Revision process of EN 45545

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Materials used in the presentation:

- Keith Rose - *Kick off meeting WG 1 Fire Protection*, 1.04.14, Brussels,

- Serge Metral - *EN TC256 WG1 Kick-off Meeting*, 1.04.14, Brussels,
1. Introduction
2. EN 45545 – Big challenge
3. CEN/CENELEC
4. CEN TC256 WG1
5. Conclusions
Standardization process (which ended in March 2013) of the standard EN 45545 establishing lasted 22 years and was one of the longest in the history of the CEN / CENELEC. The difficulties were caused by the following reasons:

- different countries use different technological solutions in production, as well as different principles of operation and maintenance of rolling stock,
- in various countries dominated fires resulted from different reasons (e.g., failure in the brake or heating systems, short circuits in electrical installation, arson, etc.) what caused the development of a variety of test methods in order to recreate potential ignition sources in the laboratory,
- different countries have been developed various methods of testing and various classification systems as well as methods for assessing the level of fire risk,
- the development of solutions design and construction vehicles is all the time followed by introduction of new materials (e.g. policarbonates).
EN 45545 – BIG CHALLENGE

Why we need EN standard?

- European Rail Market – the same approach and one kind of tests in all Europe,
- European interoperability network – one safety rules in all Europe.

What requirements do we need?

- ensuring the necessary level of fire safety,
- adequate to hazard level taking into account the type of vehicle and the kind and location of the equipment items.
Each country has one member in each standardizing body (usually it is the national standardization organization).

All bodies, such as the general assembly, political and technical management committees, and standards committees, are open to all members.

Affiliated standardization bodies and associated organizations have observer status.

The CEN/CENELEC national members shall ensure that the experts they nominate in a Working Group are aware of the CEN/CENELEC Internal Regulations and agree to contribute to the work of CEN/CENELEC in accordance therewith.
Objective:
Harmonization of national standards in all member states through uniform adoption of European Standards

Mission:
Lower trade barriers and create identical competitive conditions throughout the European Single Market
CEN/CENELEC - STANDSTILL POLICY

- During work on a European Standard, and after its publication, CEN/CENELEC members agree not to publish national standards which are not in line with it.

- This policy aims to prevent any situation occurring during preparation or after publication of a standard which could impair or undermine harmonization.
## CEN/CENELEC - STAGES OF EUROPEAN STANDARDS WORK

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<td>Preparation of the final draft</td>
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<td>Start of Formal Vote</td>
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<td>CCMC makes the final text available to NSBs for publication</td>
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RESOLUTIONS OF CEN TC256 PLENARY MEETING (13 of November, 2013)

- Resolution for reactivation of CEN TC256 WG1
- Resolution for the name of the convenor of this new group (Serge Metral, SNCF)
- Resolution for working in ‘Mode Four’ with CENELEC TC9X
- Following the presentation in Brussels last technical meeting of CEN TC256 and in Lisbon (last CENELEC TC9X meeting): starting the revision of parts 1, 2, 5 and 6 by amendments on comments proposed by the Survey Group
- Call for Experts for this new CEN TC256 WG1 for these amendments.
The EUROPEAN COMMISSION has set a high priority on the EN 45545 standard series.
The survey group of JWG had the task to sort the unresolved comments from formal vote enquiry (2012) and from TS->EN enquiry (2010).

The following outcome is proposed for the final set of standards:

- Revision of **EN 45545** Parts 1 to 7
- A new standard for seat testing
  - Developed from Annexes A, B and D of Part 2
  - The revised Part 2 will refer to this and the Annexes will be removed
- A new standard for smoke and toxicity testing
  - Developed from Annex C of Part 2 and TRANSFEU
  - The revised Part 2 will refer to this and the Annex will be removed
- A new standard for Fire Containment and Control Systems (FCCS)
  - After report of TC256 FCCS survey group
II\textsuperscript{nd} International Conference MODERN TRENDS OF FIRE PROTECTION IN ROLLING STOCK

Warsaw, 25 June 2014

CEN TC256 WG1 – PROPOSAL OF WORKING PROGRAM

Current situation

- EN45545-1
- EN45545-2
  - A
  - B
  - C
  - D
- EN45545-3
- EN45545-4
- EN45545-5
- EN45545-6
- EN45545-7

Target situation

- EN45545-1
- EN45545-2
- EN Seat
- EN Toxicity
- EN45545-3
- EN45545-4
- EN45545-5
- EN45545-6
- EN45545-7
- EN FCCS
The survey group of JWG had the task to sort comments from formal vote enquiry and from TS->EN enquiry not taken into account and it selects few of them.

For each selected comment, an analysis will be done and the result is one the third possibilities:

- Accepted with a proposal for amendment
- Not longer relevant because … (with a reason)
- To be studied and resolved during the next revision

Because the revision process will a few years, a few changes have to be done as soon as possible.

A small group of comments will therefore be proposed for immediate action by amendment according to the following criteria:

- Where on current projects the application of the standard makes contradictory demands
- Or
- The standard is now not in accordance with the TSI
CEN TC256 WG1 – WORK IN THREE STEPS

FIRST STEP

- Amendment of Parts 2 and 5
  - EN45545-2 should be amended for few comments on the main text
  - EN45545-5 should be modified by an amendment for the batteries.
- EN45545-1, EN45545-3, EN45545-4, EN45545-6 and EN45545-7, no relevant comments are identified to justify an immediate revision by amendment.
- 2 proposals of NWI to work only on selected comments chosen by the Survey Group for Parts 2 and 5.
- Subgroups have to give answers of all comments from previous enquiries (TS to EN and Formal vote)
SECOND STEP

Work on the new standards

- Toxicity tests on material for railway rolling stock (starting point Annex C of current EN45545-2)

- Fire behaviour tests on seats for railway rolling stock (starting point Annexes A, B and D of current EN45545-2)

- FCCS (Fire Containment Control Systems) according RFS of ERA
THIRD STEP

Revision of EN45545

- Revise EN 45545-1 to EN 45545-7 (all parts) to close comments and take account of experience with the published standard.
  - In particular modify EN 45545-2 by removing annexes and making references instead to the new testing standards for seat, smoke and toxicity.
  - In particular modify EN45545-6 by making reference to a new FCCS standard.
CEN TC256 WG1 - PROPOSAL OF SCHEDULE FOR THE REVISION

2014-04  2015  2018

WG1
TF Seat
TF Toxicity
TF FCCS
TF WG1

amendment
Seats
Toxicity
SG CEN-UNIFE on FCCS
FCCS
Revision of EN45545-1 to 7

years

- CEN enquiry
- FV enquiry
- UAP enquiry
PROPOSAL OF ORGANISATION OF CEN TC256 WG1

- Advisory group
  - TF 1to7
  - TF seats
  - TF Toxicity
  - TF FCCS
ROLE OF ADVISORY GROUP

- Check the consistency of the documents prepared by the Subgroups before enquiries
- Help to define and manage the strategy to be followed by the CEN TC256 WG1
- Constitution:
  - Convenor of CEN TC256 WG1,
  - Secretary of CEN TC256 WG1,
  - 3 members of Railway Undertakings,
  - 3 members of Vehicles Producers.
SPECIFIC FOR FCCS

- During CEN TC256 plenary meeting in Bern 2013-11-13, it was asked to have a UNIFE - CEN TC256 WG1 Survey Group to:
  - Assess if Pre-normative research is needed
  - To propose a scope for a FCCS standard
- Report from this Survey Group is expected the CEN TC256 plenary meeting of November 2014 for decision
- Then presented begin 2015 to ERA, UNIFE, CER, NSA
- If research is needed, then waiting the results before activating SG FCCS.
CEN TC256 WG1 – WORK RULES

- Each subgroup has to follow the “normal” rules for working (Maximum 3 experts per NSB in a meeting)

- Subgroups have to give answers of all comments from previous enquiries (TS to EN and Formal vote)

- Subgroups have to respect:
  - The scope of the documents
  - The content of Work Item
  - The request for standard (where applicable)

- Once points are agreed, do not attempt to reopen them – even if you come later to the WG.
CONCLUSIONS


- March 2013 – March 2016 - a three-year transition period for CEN member states to withdraw the existing national standards and to implement EN 45545

- 2014 - started a new working group CEN / TC 256 / WG 01, which will verify the standard EN 45545 to 2018

- CEN TC 256 and European Commission and we the member of WG 01, as well as all users of this standard are hoping that the revision time will be met. And that the verified standard will be accepted and clearly understood by all users.
THANK YOU FOR YOUR ATTENTION!