



QRG for Liquefied Natural Gas (LNG) Operations

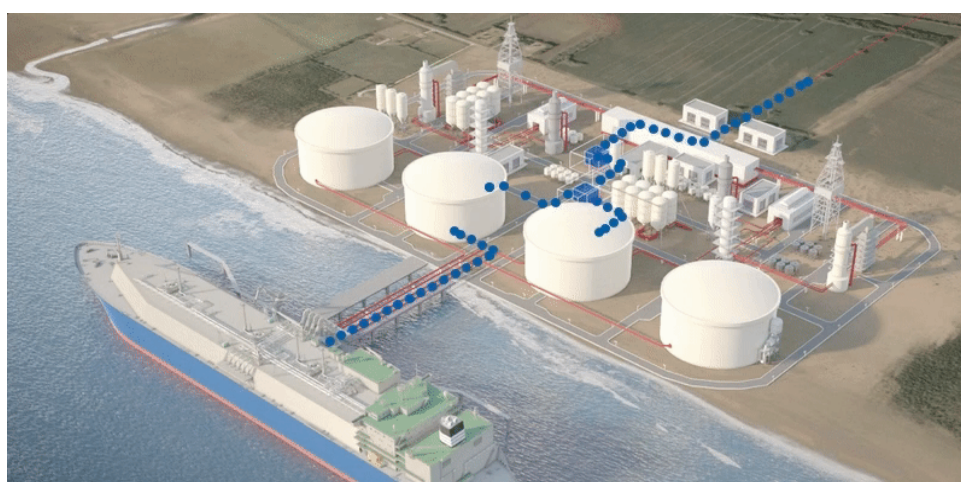
Overview:

This QRG is designed to provide operations new hires an overview of key aspects related to LNG operations.

<p>What is LNG?</p>	 <p>Photo Credit: Adobe Stock</p> <ul style="list-style-type: none"> • LNG is natural gas that has been cooled to -260°F (-162°C) to convert it into a liquid state for ease of transportation and storage. • LNG is primarily composed of methane, with trace amounts of other hydrocarbons, nitrogen, and small impurities.
<p>LNG Production Process</p>	<ul style="list-style-type: none"> • Extraction: Natural gas is extracted from underground reservoirs.

	<ul style="list-style-type: none"> • Processing: The gas undergoes treatment to remove impurities. • Liquefaction: The gas is cooled to extremely low temperatures to become a liquid.
LNG Storage	 <p>Liquefied natural gas storage tanks at an LNG receiving terminal in Jiangsu province in May. [Photo by Xu Congjun/For China Daily]</p> <ul style="list-style-type: none"> • LNG is stored in specially designed cryogenic tanks to maintain its low temperature. • Common storage types include above-ground tanks and underground tanks.
Transportation	<ul style="list-style-type: none"> • LNG is transported in specialized carriers, which are double-hulled and equipped with advanced safety features. • LNG can also be transported by road or rail in ISO containers.

Receiving Terminals



https://www.burckhardtcompression.com/wp-content/uploads/2017/04/application_import-terminal.gif

- LNG terminals receive, regasify*, and distribute LNG for various end-users.

*Regasification involves heating LNG back to its gaseous state.

Safety Considerations

- LNG is flammable but has a narrow flammability range.
- Emergency shutdown systems and safety measures are in place to mitigate potential risks.

Regulatory Compliance

- Compliance with international standards and regulations is crucial for safe and efficient LNG operations.

Environmental Impact

- LNG is considered a cleaner-burning fuel compared to other fossil fuels.
- Methane leakage during the LNG lifecycle is a concern and is actively monitored and addressed.

--	--

Additional Information:

- [DOTSafetyCompliance](#)
- [CenterForLNGSafety](#)

Version Change Log

Name	Content Changed	Date
Amanda Smith,MSED	Content Created	1/9/24