



## QRG for Liquefied Natural Gas (LNG) Operations

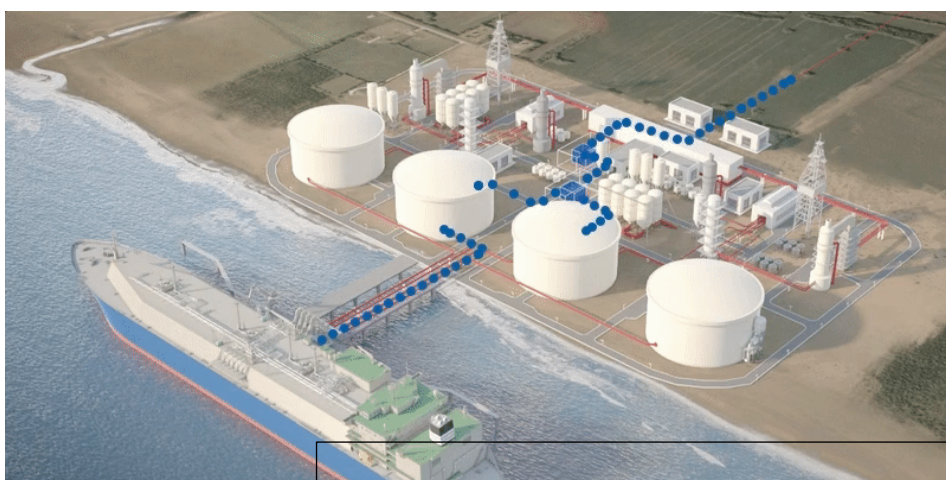
### Overview:

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"> <li>• 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.</li> <li>• LNG is primarily composed of methane, with trace amounts of other hydrocarbons, nitrogen, and small impurities.</li> </ul>
<p>LNG Production Process</p>	<ul style="list-style-type: none"> <li>• Extraction: Natural gas is extracted from underground reservoirs.</li> </ul>

	<ul style="list-style-type: none"> <li>• Processing: The gas undergoes treatment to remove impurities.</li> <li>• Liquefaction: The gas is cooled to extremely low temperatures to become a liquid.</li> </ul>
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"> <li>• LNG is stored in specially designed cryogenic tanks to maintain its low temperature.</li> <li>• Common storage types include above-ground tanks and underground tanks.</li> </ul>
Transportation	<ul style="list-style-type: none"> <li>• LNG is transported in specialized carriers, which are double-hulled and equipped with advanced safety features.</li> <li>• LNG can also be transported by road or rail in ISO containers.</li> </ul>

## Receiving Terminals



[https://www.burckhardtcompression.com/wp-content/uploads/2017/04/application\\_import-terminal.gif](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