United Nations ECE/TRANS/WP.11/2023/18

Economic and Social Council

Distr.: General
8 August 2023

Original: English

Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Perishable Foodstuffs

Eightieth session
Geneva, 24-27 October 2023
Item 5 (b) of the provisional agenda
Proposals of amendments to ATP:
new proposals

Proposal to amend in-service testing of heated and mechanically refrigerated and heated equipment, ATP annex 1, appendix 2, paragraphs 6.3 and 6.4 (ii)

Transmitted by the Government of Finland

Introduction

1. Vast majority of ATP equipment belong to mechanically refrigerated classes (distinguishing marks beginning with letter “F”). They are in most cases certified on a basis of type approvals first for six years. After that on a basis of in-service test, certification may be extended for three years at a time. Because of large number of equipment, the in-service testing has over the years developed in a practical and cost-effective procedure.

2. In case of heated equipment (distinguishing marks beginning with letter “C”) and of mechanically refrigerated and heated equipment (distinguishing marks beginning with letter “B”), the situation is different. In the ATP there is no practical in-service heating test. Instead, main principles of in-service heating tests described in annex 1, appendix 2, paragraphs 6.3 and 6.4 (ii) of the ATP, are inherited from appendix 2, paragraphs 3.3 and 3.4: First, the temperature difference between interior and exterior of the class in question need to be achieved and then this situation needs to be maintained at least 12 hours.

3. Especially the 12-hour maintaining period makes the present in-service heating test impractical. Test is not possible within normal working day. Overnight testing in special testing conditions requires supervision which dramatically increases costs.

4. At International Institute of Refrigeration (IIR) sub-commission “CERTE” meeting on 18-19 April 2023 in Ljubljana this problem was introduced. A small group with participation of experts from Denmark, Finland, France, Germany, the Netherlands and the United Kingdom of Great Britain and Northern Ireland (UK) was set up in order to discuss questions related to in-service testing of heated equipment.

5. After correspondence by emails and national level discussions, it became obvious that after achieving the required temperature difference there is no sense in continuing in-service heating test with 12-hour maintaining period.

6. At this time, that the number of heated equipment and mechanically refrigerated and heated equipment is low compared to the number of mechanically refrigerated equipment, it is relatively easy to improve in-service heating test methods, step by step. Final goal might be including a table in the ATP like is the one in appendix 2, paragraph 6.2.1 (i) for cool down tests.

Proposal

7. It is proposed to delete 12-hour maintaining period and add 360 minutes maximum heating time to both annex 1, appendix 2, paragraphs 6.3 and 6.4 (ii) of the ATP. It is also proposed to add the word “empty” to make the texts consistent with other parts of paragraph 6. There is no need to amend test report models No. 10 and No. 11 which are already suitable for reporting the tests proposed. It should be noted that the proposed 360 minutes maximum heating time might need to be discussed.

Proposed text (additions in bold and deletions struck out).

8. Amend ATP annex 1, appendix 2, paragraph 6.3 to read:

“It shall be verified that the difference between the inside temperature of the **empty** equipment and the outside temperature which governs the class to which the equipment belongs as prescribed in this annex (a difference of 22 °C in the case of class A, 32 °C in the case of class B, 42 °C in the case of class C and 52 °C in the case of class D) can be achieved **within a maximum period of [360] minutes** ~~and be maintained for not less than 12 hours~~. If the results are acceptable, the equipment may be kept in service as heated equipment of its initial class for a further period of not more than three years.”

9. Amend ATP annex 1, appendix 2, paragraph 6.4 (ii) to read:

“In the second stage, it shall be verified that the difference between the inside temperature of the **empty** equipment and the outside temperature which governs the class to which the equipment belongs as prescribed in this annex (a difference of 22 °C in the case of classes A, E and I, of 32 °C in the case of classes B, F and J, of 42 °C in the case of classes C, G and K, and of 52 °C in the case of classes D, H, and L), can be achieved **within a maximum period of [360] minutes** ~~and maintained for not less than 12 hours~~.”

Justification

Costs	Proposed amendment significantly reduces the costs of in-service heating tests.
Feasibility	Reasonable in-service testing costs may encourage operators to acquire heated equipment and keep ATP certificates in force.
	Transitional period may not be required, need to be discussed.
Impact	Energy consumption and emissions of the test itself are reduced due to the shorter duration of the test.