Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Perishable Foodstuffs **8 July 2013**

Sixty-ninth session
Geneva, 8-11 October 2013
Item 3 (a) of the provisional agenda
Activities of other international organizations dealing with issues of interest to the Working Party

Report of the IIR CERTE subcommission meeting (Paris, 2 April 2013)

Transmitted by the International Institute of Refrigeration (IIR)

IIR Sub-Commission D2 "CERTE" Meeting
France, Paris 2nd April 2013
Approved Minutes

1.0 Welcome and Presentation

The Chairman Mr Eric Devin welcomed the participants (22 in total from 11 contracting parties). The attendance list is given at the end of this document.

2.0 Approval of Agenda

The proposed agenda is adopted with one additional amendment: defining the outside surface area of insulated tanks was added to section 8.2.

It was noted that some papers were not received in time for adequate review prior to the meeting. It was consequently agreed that for future meetings there should be a deadline of at least two weeks prior to the meetings for the submission of papers.

3.0 Apologies

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

- Mr Chatzitakis Konstantios (Greece)
- Mr Manfred Kreitmaier (Austria)
- Mr Mikko Maunu (Finland)
- Mr Milan Pesek (Czech Republic)
- Mr Emmanouil Rogdakis (Greece)
- Mr Jacek Schnotale (Poland)
- Mr Lauri Tuunanen (Finland)
- Mr Frans van der Rijst (Sweden)

4.0 Appointment of Officers

Mr Eric Devin (France) was nominated and elected as chairman, The chairman thanked Mr Geron Johansson for his contributions over a number of years to the CERTE committee.

4.1 Secretary for the Meeting

Mr Tobias Mynott (United Kingdom) was nominated and elected as Secretary.

4.2 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 2013 if so requested. There was a general agreement.

5.0 Minutes of the CERTE Meeting in Munich 2012 and Amendments

Minutes of the last CERTE meeting were approved during this session in Paris.

It was noted that ideally the minutes should approved by email before the next WP.11 meeting rather than at the next CERTE meeting. As otherwise the CERTE representative would be presenting unapproved minutes to WP.11.

6.0 Information

6.1 IIR

Didier Coulomb gave a short presentation on the IIR; he mentioned that the D2 “CERTE” sub-committee was the most active within the IIR. The key challenges are the quality of the cold chain considering the reduction of energy consumption and refrigerant emissions.

The IIR is discussing the potential limits to GWP for refrigerants (Global warming potential), they believe that the phase down proposed by the European Union is too rapid and their concerns were the following:

- Health and safety
- Replacement refrigerant have safety problems
- Countries in Europe have only just implemented F-Gas regulations
- India is against current proposals at an international level made by the USA with the support of the European Commission.

The aim is to have a European decision on the new F-Gas regulation.

6.2 Transfrigoroute International

Mr Grealy (TI) was representing Transfrigoroute International and the following topics were discussed:

Road Transport (weights and dimensions), there are proposals for wider vehicles. Though caution should be exercised as if there were changes this would affect the value of older trailers.

There is an ongoing project with regard to multi-compartment vehicle recertification to be discussed in 8.2.2.

Work is still on going with regard to energy labelling, but nothing to report.

TI believe that the F-Gas regulations do not have the interests of the transport industry in mind, several of the issues were discussed:

Proposals on GWP levels for refrigerants now reduced from 2500 to 2150. It is also felt within TI that there are safety concerns regarding some of the alternative refrigerants and further, that they could also be less efficient.

If the service ban came into effect then average life of a new vehicle would be limited to 8 years. For example, if you were to purchase a new vehicle today, would you still be able to use it in 2025 and how good will retro fitting be?

Pre-charged equipment ban would be costly and add at least two more steps to the chain and may result in higher emissions as the unit would have to be tested in the factory and then emptied. However, apparently, the European Parliament is adamant that they are going to stick the schedule.

Mr Nobre (Portugal), president of WP11, commented that we must also keep in mind the environmental impact for future ATP proposals.

6.3 CEN

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

They are currently transferring CEN/TC113 WG13 to CEN/TC 413 and there is a new working group for EN16440.

A new group is being set up to revise the temperature recorder standard 12830 and this will meet in Berlin in June

The following comments were made:

Mr Nobre (Portugal): wondered, will this eventually replace ATP; we need to open a discussion at the next WP11 meeting.

Mr Stumpf (Carrier): considered it is not possible to make CEN an international standard.

Mr Nobre (Portugal): we can't say that this will be adopted by WP11.

Mr Lawton (United Kingdom): pointed out there could be a copyright issue if a then CEN standard was incorporated into ATP.

Mr Schrempf (Germany): standardisation is more efficient than ATP. At present it takes at least 10 years for any changes to be made in ATP as opposed to 5 years for standards.

Mr Stumpf (Carrier): we need to test to a standard to clarify performance of equipment to our customers. Standards exist to connect users to the manufacturers and test stations.

Also papers from CEN should be submitted to improve ATP, newer technology is being considered in CEN, which isn't in ATP. We need to open a discussion at the next WP11 meeting.

7.0 Information from UN WP 11 Meeting October 2012

The chairman Mr Telmo Nobre was in attendance, he made the following comments:

- The adoption Multi-compartment vehicles will commence in September 2013.
- The decals and in-service testing of Multi-compartment vehicles are still to be discussed.
- A PowerPoint presentation was distributed

The 68th session saw four proposals adopted. Adopted and rejected proposals are summarised below:

Adopted

Netherlands: Correction to text (plate/certificate)
Netherlands: Deletion of text (transitional period)
Secretariat: Delete a paragraph of annex 2 appendix 1
Netherlands: Correction to text (wording in UK transcript)

Rejected

France: Proposal on testing liquefied gas systems
France: Re-certification of 6 and 9 year-old small vans
Russia: Definition of perishable foodstuffs

There are currently 49 contracting parties as of February 2013 with China also looking at adopting ATP.

The 69th meeting is currently scheduled for the 8th to 11th October 2013. The deadline for submission of documents is the 5th July 2013.

It was also noted that two important recommendations were raised at the 75th meeting of the Inland Transport Committee. They were as follows:

The committee noted that a number of proposals had been submitted to WP11 in recent years proposing to increase the k co-efficient defined in ATP, they noted the possible negative environmental impact of such a change.

They also drew attention to addressing two key strategic issues in WP.11; they were to the introduction of the definition of perishable foodstuffs by amending article 3 of ATP and also extending the scope of ATP to cover all perishable foodstuffs and not only those referred to in annexes 2 and 3.

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

There were no changes to standards that are referenced in the ATP agreement but in the future EN12830 might be revised.

It was also discussed whether it was possible to mention mandatory test standards within the ATP agreement. It was proposed that we officially, under IIR, write to Mr Christopher Smith for clarification.

8.1.2 External Surface Area Measurement of Panel Vans

This topic was originally raised at the 66th session of WP11 and lead to some misunderstandings over the problem experienced. The problem leads to some van structures receiving slightly lower K values than they might otherwise be entitled to.

WP11 rejected the UK proposal on the basis that the DIN standard already had a method for measuring the internal and external dimensions of panel vans. Meanwhile project group 413 of TC113 are still looking at this problem for a forthcoming CEN standard. However on investigation, The DIN standard has no provision for accurately measuring the external dimension of the insulation within small vans.

The UK presented a paper with three possible options for proposal to WP.11 based on discussions in the CEN standard meeting.

The following comments were made:

Mr Nobre (Portugal) complained that the paper for this proposal was not received in time for adequate review prior to the meeting.

Mr Lawton (UK) pointed out that the CEN meeting was only the week before and that the paper had been prepared on the basis of that meeting as quickly as possible.

Mr Schrempf (Germany): it was not accepted in the industry with several German manufacturers (VW, Mercedes etc) saying that it was too complicated; they are currently using the DIN standard.

Mr Hanspeter (Germany): the front to back picture needs to be clearer and that the wheel arches should be ignored in the calculation.

Mr Cavalier (France): it is clear that this is a problem; we need to have a common method of measuring the dimensions of panel vans.

Mr Hanspeter (Germany): option 1 they need to prove the dimensions are correct; we should not rely on the manufacturers data. Option 3 we need to discuss the dimensions for FRC and FNA.

Mr Devin (Chairman): we need to have a common procedure on how to measure panels vans for all test stations.

Mr Nobre (Portugal): options 1 and 2 are not possible, option 3 would be the best option, in order to check the dimensions they drill a couple of holes to clarify the dimensions (notifying the body builder prior to testing).

Mr Cavalier (France): if we have technical drawings we can check specific measurements, drilling holes would not be acceptable.

Mr Lukasse (Netherlands): option 1 we are completely relying on the manufacturers' data, option 2 we need to ask the manufacturer to verify dimensions. We also need to define the uncertainty of measurement.

It was suggested that we prepare a new proposal with more information. We need to also review the test report to reflect a panel van.

8.1.3 Small Containers

Not discussed.

8.1.4 Measuring Heating Capacity

Not discussed.

8.1.5 Kit Bodies and Certification of Integrated Insulated Bodies

Not discussed.

8.1.6 Uncertainties and Metrology Aspects in Annex 1 Appendix 2

Discussed in the next point of the agenda (8.1.7)

ISO17025 accreditation

- There is insufficient volume for the Netherlands to adopt ISO17025
- Spain is accredited to ISO17025
- Italy there is no mandatory accreditation, if it was required for ATP in the future then this wouldn't be a problem
- Denmark is ISO17025 accredited
- France is ISO17025 accredited
- Mr Bernard Schrempf indicated that no-one is checking test stations in Germany, but the German Government accredits them
- The UK was recently inspected by VOSA with regard to ISO17025
- Portugal is ISO17025 accredited

Subsequently we were informed by Portugal that before ISO17025 they were already accredited under EN45001 since 1995. They are also accredited on Occupational Health and Safety under OHSAS 18001 and on Quality under ISO 9001.

It was suggested that we organise a "round robin" thermal test on a six-year-old trailer, the following authorities accepted that this was a good way forward and agreed to do a without charge test:

- Spain
- Portugal
- Germany
- France
- Netherlands
- UK
- Denmark
- Finland

It was undecided how this testing could be financed as there could still be considerable transport costs; further discussions will take place at the next CERTE meeting.

8.2 Contributions Concerning Test Report, Utilisation, Type Examination Certificates, Marking Rules and ATP Plate of Conformity

8.2.1 Decals for Multi-compartment Vehicles

France has already implemented a multi-compartment decal. Portugal agrees and that the same system must be used for all competent authorities. Their concern is that there might not be sufficient room on the plate.

The following comments were made:

Mr Nobre (Portugal): the plate has same value as certificate; therefore the layout must be as simple as possible.

Mr Cavalier (France): overall of ATP vehicles, less than 1.7% of them are multi-compartment.

Mr Klotz (Germany): asked what other countries are currently doing, movable bulkheads would be difficult and the overall system should be clear and simple.

Mr Hanspeter (Germany): should be as simple as possible.

Mr Nobre (Portugal system)

- Movable bulkhead FRC (FRC/FNA)
- Fixed compartments FRC/FNA

Mr Grealy (TI): this is on Transfrigoroute Internationals agenda to discuss, will send an update/proposal for WP11.

8.2.2 Thermal Calibration Tool for Dimensioning Fridge Unit Powers for Isothermal Bodies

There was no paper concerning this point, it is proposed that that the tool will be given to every test station and competent authority as soon as possible.

Transfrigoroute International has confirmed that a BETA version has been undergoing testing by manufacturers and that the aesthetics are being fine-tuned. Concern was also raised at to who would be financing this tool and who would own the intellectual property rights.

The next Transfrigoroute International meeting is in June, where this will be discussed in more detail. The goal is to distribute the tool at their AGM in September.

If there is no common tool, other authorities might develop their own individual tool. The UK indicated that it would be necessary to know how the tool was developed and how its output had been proven, this would be required under procedures for ISO17025 approval.

Mr Leo Lukasse from the Netherlands will propose a paper for the next WP11 meeting.

8.2.3 Defining the Outside Surface Area of Tanks

A paper was proposed by Finland on how we define the outside surface area of insulated tanks. Sometimes the insulation is reduced at the rear of the tank, this needs to be better explained. The group were in general agreement

It was recommended that Finland submit a proposal to the next WP11 meeting.

8.2.4 Internal Dividing Wall

A paper was presented from TI concerning internal dividing walls on multi compartment vehicles.

The issue is that regardless of how effective the insulation of the dividing wall is, according to the existing text of ATP, the insulation will be given a value of 2.0 or 1.5 W/m². K. This effects the dimensioning of the cooling device.

Clearly if the minimum foam thickness of such walls is 60mm, the K coefficient can be established at 0.40W/m². K.

As an example, polyurethane insulation foam:
(λ = 0.024 W/m.m².K):
0.024 / 0.06 =0.40W/m².K.

An amendment needs to be made to say that if the wall is 60mm thick then the k value is 0.40W/m².K. Also If the manufacture believes that the k value is better, then they could have an option to test.

The following comments were made:

Mr Hanspeter (Germany): agreed with the proposal but that it should say fixed internal dividing wall

Mr Lukasse (Netherlands): we something more generic, don’t make a one off case.

Mr Cavalier (France): we should start with fixed bulkheads and then progress to movable in the future.

Mr Nobre (Portugal): we could we put this into the handbook.

We need to make an amendment on alternative choices and clarification. If the manufacture believes that the k value is better, then they could have an option to test.

It was recommended that an amended proposal should be submitted to the next WP11 meeting.

Subsequently since the meeting, TI has informed the chairman of CERTE that TI do not officially support the paper entitled "k values of internal bulkheads without thermal bridges" and requested to withdraw the paper.

Therefore TI has informed the group that they will not submit an amended document at the next WP11 meeting concerning this topic.

8.2.5 Acceptable Changes to Refrigeration Units, Application of Provision 6c of Annex 1 Appendix 1

A proposal was submitted by Italy on the acceptable changes for a machine test report. If there is a change in the equipment should a re-test be demanded?

One possibility would be to put a list of acceptable changes that could be carried out without the need for a re-test in the handbook.

It was agreed that a new proposal be submitted for the next CERTE meeting.

8.3 Other Matters

8.3.1 Class Temperature Limit Considerations in ATP

Mr Stumpf (Carrier) submitted a paper concerning the temperature limits defined in Annex 1 of ATP, which are not ideally linked with the requirements of Annexes 2 and 3, especially for non-mechanically refrigerated equipment.

- For B class, for non-mechanically refrigerated equipment, the temperature limit should go from -10°C to -12°C. It would be logical to have the temperature range for mechanically refrigerated equipment from "-10°C to +12°C" to "-12°C to +12°C".

- For E class, it would be logical to have the temperature range for mechanically refrigerated equipment from "< -10°C" to "< -12°C".

- For D class, for a non-mechanically refrigerated equipment, the temperature limit should go from 0°C to +2°C. It would be logical to have the temperature range for mechanically refrigerated equipment from "< 0" to "+2".

The following comments were made:

Mr Klotz (Germany): if we increase temperature from 0°C to 2°C this could have an influence on bacterial growth.

Mr Schrempf (Germany): they need to ask the German ministers if they agree to the change, this is only a technical proposal at present.

Mr Lukasse (Netherlands): there is no reason for change.

Mr Cavalier (France) we need to check with the ministry of agriculture and get their opinion. In his a opinion a change is not to be recommended.

TI proposed that if the German ministers agree, then they could make a new proposal to WP11.

8.3.2 Medicine Transportation

In France ATP is used to certify vehicles for pharmaceutical transport. A presentation by Cemafroid was given on the subject. The presentation detailed the temperature ranges and the requirement for professional, pharmacy skills and Public health.

Temperature management must be in compliance with NF and FDA and equipment must be annually calibrated.

Another general question was: What temperature deviations are acceptable and are they comparable with FDA guidelines? Also how do FDA guidelines

compare with NF. Manufactures do not want to be testing to two standards. Marie boned was asked to try to get a translation so that the two could be compared.

TI asked who would carry out the temperature recorder calibration; they suggested that the original installer/manufacturer should carry out the calibration.

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

The following points were discussed.

9.1.1 6 and 9-Year ATP Retesting Method for Non-independent Mechanically Refrigerated Equipment

France gave a paper and presentation concerning the above. They have tried to integrate all the feedback into the proposal regarding the retesting of 6 and 9-year old small vans, in particular their ability to maintain correct internal temperatures at idle speed.

The following comments were made:

Mr Klotz (Germany): what would be the maximum and minimum period in regards to temperature class and also what would be the idling speed?

Cavalier (France): you either fix the idling speed or you let the unit run as is.

Mr Lukasse (Netherlands): how do we determine the engine idle speed?

Mr Grealy (TI): it must be the agreed manufacturing idle speed?

Mr Klotz (Germany): is the test station able to measure rpm and should there be a specific pull down time?

Mr Schrempf (Germany): will make some comments and then send them to France.

The CERTE committee proposed that Germany and France work together and submit a new proposal for the next WP11 meeting.

9.1.2 6 and 9-year ATP Retesting Method for Multi-compartments

France outlined a test procedure where the number of tests were minimised. France proposed that we use the same ambient conditions for mono-temperature compartments (15°C to 30°C), pulling the entire trailer down to its lowest class (A, B or C). Once the lowest temperature has been achieved, change the setpoint in one compartment to 0°C and then allow the two compartments to stabilise again. The objective is to complete the in-service inspection in one day.

A discussion followed:

Mr Lukasse (Netherlands): test criteria will be different from the original, why don't we test worst-case scenario?

Mr Grealy (TI): in future the tool will have worst-case scenario for multi-compartments.

Cavalier (France): we need to keep cost and time to a minimum.

Mr Lukasse (Netherlands): The smallest evaporator determines the worst-case scenario.

It was suggested that a new proposal be submitted at the next WP11 meeting.

9.1.3 Retesting of Cryogenic In-service Equipment

No new paper was presented to the group, but there would be a presentation at the ICCC 2013 conference by France. The general proposal is to measure the flow of cryogenic material.

Mr Grealy (TI) commented that you would need to look at energy consumption and independent reference data.

Mr Cavalier (France) would work on a new proposal to be presented to WP11.

9.1.4 Classification of Electrical Fridge Units

It is seen by the CERTE group as a problem that is coming as electric cars and their batteries become more widely available. Currently there is nothing ATP agreement, that might cover this area. France feels they need a paper for domestic transport as ATP apples.
The issues are:

- Could the test be carried out in electric standby mode
- Is the test on the refrigeration unit or the battery system as well
- How is a diesel/battery combination test tested
- What about the ageing of the batteries

It was considered that this topic is complex and a starting point might be for a proposal be submitted to the next WP11 meeting with additional testing details added to the handbook.

9.2 Other Matters

No other matters were raised for discussion.

10.0 Temperature Recorders Annex 2 Appendix 1

10.1 Consideration about Practices

No matters were raised for discussion.

10.2 Application of 12830, 13485 and 13486 Standards, Initial Verification and Periodic Re-verifications

Mr Grealy (TI) would like to see calibration carried out by the supplier of equipment or manufacturer.

Will discuss further at the next CERTE meeting.

10.3 Other Matters

No other matters were raised for discussion.

11.0 Impact of Environmental Regulations and Considerations about Energy Efficiency

TI mentioned that energy efficiency is likely to be software related, further more than one CEN group were working in this area and the picture may become confused.

11.1 Evolution of Refrigerants (Regulation and Technical Developments)

The principal issue here is the revised F-Gas regulations and the probably phase out of HFC-404a due to the GWP limit of 2050.

11.2 Energy Efficiency (Energy Labels, Minimum Energy Performance Standards (MEPS))

No other matters were raised for discussion on energy efficiency.

11.3 Evolution of Foams (Legislative and Technical Developments)

No other matters were raised for discussion; Mr Grealy (TI) commented that one of their colleagues would be attending WG in the UK on the development of new foams (EU funded).

12.0 Recommendations from the IIR "Test Stations" to UN WP11 Meeting in October 2013

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

- Dimensions of panel vans
- "Round Robin" thermal test
- Multi-compartment decals
- Calculation tool
- Dividing walls (add fixed) add measurements to options
- Refrigeration unit to collect data for acceptable changes
- Pull-down test of vehicles
- Multi-compartment in-service inspections procedure
- Issue of tanks as proposed by Finland

13.0 Sub-Commission Work Plans

The chairman discussed the sub-commission work plans.

- "Round Robin" thermal test
- France will work on a cryogenic unit test procedure
- Electrically powered refrigeration units

14.0 Future Meetings

- Italy was proposed as a venue for the May 2014 meeting

Attendance: List of Participants

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