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Working Party on the Transport of Perishable Foodstuffs

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Item 5 (a) of the provisional agenda

PROPOSALS OF AMENDMENTS TO THE AGREEMENT ON THE INTERNATIONAL CARRIAGE OF PERISHABLE FOODSTUFFS AND ON THE SPECIAL EQUIPMENT TO BE USED FOR SUCH CARRIAGE (ATP)

Pending proposals

Tests for renewal of ATP certificates at six and nine years*

Transmitted by the Government of France

Context

1. The Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be used for such Carriage (ATP), signed in 1970, originally included a test for renewal of certificates at six years. While the tests are set out clearly for refrigerated equipment, the requirements for mechanically refrigerated equipment are very limited. The efficiency test must be conducted at an outside temperature of more than 15º C.

* The present document is submitted in accordance with the Programme of work for 2008-2012 of the Inland Transport Committee (ECE/TRANS/2008/11, Item 2.11 (a)) which calls for the "Consideration of amendment proposals to ATP to ensure it is updated as necessary".

2. In 1995, ATP was amended to clarify these tests. An upper limit of six hours for cool-down to the class temperature was added. In 2008, the Working Party on the Transport of Perishable Foodstuffs (WP.11) voted in favour of a new agreement for cool-down tests with a view to the renewal of ATP certificates of independent mechanically refrigerated equipment.

3. However, the ATP remains very vague with respect to the test for the renewal of dependent equipment. France submitted an informal proposal on this matter in 2007. The present proposal is to integrate that procedure into the ATP.

Current situation

4. For many years the renewal of ATP certificates in France was based on a theoretical calculation of the ageing of the unit. This method is no longer valid given the changes in the foam.

5. The competent authority in France, in cooperation with Transfrigoroute France and Cemafroid, the official ATP testing station, worked on new protocols for the more than 10,000 tests conducted each year. The objective was to develop a robust, simple and cost-effective test.

Equipment being tested for efficiency in a test centre

Verification of equipment by experts

Constraints for dependent equipment

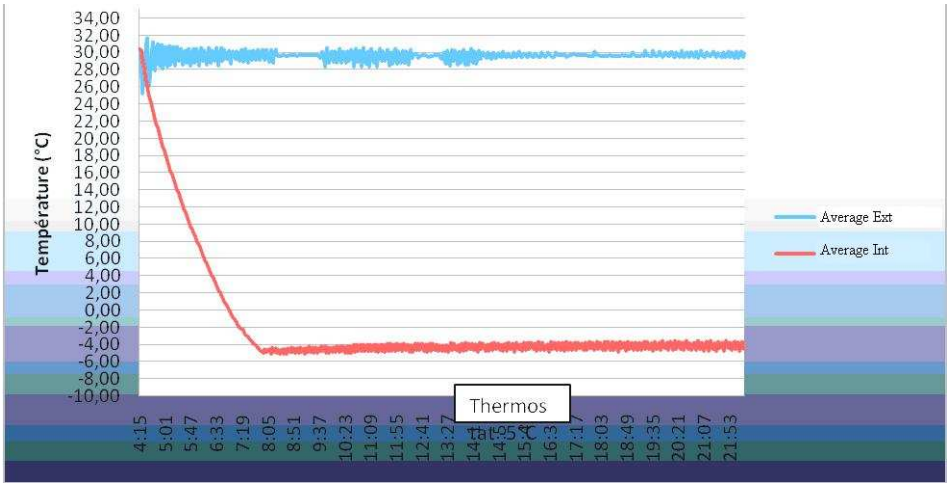
6. Most dependent equipment is used for distribution. The equipment runs a significant amount of time while the vehicle engine is idling. The equipment requires significant cool-down capacity, but also sufficient capacity to maintain the class temperature while the engine is idling.

Proposed test protocol

7. With this in mind, the following checks are proposed:

- Cool-down capacity with electric power or the engine of the vehicle;
- Capacity to maintain the temperature below the class temperature for at least two hours while the engine is idling with a tolerance of 100 revolutions per minute.

Change in temperature of the body while a dependent unit running at an average external temperature of 30º C ± 0.5º C



Example of a cool-down test recording

Impact of the test

Technical impact of the test

8. These tests have been used in France since 2002. About 5,000 tests of dependent equipment are conducted each year at six and nine years under this protocol.

9. If the equipment has not been properly serviced before the test, between 20 and 30 per cent of the equipment does not pass the test. With proper servicing, less than 3 per cent of the equipment fails the test. The equipment is now serviced before the tests. The test results show clearly the relevance of these tests for the performance of the vehicles by comparing their working order before and after they are serviced.

10. Overall, the test protocol put in place in France in 2002 has greatly enhanced the level of performance and maintenance of the equipment. Equipment that cannot cool down to and maintain the temperature in class C may, if it passes the test in class A, be downgraded to this class.

Economic impact of the procedure

11. Furthermore, there is a drop in fuel consumption and operating costs. The tests conducted show that equipment takes much longer to cool down before it is serviced than after. Both cool-down time and fuel consumption may be twice as much for poorly maintained equipment.

12. Given that the cost of the test is around 400 euros for a three-year renewal in France, introducing this procedure brings benefits in terms of energy savings and improved performance.

Conclusion

13. On the basis of these elements, the proposed protocol seeks to harmonize the ATP and to establish a more equitable procedure.

14. To enable users to adapt their equipment, these provisions will apply only to equipment manufactured after the entry into force of these provisions. Vehicles in service on this date may be tested under the protocol currently in force as long as they remain in service.

Amendment proposal

Annex 1, appendix 2

49. [...]

(b) Mechanically refrigerated equipment

(ii) Dependent equipment

It shall be verified that, when the outside temperature is not lower than 15° C, the inside temperature of the empty equipment can be maintained at the class temperature for a minimum period of two hours when the engine is maintained at the idle speed set by the manufacturer (where applicable) with a tolerance of about 100 revolutions per minute.

If the results are favourable, the equipment may be kept in service as mechanically refrigerated equipment of its initial class for a further period of not more than three years.

[...]
