Amendments to Annex 1, Appendix 2, paragraph 3.2.6 and to Annex 1, Appendix 3

Transmitted by the Government of the United Kingdom

Introduction

1. Currently there is no airflow requirement despite the secondary coolant being vital for safe carriage of perishable cargoes in mechanically refrigerated vehicles.

2. At present the existing text appears to make airflow measurement optional. Annex 1, appendix 2, paragraph 4.3.4 (iii), first sentence reads as follows:
   “If the air circulation of a refrigeration unit’s evaporator fans is to be measured, methods capable measuring the total delivery volume shall be used.”

3. A United Kingdom proposal (ECE/TRANS/WP11/2012/5) was to change the wording regarding airflow tests was presented at the sixty-eighth session. This was not accepted, as verifying manufacturers’ airflow figures is not mandated. A working group was proposed for an amended proposal for next year.

4. The United Kingdom submitted an informal document (INF.5) for discussion at the sixty-ninth session of WP.11 and was suggested an informal working group be formed.

5. The United Kingdom then submitted a working document (ECE/TRANS/WP.11/2014/15, part A) which was adopted at the seventieth session of WP.11.

6. On the 17 September 2015, the Finnish Government made an objection to the proposed amendment to Annex 1, Appendix 2, paragraph 2.3.6 (C.N.481.2015.TREATIES-
X1.B.22) (airflow requirement proposal for 60 a/c/h). This was an objection of a single proposal and did not affect the other proposals.

7. At this year’s CERTE meeting the UK presented a modified proposal which was not accepted for approval to WP11, but they suggested that we modify the original proposal.

**Proposed amendments**

8. We propose to amend the text as follows, with a footnote.

At the end of 3.2.6 add the following paragraph:

“The airflow specified in the test report of the mechanically refrigerated equipment shall conform\(^1\) or \(^2\) or \(^3\) to the following:

\[
\dot{V}_L \geq 60 \cdot V \text{ in } m^3/h
\]

where

\begin{align*}
V & \text{ is the volume of the empty space, in } m^3; \\
\dot{V}_L & \text{ is the airflow.}
\end{align*}

The air delivery system shall be compensated for any loss of airflow due to internal equipment such as air ducts and the frosting of the evaporator(s).”

9. If footnote three is accepted the ATP certificate will need to be amended with a new section below in Annex 1, Appendix 3.

“7.2.6 XX air changes per hour”

10. Where XX is the number of air changes per hour calculated by dividing the total airflow of the evaporator fans by the total internal volume of the equipment as a whole.

**Impact**

11. A positive impact would be that food safety and quality would improve. The financial impact to industry is that there would be an additional cost for an airflow test in cases where it is not carried out already.

12. A defined flowrate for the secondary refrigerant would help ensure all products within the cargo space meet the requirements of Annex 2 and 3.

13. However, the airflow result is required in the machine test report and therefore there appears an inconsistency.

---

\(^1\) The use of multi-lateral and bilateral agreements can be used to accept trailers with less airflow than required in paragraph 3.2.6.

\(^2\) The use of multi-lateral and bilateral agreements can be used to accept ATP certified trailers with less airflow than required in paragraph 3.2.6.

\(^3\) The use of multi-lateral and bilateral agreements can be used to accept ATP certified trailers with less airflow than required in paragraph 3.2.6 and shall be documented on the ATP certificate.