

# Class Collaboration Vital to Furthering LNG as Fuel



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## JIM WATSON

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**F**rom equipment construction, to regulatory requirements, to training and bunkering—there are many areas that must be addressed for the wide-scale adoption of LNG as a marine fuel. Knowledge-based partnerships among Class societies, regulatory bodies, and ship operators are critical to balancing the objectives of safety, environmental regulation, and operational efficiency.

Class societies provide guidance to the marine and offshore industries by working closely with regulators and research institutions to manage operational safety and performance issues when existing technologies are used in new applications. The risk that we as an industry face, in the rush to adopt new environmental standards or embrace more efficient technology, is compromising the safety of the vessel, its cargo, or the crew. Partnerships allow us the opportunity to understand risk trade-offs and share technical experiences so that we can take a proactive approach that supports the wider industry and safely advances technology applications.

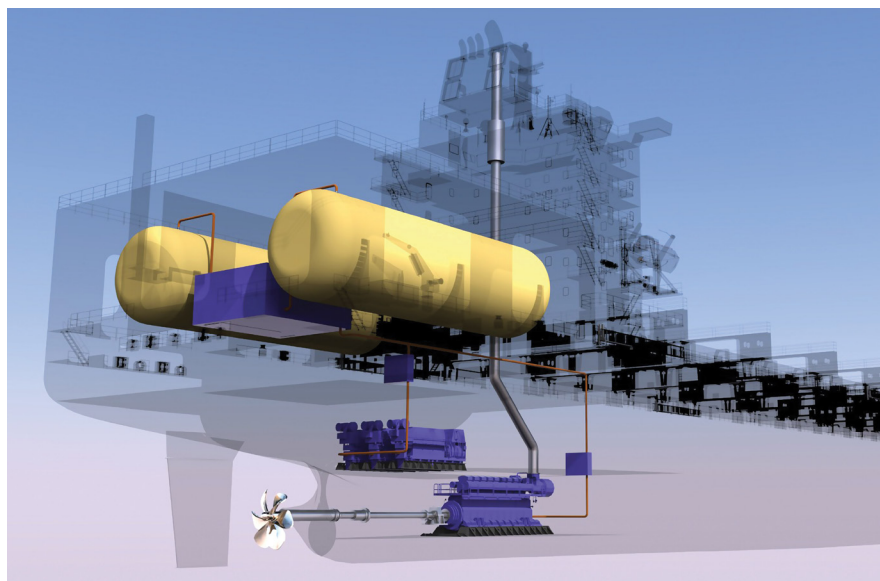
In the case of gas-fuel propulsion systems, ABS provides technical standards for the arrangement, construction, installation and operation of machinery components and systems for gas-fueled vessels in its *Guide for Propulsion and Auxiliary Systems for Gas Fueled Ships*.

Additionally, a recently assembled team of industry-focused professionals at ABS, the Global Gas Solutions Team, is collaborating with owners, shipyards, and equipment manufacturers to evaluate the use of LNG-fueled propulsion systems as a solution for compliance with Annex VI MARPOL Convention requirements.

The Global Gas Solutions Team draws from first-hand experience working with designers and key regulators to develop guidelines and policies addressing the challenges unique to adopting the first LNG-as-fuel initiatives in the U.S. Among ABS's LNG-as-fuel projects are the Harvey Gulf dual fuel offshore support vessels, TOTE's dual fuel new construction and conversion projects, and various floating LNG export terminal projects under development. We also are supporting Horizon Lines and Interlake Steamship as existing vessels are converted and Staten Island Ferries and BC Ferries as they study the feasibility of using LNG as fuel.

We are fortunate to have industry partners such as Harvey Gulf, NASSCO and the Society for Gas as a Marine Fuel assisting us with these efforts and to share previous “lessons learned” from projects ranging from floating LNG liquefaction to the world's first LNG regasification vessels. All told, ABS has more than 50 years of LNG handling and storage

**New energy-efficient ship designs that use LNG as fuel propulsion systems have the potential to reshape the operating landscape**



experience, and each new project is another opportunity to shape concept and design specifications for U.S. flag, LNG-fueled vessels.

Continued efforts to collaborate on a broad range of issues such as operations, bunkering requirements, and safety considerations for specific vessels will provide a better understanding of appropriate operational requirements and restrictions, design loads, applicable class society rules, industry standards, and flag state statutory

requirements as gas-fueled technology gains ground in North America.

Looking ahead, ABS is seeking input from stakeholders to assess infrastructure needs and availability, define training requirements, develop feasibility study criteria, and carry out economic modeling in an internally funded initiative to support LNG as fuel in North America. The study also will consider other key safety and operational factors that could impact the acceptance of LNG as fuel in North America.

There are challenges to implementing LNG as a fuel on a wider scale. But creative and technical points of contention are what drive us toward innovative solutions. Our industry must do more than adapt to changing operating and regulatory landscapes—it must seek greater efficiency and, above all, strengthen its safety measures.

By leveraging our abilities, technical experience, guidance, and competence of Class, we are well positioned to tackle these challenges head on and to develop better practices for both regulators and industry alike that will reinforce these knowledge-based partnerships.

Trust remains at the crux of collaboration. Class is and should remain an independent voice at the center of the process of finding solutions. ABS has a unique position in the marine community working with regulators and industry partners, and we will continue to align our internal resources with external needs to identify solutions to the most pressing operational challenges facing our industry.



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