

Economic Commission for Europe

Inland Transport Committee

20 July 2016

Working Party on the Transport of Perishable Foodstuffs

Seventy-second session

Geneva, 4-7 October 2016

Item 3 (a) of the provisional agenda

**Activities of other international organizations dealing
with issues of interest to the Working Party:**

International Institute of Refrigeration (IIR)

**Minutes of IIR Sub-Commission “CERTE” Meeting
Czech Republic, Prague 13th to 14th April 2016**

Transmitted by the International Institute of Refrigeration



**IIR Sub-Commission “CERTE” Meeting
Czech Republic, Prague 13th to 14th April 2016
Approved Minutes**

1.0 Welcome and Presentation

Dr Zdenek Kaiser welcomed the group to the test facilities at Ingersoll Rand and the Chairman Mr Eric Devin welcomed the participants (20 in total from 11 test stations). The attendance list is given at the end of this document.

The chairman pointed out that there some important topics to discuss during the meeting, the issues being the retesting of drop in refrigerants and also the MTMC retesting and marking.

2.0 Approval of Agenda

The proposed agenda was adopted without any additional amendments.

3.0 Apologies

The chairman informed the participants that he had received the following apologies:

- Mr Manfred Kreitmayer (Austria)
- Mr Hanspeter Raschle (Germany)
- Mr Bernard Schrempf (Germany)
- Mr Kristian Dahl (Denmark)
- Mr Konstantin Chatzidakis (Greece)
- Mr Eduardo Muñoz (Spain)
- Mr Richard Lawton (UK)
- Mr Telmo Nobre (Portugal)
- Mr Edo Wissink (Netherlands)

4.0 Representation from CERTE on the UN WP11 meeting

The chairman, Mr Eric Devin (France) indicated that he would be able to represent CERTE at the UN WP11 meeting in October 2016 if so requested.

Mr Grealy from Transfrigoroute commented that we continue with the tradition of the chairman being the representative at WP11.

5.0 Minutes of the CERTE Meeting in Castelo Blanco 2015

Minutes of the last CERTE meeting were approved on the 4th June 2015 and were submitted to the 71st session of WP11 as an informal document (INF3).

6.0 Information

6.1 IIR

Didier Coulomb was unable to attend; Eric Devin gave a brief outline on the IIR activities:

- CERTE was still the most active of all the commissions
- 4th ICCC Conference (7th to 9th April, Auckland, New Zealand)
- ICR 2019 – 25th IIR International Congress of Refrigeration (24th to 30th August 2019. Montreal, Canada (<http://www.icr2019.org>))

The 5th ICCC Conference will take place in Beijing, China between the 5th and 7th April.

6.2 Transfrigoroute International

Mr Grealy was representing Transfrigoroute International (TI) and the following issues were raised for discussion:

The technical committee have for the past six months been discussing the changes that are currently being implemented especially in ATP with regards to the MTMC in-service inspections and markings.

The transport industry is under increasing political pressure with the changes for Euro 6 and how will this impact on ATP.

With F-Gas regulations coming into effect and the phase out of R404A how will ATP deal with the subsequent drop in replacement R452A.

Transfrigoroute organised an internal meeting on the voting procedures at the WP11 meeting and the need for change, the chairman pointed out that this was discussed and that Belgium had proposed amendment but this was not approved during the 71st session.

6.3 CEN

A short update was given by Mr Andreas Klotz (Germany) on the latest updates to the CEN standards.

There are currently two working groups within CEN:

The first working group CEN/TC 413 is scheduled to publish part one later this year.

EN16440 part 1 has been published last year and there will be a draft version of part 2 hopefully next month.

Part 3 on dry ice systems is currently being discussed and there is no update on when a draft version will be available.

Parts 4 and 5 are not currently being discussed.

There is a draft version of EN12830 which should be published soon.

7.0 Information from UN WP 11 Meeting October 2013

In Mr Telmo Nobre's absence the chairman and secretary made the following comments in relation to the WP11 meeting:

- The 71st session consisted of 21 working documents and 9 informal documents
- The number of contracting parties to the ATP was 48, but this would rise to 49 with the accession of Saudi Arabia in January 2016
- Panel vans and 6/9 year retests were the biggest amendment

The 71st session saw seven proposals adopted. Adopted and rejected proposals are summarised below:

Adopted

Belgium: Comment on "registered or recorded" in the ATP handbook
France: Re-certification of 6 and 9 year-old small vans
UK: Measurement of internal panel vans (amend)
UK: Model 10 test report
Secretariat: Corrections to ATP
UK: Van illustrations in ATP handbook
Finland: Comment on minor modifications in ATP handbook

Rejected / Amend for Next Year

Belgium: Voting procedures
Russia: Definition of perishable foodstuffs
Belgium: "registered or recorded" annex 1, appendix 1, paragraphs 1 & 3
France: Retesting of multi-compartment equipment
France: Distinguishing marks for multi-compartment vehicles
Russia: Reference to standards
France: Mandatory accreditation to ISO17065
France: Mandatory accreditation to ISO17025
Netherlands: Definitions in annex1
Russia: Mandatory for temperature monitoring equipment
France: Mandatory to audit bodybuilders
Russia: New annex for fresh fruit and vegetables
France: Validity of certificates
Russia: Railway carriages proposal

The 72nd meeting is currently scheduled for the 4th to 7th October 2016.

Mr. Christopher Smith had reached the UN's mandatory retirement age and would be leaving his post in November 2015 and that this was his last session as secretary. WP.11 thanked him for his contribution to the work of ATP and wished him a long and happy retirement.

Ms. Alibech Mireles Diaz has been temporarily assigned the functions as from the 1st December 2015:

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8.0 Discussions about ATP implementation in the field of testing new vehicles, type approvals and certification

8.1 Testing methods

8.1.1 References to standards in ATP

No other matters were raised for discussion.

8.1.2 Supply of information on equipment to be tested

At the 70th session of WP11 there was a proposal from the Netherlands for manufacturers to supply more information on the construction of insulated bodies and thermal appliances, this was again disused at this CERTE meeting.

There were comments made about what information we actually require and if it is necessary for more information, there were questions over whether to include a software version but this would be difficult when the unit goes to market as the software version would probably be different.

Transfrigoroute questioned whether there was a need to rested when the engine is changed to a clean and more efficient engine that produces the same output, there was also a comment made by Mr Klotz that if you change to a more efficient fan then the power consumption would be different, what would happened to the old report.

It was suggested that in the short term we should not make any changes but for the long term we would need to address this issue with future technology on the horizon.

8.1.3 Testing mono and multi-temperature liquefied gas systems

This was not adopted at the 71st session of WP11 but it was proposed that this subject be discussed at CERTE. According to the presentation by France the mono temperature units would be tested in the trailer and multi temperature units would be tested in calorimeters.

There was a consensus that a proposal would be distributed amongst CERTE members for a review prior to submitting for WP11.

8.1.4 Certification of kit bodies and integrated insulation bodies

No other matters were raised for discussion; this will be removed from the agenda for 2017.

8.1.5 Uncertainties and metrology aspects included in Annex 1, Appendix 2

There was a PowerPoint presentation by France on the definition criteria for the determination of the k-coefficient, after deliberation there was a consensus that there was not a problem with this topic and therefore no need for further discussion.

There was also a paper by the UK on annex 1, appendix 2, paragraph 4.2.3(ii) on the measuring points for a mechanically refrigerated unit tested independently: in theory you could test a unit at -24°C, -23°C and -22°C.

There was general consensus that this was not a problem with the test stations present as they would test at the standard points. It was suggested that a proposal for the ATP handbook was the best way forward.

8.1.6 Exchange of information about accreditation according ISO17025 standard, peer assessment and inter-comparison

Again there was discussion about an inter-comparison analysis between competent authorities for airflow, thermal and mechanically refrigerated testing.

The following test stations agreed to take part:

Croatia, Czech Republic, Finland, France, Germany (TUV & DNV GL), Greece, Slovakia, Slovenia, Spain and United Kingdom.

There was still a discussion on the costs involved and what sort of equipment was to be tested. The French delegation would look at a route map of all the test stations that have agreed to take part; hopefully this would begin in November this year.

Mr Stumpf (Transfrigoroute) informed the group that this was the fifth year that this discussion has been on the agenda.

It was requested by Transfrigoroute that it would be helpful for CERTE to write an official letter to TI for their assistance in the inter comparison tests.

Mr Devin (Chairman), Mr Mynott (Secretary) and Mr Vavra (Czech Republic) would write official letters to TI.

8.1.7 Testing of refrigeration units with new (drop in) refrigerants

There were two points of interest with regards to drop-in refrigerants during the CERTE meeting, the first was on new equipment and the second was on existing equipment.

The first presentation by France tried to demonstrate the differences in the properties of R404A and R452A and that there would be reason to suggest that there was no need for a retest with the new refrigerant, only a slight modification of the expansion valve.

There were also two papers by Transfrigoroute on similar vein to the French presentation, with the added analysis that there was no need to retest in-service equipment but just have the pulldown test.

Transfrigoroute agreed with the French presentation and that there was no need to test every machine, stating there was also no need for a retest with existing equipment already in-service.

Mr Klotz (Germany) questioned what the limit would be of a slight modification of the expansion valve without the need for a retest, but he was happy that there was no need for a retest with existing in-service equipment. He also questioned whether the drop-in be allowed if it is only similar to R404A, we need to define the limits, some rules we are flexible on and other we are not; this needs to be addressed in ATP.

The chairman commented that we would need to define what a drop-in is and consider additional measures for future refrigerants.

Finland queried whether this proposal was just for R452A and not any other refrigerants.

It was recommended that France, Germany and TI help to prepare a proposal for testing new machines with drop-in refrigerant and CERTE would make a recommendation with regards to existing equipment already in-service.

8.1.8 Air flow

On the 17th September 2015, the Finnish government made an objection to the proposed amendment to annex 1, appendix 2, paragraph 2.3.6 (C.N.481.2015.TREATIES-X1.B.22) (airflow requirement proposal for 60 a/c/hr). This was an objection to a single proposal and did not affect the other proposals. It was noted by the secretary to the WP.11 members that it was possible to make an objection to a single proposal in accordance with article 18 of the ATP.

Subsequently there was a paper presented by Mr Stumpf (Transfrigoroute) based on the CEN airflow calculation.

Mr Devin (Chairman) liked the “clever” approach stating that we have a good argument for WP11.

Mr Mynott (Secretary) stressed that the original proposal of 60 air changes was based on ISO container method of air changes, maybe we need to look at how containers work: in chilled mode they run on high speed fans and in frozen mode low speed.

It was suggested that Transfrigoroute write a proposal for the next WP11 meeting based on the CEN standard.

8.1 Contributions concerning test report utilisation, type examination certificates, marking rules, ATP plate of conformity etc.

8.2.1 Multi-compartment vehicles

The goal of markings was to help the control of ATP on the road, this was the view expressed by the chairman. It was also mentioned that Mr De Putter was dealing with the marking proposal for the next WP11 and there were two different markings in the proposal: one was to mark each compartment (i.e. FRC/FRC/FNA) and the other was to use just a simple marking with FRC-M.

If there were more than 4 compartments then you would use FRC-M, otherwise you would adopt the first marking layout.

Both the German delegation and Transfrigoroute would favour a more simple marking of FRC-M with the help of a supporting document as discussed during the calculation tool presentation. The supporting document should be additional to the drivers’ documents showing the temperature limits for each compartment along with the maximum allowable layout for each.

It was mentioned by the chairman that ATP was a national standard in countries like France, Spain and Portugal where as other countries ATP was for international transport.

It was agreed that Mr Grealy, Mr Stumpf (Transfrigoroute) and Ms Kress work together in a proposal for the next WP11 meeting for a supporting document which could enable us to just use the simple marking of FRC-M.

8.2.2 Thermal calculation tool for dimensioning fridge unit powers to install in an isothermal body

Transfrigoroute International presented the calculation tool; the software was available to download until the end of this year 2016, the version that was presented was v0.1.

The TI tool can be downloaded from the following link:

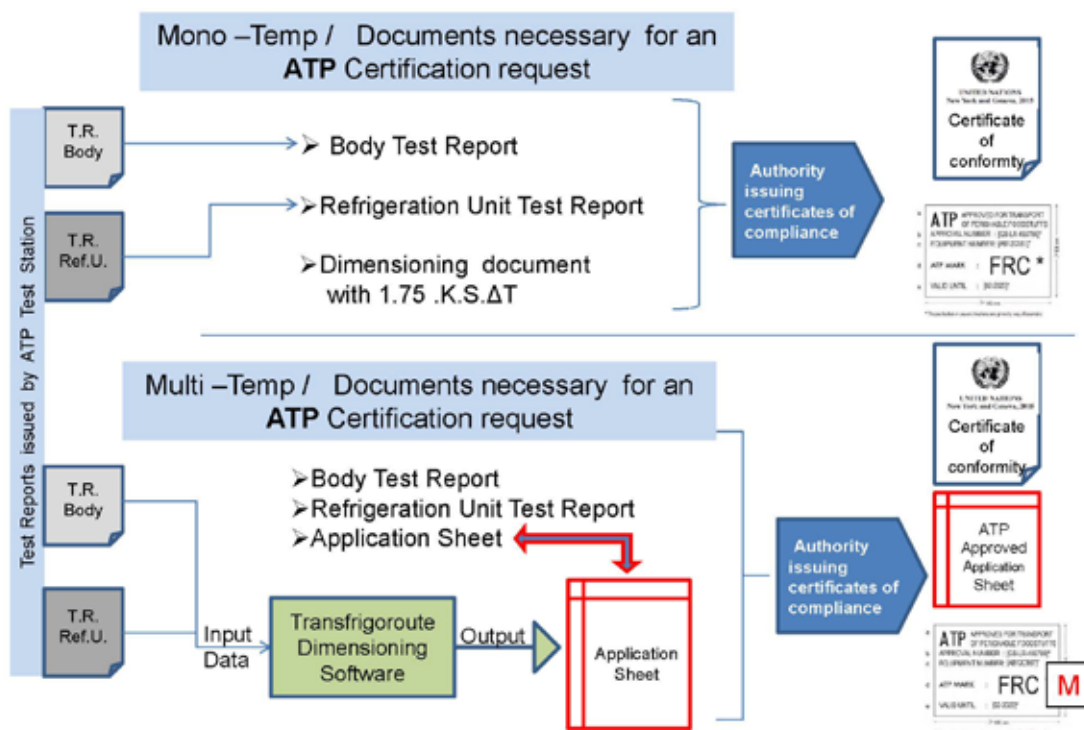
<http://www.transfrigo.com/en/403.html?nc=1>

Login: Transfrigoroute / Password: member

Accessing the tool is free but it is necessary to sign up in order to download the tool and also get updates as and when available, plus the user also needs to have Google Chrome in order to use the tool.

Mr Stumpf (Transfrigoroute) produced a workflow diagram which is reproduced below; this was representative of his personal point of view about how to issue ATP certificates and must be approved by all parties to be accepted. Mr Devin (chairman) indicated that showed WP11 that we have a clear process when issuing ATP certificates.

Workflow to get an ATP certification



It was commented that the body builder needs a printed output that shows all the correct dimensions and limits, this could then be used as a supporting document or perhaps a model of the report that is directly linked to ATP; this was suggested by Ms Kress (Germany), with the support of Transfrigoroute, Mr Rantti (Finland) and Mr Klotz (Germany).

It was suggested to the chairman that Mr Grealy, Mr Stumpf (Transfrigoroute) and Ms Kress work together in a proposal for the next WP11 meeting for a new model in the ATP agreement which could be used as a supporting document when issuing ATP certificates for multi-temperature vehicles, this would be as suggested by Mr Thaler (Slovenia) in the three official languages.

This was accepted by the chairman and was supported by all the CERTE members present.

8.2.3 Other Matters

No other matters were raised for discussion

9.0 Discussions about ATP implementation in field of retesting and the renewal of in-service vehicles

9.1 Methodologies for renewal of certificates of compliance

9.1.1 6 and 9-year ATP retesting method for multi-compartments

France gave a presentation on the in-service inspection testing for multi-compartment units after it was not adopted at the previous WP11 meeting. There was still the issue of where the movable bulkhead should be placed, with the paper suggesting the average position.

It was suggested by Mr Grealy that Transfrigoroute could host a meeting to discuss the topic in more detail in order for it to be adopted at the WP11 meeting.

9.1.2 Retesting of cryogenic in-service equipment

There were matters raised for discussion, but there were no objections to keep this topic on the agenda for future meetings.

9.1.3 Small containers

There were no papers raised for discussion but just general comment on how to re-certify small containers for ATP; France commented that it only uses small containers for national and not international transport.

There was also an issue of how to keep track of all the small containers and also who was responsible for maintaining the small containers, it was suggested that we could have a more detailed discussion at the next CERTE meeting.

9.1.4 Safety factors and ageing of bodies

No other matters were raised for discussion

9.2 Other matters

Mr Klotz (Germany) asked how would you test the maximum capacity of each evaporator when the host unit has three separate evaporators installed and an internal bulkhead.

10.0 Temperature recorders Annex 2 Appendix 1

10.1 Consideration about practices

Mr Rantti (Finland) raised a query regarding certifying vehicles and whether you have to list the temperature recorder on the certificate.

Mr Devin (Chairman) indicated that when you read the agreement there was no clear indication of who is responsible for this and that there was no mention of this in the model certificate in the ATP agreement.

It was suggested that an official proposal be submitted to WP11.

10.2 Application of 12830, 13485 and 13486 standards, initial verification and periodic re-verifications

This was discussed at the beginning of the meeting but there was a comment about the extended cable for recalibration and whether this would be in the new version of EN12830, Mr Klotz (Germany) confirmed that this was included in the draft version.

It was suggested that a proposal be submitted at the next WP11 meeting looking at placement of the sensor inside the vehicle and also the cable length requirement for calibration.

10.3 Other matters

No other matters were raised for discussion.

11.0 Impact of environmental regulations and considerations about energy efficiency

11.1 Evolution of refrigerants (regulation and technical developments)

No other matters were raised for discussion.

11.2 Energy efficiency (energy labels, minimum energy performance standards (MEPS))

Mr Stumpf (Transfrigoroute) commented that for future discussion we should look at energy efficiency in part load conditions, there are also the new regulations for the fridge engine and that they are preparing to use the same database as for cars.

11.3 Evolution of foams (legislative and technical developments)

No other matters were raised for discussion.

12.0 Recommendations from the IIR “Test Stations” to UN WP11 meeting in October 2015

The following points were proposed for recommendation to WP11 later this year:

- Liquefied gas systems (distributed amongst CERTE before submitting to WP11)
- annex 1, appendix 2, paragraph 4.2.3(ii) (ATP Handbook)
- Drop-in refrigerant (in service equipment)
- Drop-in refrigerant for new machines
- New airflow proposal
- Supporting document model for MTMC vehicles
- Temperature recorder details on the model certificate
- Placement of temperature sensor in vehicles (4.4)

CERTE papers for next year:

- Exchange of information on small containers
- Type approval for host unit with three internal evaporators

13.0 Sub-commission work plans

The chairman discussed the sub-commission work plans.

- Inter-comparison testing “Round Robin”

It was also suggested perhaps we should have more than one CERTE meeting in future, especially when discussing complicated issues within ATP.

The minutes shall be approved by email and submitted as an informal document at WP11.

| CERTE Recommendations | CERTE 2014 proposal | | Adopted to ATP | | CERTE 2015 proposal | | Adopted to ATP | |
|---|---------------------|----|----------------|----|---------------------|----|----------------|----|
| | Yes | No | Yes | No | Yes | No | Yes | No |
| Definitions in Annex 1 | - | - | - | - | X | - | - | X |
| Dimensions of panel vans | X | - | - | X | X | - | X | - |
| Information for MTMC's | - | - | - | - | X | - | - | X |
| Liquefied Gas Systems | - | - | - | - | X | - | - | X |
| Minor Modifications to Insulated Bodies | - | - | - | - | X | - | X | - |
| Clarification of the X markings | - | - | - | - | X | - | - | - |
| 6 and 9-Year ATP Retesting | - | - | - | - | X | - | X | - |
| New Refrigerant | - | - | - | - | X | - | - | - |
| “Round Robin” thermal test | X | - | - | - | X | - | - | - |
| Airflow | X | - | X | - | - | - | - | X |
| Multi-compartment decals | X | - | - | X | - | - | - | X |
| Calculation tool | X | - | - | X | - | X | - | X |
| Dividing walls (add fixed) add measurements to options | X | - | - | X | - | - | - | X |
| Refrigeration unit to collect data for acceptable changes | - | - | - | X | - | X | - | X |
| Pull-down test of vehicles | X | - | - | X | X | - | - | X |
| Multi-compartment in-service inspections procedure | X | - | - | X | X | - | - | X |
| Correction to standards (4.3.2 and 4.3.4 ii) | X | - | X | - | - | - | - | - |

14.0 Future Meetings

Madrid was proposed as a venue for the next CERTE meeting in 2016, the suggested dates were the 26th and 27th April.

15.0 Any Other Business

No other matters were raised for discussion.

Attendance: List of Participants

| Name | Surname | Country | Organization | Email Address |
|-------------|----------------|----------------|---|------------------------------|
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