

LNG SAFETY PROGRAM



Rolande LNG truck-fuelling station Tilburg, The Netherlands



Introduction of new technology and infrastructure can only be done in an effective way if the safety framework is clearly defined and embedded in industry and governmental organizations.

The LNG Safety Program, which began February 2014, is a unique public-private partnership that aims to remove regulatory barriers for the development of a safe LNG retail infrastructure.

PROGRAM INITIATIVE

The LNG Safety Program is a public-private partnership that aims to remove regulatory barriers for the development of a safe LNG retail infrastructure. TNO, The Netherlands Institute for Applied Scientific Research together with RIVM, The National Institute for Public Health and Environment and NEN, The Netherlands Standardization Institute are the implementing partners of the LNG safety Program.

The LNG Safety Program has been established within the National LNG Platform. This platform works on the introduction of LNG as a new, cleaner and quieter fuel for road transport and shipping. It connects businesses and governments, who are working on the introduction of LNG, using a Green Deal with the ambition to have at least 50 barges, 50 ships and 500 trucks running on LNG at the end of 2015.

PROGRAM GOALS

The program is developed to meet the need for a clear regulatory framework to enable the development of a retail LNG supply network. At the beginning of the program the following barriers were recognized:

- Only temporary and conditional permits are granted for LNG installations;
- The available design guideline for truck-fuelling stations (PGS33.1) only covers the internal safety aspects and is not applicable in granting procedures in which also the safety outside the facility (external safety) needs to be evaluated;
- The risk assessment calculation methodology which is accepted by the government for determining the external safety of LNG fuelling facilities, is deemed conservative;
- Regional governmental bodies which issue the permitting were not properly informed on both the technology and associated risk evaluation procedure;
- Emergency response organizations (e.g. fire

department) protocols were not aligned and protocols prescribed a defensive response in case of emergency.

TWO-YEAR RESEARCH PROGRAM

The aim of the research program is to enhance the knowledge about internal and external safety of small scale LNG supply infrastructure to enable the development of an innovative and safe distribution systems. Through strong involvement of emergency response organization a safe implementation of LNG as fuel for transport in society is enhanced. The research approach consists of existing data and knowledge collection, collective hazard identification and an intensive testing program with the final goal to reach implementation in the regulative risk assessment (QRA) methodology and emergency response protocols.

PARTNERSHIP

Within the program all research proposals are evaluated by a technical expert group and finally prioritized by the steering committee which takes the final implementing decision. The steering committee and the technical expert committee both consists of public and private stakeholders. The program is always open for new participants.



TNO initiates an unique public-private partnership that aims to remove regulatory barriers for the development of a safe LNG retail infrastructure.

LNG SAFETY PROGRAM PARTNERS

RIVM, NEN and TNO
Shell
GDF SUEZ
Rolande LCNG
Gasunie
Vopak
Deltalinqs
Dutch National LNG Platform

TNO.NL



INTERESTED?

Contact TNO for more information about the LNG Safety Program

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