Current Situation of Vehicle Safety Standards Harmonization

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I. Background for International Harmonization of Vehicle Safety Standards

II. Policy Goals and Implementation Plans

III. Overview of Korea’s Efforts for International Harmonization

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V. Current Situation of Standards Harmonization

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I. Background for International Harmonization of Vehicle Safety Standards

- Most countries are applying their own safety regulations to motor vehicles to reduce traffic accidents, deaths and injuries.

- But different motor vehicles safety standards regarded as technical barriers to trade
  - Issues regarding trade barriers are shifting to “technical barriers to trade” from “tariff barrier” due to establishment of WTO system

- International Harmonization of Motor Vehicle Safety Standards is drawing worldwide attention
  - to enhance motor vehicle safety
  - to reduce trade barrier
II. Policy Goals and Implementation Plans

- Improve safety standards to international levels
- Enhance vehicle quality for the higher safety of passengers

Harmonize safety standards with international standards
- Align standards based on ECE Reg. with ECE Reg.
- Adopt GTR

Enhance international cooperation on automobile safety standards

Enhance Multilateral Cooperation
- Lead APEC/VSHG
- Participate in ESV
- Station personnel in Geneva

Expand Bilateral Cooperation
- Strengthen cooperation with China, Japan and the US
- Plan to build coop. channel with EC

Transparent Procedures
III. Overview of Korea’s Efforts for International Harmonization of Vehicle Safety Standards

Passive

1994 ~ 2002

WP29 observer
APEC/VSHG (’96)
G/I meeting (’00)
’98 Agreement (’01)

Active

2003

-- Finalize Gov. policy on Internationalization
   - Establish a T/F
   - Attend WP29 Expert Meetings
   - Chair APEC/VSHG (Since the 22nd meeting)
   - Research on Internationalization (Phase 1)

2004

-- Acceded to 1958 Agreement (E51)
   - Research on Internationalization (Phase 2)
   - Active participation in WP29 and APEC, etc.

2005

-- Research of 4 items for standard harmonization
   - Harmonizing 4~5 Items each year and reflecting into domestic standard
   - Active participation in WP29 and APEC, etc.
1. Enhancing International Cooperation: Passive Participation

- **WP29 since 1994**
  - Participate in WP29 as an Observer

- **APEC/VSHG since 1996**
  - Focus on understanding roles with regard to international cooperation as a member economy

- **ASIA G/I Meeting since 2000**
  - Attend the meeting since 3rd G/I meeting

- **Acceded to 1998 Agreement in 2001**
  - Prepare for the smooth introduction of self-certification system in 2003
2. Enhancing International Cooperation: Active Participation

- Start basic research for pursuing international standards harmonization: 2003
  - Research on the status of international harmonization regarding motor vehicle safety standards
    * UN/ECE/WP29, APEC/VSHG
  - Examination on differences between domestic and foreign safety standards
    * Structural & Device standards and Test Procedures, etc.
  - Set the harmonization plans

- Prepare for International Standards Harmonization: 2004
  - Build ECE Regulation Data Base
  - Accede to 1958 Agreement and pursue standards harmonization of 3 items
    (Passenger Car Brakes, Rear Under-ride protection, Front Fog Lamps)
IV. Principles for Selecting Items for Harmonization

**Principles of Standards Harmonization**

- Adopt all the GTRs
- Harmonize standards based on ECE Regulations

**Rules in selecting items for Standards Harmonization**

- Give priority to Passenger Car
- Select Items having less impact on Industries and Transportation Environment
- Harmonize 4~5 Items Each Year
V. Current Situation of Standards Harmonization

- Harmonized Standards (2005)
  - * Passenger Car Brakes (ECE R13H)
  - * Front Fog Lamps (ECE R19)
  - * Rear Under-ride Protection (ECE R58)
  - * Door Locks and Retention (GTR No.1)
### V. Current Situation of Standards Harmonization

<table>
<thead>
<tr>
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<th>Before Harmonization</th>
<th>After Harmonization</th>
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<tbody>
<tr>
<td><strong>Passenger Car Brakes</strong></td>
<td>- Evaluate braking performance with braking distance only</td>
<td>-Subdivide braking performance test into vehicle classification, devices, road and driving conditions</td>
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<tr>
<td><strong>Front Fog Lamps</strong></td>
<td>-Main luminous axis of beam must be lower than the center of illumination</td>
<td>-Main luminous axis of beam shall illuminate towards the front</td>
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<td>-Shall not illuminate outermost side of the motor vehicle</td>
<td>-The lowest point of illuminating surface shall be higher than 25cm above the ground</td>
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<td>-The center of illumination shall be higher than 25cm above the ground</td>
<td>- Shall be designed to be operated independently from headlamps</td>
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<td></td>
<td>-Shall be designed to be operated independently from other lamps</td>
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<tr>
<td><strong>Rear Under-ride Protection</strong></td>
<td>-Test Vehicle : Truck and special-purpose vehicles with more than 8 tons in GVW and 5 tons in Max. loading capacity</td>
<td>-Test Vehicle : Extended to Truck and special-purpose vehicles with more than 3.5 tons in GVW</td>
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<td></td>
<td>-Installation Location : Based on the Vehicle width</td>
<td>-Installation Location : Based on the width of the outer wheel</td>
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<tr>
<td><strong>Door Locks and Retention</strong></td>
<td>Based on FMVSS 206</td>
<td>-Introduce back door</td>
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<td>-Strengthen sliding door</td>
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V. Current Situation of Standards Harmonization

Research items for harmonization (2006)

- Head restraint (Proposed GTR)
- Speedometers (ECE R39)
- Lateral Collision (ECE R95)
- Tell-Tales (ECE R121)
- Semi-AFLS (ECE R123)
V. Current Situation of Standards Harmonization

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<tr>
<td><strong>Head Restraint</strong></td>
<td>- Based on FMVSS 202</td>
<td>- To be harmonized after GTR is established</td>
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<tr>
<td></td>
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<td>- Introduce definition, installation and test standards regarding Head Restraint</td>
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<tr>
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<td>- Introduce back-set and non-use position</td>
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<td></td>
<td></td>
<td>- Strengthen height and dynamic test</td>
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<tr>
<td><strong>Speedometers</strong></td>
<td>- Indication tolerance test of speedometer shall be conducted at a speed greater than 25 km per hour</td>
<td>- Subdivide indication tolerance test of speedometer</td>
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<tr>
<td></td>
<td></td>
<td>* Less than 45km per hour</td>
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<td></td>
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<td>* 45km to 100 km per hour</td>
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<tr>
<td></td>
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<td>* Greater than 150 km per hour</td>
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<td>- Introduce test standards for currently mass-produced</td>
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<td>- Introduce test standards for two-wheeled and three-wheeled motor vehicles</td>
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| **Lateral Collision**| - Dummy : Euro SID-1  
-Honeycomb : Multilayer                                                            | - Introduce Euro SID-2 and                                                           |
|                     |                                                                                      | - Honeycomb : progressive honeycomb                                                 |
| **Tell-Tales**      | - 31 Tell-Tales standards                                                              | - Add 11 more Tell-Tales standards resulting in 42 Tell-Tales standards             |
V. Current Situation of Standards Harmonization

- **Head Restraint**
  - Amend domestic safety standards through adopting Head Restraint GTR and allow 3 year deferred period after revision

- **Speedometers**
  - Make a draft amendment of domestic safety standards (’07)
  - Effective Year (’08)

- **Lateral Collision**
  - Apply new honeycomb standards in 2008
  - Use old and new dummy model concurrently for 3~5 years or allow 3~5 year deferred period after revision

- **Tell-Tales**
  - Amend domestic safety standards through adopting Tell-Tales GTR and allow definite deferred period after revision

- **Semi-AFLS**
  - Apply amended standard regarding curve test road in 2008
V. Current Situation of Standards Harmonization

- Plans for Standards harmonization in 2007

  - Safety Glazing Materials (ECE R43)
  - Electromagnetic Stability (ECE R10)
  - Motorcycles Brake Systems GTR
  - Tyres (ECE R30 & FMVSS 139)
  - Full –AFLS(ECE R123)
  - Daytime Running Lamp (ECE R87)
V. Current Situation of Standards Harmonization

- **Primary Reasons for Selecting Harmonization Items in 2007**

  ◆ **Electromagnetic Stability (ECE R10)**
  * Currently ECE R10 has been extensively amended, but old ECE R10 based regulation is under operation in Korea
  * Need to consider to reflect the newly amended ECE R10 to KMVSS

  ◆ **Safety Glazing Materials (ECE R43)**
  * Loose regulation for Safety Glazing Materials
  * Need to consider to reflect relevant GTR under discussion to KMVSS

  ◆ **Motorcycles Brake Systems GTR**
  * Adopted in November 2006 at 140th WP29 meeting
  * Need to harmonize according to the principles of standards harmonization
V. Current Situation of Standards Harmonization

- **Primary Reasons for Selecting Harmonization Items in 2007**

  - **Tyres (ECE R30 & FMVSS 139)**
    * Loose regulation for Tyres
    * Prompt enactment of regulation regarding types is necessary considering that tyres are vital to securing vehicle safety

  - **Full – AFLS (ECE R123)**
    * Need to adopt relevant regulation as AFLS technologies have fast developed

  - **Daytime Running Lamp (ECE R87)**
    * Conduct a feasibility study as the introduction of DRL has been actively discussed in WP29
VI. Future Plan for Standards Harmonization

◆ Harmonizing 4~5 items each year through consultation with various stakeholders such as consumer organizations and vehicle manufacturers.

◆ Candidate Items for Future Harmonization
  - Steering Equipments : ECE R79
  - Strength of Super Structure (bus) : ECE R66
  - Protective Helmet for Drivers and Passengers of Motorcycles : ECE R22
  - Warning Triangles : ECE R27
  - Replaced Brake Lining : ECE R90
  - Illumination of Rear-Registration Plates : ECE R4
  - Gas-charged Headlamps and Bulbs : ECE R98, R99
  - Child Restraint System
Thank you very much!