Economic Commission for Europe
Inland Transport Committee
Working Party on the Transport of Perishable Foodstuffs

Sixty-ninth session
Geneva, 8-11 October 2013
Item 5 (b) of the provisional agenda
Proposals of amendments to the ATP: New proposals

Discussion document on the variation of the inside surface of a unit allowed in the ATP

Transmitted by the Government of the Netherlands

Summary

Executive summary: The internal surface variation of +/- 20% allowed for a unit of an insulated body to belong to a certain type is useless for a body with limited dimensions.

Action to be taken: Discussion by WP.11.

Related documents: None.

Introduction

1. A variation of inside surface area of 20% greater or smaller is allowed for a unit to be regarded as being of the same type as the tested unit.

2. With careful selection of the dimensions of the tested units the manufacturer is able to cover a range of insulated bodies from a semi-trailer to a small trailer or truck with a minimum of tests.

3. However, when the insulated body becomes smaller in dimensions the variation in dimensions will not offer the same possibilities.
4. For example: a cuboid shaped body with a capacity of 1 m$^3$ will have an inside surface area of (6 sides * 1m.*1m. =) 6 m$^2$.

5. The allowed variation of internal surface of the body will result in a surface area of (6*120% =) 7.2 m$^2$ and a capacity of 1.33 m$^3$ or (6*80% =) 4.8 m$^2$ and a capacity of 0.96 m$^3$.

6. The conclusion is that this variation is hardly of use to a manufacturer to cover a range of bodies for smaller units. A relatively large number of tests is needed to cover a useful range of insulated bodies.

**Discussion**

7. Should a different rule be introduced for smaller-sized bodies to allow for a useful range of units which can belong to a certain type?

8. For example, within a type a higher percentage of the internal surface may be allowed on condition that the length of the door seals remains the same. Because doors and their seals are an important negative influence on the average K-value of the body, increasing the surface area in relation to the length of the seals will result in a better overall insulating factor than the tested unit.