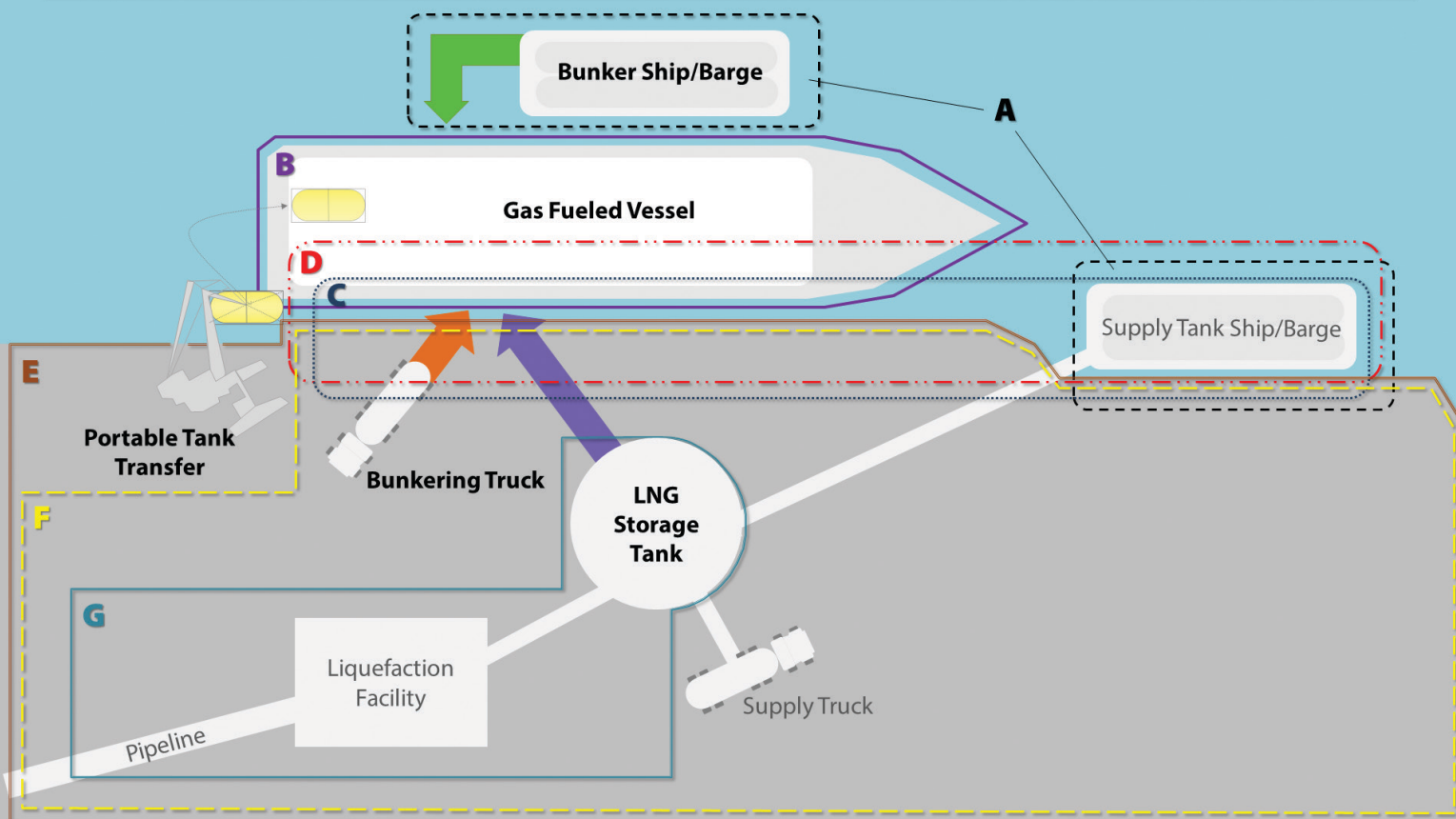


# LNG BUNKERING REGULATORY FRAMEWORK



## Potentially Applicable Regulations, Codes, & Standards for LNG Bunkering in the United States

- |  |   |
|--|---|
| <p><b>A</b> 33CFR 155: Oil Or Hazardous Material Pollution Prevention Regulations for Vessels (USCG)</p> <p>46 CFR Sub D/O: Tank Vessels, Certain Bulk Dangerous Cargoes (USCG)</p> <p>CG-OES Policy Letter No.01-12: Equivalency Determination – Design Criteria for Natural Gas Fuel Systems (USCG)</p> <p><b>B</b> 46CFR Parts 10, 11, 12, 13, 15: Merchant Marine Officers and Seamen Credentials &amp; Requirements (USCG)</p> <p><b>C</b> 33CFR 156: Oil and Hazardous Material Transfer Operations (USCG)</p> | <p><b>D</b> 33CFR 127: Waterfront Facilities Handling LNG and Liquefied Hazardous Gas (USCG)</p> <p><b>E</b> 33CFR 105: Maritime Security: Facilities (USCG)</p> <p>NFPA 52: Vehicular Gaseous Fuel Systems Code</p> <p>33CFR 154: Facilities Transferring Oil Or Hazardous Material In Bulk (USCG)</p> <p><b>F</b> 40 CFR 68: Chemical Accident Prevention Provisions (EPA)</p> <p>29 CFR 1910.119: Process Safety Management of Highly Hazardous Chemicals (OSHA)</p> <p>NFPA 59A: Standard for the Production, Storage, and Handling of LNG</p> <p><b>G</b> 49 CFR 193: Liquefied Natural Gas Facilities: Federal Safety Standards (DOT)</p> |
|--|---|



# Bunkering of Liquefied Natural Gas-fueled Marine Vessels in North America












ABS study provides practical guidance for meeting regulatory requirements

## LNG Bunkering Decision Guides

- Tailored guides for each type of operator:
  - Gas-fueled vessel operator
  - Bunker vessel operator
  - Bunker facility operator
- Decision trees to help each operator determine which regulations, codes, standards might be applicable to their operation

Will the vessel be classed?	Will the vessel be inspected by the U.S. Coast Guard?	Will the vessel operate in international waters?	Gas Fueled Vessel Cases	IMO MSC 285(86)	United States Coast Guard CG-521 Policy Letter 01-12**	46 CFR Parts 10, 11, 12, 13, 15	ABS Guide
YES	YES	YES	1	✓	✓	✓	✓
		NO	2		✓	✓	✓
		YES	3	✓	✓	✓	✓
		NO	4		✓	✓	✓
	NO	YES	5	✓	✓	✓	✓
		NO	6		✓	✓	✓
		YES	7	✓	✓	✓	✓

Will the bunker vessel be classed?	Will the bunker vessel be a self-propelled tank ship or a barge?	Will the bunker vessel operate in international waters?	Bunker Vessel Cases	IMO IGC Code	33 CFR 155	33 CFR 156	46 CFR Sub D/O	Steel Vessel Rules Part 5C-8
YES	Self-Propelled Tank Ship	YES	1	✓	✓	✓	✓	✓
		NO	2		✓	✓	✓	✓
	Barge	YES	3			✓	✓	✓
		NO	4			✓	✓	✓
	Self-Propelled Tank Ship	YES	5	✓	✓	✓	✓	

What is the source of LNG to your facility?	Will your facility have an onsite bulk storage tank?	Bunker Facility Cases	33CFR 105	33 CFR 127	33CFR 154	33CFR 156	29 CFR 1910.119	40 CFR 68	49 CFR 193	52	59A
Truck 	Yes 	1	✓	✓	✓	✓	✓	✓		✓	✓
	No 	2	✓	✓	✓	✓				✓	✓
Ship/Barge 	Yes 	3	✓	✓	✓	✓	✓	✓		✓	✓
	No 	4	✓							✓	✓
Container 		5	✓							✓	
Interstate Pipeline w/ local liquefaction 	Yes 	6	✓	✓	✓	✓			✓	✓	✓
Intrastate Pipeline w/ local liquefaction 	Yes 	7	✓	✓	✓	✓	✓	✓		✓	✓

Answer a few simple questions to determine which case represents your operations

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