

EGAS C Report – Statistics 2014

on European Gas Safety ***Part C: Gas Installations***

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Introduction

Utilisation of large quantities of natural gas in Industry as well as in commercial, domestic and traffic applications is ranked as very safe among industry experts.

Nevertheless, the public awareness and the media are more focused on spectacular accidents than on safety records or statistical values. But rational discussion about safety and risk in the gas installations is only possible if it is based on unbiased facts and figures.

Furthermore, the Gas Industry itself wants to show its safety record and wants to identify its own weak points to be able to allow for risk-oriented and economical improvements.

Therefore, in 1995 nine major Gas Companies and National Industry Associations began to gather data on gas-related accidents in their Countries. Collection of data, exchange of views and development of improving measures was formalised by setting up the ETPS (European Third Party Safety) group.

In 2005 this ETPS group joined MARCOGAZ to allow for a broader data base in new European Countries and above all to allow for a better communication of the safety performance of the European Natural Gas Industry.

In 2008 MARCOGAZ, taking into account the unbundling of Companies, decided to split ETPS into two specific groups, ensuring thus a more accurate and reliable data collection:

- "Gas **Distribution**" under the designation **EGAS B**,
- "Gas **Installations**" under the designation **EGAS C**,

This report gives an overview on the EGAS C data base and on the main analyses and results in a statistical way, shown in tables and different graphs. Some conclusions at the end aim at easier understanding of the statistical findings. The indicated parameters represent a set of safety performance indicators used in the European Natural Gas Industry.

Statistics in this report concern only domestic, residential, commercial and tertiary installations.

EGAS C - Data Base and Definitions

Period: **1995 - 2014**

Number of contributing Countries: **8**

YEAR 2014: representing a total number of approximately **86 million** connected customers of and a total length of gas distribution mains of around **1.340.000 km**

Participating countries in the MARCOGAZ EGAS C group for 2014:

- Finland
- France
- Germany
- Great Britain
- Italy
- (The) Netherlands
- Slovakia
- Spain

Table C1 **EGAS C general information**

Note: *the statistics of 2003 are no longer included since the data collection had not been completed.*

Gas installations: Gas pipeworks (pipes and fittings) and gas appliances (including flue systems) situated after the point of delivery. Such installations are normally under the responsibility of the customer.

Accident - An unintentional event, related to natural gas, which has caused physical injuries or fatalities or big material damage.

Injury - Injury, as a consequence of a natural gas accident that needs a hospitalization of at least one night.

Fatality - Death, as a consequence of a natural gas accident immediately or within 30 days of the event.

Customer - Person under contract for the supply of gas

Table C2 **Definitions for the EGAS C data base**

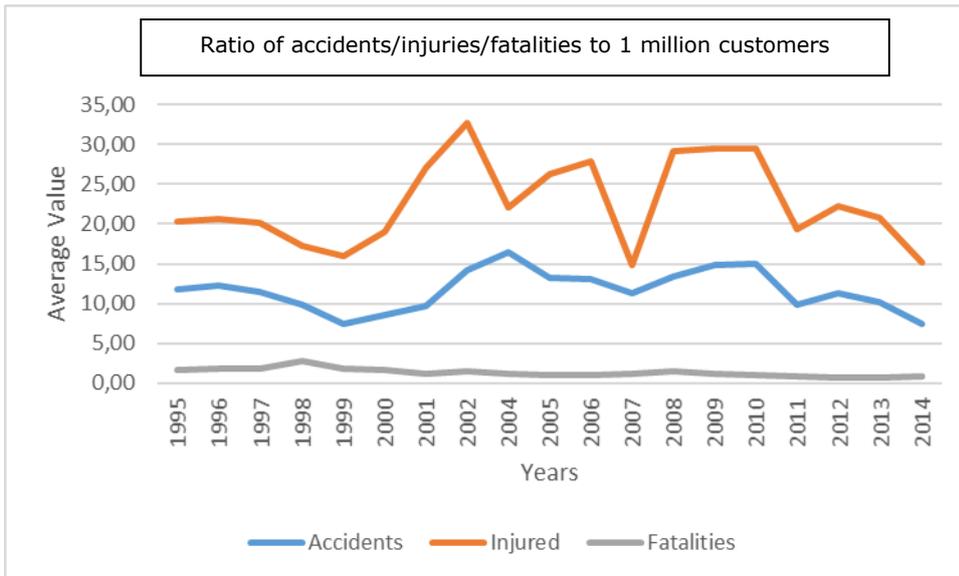


Fig. C1 illustrates the ratio of accidents/injuries/fatalities to 1 million customers for each year from 1995 to 2014 – AVERAGE FATALITIES IN 2014: 0.77 per 1 million Customers

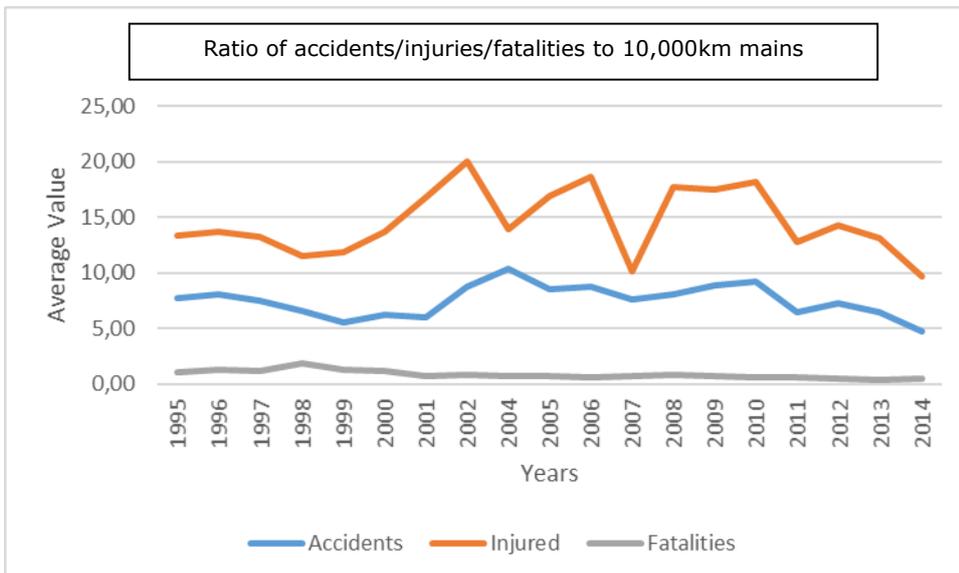


Fig. C2 illustrates the ratio of accidents/injuries/fatalities to 10,000 km length of gas distribution mains for each year from 1995 to 2014 – AVERAGE FATALITIES IN 2014 : 0,49 per 10,000 km of mains

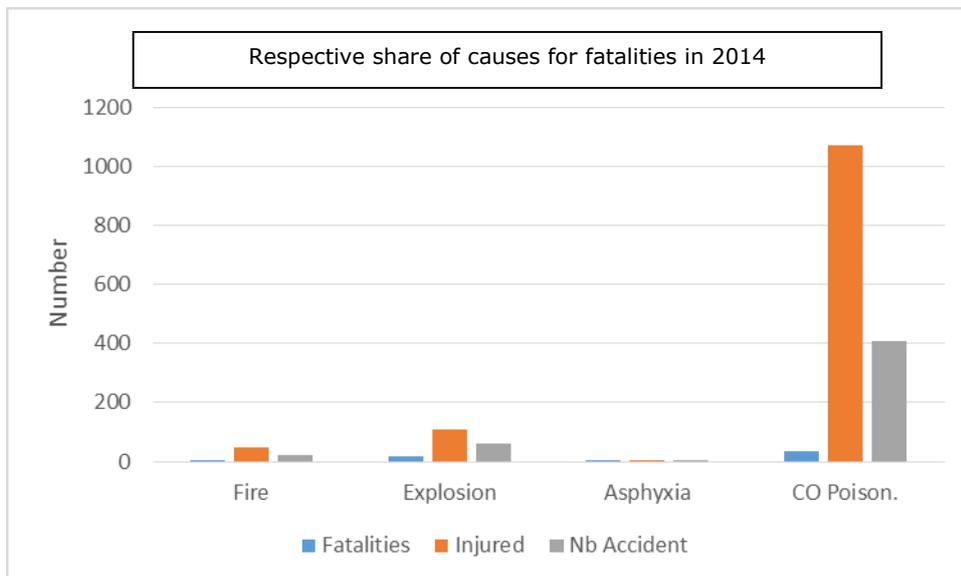


Fig. C5 CO Poisoning remains the main cause of fatalities in 2014 (8 contributing Countries representing a total number of 86 million customers and a total length of gas distribution mains of 1.134.000 km).

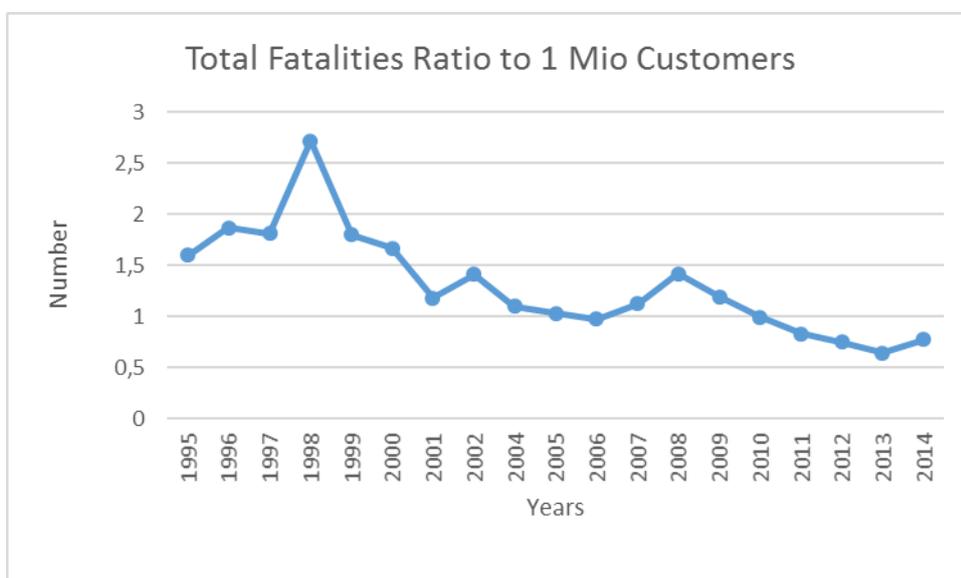


Fig. C6 illustrates the evolution of fatalities over the years

To note, as a supplementary information for 2014, 11 fatalities (16,6 % of the total) due to intentionally caused accidents (suicide, manipulation), then a rather high rate.

Conclusions

- A. The EGAS C data base proves clearly its statistical representativeness in the field of the European Natural Gas Installations, based on 8 Countries for 2014, representing appr. 86 million gas customers, and recorded since 1995 (with the exception of 2003, see note); In a general manner the diagrams display a decreasing trend of incidents/accidents, particularly the number of fatalities which is very low with a ratio of 0.77 per 1 Mio gas customers (see fig. C1) and 0.49 per 10,000 km of length of gas distribution mains (see fig. C2) for the year 2014.
- B. Regarding the causes (see Fig. C4), divided into FIRE, EXPLOSION, ASPHYXIA, and CO POISONING, the latter still represents the highest share for fatalities, however with clear downward trend. An increase in the explosions is noted, mostly due to intentional actions.
- C. The fatalities accounted by intentional acts (16.6 %) have sharply increased.
- D. Although the European Gas Industry can display excellent Safety Performance Indicators in the field of gas installations, it will keep up maintaining and improving technical measures towards gas safety.

NOTE

The information and data included in this document have been compiled by MARCOGAZ from a variety of sources from its Members. MARCOGAZ will not accept any liability for the data accuracy and completeness.

ANNEX

Collected 2014 data in the aggregate for the 8 participating Countries

	COUNTRY	8			
	YEAR	2014			
	Nb of Customers (excluded industrial)	85699900			
	Total Length of Distribution Mains	13404475			
		Nb OF ACCIDENTS WITH INJURIES AND FATALITIES	Nb OF INJURIES	Nb OF FATALITIES	
	EXPLOSION	59	108	17	
	FIRE	22	47	3	
	ASPHYXIA	6	2	1	
	CO Poisoning	406	1073	34	
INTENTIONAL				11	
TOTAL GAS RELATED		493	1230	66	

Accident - An event, related to natural gas, which has caused physical injuries or fatalities, or/and material damage. Causes are: fire or explosion or CO poisoning or asphyxiation.

Fatality - Death, as a consequence of a natural gas accident, immediately or within 30 days of the event.

Injury - Injury, as a consequence of a natural gas accident that needs a hospitalization of at least one night.