FLNG: Risks and Cover

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The Standard Syndicate insures a range of upstream assets from fixed platforms to FPSOs. This article focuses on the new Floating LNG asset, including its uses, its risks and the insurance covers available.

Why use FLNG?

The demand for natural gas is ever increasing. Offshore gas fields are being discovered in deeper waters, further away from land or existing infrastructure. Elements that are common in the conventional supply chain such as installing a pipeline to shore and using onshore liquefaction facilities are impractical and uneconomical for exploiting these gas reserves.

FLNG technology reduces the number of elements in the supply chain, using no pipeline or onshore infrastructure, and therefore making it, in some cases, the only option to exploit these remote 'stranded' gas reserves.

Apart from accessing remote gas fields, other reasons to opt for FLNG over the conventional method of onshore production may be the lack of access to land required for onshore facilities or wanting the better security that an offshore facility provides. FLNG also has the advantage of not having the negative environmental impact that comes from constructing and operating pipelines and onshore plants.

However, this new technology is likely to be amongst the most high-risk in the industry, with comprehensive risk management programmes being key to its success.

LNG & FLNG

Liquefied Natural Gas (LNG) is gas that has been cooled to a liquid at –160°C and that occupies 600 times less space than natural gas, which enables it to be easily stored and transported.

A floating LNG (FLNG) is a permanently moored offshore floating facility which produces natural gas from subsea wells, and then processes, liquefies and stores the gas before it is offloaded to an LNG carrier and taken to market. FLNG is a new technology and there are currently no FLNGs in operation, although there are many on order and under construction.

Risks of FLNG

- FLNG is a new and unproven technology on the world's largest-ever ships – there are no 'lessons learned' or operational experience.
- Compact design – onshore plants reduce risk by physical separation between processing facilities. FLNG process separation is restricted by the surface area of the hull. This space restriction increases the risk of collateral damage in the event of an incident, as well as the risk of loss of life due to the proximity of living quarters.

- Offloading LNG / simultaneous operations – there is risk of collision if LNG is offloaded to a vessel 'side by side'.
- LNG leakage – if LNG is leaked into the atmosphere, it will change from liquid to methane, expanding by 600 times. If ignited, this could produce a vapour cloud explosion, which may be exacerbated offshore as the change of state from liquid to methane is accelerated when in contact with seawater.
- Huge inventory of cryogenic hydrocarbon liquids stored.
- Effect of motion on LNG storage, e.g. sloshing in tanks.

Insurance

The Standard Syndicate energy team can provide the following coverages for FLNG:

- **Exploration and development phase:** Well control cover for operators to cover the costs of control, redrill, seepage and pollution in the event of a blowout. Property damage cover for the drilling contractors' equipment, including rig.
- **Construction phase:** An 'all risk' physical damage policy covering the operator and contractors from procurement through to installation, testing and commissioning.
- **Operational phase:** An 'all risk' physical damage policy which would cover the hull, machinery, topside units, mooring facility and subsea property. This cover could be packaged with a well control, business interruption and third-party liability cover.

On all of the above covers, commercial exclusions will apply.

Conclusion

With increasing demand for natural gas, and with five FLNGs under construction and six more being ordered this year, FLNG is likely to play a big part in the future of offshore gas production. The Standard Syndicate has coverages available to meet the needs of the market.

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