

Safety of gas plants

Country:	Italy
Level:	National
Topics addressed:	Public Policy, Legislation

Summary:

We have identified this specific case study, which is related to gas plants, because it is one of the most successful examples of a well-working and long-lasting synergy and partnership between legislation and standardization, since technical standards support law and, while keeping their voluntary status, they are able to provide a “co-regulation” tool which may turn out to be valid and relevant at national level, but, actually, at any level.

Background:

The gas sector has been covered by legislation in Italy for a long time, in particular by means of a specific Ministerial Decree: the DM 37/2008 (formerly Law n. 46/1990). Such a Decree clearly states that gas plants are to be designed and made “*according to the state-of-the art*” and “*they can comply with product and installation standards adopted both in the EU context (such as EN standards) and at national level through the standards issued by UNI, the National Standards Body*”.

The relevance of this statement actually lies in the provisions laid out in this Decree: this means that any gas plant may be in compliance with product standards and such a conformity automatically and accordingly guarantees any manufacturer, any installer and, of course, any user that they act respecting the law in force and the safety levels that the latter imposes and sets.

Such a mechanism has a twofold benefit. The first and most relevant is that the reference to the technical standards in force in this specific sector is the easiest and, at the same time, the most reliable way for the legislation to keep up with the technological evolution of this sector. Standards are actually submitted to a systematic revision, usually every five years, and this allows them to represent and mirror the current state-of-the art, which cannot be the same over time.

Should it not be in this way, the legislation itself should be called to be updated and to keep up with the technological evolutions and the changes occurring in any industrial society.

The second benefit is the help and the contribution given by the use and the reference to technical standards in the simplification of the legislative framework as a whole.

We remind that simplifying legislative processes and reducing bureaucratic burdens for citizens and enterprises is one of the goals of the European Commission and therefore this benefit is fully in line with communitary policies.

Strategy:

There are three main UNI standards covering gas sector and gas plants in particular.

The “milestone” is represented by the UNI 7129 “Gas plants for domestic use and alike fed by supply network – Design, installation and application”, which was issued for the first time in 1972 and has been constantly revised and updated, in accordance with the technological changes of this sector.

It covers gas plants having a thermal power not over 35 Kw, is divided into 5 specific parts and its last revision dates back to 2015. Each part of this standard is completed by a specific application manual aimed at installers, which offers very detailed instructions and guidance.

A few years ago, that is in 2014, just before the last revision of the standard mentioned above, UNI issued another relevant deliverable, that is the UNI 11528:2014 “Gas plants having a thermal power over 35 Kw – Design, installation and application”: this is, somehow, complementary to the UNI 7129 and filled a normative gap lasting for a quite long time.

This standard too is completed by an application manual, in support to all those involved in using and installing this kind of plants. It offers very detailed instructions and provisions about the location and the installation of the relevant equipment, the internal plant, the characteristics of the place they are installed in, the evacuation of the combustion products, the condensation drainage systems and the starting up of the plant.

The last standard worth being mentioned in this context is the UNI 8723:2017 “Safety provisions for professional hosting of communities and alike”, which sets out the criteria for the

design, the installation and the operation of plants built and aimed at this kind of framework.

Results and Impact:

The systematic use and resort to standards in support of safety in the gas sector has given so far the following results and main benefits:

- Simplification of the legislative process
- Increased transparency in the preparation of documents and deliverables
- A fast and timely updating process of documents and deliverables
- Definition of rules shared with stakeholders
- Definition of a well-defined framework for the players in the supply chain
- Less disputes

Challenges and lessons learned:

An effective and efficient monitoring and checking system on site.

Potential for Replication:

This System is easy: it is about making a direct reference to specific technical standards or mentioning them as a way to meet legislative requirements (that is, the plants manufactured in compliance and conformity with standards are meant to be made according to the state-of-the art). For this reason, we believe that such a System may be replicated in other countries.

Contact Name: Paola Traviani

Organization: UNI