

Liquefied Natural Gas Workshop Speaker Bios

**US DOT PHMSA Headquarters
Washington, DC
May 18-19, 2016**



Liquefied Natural Gas Workshop

Speakers on May 18th

Robert Schaeffgen is an Engineer III with the Delaware Public Service Commission. Robert has performed inspections of peak shaving facilities for the past 16 years. For 14 of these years he has been the solo pipeline safety inspector of intrastate transmission, distribution and propane systems. Robert has a B.S. in Mechanical Engineering from the University of Delaware.

Jay Jablonski is Vice President and General Manager of HSB Professional Loss Control, the property group within Hartford Steam Boiler Inspection & Insurance Co. He has been involved with property loss control and fire protection engineering since 1980. He currently manages property loss control services for HSB, involving over 200 site surveys per month, both in the US and overseas.



Jay's experience includes project engineering with an international fire protection contractor where he specialized in the protection of LNG facilities, off-shore platforms, and other energy-related facilities. He has been responsible for development of conceptual design philosophies, technical specifications for suppression and detection systems, hazard analysis, and system application surveys.

Jay has been a committee member of NFPA 59A - Standard for the Production, Storage and Handling of Liquefied Natural Gas, since 1997 and has been the Committee Chairman since 2006.

Professor Sara Gosman is an assistant professor at the University of Arkansas School of Law—Fayetteville where she teaches and writes in the areas of environmental and energy law. One of her primary research interests is the use of risk regulation to govern oil and gas development and transportation. She is also Vice President of the Board of the Pipeline Safety Trust, a non-profit organization focused on improving pipeline safety from a public interest point of view. Prior to joining the School of Law in 2014, Professor Gosman was a lecturer in environmental law at the University of Michigan Law School. She has practiced as a water resources attorney at the National Wildlife Federation and as an assistant attorney general in the environmental division of the Michigan Department of Attorney General. Sara is a graduate of Harvard Law School and the John F. Kennedy School of Government of Harvard University.

Margaret Doyle is Senior Program Manager at GTI. She has been in the maritime and energy industry for over 30 years and is considered an expert in LNG bunkering training and related topics. In 2015, Margaret was the lead on the development for GTI's LNG First Responder Awareness training program delivered in conjunction with the Florida State College at Jacksonville Fire Academy of the South (FAS), trained more than 150 stakeholders and first responders in liquefied natural gas (LNG) awareness. The training was developed specifically for Port of Jacksonville area stakeholders, especially local first responders, and included firefighters from the Jacksonville Fire Rescue Departments, the U.S. Coast Guard Sector Jacksonville, and area law enforcement.



Margaret is also a longstanding appointed member of the U.S. Coast Guard Chemical Transportation Advisory Committee (CTAC) and chairs the CTAC Subcommittee tasked with developing recommendations for safety standards for the design of vessels carrying natural gas as a cargo or fuel. Margaret also participates on the U.S. Delegation to the International Maritime Organization (IMO) on LNG matters. She is a graduate of the U.S. Merchant Marine Academy and holds advanced degrees in engineering from The George Washington and Pennsylvania State Universities.

Kevin Ritz is a senior Engineering Technical Specialist with Baltimore Gas and Electric (BGE). He has 39 years with BGE in various roles within BGE's LNG and Propane-Air peak shaving operations, gas maintenance organization, and Gas Control. Since 2008, he has administered the gas compliance program designed to aid BGE in complying with LNG, LPG, and pipeline safety regulatory requirements. Robert is a member (since 2000) and past chair of AGA's Supplemental Gas Committee, member (since 2002) and current chair of NFPA 59, and a member of NFPA 59A since 2005. He has contributed to AGA publications, *Classification of Locations for Electrical Installations in Gas Utility Area's* and *Purging Practices and Principles Manual*. He has presented the following papers:

- *Propane-Air Plants – Streamlining Operations Through Technology*, 2004
- *Sub-X Vaporization, 40 Years of LNG Peakshaving & Base load Service*, 2006
- *Hazard Detection, Notification, and Response Systems*, 2010

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Pat Outtrim is Vice President of Government and Regulatory Affairs at Cheniere Energy, a company engaged in liquefied natural gas (LNG) related businesses. She is responsible for all regulatory and compliance activities during the permitting, construction and operation of the company's LNG terminals and natural gas pipelines. This has included four import terminals (two constructed), two export terminals and two interstate pipelines. She leads the HSSE department, with oversight of procedure development, training, compliance monitoring and reporting.

Under her direction, the Government and Regulatory Affairs department successfully obtained all necessary licenses and permits for the first LNG import terminal built in the U.S. in over 40 years and the first ever LNG export terminal in the Lower 48 states.

Prior to joining Cheniere, Pat was a consultant for several of the LNG peak shaving plants in the U.S., on LNG fueled vehicle projects and refueling stations and code development for NFPA 57, and 59A and CSA Z-276.

Brannen G. McElmurray is a managing director in the private equity group of Fortress focused on energy investments. Brannen focuses on New Fortress Energy, which provides energy, logistical services, financing and capital investment to end users worldwide seeking to convert their operating assets from diesel or heavy fuel oil to natural gas. Prior to joining Fortress, he was the portfolio manager of renewable energy and environmental commodities in the commercial operations group of NRG Energy, Inc. (NYSE: NRG). Before NRG, he was a vice president in the merchant banking group of Evolution Markets, a leader in energy and environmental markets, where he worked with project developers and entrepreneurs in developing financing solutions for clean energy projects and clean tech companies in the U.S. and abroad. Brannen McElmurray also worked for Goldman Sachs as an investment banker focused on technology companies and as an attorney at Cravath, Swaine & Moore focused on mergers and acquisitions and acquisition finance.

He holds a B.S. in Engineering with highest honors from the U.S. Naval Academy, a M.A. in Science, Technology and Public Policy from George Washington University, and a J.D. from Stanford Law School.

Greg Denton is Business Development Manager at GTT North America. Greg has spent his career in the Oil & Gas Industry, developing international upstream assets before transitioning to LNG (Liquefied Natural Gas) business development. Greg began his career with ExxonMobil Development Company in the Offshore Fabrication Department, executing deepwater projects in West Africa. He transitioned to the Onshore Construction Department where he was seconded to Imperial Oil Resources for Phase One fabrication of the Kearl Oil Sands Project in Alberta, Canada. He subsequently joined Hilcorp Energy Company based in Houston, TX, developing unconventional assets and optimizing production of both oil and gas plays in the Central Texas region.



Greg joined GTT Gaztransport & Technigaz in 2012 and has served as Business Development Manager for GTT North America since the subsidiary was established in 2013. In addition to GTT's core activities of LNGCs (LNG Carriers) and VLECs (Very Large Ethane Carriers), Multi-Gas Carriers, FLNGs (Floating LNG units), FSRUs (Floating

Storage and Regasification units), and onshore storage tanks, he focuses on the development of the LNG as fuel value chain.

Greg graduated with honors from the University of Kansas in 2005 with a B.S. in Mechanical Engineering and a Minor in Germanic Languages.

Alan Hatfield is VP of LNG Technical Services for Braemar Engineering in Houston, Texas, has with 35 years of natural gas & LNG experience.

Alan Hatfield started working with utility peak shaving in 1985 with propane air systems, and in 1988 LNG Plant Manager at Columbus, Georgia utility peakshaving facility. Alan Hatfield's next stop was with BG as Engineering Manager for Atlantic LNG (ALNG) in Trinidad and Tobago where he lived from 1998 to 2002.

Alan Hatfield was Director Merchant LNG for El Paso in 2003 with primary responsibility for development of the shipboard regasification systems for Excelsior ships – a first of its kind. His next position was with Marathon Oil for the Equatorial Guinea LNG Liquefaction project. Following that, he worked for Cheniere, as Project Manager of Corpus Christi LNG and providing support to Sabine Pass and Creole Trail LNG for 4.5 years.

He has worked for Braemar Engineering since June of 1988 and led numerous large and small scale projects and studies. He is currently on the NFPA 52, NFPA 59A, ACI 376, AGA Supplemental Gas technical committees. Alan has a BSE in Civil Engineering from University of South Florida and a PE license in 6 states.

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Matthew Martineau is Principal Project Engineer for Chart Inc. (a subsidiary of Chart Industries, Inc.), a manufacturer of products used in the production, storage and distribution of liquefied (cryogenic) gases.

Matt works in the Projects D&S Americas group within Chart's Distribution and Storage (D&S) division. This specialty group supports customers with turnkey equipment package solutions to solve whatever gas needs they have. These projects include designing systems that store and distribute liquefied gases for end-use liquid and/or gas applications. Industrial gas applications include atmospheric gases (nitrogen, oxygen and argon) as well as hydrocarbon-based gases (natural gas (LNG), hydrogen and ethylene).

Matt holds a B.S. in Mechanical Engineering from the University of Minnesota and is an alternate committee member on NFPA 59A. In the past five years, he has been actively involved in many LNG-related projects in the U.S, Canada and India that include liquefaction, storage, regasification, truck fueling and transport loading applications.

Jim Hogan has been the project manager of the Puget Sound Energy Tacoma LNG Project since 2012. He has 25 years of engineering and project management experience including a prior LNG project for PSE, hydroelectric and combustion turbine power plant projects, fuel storage and delivery systems, marine infrastructure, and specialty facility construction in the US and Europe. Jim has a B.S. in Mechanical Engineering from Washington State University.

Lad Falat is Director of Engineering, Sciences, and R&D for the U.S. Department of Transportation Office of Hazardous Materials Safety at PHMSA since February 2015. Previously, he served several roles at the Bureau of Engraving and Printing in the production and development of banknote features. Lad has over 20 years of experience in the private sector, including chemical safety, packaging, materials science and corrosion engineering. He earned a Ph.D. and B.S. in Chemistry from the University of Maryland and Penn State, respectively.

Speakers on May 19th

Von Studer is the Operations Manager for Williams Northwest Pipelines peak shaving LNG facility in southeast Washington State. The facility liquefies and stores LNG for various Pacific Northwest LDC's. Von has held various field positions over 33 years within Williams including Gas Processing and Gathering, Mainline Compression and Operations Technician, Greenfield Compressor Station Chief Inspector, Supervisor of District Operations and Continuous Improvement Coach for Performance Management.

Chief Lonnie Click is the Fire Chief for Benton County Fire District #1, Benton County Washington. Chief Click began his career in the fire service in 1985 in Washington State where he has remained there throughout his career. Chief Click began working in complex incident management in 1996 and is currently an Incident Commander Trainee and Operations Section Chief on a National Type 1 Incident Management Team.

Lonnie has managed many wildland fires throughout the western United States, assisted with multiple hurricanes in the southeast and participated in the recovery efforts during the Oso landslide. Chief Click is also an incident commander on the Southeast Washington All Hazard Type 3 Incident Management Team where he was the Incident Commander of the Williams Pipeline LNG plant explosion in 2014. Additional responsibilities include Washington Fire Chiefs Association representative to the Pacific Northwest Coordinating Group Operation Committee and a regional representative to the Washington State Fire Defense Committee.

Dr. Graham Atkinson is Principal Scientist, Fluid Dynamics Team, Mathematical Sciences Unit at House and Safety Laboratory (HSL) in the UK. He has 30 years of experience of fire and explosion incident investigation in a wide range of industry sectors. Graham has led numerous research projects on industrial fire and explosion problems including: flame propagation on LNG pools and vapour cloud explosions. He has published widely in the international reviewed literature both on specific industrial fire problems and fundamentals of fire and explosion engineering.

He was HSL's lead investigator on fire and explosion aspects of the Buncefield incident. He won the 2010 Hutchinson Medal (IChemE) for his forensic work on this vapour cloud explosion.

Graham was awarded the 2006 Frank Lees Medal by the IChemE for his work on the fire hazards of composite Intermediate Bulk Containers (IBCs). Graham developed the method, used worldwide, for design of emergency ventilation systems in tunnels. For this work he was awarded the 2016 Achievement Award at the International Symposium on Tunnel Safety and Security (Montreal). Dr Graham Atkinson has a degree and doctorate in physics from Cambridge University.

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Dr. Simon Gant is currently a Principal Scientist at the Health and Safety Laboratory (HSL) in the UK where he's worked for the last 11 years on a range of projects including leading the fluid flow analysis on incident investigations, support work on new guidance and standards, government-funded research and consultancy. Topics have included: flammable mists, area classification, carbon capture and storage, and dispersion model validation. Simon was HSL's lead investigator on the vapor dispersion aspects of the Buncefield Incident investigation.

Simon Gant has an M.S. in Mechanical Engineering from Leeds University and a doctorate in Computational Fluid Dynamics from Manchester University.

Phil Suter is an LNG Consultant with CH-IV International and has been involved in the siting and hazard analysis including determination of vapor dispersion exclusion zones for numerous LNG facilities under the jurisdiction of DOT PHMSA. Prior to working for CH-IV, Phil worked for the Federal Energy Regulatory Commission in the LNG Engineering and Compliance Branches from 2004-2012 and was involved in reviewing the Front End Engineering Design deliverables developed by LNG facility applicants and determining if applicants complied with the siting requirements in 49 CFR Part 193.

Phil has written articles on siting and hazard analysis for the Pipeline and Gas Journal and has presented at the AIChE, AGA, and Natural Gas for Offroad Conferences. Phil is the lead investigator for the *Comparison of Exclusion Zone Calculations and Vapor Dispersion Modeling Tools* research project. Phil has a B.S. in Chemical Engineering from the Pennsylvania State University.

Jeff Marx is a Senior Engineer with Quest Consultants in Norman, Oklahoma. In his 23 years at Quest, Jeff's primary responsibilities have been in consequence and risk analysis studies for the petrochemical industry, including facility and building siting studies, as well as full quantitative risk analysis (QRA) studies. Jeff is also responsible for several portions of the CANARY by Quest consequence analysis software.

Jeff has been involved in the LNG industry for most of his career, and currently is an instructor for the DOT's 49 CFR 193 course that trains the federal and state inspectors of LNG plants. He is also a member of the Canadian Standards Association's Z-276 committee, the LNG standard for Canada. He earned his B.S. in Mechanical Engineering from the University of Oklahoma and an M.S. in Mechanical Engineering from Georgia Tech. Jeff is a registered Professional Engineer in Oklahoma.

Cheryl Stahl is a risk assessment professional with DNV GL with a primary focus on estimating quantitative risk for activities that have a high degree of risk uncertainty. She has led several vessel navigation risk and LNG bunkering risk studies for projects in the U.S. and Canada. Her recent work includes terminal and transportation risk assessments for LNG export facilities in North America, the *Liquefied Natural Gas Bunkering Study* for MARAD, and *Practical Leadership for Sustainable Business: Health and Safety Management*.

David Moore is the President and CEO of the AcuTech Consulting Group, a process safety, security and emergency management consulting firm based in Vienna, Virginia. David Moore is an expert on process safety management and security for the LNG, petroleum, petrochemical, and chemical industries. He has consulted since 1987 to many of the world's largest corporations and has supported the siting and safety and security management of LNG import and export terminals. He was formerly a Senior Engineer with Mobil and a Fire Protection Engineer with NFPA.



AcuTech was the lead author of five AIChE CCPS® internationally recognized safety and security guidelines and the ANSI/API Standard 780 Security Risk Assessment Methodology for the Petroleum and Petrochemical Industries. He serves on the Technical Steering Committees of the CCPS and the Mary Kay O'Connor Process Safety Center at Texas A&M

University. David Moore has an MBA, (NYU), and a B.Sc., Fire Protection Engineering (University of Maryland). David Moore is a registered Professional Engineer.

Jamie Gray is the Senior Project Manager at Cameron LNG. He graduated from the University of Texas with a B.S. in Electrical Engineering and began his career in the United States Navy Nuclear Power Program. Jamie has worked in engineering and project management throughout the energy industry for over 15 years.

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US DOT PHMSA Office of Pipeline Safety

Alan Mayberry is the Deputy Associate Administrator for Policy and Programs. Alan leads PHMSA's development of comprehensive oversight programs including regulatory development, engineering and research, state grants, federal enforcement and the Training and Qualifications Division. Prior to August 2013, Alan was the Deputy Associate Administrator for Field Operations. Before joining PHMSA in 2006, Alan had over 24 years' experience in the energy industry, equally divided between pipeline operations and design engineering. Alan holds a B.S. in Civil Engineering from University of Tennessee, Knoxville and is a registered Professional Engineer.

Ken Lee is the Director of the Engineering & Research Division. Ken's responsibilities include oversight of: pipeline research, engineering support, and engineering reviews of LNG project applications, pipeline construction projects, failure investigations, and special permits.

Ken joined PHMSA in 2009, after 19 years as a pipeline welding engineer. He provided worldwide technical assistance to pipeline contractors and operators, conducted DOT/PRCI funded X100 welding research, evaluated new pipeline welding technologies, performed engineering analysis of pipeline welds, and conducted technical training. Ken is active on the API Committee on Oil and Gas Pipeline Field Welding Practices (Standard 1104) and the AWS B2 Committee on Welding Qualification. Ken previously served on PRCI, ASME, and NACE technical committees. Ken coauthored the AWS Welding Handbook and authored many articles in pipeline and welding industry journals.

Ken is an AWS certified welding engineer, a certified welder, and holds a M.S. in Welding Engineering from Ohio State University, and a B.S. in Engineering Mechanics from Johns Hopkins University.

Buddy Secor is the Engineering Operations Supervisor in the Engineering & Research Division. Buddy's focus is in coordination of LNG project application reviews, coordination with the technical consultants, coordination with FERC and other LNG stakeholders. Buddy comes to PHMSA having served 6 years with the Department of Homeland Security (DHS) in Pipeline Security where he led the Security Review programs of the nation's top pipeline companies. Prior to DHS, he worked 26 years constructing and operating transmission and distribution gas pipelines. He provided project management and engineering for the construction of 30 major onshore and offshore transmission pipeline projects and managed pipeline field operations and pipeline integrity projects. He has a B.S. in Civil Engineering from Memphis State University College of Engineering and is a registered Professional Engineer.

Joe Sieve is a General Engineer in the Engineering & Research Division. Joe performs the technical review of on-shore and off-shore LNG projects where PHMSA is cooperating agency with the FERC, MARAD, USCG, and DOE as well as small-scale LNG projects. He works on many LNG issues including the evaluation of NFPA 59A 2016.

He joined PHMSA in 2009 after 34 years in the gas utility industry where he supervised engineering and support staff in the design, construction, and documentation of distribution and transmission natural gas pipelines, propane-air plants, and gate & regulator stations. As a Project Manager Joe worked on many special projects, such as replacing pipe on bridges, pipeline offsets utilizing horizontal direction drilling methods, development of welding procedure specifications, stream bank stabilizations, new pipeline technology applications such as internal pipeline composite liner, purging of complex facilities, and system upratings. Joe previously served on ASME, AGA-GPTC, and API technical committees and has applied to the NFPA 59A committee. Joe has a B.S. in Civil Engineering technology from Western Kentucky University.

Julie Halliday is a General Engineer in the Engineering & Research Division. She works with state and federal agencies on cross functional LNG issues, small-scale LNG reviews, LNG R&D, MEP for vapor dispersion codes, and is leading the evaluation of NFPA 59A 2016. Julie wrote the nonpetroleum pipelines report to Congress, the advisory bulletin for pipeline flow reversals, and led the development of FEMA's hazard mitigation planning near pipelines primer. Julie guided a team of investigators through implementation of PHMSA's failure investigation system. She provided engineering consulting services for DIMP audits, inspector training, enforcement guidance, and rulemakings on EFVs, mechanical fitting failure and the update to standards incorporated by reference.

Julie has a depth of experience from her longtime leadership roles in the gas utility industry in engineering, operations & maintenance, and construction from engineer to director. Julie was a member of API 1172, GPTC, AGA DTE, SOGO, GTI SMP, and NYSEARCH committees and currently serves on NFPA 59A. She has a B.S. in Civil Engineering from University of Illinois, Urbana-Champaign and an A.A.S. in Information Systems Technology from Northern Community College. She is an F.E. in Illinois.