IEEE Rail Transit Vehicle Interface Standards Committee

MEETING #6 OF WORKING GROUP 2
COMMUNICATION BASED TRAIN CONTROL
STANDARD 1474

SIEMENS Office
One Penn Plaza, Suite 1100,
NY, NY 10019

Tuesday/Wednesday, February 12-13, 2019
9:00 am to 5:00 pm

Meeting Minutes.

1.0 CALL TO ORDER,
1.1 Meeting started 2/12/19 at 9:06 AM
1.2 Welcome and opening remarks by Chair, Jonas Radstrom.
1.3 Housekeeping items explained by Mr. Y. Bruere, of SIEMENS USA
1.4 Roundtable introductions of working group members present.
1.5 Chair called for participants, patents and a duty to inform on any potential
1.6 Chair asked for a motion to approve the Agenda. L. Sanders made the motion, W. Milian seconds, Vote taken. Motion passed.
1.7 Secretary, Wilson Milian briefly summarized minutes of WG2 Meeting held on October 9-10, 2018 and confirmed we are to conclude review of 1474.1 beginning with Section 6.2.8 and Appendix B & C.
1.8 The chair explained the status of PAR 1474.2 and .3 which are now active. He explained that .2 had expired and that .3 would expire next year. The chair expressed hope that we will complete the review of 1474.2 this year with additional remote online meetings.
1.9 David dimmer suggested recertifying .1 and .3 together or any new sections to help the review process.
1.10 David dimmer give a report on the past IEC November and January meetings for part 3 as going to a final vote while part 4 would be on interoperability with no decision yet. The Chair suggested that terminology be shared between IEC standard 62290 and IEEE standard 1474
1.11 The vice chair reported on his action item to contact Mitsubishi’s for input into 1474 standard. He reports no positive response.
1.12 The chair reported on his action to present the status of 1474 standards re- certification to the IEC 62290 standards committee meeting via teleconference last November

2.0 REVIEW OF FINAL CHANGES TO 1474.1, FUNCTIONAL REQUIREMENTS,
PRIOR TO FINAL WG VOTE TO SUBMIT FOR APPROVAL.
2.1 Review and Clarification Prior to Final WG Vote on 1474.1:
2.1.1 We began the review of all the changes made to date on section 2.
2.1.1.1 Reviewed and discussed; no changes.
2.1.2 Next, we reviewed Section 3.1 and confirmed the additions of definitions and discuss their consistency with definitions in other standards.

2.1.2.1 Page 3, line 22, Yousif explained additional items we're bracketed and clarified that “predefined time” is a configurable parameter and it was agreed that a “predefined time” can be zero.

2.1.2.2 Dave Keevil, Ken Mooney, David Dinner discussed with Chair and Vice Chair clarifying the ATP model and safe breaking rate. Reviewed section 6.1.0 again to understand intent. It was clarified it should be to reset after train is fully stopped.

2.1.2.3 Language was further reviewed for the description of full-service break and emergency brake. Language will remain unchanged as agreed in Section 3.1.9

2.1.2.4 **Chair asked for a motion to approve all changes discussed to this point. W. Milian made the motion, D. Dimmer seconds, Vote taken. Motion passed.**

2.1.3 Page 4, line 24 “increase maintainability” language questioned in section 3.1.2.6. Language deleted.

2.1.4 Page 6 line 23 Discussed “monorail” and APM for clarity. Monorail has no standard and automated people mover APM does have a standard.

2.1.5 4.3 language modified for clarity

2.1.6 Page 8 the word monorail is spelled incorrectly; should cover all instances for correction.

2.1.7 Section 5.3.1, page 12, line 14 & 15, language clarified.

2.1.8 **Chair asked for a motion to approve all changes discussed to this point. W. Milian made the motion, Y. Kimiagar seconds, Vote taken. Motion passed.**

2.1.9 Page 22 Discussed language grow back protection and jogging. Group clarified language to be added. Discussed jogging backwards and MAL management.

2.1.10 Section 6.1.9.1, discussed language regarding “interlocks as required…” should be changed for clarity to “Shall prevent train departure if PSD not closed”

2.1.11 The working group discussed platform screen doors and detection of intrusions. Clarification made that intrusion detection should be able to interface to vital CBTC system, (for example person trapped between the train and closed PSD). Added language that a bypass function may be provided per agency having jurisdiction. Clarified language agreed.

2.1.12 Page 28 section 6.2.4, standby mode and awake mode discussed in relation to GAO4 type applications.

2.1.13 Section 6.3.3 corrected language regarding “implementing…” for clarity.

2.1.14 **Chair asked for a motion to approve all changes discussed to this point. W. Milian made the motion, A. Edraki seconds, Vote taken. Motion passed.**

2.1.15 ---------------------Lunch Break-----------------------

2.1.16 Reviewed last change to 1474.1 regarding Section 6.1.4 regarding rollback protection. Agreed language remains unchanged. This completes the review of Standard 1474.1 Functional Requirements.

2.1.17 **Chair asked for a motion to approve all changes discussed to this point. This concludes the review of 1474.1. W. Milian made the motion, J. Utterback seconds, Vote taken. Motion passed.**

2.1.18 Chair Announced 1474.1 review complete and will be prepared for submittal to IEEE- SA for approval review.
3.0 BEGIN REVIEW OF 1474.2, USER INTERFACE REQUIREMENTS, PRIOR FOR RECERTIFICATION:

3.0.1 Reviewed section 1.1, 1.2, 1.3 range of applications. Added monorail reference. Updating various sections in 1474.2 to match and correspond with 1474.1 standard.

3.0.2 Reviewed section 6.3 standby mode. Discussion between David dimmer Wu Wei Ping with Chair and Vice Chair concluded. Replaced “awake” with “standby” modes.

3.0.3 Meeting adjourned for the day at 4:30 PM

3.1 CONTINUE REVIEW OF 1474.2, USER INTERFACE REQUIREMENTS:

3.1.1 -----------2/13/19 Meeting Start -----------

3.1.2 Meeting called to order at 9:18 AM

3.1.3 We began the review of section 4.4 system safety considerations and discussed normative references. Several safety related standards were discussed for their relevance. Discussed CENELEC as a central key standard to our industry.

3.1.4 Discussed Section 3.10 and 3.11, safety related commands. Agreed to modify language for clarity.

3.1.5 Returned to Section Part 1 to add references needed.

3.1.6 Section 4.5, reviewed colors used for system status health. No changes.

3.1.7 Section 4.8, reviewed alarm advisory message requirements. No changes.

3.1.8 Section 5.1, reviewed operations user interface requirements train line subsystems. Group general discussion. Language unchanged. Discuss train born subsystems. General group discussion. No change.

3.1.9 Section 5.2.1, mandatory displayed data. Group discussion on London based SelTrac situation and discrepancy of Safe Speed. Discussed Class of tracks, condition of track and Civil Speeds. Added language under Subsection C) “when in CBTC territory…”

3.1.10 Section 5.2.2, Subsection r, delete the word works for clarity. Subsection q, platform edge door status, replace the word “screen” for consistency.

3.1.11 Chair asked for a motion to approve all changes discussed to this point. W. Milian made the motion, A. Edraki seconds, Vote taken. Motion passed.

3.1.12 -----------------Lunch Break-------------------

3.1.13 Section 5.2.3 discussed mandatory user information inputs. Language unchanged

3.1.14 Section 5.2.14, discussed highway grade crossing, language unchanged

3.1.15 Continued review and discussions up to Section 6.1.2.0. Language unchanged.

3.1.16 Section 6.1.2.1 discussed Safe Breaking Model. Under subsection H) added “overspeed condition…” Under Subsection I) added same change as subsection H) for consistency.

3.1.17 Section 5.3 Began review of user interface presentation requirements.

3.1.18 Section 5.3.1 train operator display layout, clarify the language as to the definition of “operator” to “user” and discussed the reference to “train borne display screen”. Agreed to leave as is. No changes.

3.1.19 Chair asked for a motion to approve all changes discussed to this point. W. Milian made the motion, D. Dimmer seconds, Vote taken. Motion passed.

3.1.20 Chair proposed editing the standard document online in a collaboration website for multiple users to update the document and expedite the review. It was proposed that remote online meetings will be scheduled to expedite the review of the standard prior to our group meetings.
4.0 ANY OTHER BUSINESS:

4.1.1 Chair asked if there were any new issues or comments
4.1.2 No new business items were presented.
4.1.3 Date/Location of Next WG2 Meeting
4.1.4 Location will be Toronto, Canada following APTA Rail Conference on June 26-27, 2019
4.1.5 Meeting adjourned on 2/13/19 at 3:53 PM.

Respectfully submitted:

Wilson Milian, PE
CBTC Design Manager, MTA NYCT
2019 Secretary IEEE CBTC Standards Committee
wmilian@ieee.org

Attendees:

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<tr>
<th>Name</th>
<th>Representing</th>
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<tr>
<td>Jonas Radstrom</td>
<td>BART</td>
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<td>Yousef Kimiagar</td>
<td>Gannett Fleming</td>
<td>Vice Chair</td>
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<td>Wilson Milian</td>
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<td>Robert Major</td>
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<td>Stephane Bois</td>
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<td>Jeff Utterback</td>
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<td>Yann Bruere</td>
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<td>Srinivas Katreddi</td>
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Group Photo of IEEE WG#2 Attendees at February 12, 2019 Meeting at SIEMENS in New York, NY.