

7 NOVEMBER 2023

PROGRESS OF THE TECHNICAL STUDY GROUP

2023 General Assembly



GENERAL NEWS FROM THE T.S.G.

Technical Group includes now **44 members**, with

- 22 active members (= ‘Core team’);
- 52% from EU / 15% from Americas / 34% from Asia/ME ;

Significant changes in the ‘core team’ representatives

New members joining the ‘core team’:

South Hook LNG, Singapore LNG, MOL

More members with a shipping/FSRU experience



2023 : Two face to face Commercial and Technical meetings

- 73rd TSG in Barcelona, with External presentations (ERM on the MRV report)
- 74th TSG in Tokyo, with remote interventions from Freeport and Shell

The TSG is also actively participating to LNG initiatives. In 2023 :

- Support to the GIIGNL MRV and GHG Neutral LNG Framework;
- ISO / TC 67 / SC9 / WG10 – IOGP-6338 : Methods to calculate GHG emissions at LNG liquefaction plants
- GIE & UNECE workshops on GHG emissions;
- Annual European Terminal Manager Meeting (FSRU Independence in Lithuania)

1. TSG RECENT ACTIVITIES ON SAFETY

SAFETY IS THE 1ST TOPIC ON OUR AGENDA

1.1 Safety Database (Pilot : Elengy) :

- › Review of the new incidents reported in the data base;
- › Debate on recent incidents or a near-misses;
 - If required, incidents are analysed & recommendations are published;
 - Regular communication with safety alerts if required.



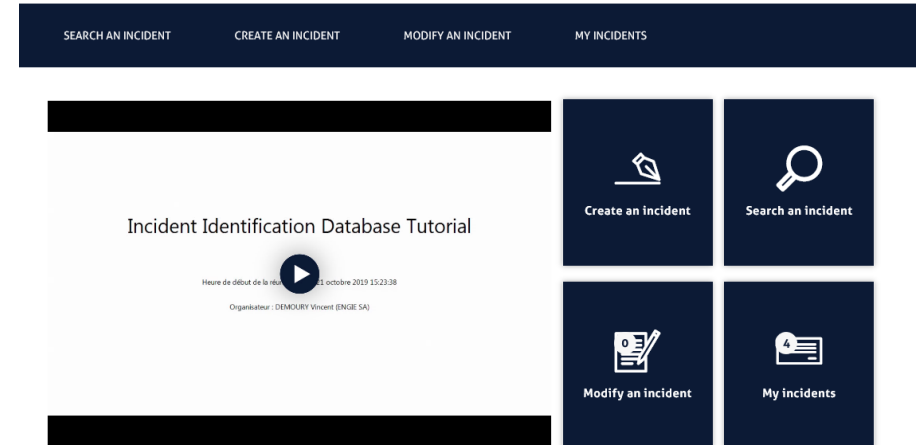
LNG INCIDENT IDENTIFICATION STUDY Analysis of Historical Data on LNG Incidents

Gabin DELANNAY
Gas & LNG Technical Department Manager, TOTAL SA
Hernan MARRONE
Pipeline & LNG specialist, TOTAL SA
On behalf of GIIGNL



EXTRANET DATABASE
OF INCIDENTS GIIGNL

Welcome Paul-Emmanuel DECROËS |→



Documents to download :

Summary Reports :

- › improving the platform functionalities (easier access, pictures..);
- › promoting the use of the platform.

1.2. Safety Guidelines :

When there are lessons to be learnt / needs to remind the safe practises, TSG is preparing safety guidelines:

- › Guidelines for designing/performing a safe ship re-loading ;
- › Safety recommendations on truck (un)loading and LNG transport.



2. TSG RECENT ACTIVITIES ON ENVIRONMENT

ENVIRONMENT IS THE 2ND TOPIC ON OUR AGENDA

2.1 Guidelines to manage Methane emissions (Pilot: Gate):

- TSG developed a generic document giving a methodology to reduce emissions:
 - No absolute target (because of the disparity of the terminals);
 - Propose a systematic approach to record/prove that we are making progress:
 - 1. Define the base line (Identify all sources / Estimate or measure the emissions..);
 - 2. Define a road map to reduce the emissions (planning, priorities, sequence of activities);
 - 3. On site works (Maintenance, LDAR campaigns..);
 - 4. Monitor the progress and take the corrective actions if required.

→ *Document published in Feb 2022.*

2.2 Other works on emissions :

- Updating the GIIGNL position paper listing qualitatively all emissions from regas terminals;
- Launching a new working group on CO₂ emissions (Pilot: Dunkerque LNG) :
 - Questionnaire: general survey of the CO₂ emissions from the regasification terminals
 - Case studies implemented to reduce GHG emissions (H₂ for flare pilot, reduce electrical consumption, cold synergy..)

2.3 Close contact with the other gas organisations working on the same subject (GIE, SIGTTO, SGI/SGMF..)



2019

GIIGNL

**Methane Emissions Management
LNG Terminals**

Recommended Practice



3. TSG RECENT ACTIVITIES ON HSE / O&M

HEALTH & SAFETY + O&M ARE THE 3RD TOPICS ON OUR AGENDA

3.1 HSE exchange between members:

Some recent topics:

- ✦ Covid: What are we keeping as good practice for the future? (Working Group lead by SEMPRA;
- ✦ Technologies to reduce leaking flanges ;
- ✦ High Potential HSE incident on falling pieces from (un)loading LNG arms.

3.2 Operational and Maintenance exchanges between members :

Some recent topics :

- ✦ Composition problems on LNG ships and regasification terminals (N2, C6+..) ;
- ✦ Procedures for Safety Valves (re)calibration;
- ✦ Single Point of Failure analysis;
- ✦ Upgrades of old pump electrical feed-through;
- ✦ ..etc

→ Results of the TSG surveys are available on the member area of the GIIGNL website



4. TSG RECENT WORKS ON PUBLICATIONS

One new LNG information paper (pilot : BP)

- General paper on Small Scale LNG → Published in Dec 22 ([link](#))

Lessons learned from the Pandemic in LNG Terminals (Sempra):

- List of the lessons learned from Covid
 - Presented in Vancouver in LNG2023 in July
 - Will be published soon

+ Systematic review of returns/comments on TSG publications:

- Do we need to update / Modify / Improve clarity?
- Do we need to add new technologies / practices?
- Do we need to cover small scale LNG facilities (pressurised tanks, satellite or refilling stations ?)
- Etc..



CONTENTS		INTRODUCTION
Introduction	01	Retail LNG (Small-scale LNG) refers to a range of LNG production, transportation and consumption activities that take place at a smaller scale than in the traditional "wholesale" value chain. Retail LNG has its own, distinct end users, infrastructure and market dynamics.
LNG Storage	02	
LNG Transfer	02	
LNG Transportation	03	
End Users	03	
Key Points & Conclusions	04	Retail LNG value chains typically follow the same "Hub and spoke" model as those of the conventional large-scale business, with a central facility serving multiple customers (see Information Paper No.2). However, there is a much greater focus on end-users. For Retail LNG,

3/31/2023

Technical Study

Lessons Learned from Pandemic in LNG Terminals -

A general overview



Table of Contents

5. NEW SUBJECTS FOR T.S.G.

Currently on the table :

- › Update of the LNG composition documents, with guidelines on C6+ and Nitrogen ;
(*joint effort TSG & CSG*) ;
- › Potential Roll-over in FSU/FSRU (Pilot : Shell) ;
- › Position paper on new gases ;
- › Synergies between LNG and LCO2 terminals (Pilot Total).

ANY OTHER (technical) SUBJECT TO PROPOSE ? → Contact central office



THANK YOU
Paul-Emmanuel Decroes

