

The Society of Naval Architects and Marine Engineers  
Great Lakes and Great Rivers Section

Winter Meeting – February 23-24, 2012  
Cleveland, Ohio  
Hyatt Regency at the Arcade (Downtown Cleveland)

**“LNG as a Fuel for the Marine Industry in the Great Lakes & Great Rivers Region”**

Our winter meeting will be an “All LNG” symposium/conference that will address the use of Liquid Natural Gas (LNG) and Compressed Natural Gas (CNG) as a potential fuel for the marine waterways in the Great Lakes Basin. This will be a two-day conference that will begin shortly after the conclusion of the Great Lakes Waterways Conference on Thursday, February 23.

**Thursday, February 23, 2012**

1400 – 1700 An introduction to LNG and CNG, moderated by Gary Van Tassel, with participation by Bob Kamb (Clean Energy Fuels) and Claus Emmer (Chart Industries – manufacturers of cryogenic tanks and equipment). This session is intended to be an introductory and educational forum for SNAME members and other participants, with numerous opportunities for questions and answers by attendees. Mr. Van Tassel will provide an overview of LNG and CNG as a potential fuel. Mr. Kamb will discuss, among other topics, what is realistically possible in the near term for the Great Lakes as far as the use of LNG and CNG. Mr. Emmer will talk about the challenges of manufacturing tanks for storing or transporting LNG and CNG.

1800 – 2000 SNAME-hosted reception at the Hyatt Regency at the Arcade

**Friday, February 24, 2012**

0730 – 0830 SNAME-hosted continental breakfast

0830 – 0930 Dr. Mike Parsons (Professor Emeritus, University of Michigan) will present a paper, "The Conversion of the U.S. Great Lakes Steam Bulk Carriers to LNG Propulsion - Initial Report" on the feasibility of converting the remaining Great Lakes steamship bulk carriers to LNG fuel. This paper is a result of work sponsored by the Great Lakes Maritime Research Institute.

0930 – 1100 Engine Manufacturers Panel

Odd Magne Horgen, General Sales Manager for Rolls Royce Marine-Bergen, Norway, will discuss Rolls Royce’s experiences with applications of lean burn LNG propulsion and auxiliary engines and systems in a variety of vessel designs world-wide.

Peter Jacobs (Wartsila) and Chad Varret (VP –Harvey Gulf) will jointly present “The First US Flagged Dual Fuel LNG vessels”. Mr. Varret will provide a short summary of the Harvey Gulf LNG Platform Supply Vessel (PSV) Project and the project’s regulatory and economic drivers. Mr. Jacobs will provide a technical summary of the integrated package provided by Wartsila for the Harvey Gulf project, concentrating on the LNG bunkering, storage and supply systems. Mr. Jacobs will also discuss the basics of dual fuel engine technology.

**Friday, February 24, 2012 (cont'd)**

Jonas Nyberg, America's Medium-Speed Marine Engine Sales Manager, Caterpillar Inc., will discuss Caterpillar's experience with high-speed and medium-speed spark-ignition gas engines and how this is being leveraged in the development of new dual-fuel marine engines. Mr. Nyberg will also introduce Caterpillar's retro-fit concept allowing existing MaK M32C and M43C engines to be equipped for dual-fuel operation.

Ken Westcar, Marine Market Manager, Toromont Power Generation Systems, will present a brief review of the role of LNG as a fuel for Great Lakes vessels including power density, capital cost and fuel infrastructure concerns.

1100 – 1200 Stephen Gumpel (ABS – Vice President for Business Development) will discuss the role of ABS in the development of LNG and CNG as a fuel in the marine industry.

Tony Teo (DNV – Business Development Director for North America) will discuss "What's Ongoing and What's Next" to conclude our morning session.

1230 – 1330 SNAME-hosted luncheon

1400 – 1600 SNAME-hosted dessert and coffee bar to afford participants the opportunity to network, continue discussions, and also to plan for the next step with LNG. This will be an open forum moderated by Dr. Richard Stewart from the Great Lakes Maritime Research Institute, Gary Van Tassel, and Steve Kemp, SNAME Papers Chair.