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**ECONOMIC COMMISSION FOR EUROPE**

COMMITTEE ON TRADE

Working Party on Regulatory Cooperation and  
Standardization Policies

Seventeenth session  
Geneva, 5-7 November 2007  
Item 6 (b) of the provisional agenda

REGULATORY COOPERATION

Proposal on a sectoral project on equipment for explosive environments

Follow-up report from the Government of Germany

At its sixteenth session, the Working Party launched a project on equipment for explosive environments. The Team of Specialists on **ST**andardization **And** **R**egulatory **T**echniques (“START” Team), at its meeting in March 2007, agreed to establish a task force to pursue the regulatory discussions further.

This follow-up report from the Government of Germany on a proposal for equipment for explosive environments is transmitted to the Working Party for information and approval.

During the seventeenth session, a parallel special break-out session will be held on 6 November to discuss regulatory approaches and experiences in Europe (European Union and Commonwealth of Independent States), North America, Latin America and Asia, and on the possibilities for dialogue on regulatory convergence in equipment for explosive environments.

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## I. GENERAL SITUATION IN THE AREA OF EQUIPMENT FOR EXPLOSIVE ENVIRONMENTS

1. In the petrochemical industry all over the world explosive environments can develop during the production process. The equipment, therefore, has to meet special requirements for a high level of safety to protect workers and the environment. Companies have to comply with national regulations and legislation.
2. The equipment for explosive environments has to be certified by a third party in accordance with safety requirements. The manufacturers have to demonstrate and describe the safe use of the equipment. The requirements are specified in national or international standards. The IEC/ISO standards are now accepted worldwide and are increasingly superseding national standards.
3. Certification of equipment has to be done by accredited national test houses (Certification bodies). The national authorities take full responsibility for the accreditation of these test houses. The different markets, including the European Union, North and South America, China, Russia and the Middle East, have similar regulations to protect workers and the environment.
4. One global voluntary approach for certification of equipment for explosive environments is the IECEx-Scheme (International Trade of Electrical Equipment used in Explosive Atmospheres). IECEx was founded in 1996 and the first round of peer assessments and the development of operational rules came out in the period from 1997 to 1999. One idea was to bring the test houses of the different countries together to discuss safety issues for the products and the interpretation of the standards. An IECEx Internet-based "online" Certificate took place in 2003, with global access for all interested groups. About 30 Ex-Certification bodies are currently participating in the scheme.

## II. BACKGROUND TO THE PROPOSAL FOR EQUIPMENT FOR EXPLOSIVE ENVIRONMENTS

5. The manufacturers of equipment for explosive environments are acting as global players. They therefore want to sell and manufacture their products in accordance with global rather than national standards. Their major concerns are the double testing of the products with the same requirements and formal restrictions to place the product on the market. Different interpretations of the standards can introduce additional or fewer requirements for the product, which goes against the principle of fair trade.
6. The petrochemical industry also acts more and more globally, with a single plant-engineering approach to gain savings of engineering, installation and maintenance costs. They want to buy the equipment in larger quantities to get a better price per piece and to reduce the management costs. Additional benefits come from global competition. The most important element is to attain the same high level of safety for the products of the different manufacturers. They see a need for an international quality level for the test houses.

7. As an export-orientated country, Germany has an interest in reducing the barriers against free and fair trade. The IECEx-Scheme was discussed by a German technical advisory board (TBKON) and the Federal Ministry proposed the approach for this sectoral project under the UNECE Working Party on Regulatory Cooperation and Standardization (WP.6). In 2005, during the fifteenth session of the Working Party, Germany announced a proposal to consider an additional sectoral project in the area of equipment for use in an explosive atmosphere. At the sixteenth session, a new project proposal was presented in the form of a paper and a presentation. At the “START Team” meeting in March 2007, this proposal was accepted.

8. The “START” Team proposed that during the seventeenth session of the Working Party a break-out session should be held on equipment for explosive environments. The joint invitation from the UNECE secretariat and the Government of Germany can be downloaded at [http://www.unece.org/trade/wp6/other\\_events/seminar\\_07/UNECE-Invitation.doc](http://www.unece.org/trade/wp6/other_events/seminar_07/UNECE-Invitation.doc)

9. The members of the International Trade of Electrical Equipment used in Explosive Atmospheres (IECEx) welcomed the German proposal and have established a working group to support the proposal. The chairman is Dr. Uwe Klausmeyer. The members of the IECEx-Scheme contacted their national regulators and informed them about the proposal.

10. Germany introduced the proposal during the last meeting of the Standing Committee of the European Commission in Brussels. The Commission took note of the proposal and indicated its intention to participate.

11. The next steps during the break-out session are an exchange of experiences among the regulators. Presentations will be given by the European Union (EU), North America (United States and Canada), the Russian Federation, China and Brazil demonstrating characteristics of their national regulations for explosion protection. At the beginning of the break-out session, the Chairman of WP.6, Christer Arvius, will present the regulatory approaches of the UNECE Working Party. The working group will contact the regulators of the five countries to invite them. A question list will be prepared as a guide for the presentation to ensure that the major topics will be presented so as to initiate further discussions.

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