

## **Economic Commission for Europe**

### **Inland Transport Committee**

#### **Working Party on the Transport of Dangerous Goods**

107<sup>th</sup> session

4 November 2019

Geneva, 11-15 November 2019

Item 5 (a) of the provisional agenda

**Proposals for amendments to annexes A and B of ADR:**

**construction and approval of vehicles**

### **Progress report on the use of Electric and hybrid Electric vehicles for the carriage of dangerous goods**

**Transmitted by the Government of the Netherlands**

#### **Introduction**

1. During the November 2018 session of the Working Party on the Transport of Dangerous Goods the Netherlands introduced informal document INF.13 to start discussion on the use of battery electric and hydrogen fueled vehicles for the transport of dangerous goods.
2. The Working Party recognized the importance of this topic for the future and strongly supported the analysis made by Netherlands in informal document INF.13 (ECE/TRANS/WP.15/244, para 31-33). The Working Party has also placed this topic on the Programme of work for the biennium 2019-2020 (ECE/TRANS/WP.15/246, para. 60).
3. So far production of heavy goods electric vehicles has been based on modified traditional trucks. New designs for heavy goods vehicles specifically developed for electric driving have not yet emerged onto the market. Although, one American manufacturer may be close to doing so. It is expected that new designs will change the whole configuration of heavy goods vehicles and that placing of components such as electric motors, batteries and hydrogen storage systems are foreseen. This development may also be seen on passenger cars where it started as modified combustion engine cars into special design around the electric drive package.

#### **Considerations**

4. The technology under development means that it proved difficult to find experts on battery development, electric driveline and hydrogen fuel cell systems development for heavy goods vehicles who could inform the Working Party in more detail and discuss the particular risks for the carriage of dangerous goods in these types of vehicles.
5. In the meantime, the Government of the Netherlands has been requested to allow carriage of dangerous goods with an electric and fuel cell heavy goods vehicle for the time being for short distances, but in some cases also for international carriage.
6. It is expected that a widespread introduction of specially designed heavy goods vehicles will be between 5 and 10 years away. However, at the moment there is a lack of practical use to learn from it. It is therefore proposed for the short term to start evaluation on these traditional designs and to examine what are the potential risks for AT and FL vehicles and what necessary mitigation measures could be taken for the safe use of these types of vehicles for the transport of dangerous goods.
7. It is proposed to mandate an informal working group to study the risks and necessary mitigation measures.

## **Request**

8. The Dutch delegation is interested to hear the opinions of the other delegations and invites the Working Party to take action, as it deems appropriate.

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