



**Economic and Social
Council**

Distr.
GENERAL

TRANS/WP.11/2001/4
14 August 2001

ENGLISH
Original: FRENCH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of
Perishable Foodstuffs
(Fifty-seventh session,
Geneva, 12-15 November 2001)

PROPOSED AMENDMENTS TO THE ATP AGREEMENT

Proposal from France

The secretariat reproduces below a proposal submitted by France.

Annex 1, appendix 1, paragraph 2 (a):

This paragraph lends itself to various possible interpretations as regards the date from which the term of validity of a test report (period of six years) is to be counted. It would be better to make clear what date is meant: date of the test, date of signature of the test report, date of manufacture of the body, etc.

Moreover, for practical reasons, it would be preferable to indicate the period of validity (month, year) in the test report.

Proposed amendment:

“New equipment of a specific type serially produced may be approved by testing one unit of that type. If the unit tested fulfils the requirements prescribed for the class to which it is presumed to belong, the test report shall be regarded as a Type Approval Certificate. This certificate shall expire at the end of a period of six years *beginning from the date of completion of the test.*

The date of expiry of test reports shall be stated in months and years.”

Annex 1, appendix 1, paragraph 4 (c):

In order to facilitate the procedures for approval in the various countries of the “ATP zone”, the documents should be made easy to understand by the respective competent authorities.

Proposed amendment:

“(c) in the case of serially produced equipment, the technical specification of the equipment to be certified (this specification must cover the same items as the descriptive pages concerning the equipment which appear in the test report *and must be drawn up in at least two of the three official languages*).”

Annex 1, appendix 1, paragraph 6:

Proposed amendment:

“The insulated bodies of ‘insulated’, ‘refrigerated’, ‘mechanically refrigerated’ or ‘heated’ transport equipment and their thermal appliances shall each bear permanent distinguishing marks affixed by the manufacturer and including at least the following particulars:

Country of manufacture or letters used in international road traffic;

Name of manufacturer or company;

Model (figures and/or letters);

Serial number;

Month and year of manufacture;

Reference report number;

‘Value of the K coefficient’.”

Annex 1, appendix 1, paragraph 5:

There appears to be some confusion in the French text of the ATP agreement as to the term “marque d’identification” (“distinguishing mark”). This term should be clarified by stating whether it refers to a prescribed class mark or to the make of the body itself.

This confusion also arises in the English version of the agreement.

Proposed amendment:

“*Class* distinguishing marks and particulars shall be affixed to the equipment in conformity with the provisions of appendix 4 to this annex. They shall be removed as soon as the equipment ceases to conform to the standards laid down in this annex.”

Annex 1, appendix 1, paragraph 6:

Same comment as above.

Proposed amendment:

“The insulated bodies of ‘insulated’, ‘refrigerated’, ‘mechanically refrigerated’ or ‘heated’ transport equipment and their thermal appliances shall each bear permanent *manufacturer’s* distinguishing marks affixed by the manufacturer and including at least the following particulars:”

Annex 1, appendix 3, model form of certificate of compliance, footnote 4:

Same comment as above.

Proposed amendment:

“4/ Enter here one or more of the descriptions listed in appendix 4 of this annex, together with the corresponding *class* distinguishing mark or marks.”

Annex 1, appendix 3, section B, paragraph 1 (d):

Same comment as above.

Proposed amendment:

“(d) ‘ATP MARK’ followed by the *class* distinguishing mark prescribed in annex 1, appendix 4, corresponding to the class and the category of the equipment”.

Annex 1, appendix 3, section B, paragraph 2:

Same comment as above.

Proposed amendment:

“2. The letters ‘ATP’ and the letters of the *class* distinguishing mark should be approximately 20 mm high. Other letters and figures should not be less than 5 mm high.”

Annex 1, appendix 4:

Same comment as above.

Proposed amendment:

“The *class* distinguishing marks prescribed in appendix 1, paragraph 5 to this annex shall consist of capital Latin letters in dark blue on a white ground; the height of the letters shall be at least 100 mm. The marks shall be as follows: [...].

If the equipment is fitted with removable or non-independent thermal appliances, the *class* distinguishing mark or marks shall be supplemented by the letter X.

The date (month, year) entered under section A, item 8 in appendix 3 of this annex as the date of expiry of the certificate issued in respect of the equipment shall be quoted under the *class* distinguishing mark or marks aforesaid.”

Test reports models:

Following the proposals of the United Kingdom (document TRANS/WP.11/2000/8), France suggests the following changes to the models for test reports.

TEST REPORT MODEL No. 1

[Measurement of the overall heat transfer coefficient]

Prepared in conformity with the provisions of the Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for such Carriage (ATP)

Test Report No.

Approved testing station: Name
Address
.....

Equipment: Type⁽¹⁾ Body built by
Body Number Chassis number
Date of construction Date of entry into service
Owned or operated by
.....
Submitted by
.....

Tare Weight⁽²⁾ kg Carrying capacity⁽²⁾ kg

Principal dimensions) Outside: length m Inside: length m
of body) width/major axis m width/major axis m
height/minor axis m height/minor axis m

Total usable internal volume of body m³

Internal volume of each compartment m³ m³ m³

Total floor area of body (except tanks) m²

Total inside surface area S_i of body/tank walls m²

Inside surface area of each compartment S_{i1} S_{i2} m²

Total outside surface area S_e of body/tank walls m²

Mean surface area m²

Specifications of body/tank walls⁽³⁾

Thicknesses	Top	Bottom	Side walls	Front wall
Outside skin				
Insulation				
Inside skin				

Structural peculiarities of the body/tank⁽⁴⁾

Body (non-tank)		Tank	
Rear doors		Description of manholes	
Side doors		Manhole covers	
Vents		Description of discharge piping	
Ice-loading apertures			

Accessories⁽⁵⁾Testing Method: inside cooling/inside heating⁽⁶⁾

Date and time of closure of equipment's doors and other openings

Averages obtained for hours of continuous operation

(from a.m./p.m. to a.m./p.m.):⁽⁶⁾

Total duration of test h Duration of continuous operation h

(a) Mean outside temperature of body: $T_e = \dots\dots\dots ^\circ\text{C} \pm \dots\dots\dots \text{K}$ (b) Mean inside temperature of body: $T_i = \dots\dots\dots ^\circ\text{C} \pm \dots\dots\dots \text{K}$ (c) Mean temperature difference achieved: $\Delta T = \dots\dots\dots \text{K}$

Maximum temperature spread:

Outside body K Inside body K

Mean temperature of walls of body $\frac{t_e + t_i}{2}$ $^\circ\text{C}$ Power consumed in exchangers: W_1 W;Power absorbed by fans: W_2 W;

Overall coefficient of heat transfer calculated by the formula:

Inside-cooling test $K = \frac{W_1 - W_2}{S\Delta t}$; Inside-heating test $K = \frac{W_1 + W_2}{S\Delta t}$

Maximum error of measurement with test used %

Remarks:⁽⁷⁾

(To be completed only if the equipment does not have thermal appliances):

According to the above test results, the equipment may be recognized by means of a certificate in accordance with ATP annex 1, appendix 3, valid for a period of not more than six years, with the class distinguishing mark IN/IR.⁽⁶⁾

However, this report shall be valid as a certificate of type approval within the meaning of ATP annex 1, appendix 1, paragraph 2 (a) for a period of not more than six years, that is until

Done at:on:

Testing Officer:

(1) Wagon, lorry, trailer, semi-trailer, container, swap body, tank, etc.

(2) State source of information.

(3) Nature and thickness of materials used for body/tank walls, method of construction, etc.

(4) If there are structural irregularities, show how S_i and S_e were determined.

(5) Meat rails, etc.

(6) Delete as appropriate.

(7) If the body is not parallelepipedic, specify the points at which outside and inside temperatures were measured.

TEST REPORT MODEL No. 2

[Determination of the effectiveness of cooling appliances of refrigerated equipment]

Prepared in conformity with the provisions of the Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for such Carriage (ATP)

Test Report No.

Description of cooling appliance

Manufacturer

Type Serial number Year of manufacture

Nature and nominal filling quantity of refrigerant/eutectic solution⁽¹⁾ kg

Actual filling of refrigerant used for test kg

Filling device (description, where situated; attach drawing if necessary)

Ducts and screens/tank for liquefied gases;⁽¹⁾ description and dimensionsDrive independent/dependent/mains-operated; cooling appliance removable/not removable⁽¹⁾

1 Mechanical refrigeration unit: Make Type No.

Eutectic { Make Latent heat at freezing temperature kJ/kg at °C

Plates:⁽¹⁾ { Type Total cold reserve at freezing temperature kJ

{Number and dimensions

Inside fans:	Description
--------------	-------------------

Fan power; Delivery rate m³/h

Automatic Devices:

Accessories

Mean temperatures at beginning of test: Inside°C ± K; Outside°C ± K

Power of heat added during test W

Date and time of closure of equipment's doors and other openings

Record of mean inside temperature T_i and mean outside temperature T_e of body with time

[illegible]

Remarks:

According to the above test results, the equipment may be recognized by means of a certificate in accordance with ATP annex 1, appendix 3, valid for a period of not more than six years, with the class distinguishing mark

However, this report shall be valid as a certificate of type approval within the meaning of ATP annex 1, appendix 1, paragraph 2 (a) for a period of not more than six years, that is until
.....

Done at: on:

Testing Officer:

⁽¹⁾ Delete as appropriate.

TEST REPORT MODEL No. 3

**[Determination of the effectiveness of cooling appliances of
mechanically refrigerated equipment]**

Prepared in conformity with the provisions of the Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for such Carriage (ATP)

Test Report No.

Manufacturer

Type Serial number Year of manufacture

Drive: independent/dependent/mains-operated; refrigeration unit removable/not removable⁽¹⁾

Refrigerant and weight of charge kg

Refrigeration capacity stated by manufacturer for an outside temperature T_e of + 30° C and an inside temperature T_i of : 0° C; -10° C; -20° C

	Compressor	Condenser fan	Evaporator fan
Make			
Type			
Number			
Drive			
Power			
RPM			
Delivery volume			

Mean temperatures at beginning of test: Inside °C ± K; Outside °C ± K

K coefficient of insulated body W/m²K

Power of heat added during test W

Date and time of closure of equipment's doors and other openings

Pull-down time from beginning of test to attainment of prescribed mean inside temperature h

Record of mean inside temperature T_i and mean outside temperature T_e of body with time

Time hrs	0	1	2	3	4	5	6	7	8	9	10	11	12
T_i													
T_e													

Remarks:
.....

According to the above test results, the equipment may be recognized by means of a certificate in accordance with ATP annex 1, appendix 3, valid for a period of not more than six years, with the class distinguishing mark

However, this report shall be valid as a certificate of type approval within the meaning of ATP annex 1, appendix 1, paragraph 2 (a), for a period of not more than six years, that is until

Done at:on:

Testing Officer:

⁽¹⁾ Delete as appropriate.

TEST REPORT MODEL No. 4

[Determination of the effectiveness of heating appliances of heated equipment]

Prepared in conformity with the provisions of the Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for such Carriage (ATP)

Test Report No.

Manufacturer
Type Serial number Year of manufacture
Location Overall area of heat exchange surfaces
Effective power rating as specified by manufacturer
Drive: independent/dependent/mains operated; heating appliance removable/not removable ⁽¹⁾
Inside fans: Description
Power of electric fans W Delivery volume m³/h
Dimensions of ducts: cross-section m²; length m

Mean temperatures at beginning of test: Inside°C ± K; Outside °C ±K

Date and time of closure of equipment's doors and other openings
.....

Pull-down time from beginning of test to attainment of prescribed mean inside temperature h

Record of mean inside temperature T_i and mean outside temperature T_e of body with time:

Time hrs	0	1	2	3	4	5	6	7	8	9	10	11	12
T_i													
T_e													

Note: In the case of new equipment, the mean inside temperature prescribed must be increased from +12° C to +20° C for heated class A equipment, and from +12° C to +24° C in the case of heated class B equipment.

Remarks

According to the above test results, the equipment may be recognized by means of a certificate in accordance with ATP annex 1, appendix 3, valid for a period of not more than six years, with the class distinguishing mark

However, this report shall be valid as a certificate of type approval within the meaning of ATP annex 1, appendix 1, paragraph 2 (a), for a period of not more than six years, that is until

Done at: on:

Testing Officer:

⁽¹⁾ Delete as applicable.

TEST REPORT MODEL No. 5

[Determination of the effective refrigeration capacity of a mechanical refrigeration unit]

Prepared in conformity with the provisions of the Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for such Carriage.

Test Report No.

Approved testing station

Refrigeration unit presented by

Manufacturer

(a) Technical specifications of the unit: Date of manufacture: Type:

Serial No. Category:⁽¹⁾ Self-contained/not self-contained

Removable/not removable Single unit/assembled components

Description:

Compressor: Make: Type:

Number of cylinders: Cubic capacity:

Nominal speed of rotation: rpm

Methods of drive:⁽¹⁾ electric motor, separate internal combustion engine, vehicle engine, vehicle motion

Compressor drive motor: (See footnotes⁽¹⁾ and ⁽²⁾)

Electrical: Make: Type:

Power: kW at rpm Supply voltage and frequency V Hz

Internal combustion engine: Make: Type:

Number of cylinders: Cubic capacity:

Power: kW at rpm; Fuel:

Hydraulic motor:

Make: Type: Method of drive:

Alternator: Make: Type:

Speed of rotation (nominal speed given by the manufacturer): rpm

minimum speed (given by the manufacturer): rpm

Refrigerant fluid:

Expansion valve: Make: Model Adjustable/Not adjustable ⁽¹⁾

Defrost Device:

Automatic Device:

Heat exchangers		Condenser	Evaporator
Make			
Type			
Number of circuits			
Number of rows			
Number of tubes			
Fin pitch (mm) ⁽²⁾			
Tube: nature and diameter (mm) ⁽²⁾			
Total exchange surface area (m ²) ⁽²⁾			
Frontal surface area (m ²)			
F A N S	Type		
	Number		
	Number of blades per fan		
	Diameter (mm)		
	Nominal power (W) ^(2,3)		
	Nominal speed (rpm)		
	Total nominal delivery volume at a pressure of ... Pa (m ³ /h) ⁽²⁾		
Method of drive			

Security devices:
.....
.....
.....
.....

RESULTS OF MEASUREMENTS AND EFFECTIVE REFRIGERATION CAPACITY

(Mean temperature of the air inlet to the condenser ... °C)

Speed of rotation				Power of internal fan heater	Refrigerant mass flow rate	Refrigerant enthalpy at evaporator inlet	Refrigerant enthalpy at evaporator outlet	Power absorbed by the unit cooler fan	Fuel or electrical power consumption	Mean temperature around the body	Mean temp. air inlet to evaporator	Effective refrigerating capacity
	Fans	Alternator	Compressor									
	rpm	rpm	rpm	W	kg/sec	J/kg	J/kg	W	W or l/hr	°C	°C	W
Diesel												
Electric												

Results of measurements and effective refrigeration capacity (using the heat balance method)

(Mean temperature of the air inlet to the condenser \pm °C)

N (1) rpm	W _j (2) Watts	C (3) litres/hr	P _m (4) watts	P _c abs (5) bar	P _o abs (6) bar	T _M ext (7) °C	T _m inlet to evap. (8) °C	W _o (9) Watts
-----------------	--------------------------------	-----------------------	--------------------------------	----------------------------------	----------------------------------	---------------------------------	---	--------------------------------

Diesel engine drive:

Electric motor drive:

-
- (1) Compressor speed
 - (2) Balance electrical power input of heaters and fans
 - (3) Fuel consumption
 - (4) Electric power consumption
 - (5) Condensing pressure
 - (6) Compressor suction
 - (7) Mean temperature outside calorimeter
 - (8) Mean temperature air inlet to evaporator
 - (9) Effective refrigeration capacity

Maximum error of measurement:

U-coefficient of calorimeter
Effective refrigeration capacity
Pressure measurements
Evaporator air delivery volume
Fuel consumption
Compressor speed
Temperatures

(b) Test method and results:

Test method:⁽¹⁾ heat balance method/enthalpy difference method

In a calorimeter:

U-coefficient of calorimeter when fitted with the tested refrigeration unit: W/°C,
at a mean wall temperature of °C.

In an item of transport equipment:

K-coefficient of an item of transport equipment fitted with a refrigeration
unit W/m²°C, at a mean wall temperature of °C.

Method employed for the correction of the U-coefficient of the body as a function of the
mean wall temperature of the body:

(c) Checks

Temperature regulator: Setting °C Differential °C

Functioning of the defrosting device:⁽¹⁾ satisfactory/unsatisfactory

Air delivery volume leaving the evaporator at a pressure of Pa

Internal combustion engine m³/hr Electric motor m³/hr

Existence of a means of supplying heat to the evaporator for setting the thermostat at
between 0 and +12° C:⁽¹⁾ yes/no

(d) Remarks

Done at: on:

Testing Officer:

⁽¹⁾ Delete as appropriate.

⁽²⁾ Value indicated by the manufacturer.

⁽³⁾ Where applicable.

TEST REPORT MODEL No. 6

[Expert field check of the insulation and the cooling/heating appliances of equipment in service]

The equipment was originally ATP certified based on test reports Nos. dated
issued by approved testing station (name and address)

K-coefficient W/m²K

Manufacturer of insulated body Serial number

Condition of insulated body when checked:

Top Side walls

End walls Bottom

Doors and openings Seals

Cleaning drainholes Air tightness

Dimensions: Have dimensions changed since new?

Remarks:

Cooling/heating⁽¹⁾ appliance. Manufacturer

Type Serial number Year of manufacture

Description

Refrigeration capacity stated in ATP test report above for an outside temperature of +30° C and
an inside temperature of: 0° C; -10° C; -20° C

Refrigerant and weight of charge kg

Fans: Description

Power W Delivery volume m³/hr

Dimensions of ducts:

Condition of appliance when checked

Temperatures at beginning of test: Inside°C Outside°C

Date and time of closure of equipment's doors and openings

Pull-down time from beginning of test to attainment of prescribed mean inside
temperature h

Record of mean inside temperature T_i and mean outside temperature T_e of body with time:

Hrs													
T _i													
T _e													

Defrost mechanism;⁽²⁾ correct operation: yes/no;⁽¹⁾ correct termination: yes/no⁽¹⁾

Thermostat check. At 0° C

According to the above test results the equipment may be recognized by means of a certificate in
accordance with ATP annex 1, appendix 3, valid for not more than three years, with the class
distinguishing mark

Done at: on:

Testing Officer:

⁽¹⁾ Delete as appropriate.

⁽²⁾ If applicable.

Annex 1, appendix 2, paragraph 28:

These modifications for test reports mean changing the references of the annexes.

Proposed amendment:

“28. A test report shall be drawn up for each test in conformity with Model No. 1 below.”

Annex 1, appendix 2, paragraph 29 (d):

Same comment as above.

Proposed amendment:

“A test report shall be drawn up for each test by an expert in conformity with Model No. 6 below.”

Annex 1, appendix 2, paragraph 48:

Same comment as above.

Proposed amendment:

“48. A test report shall be drawn up for each test in conformity with Model No. 2, 3 or 4 below.”

Annex 1, appendix 2, paragraph 28 (e):

Same comment as above.

Proposed amendment:

“A test report shall be drawn up for each test by an expert in conformity with Model No. 6 below.”

Annex 1, appendix 2, paragraph 60:

Same comment as above.

Proposed amendment:

“A test report of the appropriate type shall be drawn up in conformity with Model No. 5 below.”
