Sector Initiative on Equipment for Explosive Environments (SIEEE)



Status Report:

- 1. Kick off meeting 2007 in Geneva Presentations of the various systems, Questionnaire
- 2. 2008 in Paris
 Discussions of the answers of the Questionnaire
- 3. 2008 in Geneva Preparation of the Terms of Reference
- 4. 2009 in Stockholm Discussions about the approach of the CRO
- 5. 2009 in Melbourne Preparation of the CRO (proposal)



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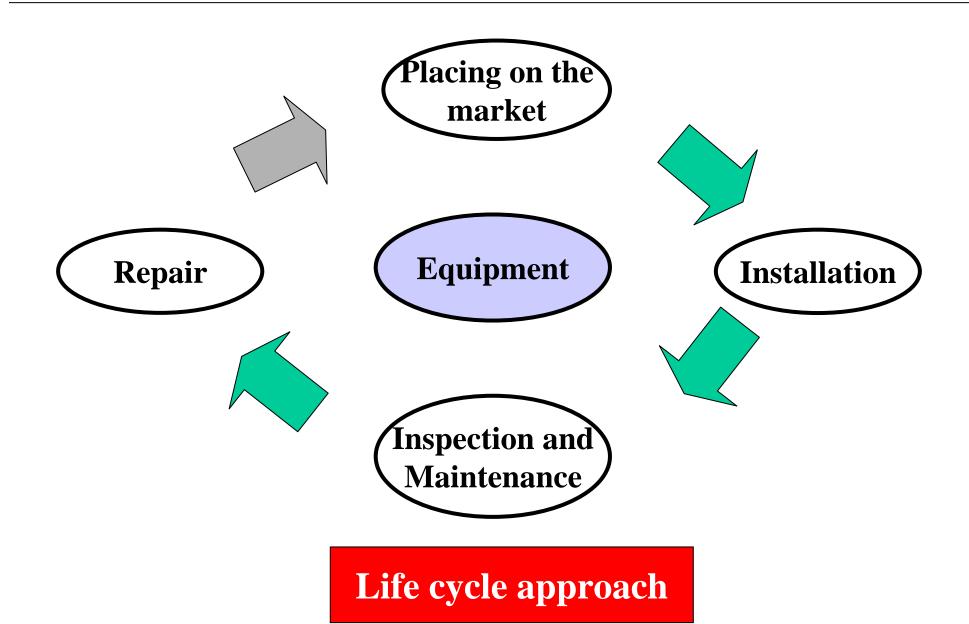
Nineteenth session Geneva, 24-26 November 2009 Item 6 (b) of the provisional agenda

REGULATORY COOPERATION

SECTORAL PROJECTS

Progress report on the Sectoral Initiative on Explosive Environments Equipment







- » Recommendation L (ECE/TRADE/378 UNECE Recommendation on Standardization Policies)
- » Reference to international standards and conformity assessment procedures developed by IEC and ISO
- » Electrical and mechanical equipment requirements for being placed on the market, for the safe installation and use in the workplace
- » Zone-Concept: Hazardous location with high, middle and low risk
- » Life-cycle approach: inspection, maintenance and repair
- » International recognized certification scheme, like IECEx
- » Market surveillance activities as an essential element



- » Elimination of possible ignition sources in accordance to intended use of the equipment, typical ignition sources are:
 - » Hot surfaces
 - » Electrical sparks
 - » Mechanical sparks
 - » Electrostatic
- » Validated protection concepts ("Types of Protection") have to be applied
- » Instructions (manual) about the intended use, installation and repair
- » Conformity assessment procedure in accordance to an international certification scheme such as IECEx (IECEx procedure can be seen as a reference)



- » Classification of the substances in accordance to:
 - » Ignition Temperature
 - » Explosions Groups (Ignition Energy)
- » IEC-Zone Classification Concept (Zones for Gas and Dust) with the applicable Equipment Protection Levels
- » The equipment and its installation need to be inspected and maintained
- » Requirements for the competency of personnel (selection, installation, use of the equipment)
- » Requirements for service facilities (e.g. repair workshops)
- » The Explosion risk assessment of an individual plant needs to be documented in the "Explosion Protection Document"



- » Accepted Standards (ISO/IEC) are listed in an annex to the regulation
- » The standards has to be accepted by a Standard Acceptance Group
- » After the acceptance the Standards can be applied by manufacturers and end users to show compliance with the regulation
- » All countries which have implemented the Regulation enjoy the advantages like barrier free trade of explosion protected equipment and equal conditions for operating a plant bearing explosion risks



- » The accreditation body has to be a member of ILAC/IAF
- » The accreditation of
 - » Conformity Assessment Bodies
 - » Test Laboratories has to follow the applicable ISO/IEC-Standards
- » Certificates have to be in line with ISO Type 5 requirements
- » Procedures and Rules of the IEC Conformity Assessment System IECEx is to take as a reference for conformity assessment



- » An Explosion Protection Steering Committee is to formed and operated under the umbrella of UNECE WP.6 (ExSC) to monitor the application experiences
- » All member having implemented the regulations can participate in the Explosion Steering Committee (ExSC)
- » ExSC notifies the members of the Standard Acceptance Group
- » Observers like
 - » Standardization Organization (IEC/ISO)
 - » Market Surveillance
 - » IECEx

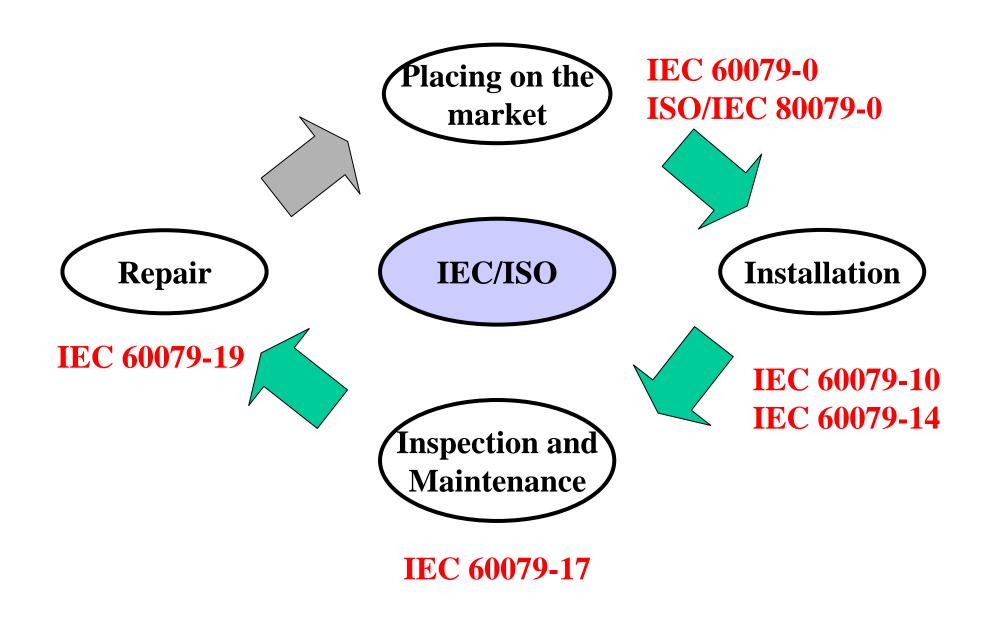
are also invited to attend the meetings



- » A Market Surveillance network specialized in Ex-Equipment is to be formed and operated (UNECE-ExMars)
- » For critical non-conformance of Ex-Equipment an Alert-System is necessary

Principal Approach of the CRO Reference to Standards





Principal Approach of the CRO Reference to Standards





Production

ISO/IEC 17025

IECEx 02

ISO/IEC 17021



IEC ISO IECEx

Service

ISO Guide 65 [ISO/IEC 17065] IECEx 02

Personnel Competency IECEx 03

ISO/IEC 17024 IECEx 05

- » Call for comments in accordance to the proposal of the Common Regulatory Objectives (CRO)
- » in doing this members should involve national groups of stakeholders (especially in industry) properly
- » if there is a need to get deeper information (e.g. by a workshop) on national level SIEEE officers are happy to give assistance (training courses for regulators)
- » next Sector Project Meeting August 2010 in Berlin parallel to the IECEx-meeting