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Item 19.8 of the provisional agenda

**Progress on the development of new global technical regulations
and of amendments to established global technical regulations:****Draft global technical regulation on Electric Vehicle Safety (EVS)****Fifth progress report****Submitted by the the Informal Working Group on Electric Vehicle
Safety ***

The text reproduced below was prepared by the Informal Working Group on Electric Vehicle Safety. It is based on informal document WP.29-171-33, distributed at the 171st session (ECE/TRANS/WP.29/1129, para. 155). This document, if adopted, shall be appended to the gtr in accordance with the provisions of paragraphs 6.3.4.2., 6.3.7. and 6.4. of the 1998 Agreement.

* In accordance with the programme of work of the Inland Transport Committee for 2016–2017 (ECE/TRANS/254, para. 159 and ECE/TRANS/2016/28/Add.1, cluster 3.1), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

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Fifth progress report of the Informal Working Group on Electric Vehicle Safety

1. The Informal Working Group (IWG) on Electric Vehicle Safety (EVS) was formed in 2012 to address safety issues associated with high voltage and li-Ion battery.
2. The work of the EVS group is progressing according to the mandate adopted at the 156th WP.29 session (ECE/TRANS/WP.29/2012/36 and its Corr1).
3. Due to the constant evolving of the technology and long term research, the IWG agreed to develop the global technical regulation (gtr) in 2 phases. In December 2016, the IWG on EVS submitted a draft gtr to GRSP. The Secretariat of GRSP launched the translation process in February 2017 and the document is expected to be formally adopted by GRSP in May 2017.
4. Though the work is deemed complete there remain a few technical issues concerning heavy duty vehicles that still need to be agreed within the experts. Consequently, the drafting team left the unresolved text in square brackets and will submit an informal document addressing this and any other open issues to GRSP in May 2017.
5. Moreover, the important work on thermal propagation and initiation methods remains in progress. However, the cosponsors agreed to continue the work leading up to phase 2. Other technical items that will be addressed in phase 2 are water immersion test; long-term fire resistance test; REESS rotation test and vibration profile; detecting toxicity and corrosiveness of vented gas; post-crash REESS safety assessment and stabilization procedures; safety requirements for low mass and low speed electric vehicles; protection during AC and DC charging. Phase 2 is planned to start immediately after the adoption of Phase 1 EVS gtr by WP.29 in November 2017.
6. While a temporary requirement on thermal propagation is reached in phase 1, the IWG has agreed to continue to work on thermal propagation to identify a suitable initiation method that are both reproducible and repeatable. The IWG will continue to conduct its research and round robin testing into phase 2.
7. With a view to accommodate for such an arrangement and to ensure the necessary technical support leading to the adoption of phase 1 of the EVS gtr, the cosponsors, with support from GRSP at the 62nd session, request an extension of the mandate for Phase 1 EVS GTR for one extra year ending on December 2017.
8. A preliminary plan and timeline for Phase 2 plan is expected to be presented to GRSP in May 2017. Phase 2 is expected to be completed by the end of 2020.
