

Liquefied Natural Gas Research and Development Public Meeting and Forum

Working Group #1 – LNG Facility Design & Construction

November 15, 2022



Pipeline and Hazardous Materials Safety Administration



Good Afternoon & Welcome!

- PHMSA Leader: Seth Schreiber, LNG Engineer
- Industry Co-Leader: Sanjay Ganjam, Technology Manager – Process Safety, Kiewit Engineering Group, Inc.
- Thank you for choosing this Working Group
- We have an important charge for you:
 - Listening/Learning
 - Assist in developing PHMSA's future research agenda
- All presentations posted and available after the forum.





Working Group Objective

Learn about technical challenges, known research investment and success to date within the Working Group subject matter and to identify nonduplicative/complementary technical gaps for future PHMSA research funding.



Pipeline and Hazardous Materials Safety Administration



Agenda at a Glance



Pipeline and Hazardous Materials Safety Administration **PHMSA: Your Safety is Our Mission**



4

Agenda at a Glance – Day 1

Time	Agenda Item	Role
1:00 PM	Introduction to Working Group	Working Group Leadership
	Facility Challenges & Research Funding Organization Presentations	Various Presenters
	Question and Answer Session	All
	Research Gap Brainstorming Introduction	PHMSA Support Contractor
	Research Gap Brainstorming Session	All
	Break*	
	Research GAP Review/Consolidation	All
4:00 PM	Day 1 Closeout/Adjourn	Working Group Leadership

*Break taken as needed.



5

PHMSA: Your Safety is Our Mission

Pipeline and Hazardous Materials Safety Administration

U.S. Department of Transportation

2

Agenda at a Glance – Day 2

Time	Agenda Item	Role	
10:00 AM	Review of Consolidated Research Gaps	Working Group Leadership	
	Research Gap Prioritization Introduction PHMSA Support Contra		
	Research Gap Prioritization Round 1 & 2	All	
12:00 PM	Lunch		
	Research Gap Roadmapping*	All	
4:00 PM	Day 2 Closeout/Adjourn	Working Group Leadership	

NOTE: Remember to use the MS Teams meeting link for Day 2 – See provided agenda NOTE: A summary report containing the roadmapped gaps will be posted 1 week after the forum.

*Afternoon break taken as needed.





PHMSA Funded Research



Displice and Marardous Materi

Pipeline and Hazardous Materials Safety Administration



Working Group #1 Relevant R&D (\$1.1 M)

	Prj #	Project ID and Title	Status	Contractor	Funding
1.	<u>947</u>	693JK32110004POTA, Developing Performance Criteria	Active to	Simpson Gumpertz &	\$424,429
		for External Loading Factors on External Steel Shell	9/14/2023	Heger	
		Tanks			
2.	<u>948</u>	693JK32110005POTA, Liquefied Natural Gas Tanks	Active to	Blue Engineering and	\$331,760
		Without Bottom Fill	6/14/2023	Consulting Company	
3.	<u>980</u>	693JK32210005POTA, Determine the Maximum	Active to	Simpson Gumpertz &	\$350,574
		Permissible Temperature Drops for Steel when Exposed to	12/29/2023	Heger	
		Cryogenic Liquid			

Research Project Pages found via: https://primis.phmsa.dot.gov/matrix/

U.S. Department of Transportation

Pipeline and Hazardous Materials Safety Administration



Research Knowledge Transfer

- Project results utilized for:
 - Policy and rulemaking development
 - Revision of consensus standards such as with the National Fire Protection Association



U.S. Department of Transportation

Pipeline and Hazardous Materials Safety Administration

PHMSA Compliance Review



Pipeline and Hazardous Materials Safety Administration



Siting and Design Compliance

- Subpart B Siting
 - Issued 25 letters of determination under MOU with FERC
 - Assist state partners with 3 LNG projects
- Subparts C and E Design and Equipment
 - Completed 1 design compliance review
 - Closing out 3 compliance review
 - Reviewing 8 projects under construction





Thank You!

Program Contacts

Sentho White

Director – Engineering & Research Department of Transportation Pipeline & Hazardous Materials Safety Administration Office of Pipeline Safety (202) 366-2415 sentho.white@dot.gov

Robert Smith

R&D Program Manager Department of Transportation Pipeline & Hazardous Materials Safety Administration Office of Pipeline Safety (919) 238-4759 <u>robert.w.smith@dot.gov</u>

Kandilarya Barakat

R&D Operations Supervisor Department of Transportation Pipeline & Hazardous Materials Safety Administration Office of Pipeline Safety (202) 941-8623 <u>kandilarya.barakat@dot.gov</u>

Thach Nguyen LNG Team Operations Supervisor Department of Transportation Pipeline & Hazardous Materials Safety Administration Office of Pipeline Safety (909) 262-4464 thach.d.nguyen@dot.gov







Pipeline and Hazardous Materials Safety Administration