

THE FACTS ON LIQUEFIED NATURAL GAS

SAFETY, ENVIRONMENTAL IMPACTS AND REGULATORY FRAMEWORK

Safety record of LNG shipping:

LNG is transported in large, specially designed ships called LNG carriers.

LNG carriers are designed to have a **high degree of safety:**

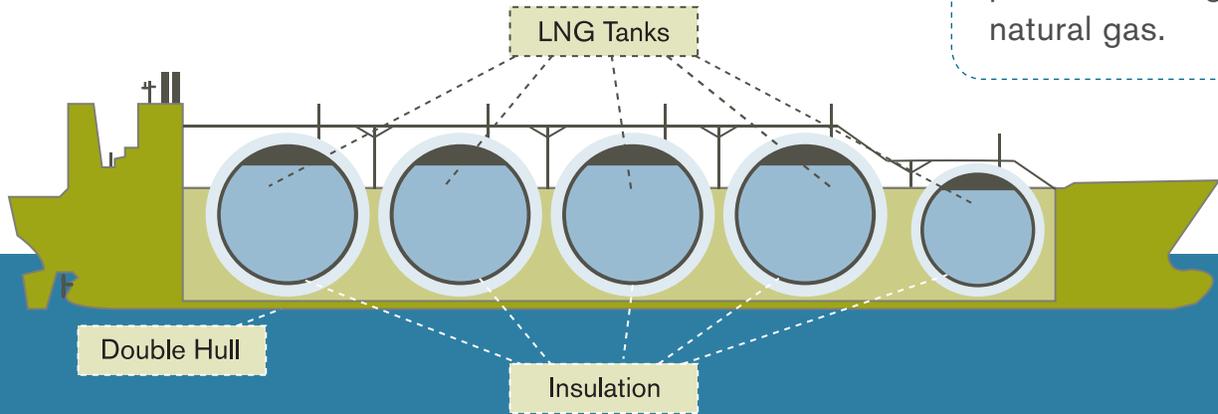
- Double-hulled
- Cargo tanks are separated from the hull structure by thick insulation

Source: International Group of Liquefied Natural Gas Importers

More than **135,000** LNG carrier voyages have taken place **without major accidents**, safety problems, or security issues, either in port or at sea.

Source: Center for Liquefied Natural Gas

LNG carriers and storage tanks are designed to contain LNG and prevent venting of natural gas.



Is LNG flammable?

LNG does not burn on its own.



The **unlikely fire hazard** of LNG exists only if LNG is released, vapourized, then mixed with air in a narrow gas-to-air ratio of 5 to 15 per cent, and ultimately finding an ignition source.

Source: International Group of Liquefied Natural Gas Importers

Is LNG explosive?

LNG storage is not pressurized and contains no oxygen.

Under such conditions it is not explosive.

Source: Center for Liquefied Natural Gas

Environmental impacts of LNG spills on water and land



LNG weighs less than water. The components of LNG are non-toxic and insoluble in water.

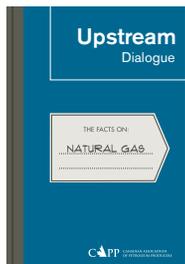
If released on water or land, LNG vapourizes and the **natural gas dissipates rapidly.**

Accidental releases of **LNG on water or land will completely evaporate with no residue**, leaving no lasting impacts.

Greenhouse gas emissions of LNG compared to coal

Greenhouse gas life-cycle emissions

Comparisons between liquefied natural gas and coal-fired power generation in Canada currently do not exist because Canada does not yet have an LNG industry. However, a 2009 U.S. study prepared by PACE for the Center for Liquefied Natural Gas states “the cleanest coal scenario releases 73 per cent more emissions from a life-cycle perspective than LNG.”



Other environmental impacts

Most of Canada’s natural gas that will be liquefied in the proposed facilities on the West Coast will be shipped by pipeline from the natural gas producing regions in northeastern B.C. The environmental impacts of natural gas development on water, land and air are described in detail in **The Facts On: Natural Gas**, which can be viewed or downloaded at www.capp.ca.

LNG regulations

The natural gas industry and pipeline transportation is strictly regulated in Canada by government.

The federal government’s Major Projects Management Office, the Canadian Environmental Assessment Agency and Transport Canada are engaged with the Province of British Columbia to develop a regulatory framework agreement for LNG projects.