Amendments to the models of reports that define the specifications of equipment and tanks for the carriage of liquid foodstuffs resulting from the need to take into account technological developments brought about by the use of new insulating materials

Transmitted by the Government of France

Revision 3

Summary

Executive summary: The ATP model test reports Nos. 1 A and 1 B contain strict requirements for the definition of the dimensions of the equipment subject to measurement of the K coefficient. However, these models do not require minimum specifications on the intrinsic physical properties of the insulation used in the construction of body or tank walls.

Action to be taken: Introduce the amendments proposed below to model test reports Nos. 1 A and 1 B.

Related documents: None.

Introduction

1. The ATP model test reports Nos. 1 A and 1 B contain strict requirements for the definition of the dimensions of the equipment subject to measurement of the overall coefficient of heat transfer. However, these models do not require minimum specifications on the intrinsic physical properties of the insulation used in the construction of body or tank walls.

2. The insulating capability of the body or tank walls is strongly linked to that of the insulating foam used, whether it comes from mass-produced prefabricated panels or is injected.
3. Some body or tank manufacturers would like to make use of new insulating foams in all or part of equipment, with a test report for the measurement of the overall coefficient of heat transfer.

4. Therefore, it is proposed in this document to clarify the requirements of ATP concerning the registration of specifications for insulating foam in order to have control over the composition of the equipment.

5. The French text of ATP of 6 July 2020 and communications between Germany and France served as a basis for the proposed amendments.

I. Proposal

6. In model test report No. 1 A, replace the fourth footnote to page 50 with: “Nature and thickness of materials constituting the body walls, from the interior to the exterior, as a schematic diagram, mode of construction, etc. ... and indicate the thermal conductivity $\lambda$ of each of the insulating materials used”, indicating that this section must be completed by the test sponsor.

7. In model test report No. 1 B, replace the fourth footnote to page 52 with: “Nature and thickness of materials constituting the tank walls, from the interior to the exterior, as a schematic diagram, mode of construction, etc. ... and indicate the thermal conductivity $\lambda$ of each of the insulating materials used”, indicating that this section must be completed by the test sponsor.

II. Justification

8. The definition of the type whose main thermal characteristics are based on the intrinsic properties of the insulation used must be included in test reports Nos. 1 A and 1 B accompanying those used to estimate the overall coefficient of heat transfer in Nos. 2 A and 2 B.

III. Cost

9. No additional costs are expected for official ATP test stations, or even for manufacturers who must have available the additional parameters required by this proposal as part of their production management.

IV. Feasibility

10. No additional obligations for official ATP test stations.

V. Enforceability

11. No problems are foreseen in introducing the proposed amendments to ATP model test reports Nos. 1 A and 1 B.

VI. Introduction of the proposed amendments to ATP

12. Part of ATP concerned: annex 1, appendix 2, Part 8 – Test reports, Model Nos. 1 A and 1 B.

Model No. 1 A, footnote 4:

13. It is proposed to amend the following paragraph of ATP:
Original paragraph of ATP:

“Nature and thickness of materials constituting the body walls, from the interior to the exterior, mode of construction, etc.”

Proposed amendment:

“Nature and thickness of materials constituting the body walls, from the interior to the exterior, as a schematic diagram, mode of construction, etc., and mandatory indication by the test sponsor of the conductivity of each insulating material used for insulation.”

Model No. 1 B, footnote 4:

14. It is proposed to amend the following paragraph of ATP:

Original paragraph of ATP:

“Nature and thickness of materials constituting the body walls, from the interior to the exterior, mode of construction, etc.”

Proposed amendment:

“Nature and thickness of materials constituting the tank walls, from the interior to the exterior, as a schematic diagram, mode of construction, etc., and mandatory indication by the test sponsor of the conductivity of each insulating material used for insulation.”