

Introduction

This report is compiled on the basis of the responses received to a questionnaire sent to countries by the UNECE Working Party on Regulatory Cooperation and Standardization Policies (WP.6). The conclusions are based on the common elements of the responses received.

The report also includes a draft recommendation for consideration and comments by the WP.6 Sectoral Group on Explosive Atmospheres at its 27 May 2009 meeting in Stockholm and subsequently to all the Group's members by email. The final report will then be submitted for approval at the September 2009 meeting in Melbourne.

Background

The Working Party at its seventeenth session established a task force, which it mandated it to prepare a comparison table detailing the different regulatory approaches used in various markets, based on information collected through a questionnaire.

Replies to the questionnaire were circulated to member States for the Working Party's annual session in 2008 and are available at:

www.unece.org/trade/wp6/documents/2008/WP6_2008_003a1e.pdf

CONCLUSIONS

1. Regulations governing explosive atmospheres?

Many countries have regulations covering either the sale of explosive equipment or installations associated with it or both. Although the format of regulations may differ, the common approach is to have a governing body oversee the development and maintenance of such regulations.

2. Standards

Standards on equipment for use in explosive environments have a long history. While originating as national and regional standards, more recent times have seen greater use of International Electrotechnical Commission (IEC) standards by countries. This trend is poised to continue, as the operation of the industry becomes increasingly global. The IEC standards are used at different levels, either in full, without any variation, or in part, with supplementary requirements contained in national standards¹.

Countries use standards in their regulations in different ways, including:

- By making standards mandatory through a legislative act;
- By making compliance with the standards a means of proving compliance with the essential health and safety requirements laid out in the legislation: under this approach, equipment which complies with the provisions of the standards is "deemed to comply" with the requirements specified in the regulations.

¹ The IEC Technical Committee responsible for preparing and maintaining the suite of IEC Ex related Standards, TC 31, has seen an increase in participation to reach a total of 44 Countries as of April 2009), either participating or observing, as well as an increase in coverage. The scheme now also develops standards covering non electrical equipment (mechanical). Ref: www.iec.ch.

3. Conformity assessment procedures

In general, countries that have regulations and standards also have conformity-assessment procedures. Some countries and industries have conformity-assessment procedures which are conducted by the country's regulator. However, this is generally limited to specific sectors and the practice is being reduced and replaced by structured independent third-party conformity assessment. Whereas the actual procedures of the various conformity-assessment systems may vary, all of them:

- Rely on independent third-party certification processes;
- Use international standards for conformity assessment, and for the accreditation of conformity assessment bodies e.g. ISO/IEC 17025 and Guide 65;
- Have conformity assessment bodies assessed by specialized bodies. These are generally government authorities or accreditation bodies that are members of international forums such as ILAC (International Laboratory Accreditation Cooperation) or IAF (International Accreditation Forum);
- Incorporate market surveillance systems, via either ISO System No.5 product certification schemes - such as IECEx - or via government regulatory schemes;
- Use the International IECEx Certification Scheme either for direct market acceptance of products carrying IECEx Certification or use IECEx testing and assessments for issuing regional, national or local approval/certification, according to their own certification and conformity assessment procedures.

4. Repair, maintenance and servicing of equipment

Installation, maintenance and repair is generally under the responsibility of the owners of installations or of the users of the equipment. In general, countries have a framework regulation that requires owners of equipment and installations to ensure their safe maintenance. However, very few countries have formal approval or conformity-assessment procedures in place to qualify providers of such services.

International standards, such as IEC 60079-19, are used either in their entirety or else in part as a basis for establishing accepted practices for repairing and overhauling the equipment.

RECOMMENDATIONS

While many countries have a structured and formal approach to ensuring the safety of explosive equipment and installations, other countries do not yet have such systems in place owing to the lack of economic or technical resources. Therefore this report proposes recommendations on the following:

- A. Developing a regulatory framework in the sector of equipment for environments with explosive atmospheres**
- B. Assistance to developing and industrialising countries**
- C. Alignment of existing national/regional regulations**

A. Developing a regulatory framework

Countries wishing to develop a regulatory framework for the sector of equipment for environments with explosive atmospheres, particularly developing countries and countries with

economies in transition, are encouraged to build their system based on international standards, e.g. IEC / ISO and International Conformity Assessment, eg IECEX. They are in particular encouraged to participate in and make use of the activities of the IEC Technical Committee responsible for preparing and maintaining the suite of IEC explosives-related standards and international conformity assessment schemes such as IECEX.

B. Assistance to developing and industrializing countries

Work on the WP.6 sectoral initiative on explosive atmospheres has highlighted a need for information sharing with developing and industrializing countries to:

- Increase their awareness of existing international standards and systems.
- Assist with their internal systems for formally adopting international standards and systems, such as IEC and ISO Standards and IECEX International Certification Schemes.

C. Recommendation for alignment of existing national / regional regulations

To promote the transfer of technologies and prevention of duplication, existing regulations and technical infrastructures should be reviewed where necessary with a view to aligning them with the accepted international practices reflected in standards and conformity assessment practices. e.g. ISO / IEC Standards and IECEX Certification Schemes covering

- Equipment
- Services
- Personnel