

TESTIMONY OF RON DAVIS

PRESIDENT, MARINE ENGINEERS' BENEFICIAL ASSOCIATION

HOUSE COMMITTEE ON HOMELAND SECURITY

HEARING ON SECURING LIQUIFIED NATURAL GAS TANKERS TO PROTECT THE  
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Thank you Chairman Thompson and Ranking Member King, and thank you to the rest of the Committee for inviting me to speak before you today. I would specifically like to thank you for allowing us the opportunity to discuss the unique issues we face in safely and securely transporting Liquefied Natural Gas to the United States.

My name is Ron Davis, and I am the President of the Marine Engineers' Beneficial Association. The MEBA is the nation's oldest maritime labor union, representing deck and engineering officers licensed by the United States Coast Guard. Our mariners serve in a variety of capacities in the commercial, government owned and operated, and domestic fleets, as well as in shore side employment.

The MEBA was proud to take a leading role in the development of the transportation of LNG by ocean tank vessel in the 1970s. Our members crewed U.S. flag LNG vessels until 2001. Today, however, not a single LNG tanker flies the American flag, and none of these vessels are crewed by Americans. We feel that this represents a serious threat to America, and we have been working to restore American mariners aboard this important segment of the maritime community.

**Need for Shipboard Import of LNG to the United States**

According to the Federal Energy Regulatory Commission, U.S. natural gas demand is expected to increase by 40% by 2025 to 30.7 trillion cubic feet (TCF).<sup>i</sup> However, domestic supply, which has not equaled demand for many years, will only increase by 14.5 %. Without intervention, our natural gas supply will not keep pace with industry and the public's demand. Mr. Jeff Wright, Chief of the Energy Infrastructure Group, Office of Energy Project, Federal Energy Regulatory Commission cites the following reasons for this situation:

- Decline in the United States' underground domestic gas reserves<sup>ii</sup>;
- Canada's problems with flattening gas production in the Western Canadian Sedimentary Basin (WCSB) and its need to fulfill its own demands;<sup>iii</sup> and
- Continuation of Mexico's growing economy with Mexico keeping an increasing share of its natural gas to meet its future demands.<sup>iv</sup>

This means the United States cannot rely solely on natural gas produced in North America. Therefore, LNG will need to be imported to the United States on oceangoing LNG tankships.

## **Thorough Vetting of U.S. Merchant Mariners Provides Unmatched Shipboard and Deepwater Port Security**

All LNG entering the U.S. is carried on foreign flag ships operated by either non-U.S. citizen mariners, or aliens who are not lawfully admitted to the United States for permanent residence. Unlike foreign seamen:

- U.S. Merchant Mariners receive their credentials to work from the U.S. Coast Guard;
- U.S. Merchant Mariners undergo extensive background checks performed by the Federal Bureau of Investigation;
- U.S. Merchant Mariners are background checked through a National Driver (vehicle) Record database;
- U.S. Merchant Mariners will also be subject to jurisdiction of the Transportation Safety Administration (TSA) where they will be vetted through a terrorist watch database in order to receive a Transportation Worker Identification Card (TWIC).
- U.S. Merchant Mariners are citizens of the United States or aliens lawfully admitted for permanent residence.

American mariners undergo a stringent and thorough vetting and credentialing process. Our Coast Guard-issued license is considered accurate (with regard to identity of the holder) and valid with respect to the qualifications and ability of the individual mariner. Moreover, the document is relatively tamper-proof. Each mariner goes through an extensive background check by several federal agencies including the Coast Guard, Federal Bureau of Investigation and now with the TWIC coming into effect, the Transportation Security Administration.

While foreign mariners may be required to comply with their government's regulations as well as international standards, the validity of some of the credentials is suspect. A few years ago, International Transport Workers Federation President, David Cockroft, purchased an authentic Panamanian first officers certificate and sea book despite no practical maritime experience. The Seafarers' International Research Centre at the University of Wales investigated the issue of fraudulent qualifications. Its preliminary findings revealed 12, 653 cases of forgery in 2001

Federal and state government, local municipalities and the communities surrounding LNG import terminals can be assured, that with American mariners, the LNG vessels are manned by professional seafarers who have the integrity and the training necessary for the safe transport of LNG.

### **Congress Recognizes Need for U.S. Mariners**

Congress has recognized the security that U.S. mariners bring to LNG vessels and has taken steps to promote enhanced security. Last year's Coast Guard Authorization bill included language that gave priority application processing to companies seeking LNG terminal licenses if they commit to using American crews, and it also directed the Maritime Administration to find ways to promote the use of Americans in this sector.

## **Problems in Growth of Demand for LNG and with Incoming Generation of LNG Officers**

On June 20, 2006, Reuters reported that a growing global demand for liquefied natural gas and tight supply of specialized tankers and crew create a risk of dangerous lapses in standards of security. See, Darwin (Reuters), *LNG Demand Growth Risks Fall in Shipping Standards*, June 20, 2006.

Setting aside the security issue of foreign mariners, the United States must take into consideration the risks involved with poorly trained, insufficiently qualified and questionably vetted mariners who may deliver LNG to its shores. For instance, Yea Byeon-Deok, professor and LNG initiative coordinator of the International Association of Maritime Universities, recently stated at a conference in Australia: “Nobody knows what would happen if a significant accident occurred on a large LNG carrier. All we can say is that a 100,000 ton tanker has four times the energy potential of the atomic bomb used to hit Hiroshima. . . Many sub-standard vessels have begun to appear as demand for LNG increases, while there is a chronic shortage of experienced crew.”

New orders for construction of LNG vessels imply a need for 3,575 officers over the next three years, Professor Yea said, of which 60% would need to be at senior or experienced level. Yea warned that “recruitment and training were falling ***dangerously short of requirements to staff complicated vessels which could make dramatic targets for potential terror attacks.***” Reuters, June 20, 2006. Mr. Yea pointed out that the growth in “flag of convenience” ships which fly alternative flags to the country of ownership, allow the owners to avoid taxes, quality control and labor regulations which evidences deteriorating standards.

The younger generation of sea-going deck and engineering officers is withdrawing from the industry prematurely. These junior officers are showing less and less interest in continuing to go to sea and they are typically leaving for shore-side positions prior to taking on senior level seagoing positions. This has made it difficult for ship owners and operators to ensure a sustained supply of senior officers. There is as of yet no effective means to counter this tendency. This data is based on a report in the U.S. Coast Guard *Journal of Safety at Sea, Proceedings* regarding the international (non-U.S. Merchant Mariner) pool of shipboard officers.

The U.S. Merchant Marine was not considered in the aforementioned report. Indeed, had the U.S. Merchant Marine been considered, the resulting report would have shown that there is a vibrant and growing U.S. Merchant Mariner pool resulting in part by investments made in the passenger, freighter and tanker vessel maritime sectors. Moreover, it makes sense to staff LNG vessels delivering cargo to the United States with U.S. merchant mariners. U.S. merchant mariners are true patriots and care about their country-- they would not be “for hire” foreign personnel with little or no connection to America other than a job that provides a paycheck. U.S. Coast Guard licensed officers and crew provide answers and solutions to many of the safety and security concerns surrounding the importation of LNG.

## **Wide Scale Officer Shortage is Resulting in Foreign Ship Operators “Poaching” LNG Officers; Poor Training; Steep Decline in Safety and Security; and Violations of International Law**

As reported in numerous articles and studies conducted by leading international maritime trade publications including Tradewinds and Fairplay, LNG owners and operators are lashing out at each other with allegations of “poaching”, conducting insufficient training in violation of ISM Code as well as failing to properly check past employment references.

The sudden and sustained surge in global demand for liquefied natural gas and the worldwide shortage of mariners with LNG and steam experience is leading to predictable results. Ship managers seem willing to do whatever they can to get their ships fully crewed in the face of a growing wide-scale officer shortage. “The industry had previously grown slowly, so companies were able to train manpower and expand operations at a comfortable rate of two to three ships every two years,” Keith Bainbridge, director of LNG Shipping Solutions, told Fairplay magazine in 2005 “But where an industry experiences 40-50% growth within a couple of years, it will split at the seams,” he predicts.<sup>v</sup>

This manpower crisis is made even worse by new ship managers entering the LNG trade. A Fairplay article titled, *Poaching War for Crew Erupts*, cited the “voracious appetite for scarce manning resources, both at sea and onshore. This has created severe competition among LNG owners.”<sup>vi</sup>

The Society of International Gas Tanker and Terminal Operators LTD (SIGTTO) has recognized the acute shortage and the reaction by some. “A short-term answer for an LNG vessel operator is to “poach” crew from another such operator but, clearly, the long-term answer is training, training, and further training. SIGTTO members, as much as anyone, wish for the quite unique safety record of LNG shipping to be preserved. The influx of new personnel into the industry is of concern, especially if there is a temptation by a minority of operators to “cut corners” and put officers into positions of responsibility on a LNG carrier before they have been properly trained.”<sup>vii</sup>

In an article titled *Officer Crunch Sparks Safety Alarm*, Anglo Eastern Ship Management’s training director Pradeep Chawla states that “intense pressure to promote more maritime officers is resulting in inexperienced officers making more mistakes and more dangerous situations on board. The training director noted that, “shortages have made it harder to retain officers because manning agents use higher wages to lure away experienced seafarers, especially in LNG/LPG and other specialized trades.”<sup>viii</sup> Moreover, not all companies train officers, with many resorting to poaching.

The crewing crunch is giving rise to new and dangerous theories of crewing to meet the sustained demand. “Some operators are contemplating an airline-style approach, training their crew units to ever-higher standards and frequently rotating them among vessels. That would fly in the face of an industry that had, until last year, been characterized by its conservatism on crewing and had viewed rapid crew rotation as a threat to safety.” The article mentions that

with the shortage, there is an “increasing incidence of crews of strangers being cobbled together with precious little time to develop mutual trust and overcome their natural fear of blame.”

In an article titled *Near Calamities in Cargo Operations*, Fairplay details two case studies, on international vessel crewing practices, to illustrate the dangers of new crew members who are unfamiliar with the vessel or on-board procedures. “In both incidents, one of the factors that contributed to the near calamities was the fact that one or more of the crewmembers involved were new to the ship and unfamiliar with all aspects of the vessel.” “The importance of learning the idiosyncrasies of a particular vessel cannot be overstressed, and even when crew are transferred to sister ships they should not assume that every feature of the ships will be the same.” As noted above, short cuts in manning and “inventive” solutions to crew shortages can prove to be a recipe for disaster.<sup>ix</sup>

The consequences of crewing instability and poaching can also lead to serious deterioration of the relationship between mariner and management. “There has to be a management team in which officers can pick up the phone and discuss problems openly, rather than hiding them until it is too late” says Simon Pressly, GM of Dorchester Marine, an LNG vessel operator in a Fairplay article. The author continues with the observation that, “Unfortunately, with poaching so rampant, the dangerous lack of crew continuity is likely to continue until operators start making the requisite investments in manpower training.”<sup>x</sup>

Tradewinds states that the LNG-crewing shortage is giving rise to some serious shortcomings that are a direct threat to the industry’s safety record and are in violation of the International Safety Management (ISM) Code. Some operators and ship managers are employing senior-level ship’s officers that were terminated from employment by competing companies due to poor performance and substance abuse<sup>xi</sup>.

On another front, big international shipping companies and ship management firms are feeling the LNG crewing pinch. Some operators are enticing LNG shipboard officers to switch companies by offering wages at 30%-40% higher than what has been paid in the past—and officers are switching companies and leaving their former employer in crisis. Some companies are offering over \$18,000 a month (in wages only, not including benefits) to attract qualified LNG officers<sup>xii</sup>.

All decision makers and stakeholders involved with the importation of LNG to the United States must take notice of what is going on in the international market. With growing natural gas demands and some 50-plus applications on the books for LNG import terminals, the American people need to be assured that the most highly trained and experienced personnel are transporting security sensitive LNG to the United States. There is no room for error when it comes to liquefied natural gas. Like no other time in history, the economics are in place whereby the U.S. Merchant Marine can economically and safely deliver LNG cargo; provide a stable pool of mariners for the long term; provide the highest amount of training; and comply with all U.S. and international laws.

**International Consequence: Insurance Underwriters Deeply Concerned with Inexperienced Crews Aboard LNG Vessels**

A recent article titled *LNG Ships Facing Premium Boost* details the nervousness of the insurance industry as the LNG fleet suffers through poorly managed growing pains. “Underwriters appear to be changing their view of LNG vessels, which have traditionally been regarded as particularly well managed, despite being costly and potentially hazardous.” Now, higher insurance premiums are the prospect for LNG vessel owners as a result of “a big deterioration in the claims record of the world gas fleet.” Marsh, the largest insurance brokering group issued a report concerning claims of more than \$400 million run up by the LNG fleet.<sup>xiii</sup>

Higher insurance premiums are in prospect for owners of LNG carriers after a spate of claims including operational incidents have left insurance underwriters facing big losses according to Marsh.<sup>xiv</sup> Marsh reports that risk profile is increasing due to a shortage of crew with LNG experience.<sup>xv</sup>

With 200 LNG vessels in service and over 100 on order, Marsh identifies a number of factors associated with the rapid growth as adding to the risk profile of the gas-ship fleet including shortage of crews with LNG-carrier experience and new owners entering the market with the intention of trading vessels on the spot market rather than traditional long term charters.<sup>xvi</sup>

The shortage of mariners in the international fleet is dire. It is abundantly clear, therefore, that the U.S. Merchant Marine must enter the market.

### **International Reaction: Responsible Shipping Ministries React to Manning Shortcuts and Abuse; Use of National Flag Vessels Promoted By Major Importers**

Some of the world’s largest importers of LNG, Japan and Korea, are an increasingly powerful consumer of LNG, have made registry of LNG ships a matter of national maritime policy. “Japan transported about 43% of its total LNG import of 59.1 million tons in 2003 on Japanese owned and controlled ships. Similarly, Korea transported about 61% of its LNG imports of 19.3 million tons in the same year on Korean controlled ships. In the combined import of Japan and Korea, third-party owned ships constituted only 8.3 percent,” says a shipping industry representative.<sup>xvii</sup> It is notable that Japanese and Korean controlled vessels are in respectable registries and do not cut corners on crewing in order to compete on the world market.

India’s Shipping Ministry has attempted to rejuvenate its merchant marine by requiring Indian manning and Indian registry for LNG vessels importing to the Indian coastline. However, another branch of the Indian government, the Indian Ministries of Commerce and Petroleum & Natural Gas, has prevailed in the internal battle, handing India a set back in its efforts to build a domestic flagged LNG fleet.

### **Conclusion**

With 97% of all cargo imported to United States being carried on vessels that are not registered under the American-Flag and not crewed by U.S. citizens, one would think that the safe and secure transportation of security sensitive cargo would be a serious concern. More to the point,

at this time 100% of all Liquefied Natural Gas that enters the United States is carried on ships staffed by non-U.S. citizen mariners. The MEBA strongly believes that the use of American mariners is a critical component to the safe and secure importation of LNG to the United States.

With this in mind, some responsible corporate citizens in the LNG sector have recently agreed to expand their crewing practices to include U.S. citizen crews on LNG tankers. These companies, Suez LNG/Neptune, Excelerate/Northeast Gateway and Freeport-McMoRan, must be commended. We must also praise Maritime Administrator Sean Connaughton and the Maritime Administration for their efforts to promote American mariners on LNG tankers. Without their help, the progress made with these companies would have been much more difficult.

We look forward to working with Congress and the Administration moving forward to further protect our communities and maritime infrastructure.

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<sup>i</sup> Annual Energy Outlook 2005, Energy Information Administration, U.S. Department of Energy, February 2005, Table 13.

<sup>ii</sup> Mr. Wright cites the Annual Energy Outlook 2005, Energy Information Administration, U.S. Department of Energy, Table 13, which reaches the conclusion that production from conventional underground gas deposits is projected to decline between now and 2025. This decline is somewhat offset by increased gas production from non-conventional domestic gas sources (most notably coal-bed methane), increased production from deep water sources (greater than 200 meters) in the Gulf of Mexico, and commencement of deliveries of Alaska gas to the lower 48 states. The Alaskan volumes are problematic according to Mr. Wright, because there has been no application to construct necessary infrastructure to transport the gas, and the timeline from application to first delivery is approximately 10 years.

<sup>iii</sup> The National Energy Board of Canada states, the Western Canadian Sedimentary Basin (WCSB) accounts for more than 90% of the gas production in Canada and for about 23% of North American natural gas production annually. In the last few years, gas production from the WCSB appears to have flattened after many years of growth, leading to increased uncertainty about the ability of industry to increase or even maintain current production levels from the basin over the longer term. See, Canada's Conventional Natural Gas Resources: A Status Report, National Energy Board, April 2004, pp. 9-10.

<sup>iv</sup> Exports of gas to Mexico have increased greatly in the last few years. These exports do not constitute a large outflow of gas at present. However, the Mexican economy is growing and if it continues to grow, its demand for natural gas will increase and require the United States to import an increasing amount of gas to meet, not only domestic needs, but also the needs of Mexico. In other words, what Mexico imports and shares today by way of natural gas, Mexico may not be able share later. Jeff Wright, Chief, Energy Infrastructure Policy Group, Office of Energy Project, Federal Energy Regulatory Commission, Fall 2005.

<sup>v</sup> *Poaching War for Crews Erupts*, Fairplay International Shipping Weekly, February 24, 2005.

<sup>vi</sup> *Id.*

<sup>vii</sup> SIGTTO News, September 2005, p.5.

<sup>viii</sup> *Poaching War for Crews Erupts*, Fairplay International Shipping Weekly, February 24, 2005.

<sup>ix</sup> *Near Calamities in Cargo Operations*, Fairplay International Shipping Weekly, December 1, 2005.

<sup>x</sup> *Poaching War for Crews Erupts*, Fairplay International Shipping Weekly, February 24, 2005.

<sup>xi</sup> *LNG Crewing Shock*, Tradewinds, February 25, 2005

<sup>xii</sup> *Philippines Dangles \$18,000 Carrot*, Tradewinds, January 9, 2006; See also, *LNG Wage Anger*, Tradewinds, November 4, 2005; *Officer on \$320,000 a year, claims Sigtto*, Tradewinds, November 4, 2005.

<sup>xiii</sup> Tradewinds, *Insurers Get LNG Jitters, LNG Ships Facing Premiums Boost*, March 17, 2006

<sup>xiv</sup> *Id.*

<sup>xv</sup> *Id.*

<sup>xvi</sup> *Id.*

<sup>xvii</sup> *Foreign Flag Vessels May Bring Down LNG Import Costs*, The Hindu Business Line, December 13, 2005.