

LowT 2019 - Minutes Telco

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| Date | 08 Nov 2019 |
| Title | Minutes of the 30 th Telco - Low Temperature Task Force |
| Document | <p>LowT 30-02 – MINUTES¹</p> <p>This document is linked to an excel file:</p> <p>File name: WLTP_Low_Temp_TF_Status_list_v2019-10-25.xlsx^[*]</p> <p>This file is loaded in CIRCA-BC as well as in the Wiki page: https://wiki.unece.org/display/trans/LowT+TF+30th+telco</p> |

Agenda Item 1

The Chair, C. Astorga (C.A.; JRC) opened the meeting and presented the agenda.

The minutes from the previous TF TelCo (25-10-2019) were accepted without further changes.²

Chair reminded that the minutes of each telco or f2f meeting will be loaded in Wiki page & CIRCA BC only after approval.

Agenda item number 2

Presentation of open issues list of LowT TF to be used as working document during telco on the 8th of November:

WLTP_Low_Temp_TF_Status_list_v2019-10-25.xlsx

<https://wiki.unece.org/display/trans/LowT+TF+29th+telco>

^[*] This serial number will be continued and updated by the chair of the TF following the evolution of the discussions in the TF.

In order to track the evolution of the discussions and decisions inside the LowT TF, all excel files detailing the **Low T TF status list** will be saved and available in CIRCA-BC and in UNECE Wiki page dedicated the LowT TF (<https://wiki.unece.org/pages/viewpage.action?pageId=8529511>)

¹ All documents mentioned in the minutes can be found at CIRCA BC under:
 EUROPA > European Commission > CIRCA BC > GROW > wltp > P > Low and realistic winter temperature TF
 , as well as in the UNECE Wiki page: <https://wiki.unece.org/pages/viewpage.action?pageId=85295115>

² Document can be found at CIRCA BC and <https://wiki.unece.org/display/trans/LowT+TF+29th+telco>

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Agenda item number 3.

P.B. (Chair SG-EV) provided a summary of the SG EV's Telco held on Nov 7th 2019 (see **191107_SG EV Low Temp Test Procedure for EVs - Summary.pdf**). It was pointed out that in that telco, EC indicated that current available time to provide a test procedure is limited so the SG should focus on adapting the STP to type 6 conditions.

Chair of EV SG indicated that the Shortened STP is promising, so that it will be further evaluated to consider the possibility to include it in the Amendment 1 of the optional Annex, i.e., potentially Amendment 7 of GTR-15.

The SG discussed all open items in the referred telco, which allowed closing item "criteria to proceed" (see **WLTP_Low_Temp_TF_Status_list_v2019-11-08**). Moreover, during the telco SG members were asked by the Chair to discuss within their organization and provide a mature draft text on the different open points.

Finally, the EV-SG Chair shared the timeline of the SG and the TF, highlighting the need for action to be able to meet the deadlines (i.e., Jan 2020 with an ID, and March 2020 with a WD).

R.G. asked if Amendment 6 could be delayed to potentially include the Shortened STP. JPN and EC indicated that it should not be possible. M.N. specified that giving the fact that industry is still discussing the shortened STP, and that current vehicles do not have such long range, it would be favoured to wait for a possible Amendment 7 to be able to provide a robust procedure.

Agenda item number 4.

I.R. presented some considerations on the road load to be used in the procedure (see **Road load correction for LowTemp test.pdf**). This point was raised due to the importance of the impact that road load has on energy efficiency of the tested vehicles.

It was shown that using the current formula to adapt to ambient temperature from 20C to -7C result in an increase of 10% of f2 but an increase of 23% of f0. Therefore, an adapted formula was presented.

It was also presented an alternative proposal which only requires an increase by 10% of f2. Nonetheless, it would be less stringent than the agreed 10% increase for f0, f1 and f2.

I.R. requested the Chair for a mandate to coordinate a group to further discuss this point. The request was granted.

Agenda item number 5.

C.P. (AUX SG) presented the document **Auxiliaries Sub-Group for LowTemp UN TF activities-CP-update-08nov2019.pdf**.

He also reminded that TF members are requested to send feedback on Activity 2 by Nov 22nd. The main point of the presentation was addressed to the Chair and the drafting coordinator, asking way would be the preferred way to proceed in order to support the drafting of the document.

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It was agreed that the preferred approach is that the AUX-SG gather the needed technical elements and provide the drafting coordinator with a mature text that would then be adapted. This text will then be fitted in an: a) single appendix for auxiliary devices or b) sub-section with this information for each powertrain. It was considered that this decision can be taken later on time, as the wording can be the same in both cases.

It was agreed that before submitting the text to the drafting coordinator the AUX-SG members will discuss to provide a consensual text that will be presented to the TF members.

Agenda item number 6.

H.K. (HORIBA) presented (see Conditions of dilution air and CVS_Horiba.pdf) to the TF the text regarding line 50 of the document **WLTP_Low_Temp_TF_Status_list_v2019-10-25**.

It was pointed out that the presented text is supported by the members of the TF and Japan will provide feedback by the next TF TelCo.

The wording of the text was slightly modified to clarify that the temperature should be measured at the outside of the CVS wall (see table below for line 50 and/or Status list document).

Agenda item number 6

R.S. (JRC) presented information regarding points 47, 49, 64, 68 and 86.

For more information, see document **JRC-input-2019-11-08 30th LowT TF** and the table below.

The key discussion points were the following:

Line 47.

JRC propose the following text that comprehensively includes the requirements of GTR-15 and UN-R83 regarding dyno bearings:

“The time between the completion of the dynamometer warming and the start of the emission test shall be no longer than 10 minutes if the dynamometer bearings are not independently heated or incorporate another method of stabilising the parasitic losses e.g motorised bearings

If the dynamometer includes a method of stabilising the parasitic losses as above, the emission test shall begin no longer than 20 minutes after dynamometer warming **and** in accordance with the dynamometer manufacturer’s recommendations.”

The text was agreed with the suggestion of some modifications. JPN will provide their view after Nov 22nd.

O.B. (Volvo) suggested to modified “...warming **and** in accordance with...” by “...warming **or** in accordance with...”

For the sake of time, it was decided that JRC, O.B. and JPN will discuss and propose an agreed text by the next TelCo.

Line 49

Together JRC, O.B., H.K., and P.C. revised the text for the transfer line to avoid condensation, the agreed text currently (while waiting for JPN position by Nov 22nd) is the following:

“The provisions of paragraph 3.3.1.3. of Annex 5 is modified to read:

The connecting tube shall satisfy the following requirements:

- (a) Be less than 6.1 metres long with an internal diameter not exceeding 105 mm.
- (b) Be heated-insulated to 70 °C or higher.”

Regarding Line 68, JRC requested the view of JPN on this point. M.M. (JPN) indicated that JPN would view is not to use forced cool down of the vehicles. JRC, agreed with the proposal.

To what concerns line 64, R.S. pointed out that 6h as minimum time for soaking (as that use for type 1 test at 23C), monitored by the temperature of oil and coolant, will not be sufficient to reach a stable cold condition of the vehicle when tested at -7C. P.B. (CH) pointed out that as previously indicated in the list of items doc. In order to allow 6h soak, it measurement of the temperature of the after-treatment would be needed. JRC, supported the comment made by CH.

For this reason, EC/JRC and CH still consider that a minimum of 12h soak, as that requested for the type 6 in UN-R83, is needed.

JRC/EC, CH and JPN, will trilaterally discuss this point and together provide a proposal by next TelCo.

On Line 86. Definition of Aux device. JRC pointed out that since there have not been any developments in the WLTP iWG on this point, the optional Annex will need to use the current definition, and therefore the item is ready for drafting.

Agenda item number 7

Line 21. P.B. (CH) and R.S. (JRC) indicated that this point was already agreed by the CP so that it can be set as ready for drafting. P.C. (PSA) indicated that possibility to include the electric range as relative to 23C test. B.T (EC) pointed out that the actual value is needed. Nonetheless, B.T recommended to add an explanation on the intention to use that value as relative to the 23C test. He also pointed out the need to indicate which electric range will be used.

JPN will still need to provide their position on these suggestions.

| Table: Revision of document WLTP_Low_Temp_TF_Status_list | |
|--|---|
| Row # | X.Y. (Speaker) Comments ³ on status list sheet 2019-11-08. |
| 21 | All CP agreed to include FC and electric energy consumption. Set ready for drafting. |
| 49 | (JRC) the wording agreed by the TF members (except JPN that will provide feedback after Nov 22) is: The provisions of paragraph 3.3.1.3. of Annex 5 is modified to read: The connecting tube shall satisfy the following requirements: (a) Be less than 6.1 meters long with an internal diameter not exceeding 105 mm. (b) Be heated-insulated to 70 °C or higher. All CP agreed on the need to avoid condensation. Set ready for drafting. Although final text has to be agreed with JPN |
| 50 | H.K. (HORIBA) the wording agreed by the TF members (except JPN that will provide feedback after Nov 22) is: - The CVS dilution air conditioning must be performed according to Annex 5, 3.3.2. In addition, the temperature of the dilution air shall be maintained to a temperature equal or above 20 degC before the point of mixing. - "Any part of the pipes connecting the mixing device to the CVS, when located in the cold ambient, must be insulated and / or heated to have an outside wall temperature of at least 20 degC. This also applies to any part of the CVS that could be located in the cold ambient. " All CP agreed on the need to avoid condensation. Set ready for drafting. Although final text has to be agreed with JPN. |
| 68 | JPN position do not use forced cool down of vehicles. JRC supports this proposal. |
| 86 | Use current definition. Set as ready for drafting. |

Agenda item number 8.

R.G. shared the document (191113 - Low Temp Annex based on ECE-TRANS-WP29-2019-62e.pdf) with the structure of the Optional Annex for the Type 6 test.

He pointed out that it will be needed to include in the new document items such as Fuels for the low temperature test, putting emphasis in those that are not present R83 or GTR-15 as for example E75.

R.G. stress the fact that the document indicates point that will have to be addressed in the Type 6, that by no means this comments refer to modifications on the Type 1 test.

P.B. (CH) requested R.G. to add a paragraph in the new document indicating the intention of the Optional Annex (which is not to modify the Type 1 test).

Agenda item number 9.

Finally, the Telco schedule on Dec 13th has been changed to Dec 12th.

³ Note: This table is linked to an excel (live) document discussed/produced on 8th of Nov 2019 during the Telco of the LowT TF status list.

List of participants:

Bart Thedinga (EC) B.T.

Cova Astorga (Chair) C.A.

Christophe Petitjean (CLEPA) C.P.

Hans Matthiasson (Volvo/OICA) H.M.

Harald Kurz (HORIBA) H. K.

Iddo Riemersma (EC) I.R.

j.Wiebner (DAIMLER AG) J.W.

Marcis Lakstigala (CLEPA) M.L.

Martin Rauch (CLEPA) M.R.

Matthias Nägeli (VW/ACEA-EV/SG-EV) M.N.

Mayumi Morimoto (JPN) M.M.

Norbert Klein (Hyundai) N.K.

Olle Berg (Volvo/OICA) O.B.

Pablo Mendoza (AECC) P.M.

Peter Bonsack (Chair SG-EV/CH) P.B.

Pierre Cagnet (PSA) P.C.

R. Suarez (JRC) R.S.

Rob Gartner (EC) R.G.

Stefano Malfettani (Renault) S.M.

Shumpei Miyazaki (JPN/MLIT) Sh.M.

Wolfham Thiel (TRT-Eng) W.T.

Takehiro Abe (JPN) T.A.

Torii Hitoshi (NTSEL/JPN) T.H.



EUROPEAN COMMISSION
JOINT RESEARCH CENTRE (JRC)
DIRECTORATE FOR ENERGY, TRANSPORT & CLIMATE
SUSTAINABLE TRANSPORT UNIT

30th Telco Low Temp Task force

| Low Temp Task force Agenda | |
|----------------------------|---|
| Date | November 2019 Friday 8 th (9:00-11:00h) |
| Informal Document | Agenda Low Temp TF 2019-11-08 (Doc TF LowT 30-01) |
| Room link | https://ecwacs.webex.com/meet/mastorga-llorens |

| Time | Agenda item | Lead/ contributions | Working Document |
|-------|---|----------------------------------|--|
| 9:00 | <p>Welcome and introduction</p> <p>Presentation of Agenda https://wiki.unece.org/display/trans/LowT+TF+30th+telco</p> <p>Lecture and approval of Minutes of 29th LowT TF telco (25th October)</p> | Coordinator TF / All | <p>Agenda TF LowT 30-01</p> <p>Minutes TF LowT 29-02 (See mail 31/10/2019)</p> |
| 9:10 | <p>New version "Open issues list"</p> <p>WLTP_Low_Temp_TF_Status_list_v2019-10-25.xlsx https://wiki.unece.org/display/trans/LowT+TF+29th+telco</p> | Coordinator TF / chair of EV SG | |
| 9:15 | Reporting of the Chair of EV-SG on telco 7 th of Nov | P. Bonsack, as Chair EV-SG) | |
| 9:30 | Revision of other lines in open issues list: line 41 (equation/ road load determination) | Ildo Riemersma | |
| 9:40 | Update on Auxiliary devices working group https://wiki.unece.org/display/trans/LowT+TF+30th+telco | Ch. Petitjean (CLEPA) | |
| 9:50 | Revision & discussion on lines 49 & 50 - Open issues list (Definition of the environmental condition of the CVS in the Type 6 test & Temperature range of dilution air) | H. Kurz (Horiba) | |
| 10:00 | Revision & discussion on lines 47, 64, 68 & 86 - Open issues list | R. Suarez (JRC) | |
| 10:20 | Revision & discussion on line 21 - Open issues list | P. Bonsack (CH)/ R. Suarez (JRC) | |
| 10:40 | Starting the drafting process of the GTR 15 optional annex on Low Temperature test (Preparation of 1 st draft available) | Coordinator R. Gardner | |
| 10:55 | Next Telco and meetings: revision of the date in Dec (13 th of Dec should be changed) https://wiki.unece.org/display/trans/WLTP+calendar | Coordinator TF / All | |
| 11:00 | End of the meeting | | |