

# SECTION 305 TECH SUB COMM

MINUTES

APRIL 13, 2023

3:00PM EASTERN

CONFERENCE CALL

<b>FACILITATOR</b>	<i>Joe Paul, Vice Chair, NGENC Technical Subcommittee</i>
<b>ATTENDEES</b>	<b>Core Team Members:</b> Joe Paul for George Hull, Jeff Gordon, Sarah Hernandez for Jodi Lehmkuhl, Ray Hessinger, Curtis McDowell for Matthew Simmons, Jennifer Bastian, Ed Engle, Jason Bigg, Art Peterson, Melissa Shurland, Blair Slaughter, Hamid Sharif, Larry Salci, Steve Hewitt <b>Industry Members:</b> Jack Madden, Kevin Sudano, Rich Stegner, Josh Coran, Paul Jamieson, Julie Desrosier, Kevin Myles, Frank Pascazio, Rich Bowie, Ken Martin, Steven Ojalvo, Joanna Hallisy, Richard Curtis, Ed Golitko, Brian Ley, Dave Warner, Gary Wagner, Jeff Schultz, Dick Bruss, Marcin Taraszkiwicz, Yves Laperriere
<b>ABSENTEES</b>	<i>George Hull, Marci Petterson, Mike Jenkins, Jodi Lehmkuhl, Matthew Simmons, Troy Hughes, Tarek Omar, Mike Murray, Tammy Krause, Barley Fields</i>

## DISCUSSION/DECISIONS MADE

### 1.

Technical subcommittee Vice Chair Joe Paul, Amtrak, called the meeting to order and asked Steve Hewitt to call the roll of core team members.

After calling the roll, Steve Hewitt confirmed the presence of a quorum.

**As always, industry participants are asked to email a notification of their attendance to Steve Hewitt at [shewitt109@aol.com](mailto:shewitt109@aol.com).**

### 2.

**Review Action Items – Steve Hewitt, NGENC Program Manager:**

**2023 NGENC Backgrounder educational document:**

The 2023 NGENC two-pager is available in hard copy by request of Steve Hewitt at [shewitt109@aol.com](mailto:shewitt109@aol.com).

To date 330 copies have been distributed.

**Maintaining Industry Participation List:**

There are just over two hundred industry participants.

**Any updates or changes to this list should be sent to Steve Hewitt at [shewitt109@aol.com](mailto:shewitt109@aol.com).**

**Connecticut DOT Rail Car Procurement:**

On 1-5-23, Marci Petterson reported that they expect to receive proposals by the end of January. At that point they will enter the "cone of silence."

**Next Update: As Appropriate**

**Metro-North Dual Mode Locomotive Procurement as of 3-30-23:**

Metro-North and Siemens are finishing Final Design Review with only a few yet to be resolved. The first car shell is in production at the Siemens facility Sacramento, Ca. The initial FAI's are being scheduled.

**Next Update: 4-27-23**

**Amtrak Vehicle Procurements as of 3-30-23:**

On the Acela – Work is progressing well.

On the Charger Locomotives – There are 22 locomotives in service and 30 units on Amtrak property.

On the new Airos – they continue with Final Design Review and the production of the first car shell is complete and going through inspection.

**Next Update: 4-27-23**

**Working Group on Vehicle Weight Issues:**

On 3-30-23, Jeff Gordon, FRA reported that he intends to update the document based on working group feedback rather than schedule a meeting. He will then ask for input from the members via email. His issue is that he has been called for Jury duty and if enpaneled could be serving for 3 months and he would not be able to hold a working group meeting. If he is not enpaneled, this may change, but for now he intends to begin updating the document based on feedback received to date.

Steve Hewitt asked Jeff to let him know when he is ready to present an update to the technical subcommittee and he will add it to the agenda at that time.

**Next Update: As Appropriate**

**3. Approval of the Minutes from 3-30-23 – Joe Paul, Amtrak:**

On a motion by Ed Engle, Iowa DOT, and a second by Jennifer Bastian, IDOT, the minutes from 3-30-23 were approved as submitted.

**4. Update: 4-13-23 - Multi-State Rail Car Procurement – Sarah Hernandez, Caltrans:**

Sarah Hernandez provided the following update on behalf of Gurleen Boparai and Jodi Lehmkuhl. Sarah also reported that Gurleen Boparai will be leaving Caltrans in the near future and she believes that Jodi Lehmkuhl will take his place on the Technical subcommittee.

*The remaining Cab Car FDR submittals are in the final closure stage and the Cab Car dynamic framing representative approach has been submitted to FRA for review, with comments from FRA under review. IDOT Café Car system level FDR reviews are nearly closed.*

*The Cab Car Collision and Corner Post Appendix F test reports are approved. The Cab Car Complete FAI for Cab Car is tentatively scheduled for July, to be followed by the FRA Sample Car Inspection.*

*127 cars are in production or have been produced at Siemens Sacramento Facility. IDOT coaches are currently in revenue service and Caltrans is targeting revenue start in first half of 2023 once all necessary agreements are in place.*

Jennifer Bastian, IDOT, added that the Mid-West had achieved an important milestone this week 44 cars were accepted into revenue service – this means that they have completed one half of the 88 car order! This is great news and shows major progress. A great achievement!

**5. Update/Discussion Document Control Management**

**1. Update: Executive Board approval – Tech SC recommendation for Prioritizing 2023 work plan -Joe Paul/Steve Hewitt:**

Joe Paul asked Steve Hewitt to summarize what took place on the Executive Board call last week (4-4-23) regarding the subcommittee's recommendations.

Steve provided some background and a brief summary:

On 3-30-23, the Technical subcommittee agreed to recommend to the Executive Board that, in the absence of any compelling vehicle procurement in need of a specific spec update, the subcommittee should begin review of the support and administrative documents (305-800 and 305-900 series) that have not been looked at for a dozen years as well as a review of the APTA press Standards as they relate to the PRIIA specifications.

The subcommittee also recommended that the next specification update will be the Charger Locomotive (Diesel-Electric Locomotive) and that, basically, along with the administrative updates, the specification updates will begin from the oldest to the newest with the exception of the Dual Mode Locomotive spec which will be looked at after the current procurement is complete and a lessons-learned review can take place.

It was felt that the Charger locomotives have been in service for quite some time and there are many lessons learned that can be looked at as a part of the update.

On 4-4-23, the Executive Board discussed the subcommittee's recommendations and after some discussion, it was agreed that the Technical subcommittee's recommendations stand.

On 4-4-23, Jeff Gordon, FRA, suggested that the NGENC should take advantage of what Amtrak and others who have used PRIIA specs as a baseline and have made changes to them – including design changes - have learned. The lessons learned should be a part of the review and update of existing PRIIA specifications.

**2. Timeline to complete Bi-Level technical writing and implementation of the recommended actions -Steve Hewitt for Tammy Krause:**

Before moving on to a discussion on Jeff Gordon's suggestion, Steve Hewitt segued into an update provided by Tammy Krause (who was unavailable) on her timeline for the first part of the work plan approved by the Executive Board:

*The update of the bi-level specification continues and is still on schedule for completion in May.*

*The PRIIA sub specifications (305-900 and 305-800 series) are all going to be reviewed by the Technical Working Groups. I will be sending those out to the Working Group team leaders later today (4-13-23). I would ask that the Working Groups review them and send me any comments by May 20. Please use the DCR form for comments.*

*After these are reviewed, I will send out the APTA standards for review.*

Steve Hewitt added that Tammy Krause will not be available until early May, and he asked that Working Group members follow her timeline on the reference and drawing spec reviews and get their comments (using the DCR form) in by 5-20-23.

Following the call today, industry member Paul Jamieson contacted Steve Hewitt to volunteer to give some time to review of the APTA PRESS standards in relation to the PRIIA specs. Steve welcomed Paul's willingness to begin the review and will let Tammy know.

**3. Discussion: Including changes to baseline PRIIA Specs by Amtrak/others– including design changes and lessons learned as a part of the review and update of existing PRIIA specifications – Jeff Gordon, FRA:**

Jeff Gordon was asked to elaborate on his suggestion to include a review of changes made by Amtrak and others who have used PRIIA specs as a baseline.

Jeff stated that Steve Hewitt had summarized what he had suggested "sort of". He noted that the "intent of all this" was to acquire specifications issued by entities that have used the PRIIA specifications as a baseline and have made changes to them.

He noted, for example, the Amtrak intercity trainset specification is elaborate. In and of itself, it utilizes several of the PRIIA specs and has made many changes.

Under ARRA, the original procurements using those federal funds were required to use PRIIA specifications. That program is complete and there is widespread use of the specifications as a baseline. The result is that standardization is being achieved as intended with the creation of PRIIA.

What needs to be done is for the NGENC to acquire the specs from entities outside of the NGENC so they can be reviewed and adapted (as appropriate) to the PRIIA specs.

Jeff commented that it "should be easy to get them". "We" should "get the specs and compare them to what is in ours". Jeff added "this was our original intent", but it has not yet happened.

Steve Hewitt concurred that it was always intended that when the specs were given out to entities (upon request) they are asked to provide the "as-built" specs to the NGENC for its review and comparison to our own specs.

Jeff noted that entities received the PRIIA specs for free and should be willing to share their specs for the comparison.

Steve Hewitt and others named some of the entities that have used PRIIA specifications, with Steve noting "they have been used all over the place":

Some entities using PRIIA specs as a baseline:

Amtrak, Brightline, VIA Rail, Connecticut DOT, Metro-North, the Mid-West states, Caltrans, WSDOT, NCDOT and others. Steve Hewitt noted that he is sure some were missed, but the point is that PRIIA specs have been in high demand and were provided for free. There should be a willingness to share the changes with the NGEC as initially intended. The first step is to develop a plan to follow-up with those entities.

Curtis McDowell, for NCDOT commented that NCDOT has "pulled the plug" on its procurement. They are "getting out of the equipment owning business" and are "tagging on to Amtrak." Curtis added that NCDOT has their spec available to share with the NGEC. He added that they used the PRIIA single level rail car spec and the basis remains the same with changes made primarily to the interior.

Jeff Gordon suggested that a starting point may be to get the Amtrak Charger spec as a first cut. The tech subcommittee work plan identified the Charger as being next in the Que for an update – so it makes sense to start there.

Ray Hessinger, NYSDOT, added that in looking at the Charger Locomotive spec, the Dual Mode Locomotive spec should also be looked at as well "even though it is still open."

Dave Warner commented "the program was set up to place the responsibility of noting changes on the authority/railroad using the document, with information presented in the form of a DCR noting specific language changes."

Dave added that it is important to do, but it is also important to understand the time it will take to do it. He noted "necessary – yes, easy to do – no".

Steve Hewitt commented that this effort will come under Document Control/Management and Tammy Krause is the NGEC Document Control Manager. She is not available until early May, but efforts should continue in developing a plan which should utilize the NGEC Document Management Procedures (305-100).

Joe Paul appreciated the comments and the good discussion and concluded that this is a conversation that needs to continue and should be on the agenda for the next meeting. It is not "an overnight event" but it is a way to take advantage of what has already been done.

## **6.**

### **Update – Communications on Rail Cars Working Group – Ken Martin, Sharma & Associates:**

Ken Martin, Sharma and Associates and team leader for the Communications on Rail Cars Working Group, reported that they are working on writing a DTL specification to include in the single level Rail car specification once completed and approved.

Ken is working on the first draft and will distribute it to the working group members in advance of their next meetin (a week or week and a half from now). It will be a few months down the line before it will be ready for review outside of the Working Group. Ken noted that this spec may well be applicable to some of the other PRIIA specs. There are similarities but also some differences. Ken noted that he was able to get the updated Amtrak specification and is including it.

Additionally, Ken noted that there have been some requests that the Working Group also look at developing a CCTV specification. Ken would welcome input from leadership on whether this is something that the Working Group should do.

Joe Paul commented that he believes a CCTV specification is a good idea. Amtrak is working on video surveillance for the Venture cars and it is clear that there is a need for standardization.

Ken asked if this should be a "global spec"?

Joe responded that there will need to be further discussion to determine how to approach this. He invited input form subcommittee members - "feel free to reach out".

## **7.**

### **Update – University of Nebraska/FRA High Speed Wireless Study – Hamid Sharif:**

Hamid Sharif provided the following update for inclusion on today's minutes:

=====

*Our work at the University of Nebraska-Lincoln has been in the area of better utilization of RF resources for the rail industry. In*

*short, it is becoming harder and harder to locate available spectrum resources for rail industry applications. Our work has been to concentrate on better utilization of 160 MHz. So, we have designed and built a computer simulation model for the 160 MHz. We have verified this model and have done a number of application tests in the lab.*

*Currently, we are transitioning our transceiver design into a prototype implementation using a software radio platform, in preparation for extensive field testing to evaluate the accuracy of our prediction models and the reliability of our design. It also provides the basis for the exploration of cognitive radio principles in the pursuit of a unified communications architecture for the rail industry. We continue our work on the transceiver implementation, by evaluating and refining our receiver synchronization capabilities to be more robust against phase, frequency, and timing offsets. We also have begun our work to implement the higher-layer functionalities of our protocol stack. These are all ahead of our field tests next month.*

*For any questions, please contact Hamid Sharif at:*

[hsharif@UNL.edu](mailto:hsharif@UNL.edu)

Hamid was asked if there were interim reports that have been published. He responded that interim reports went to FRA in August (2022) He will check with FRA and provide to anyone in the subcommittee who is interested. He added that two papers were published last year.

Hamid agreed to provide links to Steve Hewitt for distribution to NGEN members. Steve Hewitt will also re-send the Annual Meeting presentation that Hamid gave in February 2023. (It is also posted on the NGEN website).

## **8. Other – All:**

Jack Madden, Erdmann Anthony, mentioned for those that may not be aware, the FRA, on its website has revised the timeframe for announcing the CRISI grant awards. Initially the timeframe was May-June, but it is now August-September 2023. This puts the NGEN right up against the end of its current grant agreement (ends on 9-30-23).

Steve Hewitt thanked Jack for the information and noted that the Board was told about this change last week on its bi-weekly meeting (4-4-23). The Finance and Administrative subcommittee is looking at potential options for bridge funding. With the original May-June timeframe, bridge funding would still be needed as it takes around 6 months to get the funds obligated even if you are awarded a grant. The new timeline puts even more of a sense of urgency for the NGEN to seek bridge funding options. In the meantime, work that can be done and stay within the current budget should carry on.

## **9. Adjourn:**

With no other business forthcoming on today's call Joe Paul adjourned the meeting at 3:47pm Eastern.

**Next meeting – 4-27-23**

## **Decisions and Ongoing Action Items**

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**New item:**

Developing a plan to acquire specifications from entities that used the PRIIA specs as a baseline and made changes. This will be an agenda topic on 4-27-23.

**Next Full Document Control Update – 5-11-23**

**Working Group on Weight Issues:**

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**Amtrak's NGEC CRISI Grant Application:**

As of 4-13-23:

The anticipated timeline for hearing whether the application is approved is now August-September 2023.

The NGEC Executive Board is aware of this timeframe change and has asked the Finance and Administrative subcommittee (FASC) to look into options for bridge funding if the NGEC is awarded a CRISI Grant as well as other funding options if a CRISI Grant is not awarded.

**Next Meeting – 4-27-23**

**ATTACHMENTS**



*Our Vision: The NGEC will provide national leadership in standardization, acquisition, and management of passenger rail equipment.*

**PRIIA Section 305 Tech Sub Committee Meeting**

**Web Ex video/audio information:**

By Computer: <https://stephenhewitthewittconsulting.my.webex.com/meet/shewitt109>

by phone: 1-415-655-0001

Access code: 126-073-1531

**Agenda**

**4-13-23**

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|--|----------------------|
| 1. Roll Call   | Steve Hewitt         |
| 2. Review Action Items   | Steve Hewitt         |
| 3. Approve Minutes from 3-2-23   | Joe Paul             |
| 4. Update: Multi-State Venture Rail Car Procurement  | Sarah Hernandez      |
| 5. Update/Discussion Document Control Management   |                      |
| - Executive Board approval – Tech subcommittee recommendation for Prioritizing 2023 work plan  | Jo Paul/Steve Hewitt |
| - Discussion: Including changes to baseline PRIIA Specs by Amtrak and others– including design changes<br>– and lessons learned as a part of the review and update of existing PRIIA specifications. | Jeff Gordon          |
| - Timeline to complete Bi-Level technical writing.   | Steve Hewitt         |
| 6. Update – Communication on Railcars working Group  | Ken Martin           |
| 7. Update: University of Nebraska/FRA High Speed Wireless Study  | Hamid Sharif         |
| 8. Other   | All                  |
| 9. Adjourn   | Joe Paul             |

**Next Meeting 4-27-23**