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## Economic Commission for Europe

Steering Committee on Trade Capacity and Standards

### Working Party on Regulatory Cooperation and Standardization Policies

#### Twenty-fifth session

Geneva, 2 (pm) - 3 December 2015

Item 6(c) of the provisional agenda

#### International regulatory cooperation

## Progress report on the sectoral initiative on Equipment for Explosive Environments (SIEEE)<sup>1</sup>

Submitted by the Rapporteur

### *Summary*

Facilities such as mines, refineries, chemical plants and mills expose their workers and the surrounding environment to high risks. To minimize these risks and contain their potential consequences, all equipment used in these environments needs to be designed, installed, maintained and repaired in such a way as to avoid the risk of explosions. The goal of the Sectoral Initiative is to promote and increase safety, while at the same time eliminating barriers to the free trade and use of the equipment.

This document contains a status update on the Initiative. It is submitted to the Working Party for discussion and adoption.

## I. Project objective and key deliverables

1. Over the last few years, accidents and explosions in mines and offshore facilities throughout the world have cost many lives and caused unprecedented environmental damage. This highlights the urgent need to increase safety in all environments that expose

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<sup>1</sup> At its eighteenth session, the Working Party asked the secretariat to provide annual updates on the work of all the sectoral initiatives (ECE/TRADE/C/WP.6/2008/18, para. 63).

workers and the surrounding areas to high risk. The equipment used in these environments should be made as safe as possible to minimize the risk of explosions and to contain their potential consequences.

2. Such equipment is highly sophisticated. Checking that it conforms to international best practice and current regulations is a complex task, even for those regulatory authorities who have substantial resources and modern equipment at their disposal.
3. Regulators therefore need to cooperate closely with the industry and independent third-party conformity-assessment bodies, since it is in these two communities that expertise is continuously being updated in accordance with technological progress.
4. The main goal of the Sectoral Initiative on Explosive Environments Equipment is to promote and enhance safety, while at the same time eliminating barriers to the free trade and use of the equipment.
5. Specifically, the purpose of the Sectoral Initiative is to develop and promote a common regulatory framework for the “Equipment for Explosive Environments” sector. The framework includes not only common regulations, but also common and agreed conformity-assessment practices and market-surveillance procedures. As it is based on a shared understanding of the regulatory objectives to be pursued, it will be referred to in the text as “common regulatory objectives” (CROs).

## **II. Main achievements of the Initiative until 2014**

6. At its twentieth session, in 2010, the Working Party approved a revised version of the CROs. This version was published in a bound brochure thanks to support in kind from the International Electrotechnical Commission. The brochure—which can be downloaded from the UNECE and on the IEC websites – was launched by the two organizations in April 2011 (see press release: [http://live.unece.org/press/pr2009/09trade\\_p11e.html](http://live.unece.org/press/pr2009/09trade_p11e.html)).
7. Translation of the Common Regulatory Objectives into Arabic, Chinese, French Portuguese, Russian and Spanish were made available by the International Electrotechnical Commission in 2013 and are available on the WP. 6 website: [http://www.unece.org/fileadmin/DAM/trade/wp6/SectoralInitiatives/EquipmentForExplosiveEnvironment/SIEEE\\_CRO\\_ENG.pdf](http://www.unece.org/fileadmin/DAM/trade/wp6/SectoralInitiatives/EquipmentForExplosiveEnvironment/SIEEE_CRO_ENG.pdf)
8. Additionally, in 2011, the Sectoral Initiative prepared guidelines for market surveillance authorities responsible for equipment used in Explosive Environments (Hazardous Locations). The guidelines are also available on the WP. 6 website [http://www.unece.org/fileadmin/DAM/trade/wp6/SectoralInitiatives/EquipmentForExplosiveEnvironment/SIEEE\\_Guidelines\\_ENG.pdf](http://www.unece.org/fileadmin/DAM/trade/wp6/SectoralInitiatives/EquipmentForExplosiveEnvironment/SIEEE_Guidelines_ENG.pdf)). They will be further discussed and approved to form part of a revised version of the CROs.
9. Reference materials prepared previously by the Sectoral Initiative are:
  - (a) a compilation of the legal framework in force in this sector on the world main markets in the sector Explosive Environments, available as an annex to document ECE/TRADE/C/WP.6/2009/6, and posted on the website: [http://www.unece.org/fileadmin/DAM/trade/wp6/documents/2009/wp6\\_09\\_006E.pdf](http://www.unece.org/fileadmin/DAM/trade/wp6/documents/2009/wp6_09_006E.pdf)
  - (b) a project proposal for organizing capacity-building events worldwide to raise awareness by regulators of the high risks and challenges that are inherent to the sector, and highlighting best practice in industry, standardization and certification bodies. The project proposal is available as an annex to ECE/TRADE/C/WP.6/2010/12, available at [http://www.unece.org/fileadmin/DAM/trade/wp6/documents/2010/wp6\\_10\\_012e.pdf](http://www.unece.org/fileadmin/DAM/trade/wp6/documents/2010/wp6_10_012e.pdf)

(c) an update of the Questionnaire, about the regulations and procedures about the equipment in explosive environments of various countries undertaken by the project team in 2013 and also available at <http://www.unece.org/trade/wp6/sectoralinitiatives/equipmentforexplosiveenvironment/sieee.html>.

### **III. Meetings and awareness-raising activities in 2015**

10. In April 2015, IECEx and UNECE co-organized an International Conference in Gdansk, Poland aimed at promoting the UNECE regulatory framework to regulators from the region. The event attracted 150 participants from twenty European countries and a delegation representing the Russian Federation.

11. At the Workshop the Coordinator of the Sectoral Initiative presented the Common Regulatory Framework for the Ex Equipment industry. The comprehensive approach of UNECE Model L Regulation was discussed as the basis for global rules for this important sector.

12. In his presentation, the Coordinator explained the respective responsibilities of the regulatory authority, the manufacturer, the certification body, the operator and the market surveillance body. He stressed that a well-functioning system must be based on trust, and a solid surveillance system was therefore necessary. He then introduced a draft procedure for market surveillance in the Ex Sector – focussing on the definition of an independent certification body – which needed to be part of the regulatory framework for the Ex sector. An arbitration board and an alert system might provide additional support.

13. Additionally the importance of service activities in the Ex-field and the competence of test laboratories were discussed. Specifically the qualification of the persons acting in the field needs to be defined and guaranteed, to facilitate acceptance by the regulatory body. A proficiency testing program for the testing laboratories can increase the level of safety of the products and competence of the testing people.

14. Parallel to the conference a meeting between the Coordinator of the Sectoral Initiative, the Secretary of IECEx and the Russian deligation took place. The meeting concluded that it was necessary: to update the UNECE Common Regulatory Objectives and to develop in further detail procedures for the practical application of the CROs so that regulators can more readily understand and implement them. The principle structure of the CRO should be retained that the countries using the approach within their regulation can recover it. A first draft of the revised CROs has been made available by the Coordinator of the initiative and is available on the UNECE website for further comments at the address: <http://www.unece.org/trade/wp6/sectoralinitiatives/equipmentforexplosiveenvironment/sieee.html>

15. The representative of the European Commission stated that they will continue to attentively follow-up the sectorial activities developed by UNECE and the IECEx system with their meetings and documents, as well as with systematic reports at the meetings of the ATEX working parties (Committee, Working Group, etc.) and the related communication resources (EUROPA website, CIRCABC system).

16. The next joint UNECE-IECEx Workshop is planned for Spring 2016, in India.

### **IV. Deliverables for the annual session**

17. The main outcome of the work of the Initiative in 2015 was the promotion of the common regulatory framework to counterparts, within the UNECE region as well as

globally and an update of the CRO to develop in further detail procedures for the practical application.

18. The Working Party is invited to further discuss how to promote increased convergence in the regulatory frameworks applied in this sector, using the CROs prepared by the Sectoral Initiative.

## **V. Responsibility for the continuation of the work**

19. The current Coordinator of the Sectoral Initiative is Mr. Frank Lienesch.

## **VI. Role of the secretariat**

20. The secretariat will continue supporting the work of the Initiative by trying to raise funds for the proposed project, servicing its meetings (prepare the invitations, agendas, preparing supporting documents and reports) and keeping the website up to date. The secretariat could assist the Convener in maintaining and developing contacts with the counterparts of the Initiative in national Governments and regional groups.

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