

EGAS C Report – Statistics 2011

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.

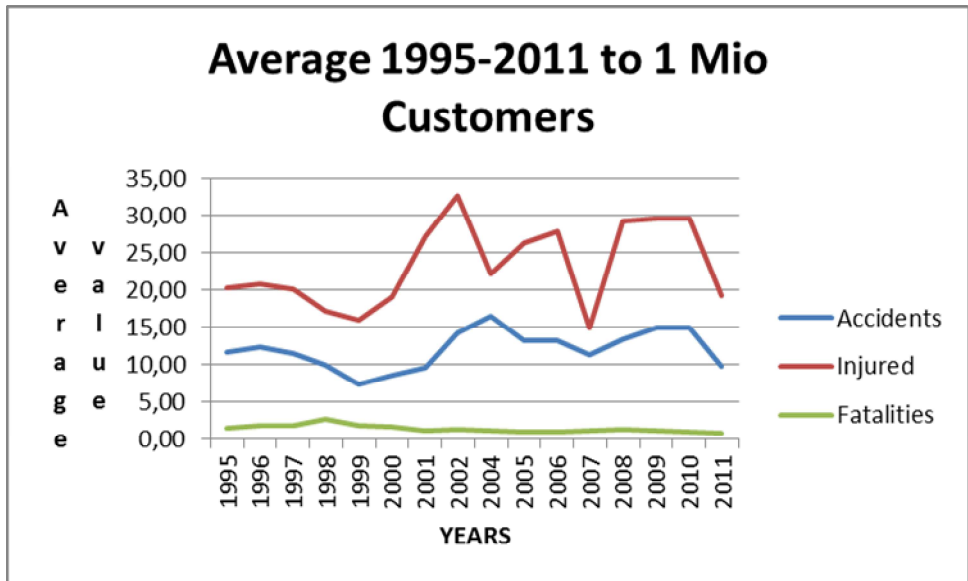


Fig. C1 illustrates the ratio of accidents/injuries/fatalities to 1 million customers for each year from 1995 to 2011 – **AVERAGE FATALITIES: 1,42 per 1 million Customers**

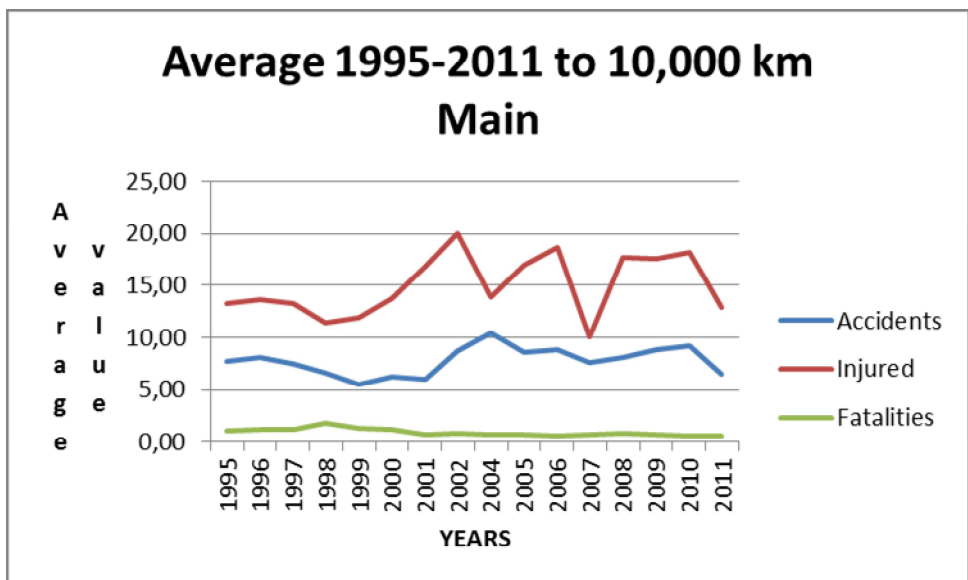


Fig. C2 illustrates the ratio of accidents/injuries/fatalities to 10,000 km length of gas distribution mains for each year from 1995 to 2011 – **AVERAGE FATALITIES: 0,93 per 10,000 km of mains**

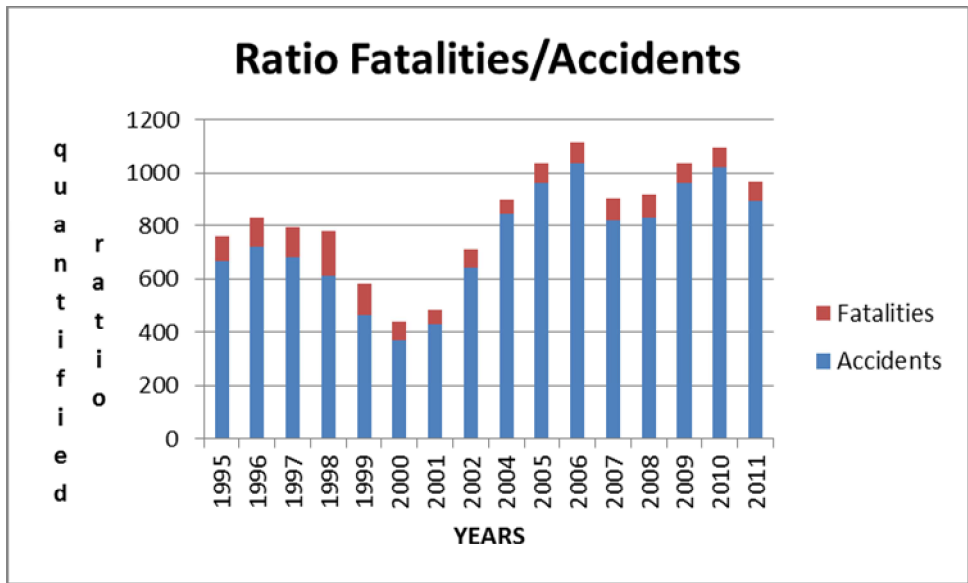


Fig. C.3 illustrates the proportion of fatalities to the number of accidents from 1995 to 2011.

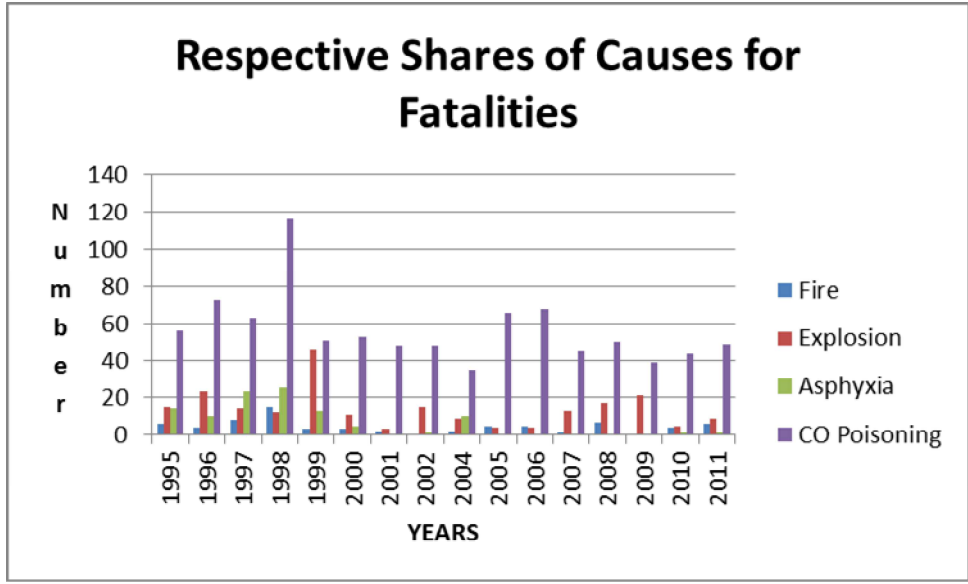


Fig. C4 illustrates the main causes of fatalities according to their respective shares from 1995 to 2011.

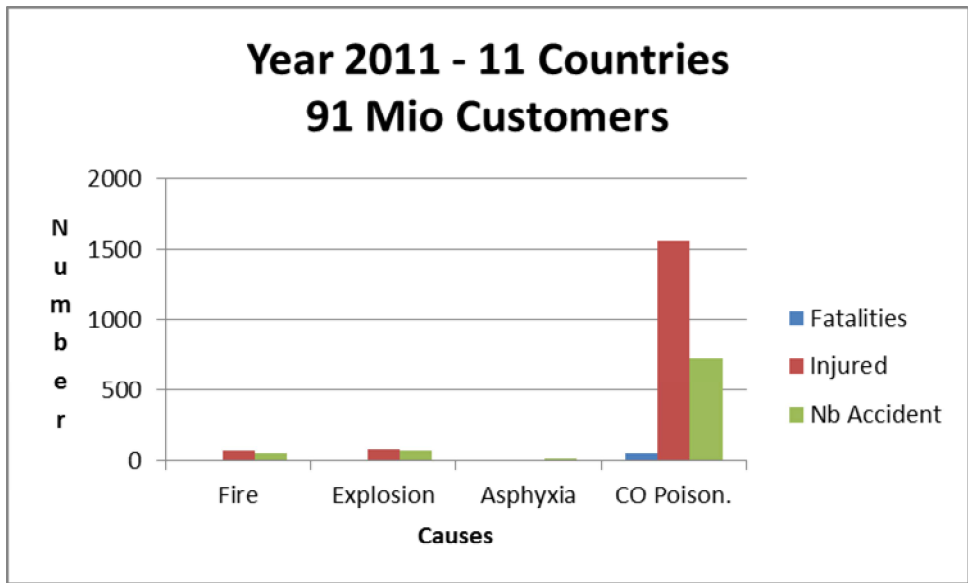


Fig. C5 illustrates the statistics 2011 in the aggregate for the 11 contributing Countries representing a total number of 91 million customers and a total length of gas distribution mains of 1.371.000 km.

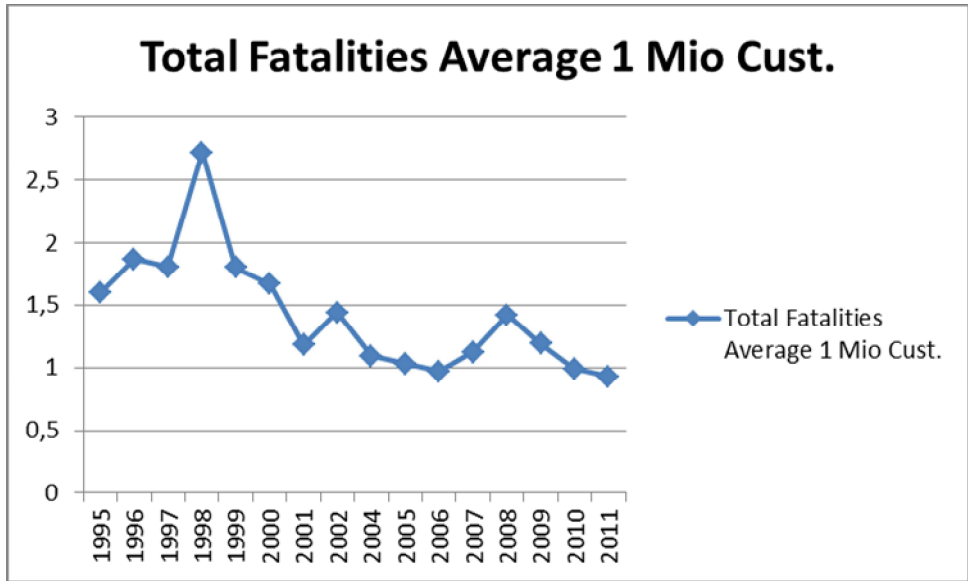


Fig. C6 illustrates the evolution of fatalities over the years (ratio to nb of customers)

To note, as a supplementary information for 2011, 11 fatalities on a total of 76 were due to intentionally caused accidents (suicide, manipulation)

Conclusions

- a) The EGAS C data base proves clearly its statistical representativeness in the field of the European Natural Gas Installations, based on ten Countries for 2011, representing appr. 91 million gas customers, and recorded since 1995 (with the exception of 2003, see note);
- b) In a general manner the diagrams display the continuing decrease of incidents/accidents, particularly the number of fatalities which is very low with an average frequency of 1.42 per 1 Mio gas customers (see fig. C1) and 0.93 per 10,000 km of length of gas distribution mains (see fig. C2) for the years 1995 – 2011; equally each accident causes few fatalities in comparison to the number of accidents (see Fig C3);
- c) Regarding the causes (see Fig. C4), divided into FIRE, EXPLOSION, ASPHYXIA, and CO POISONING, the latter remains the weakest point for which improvements are needed;
- d) The relative high cases of fatalities which are accounted by intentional acts (14,5%) has also to be considered. Consequently, Marcogaz members will place strongly incorporate this issue in their safety policy.
- e) 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 a safety level as high as possible.

NOTE

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