon with Guest Speaker
  - Ruud Zoon, Husky Energy, General Manager East Coast Development (invited)
- 1:30-4:30 pm Concurrent Break Out Sessions

### Session 1

#### Topic: Risk, Safety and Standards

##### Presenters:

- Phil Rynn, Senior Staff Consultant, ABS (invited)  
“ABS’ Guidelines – proven safety”
- Sverre Valsgard, Senior Principal Engineer, DNV (invited)  
“Case study - Knutsen concept”
- Jean-Claude Astrugue, Specialist of safety and risk analysis, Bureau Veritas (invited)  
“Our approach to a new industry”
- Mark Horswill, Atlantic Canada Oil & Gas Manager, Lloyd’s Register of Shipping (invited)  
“Comparing risk of CNG and LNG vessels”

##### Facilitator:

- Dr. Walter Bobby, CNLOPB

## **Session 2**

### **Topic: On-shore or Off-shore Buffer Storage and Ship to Shore Interface**

#### **Presenters:**

- Jeff Barnes, Jacques Whitford (invited)  
“Regulatory challenges to storage facility siting”
- Jacob Verhoef, Director, Geological Survey of Canada (invited)  
“Use of geological structures for storage”
- Allan Bell, Operating Manager, CanshipUgland (invited)  
“Operational Challenges in CNG Shipping”
- Per Henning Hanssen, Project Manager, Statoil (invited)  
“Statoil concept for shore based storage”

#### **Facilitator:**

- Roger Roue, SIGTTO (invited)

## **Session 3**

### **Topic: Ship Design and Construction**

#### **Presenters:**

- Bjorn K. Markussen, Senior Adviser, Leif Hoegh (invited)
- Gary Baron, Manager Business Development, Teekay Shipping (invited)  
“Ship Design for CETech – construction advantages and challenges of using horizontal pressure vessels”
- Scott McClure, President, Alan McClure Associates (invited)  
“Ship design for EnerSea – advantage and challenges of low temperature storage”
- N.K. Strom, Knutsen OAS (invited)  
“PNG Ship Design – advantages and challenges of using vertical pressure vessels” (invited)
- James McGregor, Researcher (invited)  
“Comparison of all known concepts”

#### **Facilitator:**

- Andrew Kendrick, VP, BMT Fleet Technology (invited)

## **Session 4**

### **Topic: CNG Research and Development Facilities**

#### **Presenters:**

- Howard Myers, Gas Technology Institute (invited)  
“Existing facilities and proven expertise in natural gas testing”
- Grant Dedora, Centre for Marine CNG Inc.  
“Designing the world’s first marine CNG dynamic test facility”

#### **Facilitator:**

- Mark Richards, GTI (invited)

4:30-5:00 pm	Break, Report Preparation by Facilitators
4:30-5:45 pm	Reconvene and reporting from break out sessions Facilitator: Jim Gaughan
7:00 pm	Dinner Cruise with Atlantic Ocean Cruises*

\* Registration required, additional fee applies

## DAY 2 - AUGUST 19, 2005

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- 8:00-9:00 am Continental Breakfast with Guest Speaker
- Roger Roue, SIGGTO (invited)
- 9:00-10:00 am **Plenary – “Economics of marine CNG Transportation”**
- Presenters:
- Michael Economides, Department of Chemical Engineering, University of Houston (invited)  
“From reservoir to market using marine CNG – how much will it cost?”
  - M. Voss, Zeus Development (invited)  
“International potential for marine CNG”
- 10:00-10:30 am Questions and Answers
- Facilitator:
- Jim Gaughan
- 10:30-10:45 am Networking and Coffee Break
- 10:45-12:00 pm Panel Discussion – **“International Applications of CNG”**
- Panelists:
- Ezz el Derini, TAM Oilfields, Egypt (invited)  
“EGas to Italy”
  - Abdul Khalid, Business Intelligence Group (invited)  
“CNG in Malaysia”
- Questions and Answers
- Facilitator:
- Jim Gaughan
- 12:00-1:30 pm Luncheon with Guest Speaker
- Mr. Gurk Sarioglu, Vice President, Petro-Canada (invited)
- 1:30-4:00 pm Concurrent Breakout Sessions
- Session 1**  
**Topic: Operational Efficiency Assessments Workshop**
- Presenter:
- Stephen Rowe, Managing Director, BMT Fluid Mechanics
- Session 2**  
**Topic: Offshore Moorings**
- Presenters:
- Jens P. Kaalstad President, North & South America, Advanced Production and Loading (invited)  
“New developments in deepwater mooring”
  - Jaap de Baan, VP Technology, Bluewater Energy (invited)  
“Efficient and reliable loading of shuttle tankers”
  - Jens Korsgaard, President – Maritime Oil and Gas Corp. (invited)  
“Hydrostatic mooring systems”
- Facilitator:
- Dan Walker, President, Oceanic Consulting Corp. (invited)

### **Session 3**

#### **Topic: Gas Behavior and Processing**

##### **Presenters:**

- Majid Abdi, Memorial University (invited)  
“Gas processing needs of marine CNG transport industry”
- Kees Tjeenk Willink, Chief Operating Officer and Chief Technology Officer, Shell/Twister (invited)  
“Offshore gas processing capabilities”
- TBD, “Dynamic simulation of gas transport operations”

##### **Facilitator:**

- Howard Myers, GTI (invited)

### **Session 4**

#### **Topic: Pressure Vessel and Material Technology**

##### **Presenters:**

- M.K Graf, Chief Executive Officer, Industrial, Europipe GmbH (invited)  
“New development in high-strength large diameter steel pipe technology.”
- Maurice Guitton, President and CEO, Composites Atlantic (invited)  
“Use of composites in marine CNG transportation”
- Len Thompson, Floating Pipeline Company (invited)  
“Atlantic Canada’s newest industry – composite wrap vessels”
- Donald Fraser, Business Manager, Dynetek (invited)  
“Proven capabilities of carbon fibre wrapped aluminum vessels”
- John D. Wolodko, Senior Research Engineer, C-FER Technologies (invited)  
“Design and Testing of Large Diameter Composite Reinforced Pressure Vessels for Offshore Gas Applications”

##### **Facilitator:**

- Phil Rynn, ABS (invited)

4:00-4:30 pm

Break, Report Preparation by Facilitators

4:30-5:15 pm

Reconvene and reporting from breakout sessions

##### **Facilitator:**

- Jim Gaughan

5:15-5:30 pm

#### **Next Steps - Closing Remarks**

Michael Hanrahan, Managing Director, Centre for Marine CNG Inc.

## DAY 3 - AUGUST 20, 2005

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### Framework for developing an International Safety Criteria for CNG Carriers

- Invited:
- Classification Societies representatives
  - National Authority and Regulatory Bodies representatives
  - CNG Proponents
  - CNG Proponent Guests
  - Speakers and Facilitators on Marine CNG International Forum
- 8:30 - 9:00 am
- Presentation, Jim Gaughan
  - Possible Avenues to Consider: IMO Guidelines for Formal Safety Assessment, Parallelism with IMO Code for Liquefied Gas Carriers, Commonality in Rules of Various Class Societies and Other Possible Applicable Standards.
- 9:00 - 9:45 am
- General Discussion
- 9:45 - 10:00 am
- Coffee Break
- 10:00 - 11:30 am
- Break-out Sessions
- Session 1**
- Mike Dwyer \*, Transport Canada  
“Use of IMO FSA Guidelines”
  - Tom Felleissen, USCG  
“Parallelism with IMO IGC”
  - DNV, Sverre Valsgard  
“Application of Probabilistic Approach in Marine Systems”
- Session 2**
- Phil Rynn \*, ABC  
“Commonality in Class Rules”
  - Guido Karcher, ASME  
“Other Possible Applicable Standards”
- \*Session Moderator
- 11:30 – 12:45 pm
- Reconvene and reporting from break out sessions, panel discussion
- 12:45 - 1:00 pm
- Wrap up
- Facilitator:**
- Jim Gaughan