

# SECTION 305 TECH SUB COMM

MINUTES

MAY 25, 2023

3:00PM EASTERN

CONFERENCE CALL

<b>FACILITATOR</b>	<i>George Hull, Chair, NGENC Technical Subcommittee</i>
<b>ATTENDEES</b>	<b>Core Team Members:</b> <i>George Hull, Jeff Gordon, Jodi Lehmkuhl, Curtis McDowell for Matthew Simmons, Jennifer Bastian, Ed Engle, Troy Hughes, Jason Biggs, Art Peterson, Tammy Krause, Larry Salci, Tarek Omar, Steve Hewitt</i> <b>Industry Members:</b> <i>Richard Stegner, Paul Jamieson, Jack Madden, Kevin Sudano, Dick Bruss, James Michel, Ed Golitko, Paul Arnone, Tom LaMano, Dave Warner, Rob Magdule, Jeff Schultz, Bill Saddler, Steve Ojalvo, Frank Pascazio, Stephen Mark, Dr. Franziska Lambrecht, Michael Gill</i>
<b>ABSENTEES</b>	<i>Joe Paul, Marci Petterson, Mike Jenkins, Matthew Simmons, Mike Murray, Melissa Shurland, Barley Fields, Blair Slaughter</i>

## DISCUSSION/DECISIONS MADE

### 1.

Technical subcommittee Chair George Hull, 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 332 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 which point they will enter the "cone of silence."

**Next Update: As Appropriate**

**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**

**Communications on Rail Cars Working Group as of 4-13-27:**

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".

On 5-25-23, Steve Hewitt noted that a follow-up with this working group was needed. Tammy Krause will follow-up with Ken Martin and provide an update on the next subcommittee call – 6-8-23.

**University of Nebraska/FRA High Speed Wireless Study as of 4-13-23:**

Hamid Sharif provided the following update on 4-13-23:

=====

*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)

**Next Update – As Appropriate**

**3. Approval of the Minutes from 5-11-23 – Joe Paul, Amtrak:**

On a motion by Ed Engle, IOWA DOT, and a second by Jennifer Bastian, IDOT, the minutes from 5-11-23 were approved as submitted.

**4. Update: 5-25-23 - Multi-State Rail Car Procurement – Jodi Lehmkuhl, Caltrans:**

Jodi Lehmkuhl, Caltrans, provided the following update for inclusion in today's (5-25-23) minutes:

- *The remaining Cab Car FDR submittals are in the final closure stage with nearly all subsystems ready for approval. The Cab Car dynamic framing representative approach has been submitted to FRA, and additional requested simulations are now complete. 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 is tentatively*

*scheduled for June or July, to be followed by the FRA Sample Car Inspection.*

- *129 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.*

## **5.**

### **Update: Metro-North Dual Mode Locomotive Procurement – Steve Hewitt for Ray Hessinger:**

On 5-16-23, Ray Hessinger reported the following to the Executive Board (read into the record by Steve Hewitt today - 5-25-23):

Siemens and Metro-North have closed all Final Design Review items and are performing FAIs on various components such as brakes, air compressors, and roofs. Car Shells are scheduled to be done in the May-June timeframe.

Car Shells 301 and 302 are ready for blasting and are way ahead of schedule.

On 5-16-23, Ray also noted that they have identified the fact that Pueblo has no under running third rail so they cannot test third rail there. They are looking at options for testing the locomotive in third rail mode.

## **6.**

### **Update: Amtrak Vehicle Procurements – George Hull:**

On 5-25-23, George Hull provided the following update:

On the new Acela:

Work continues on testing and modeling for submittal for acceptance.

On the Charger Locomotives:

ATC issues have been cleared. They are waiting on documentation and should be able to add the locomotives to more routes. They are currently running on the City of New Orleans, the Empire Builder, Coast Starlight and should be able to "head East soon."

On the Airo trainset:

They are progressing well, with the first car shell is nearly completed. Final Design Review (FDR) is finished. Overall, the Procurement is on track.

On the Long Distance Trains:

Submittals have been received and the preliminary process is being worked on.

## **7.**

### **Update Document Control Management - Tammy Krause:**

On 5-25-23, Tammy Krause provided the following update for inclusion in the meeting minutes:

Current activities:

*The Bi-Level specification update is still on track to be completed this Month (May 2023).*

*The Next specification to be updated will be the Diesel Electric Locomotive.*

*I will have a follow up to the review of the PRIIA sub specifications on the next call (series 305-900 and 305-800).*

*PRIIA is going to send a letter (under signature of Chairman Ray Hessinger) to the users of the PRIIA specifications and request a list of the changes that they made to the specification and a copy of their final version. After we receive them, we will proceed through the normal document change process.*

*Michael Gill, leader of the Materials Working Group. has joined us to discuss the status of the Working Group and EN standards.*

*Materials Working Group Update – The Materials Working Group has come to a stop. They are reviewing the approved welding standards and these are all AWS standards. The Working Group wants to review the EN standards. Stadler only uses the EN welding standards. Some carbuilders will try a hybrid approach, use the EN standards for design and ensure that the design and production work will comply with the AWS. This will add undue cost and burden and not all carbuilders (Stadler) are willing to go down that*

route.

Discussion:

*The Technical Subcommittee discussed this during the meeting and some of the points that will need to be considered are:*

*Larry Salci – Need to determine how this relates to testing and identify issues and areas to address in the spec.*

*Jeff Gordon – Is this specific to entire car or just the car shell?*

*Paul Jamieson – Asked if this applied to subcomponents like reservoirs?*

*Michael Gill replied this is just for the car shell/primary structure only but will need to verify that this is in the specification. Intention is that the EN standards will not apply to reservoirs and bolt on components.*

*Can the Materials Working Group evaluate the use of EN welding standards for Aluminum carbodies?*

Result:

*Yes, the Technical Subcommittee agreed that the Materials Working Group can evaluate the EN standard and will report back to the Technical Subcommittee at the at the 6/22 meeting.*

George Hull and/or Tammy will report out on the results of this discussion on next week's (5-29-23) NGEC Executive Board call.

## **8.**

### **Status: NGEC Funding – CRISI Grant Timeline – potential next steps – Steve Hewitt:**

Steve Hewitt reported that the Finance and Administrative subcommittee would be meeting later today. The status as of the last report provided to the Executive Board on 5-16-23 is:

#### **Balance/Spend Rate Through March 2023**

Total Initial Grant Amount: \$1,250,000.

Expenses Incurred through March 2023: \$1,161,003.14

Balance remaining: \$89,996.85.

Estimated spend at current rate for balance of the Grant: \$89,307.93

Current Spend Rate per month (as info and used in calculating): \$14,884.66.

Estimated Balance at the end of the Grant Period: **(\$311.07)**

#### **Pending:**

Casamar/TLK: \$17,346.30 (this may be slightly less based on updated estimates on Document Control)

#### **CRISI Grant Awards Timeline:**

Timeframe: Announcement of CRISI Grant Awards: August-September 2023

Timeframe for receiving funds if awarded a Grant – about 6 months.

#### **Path Forward:**

Brief summary of efforts to determine interim solutions/funding provided by Tim Ziethen on 5-16-23 are as follows:

*I am working with our grants office to confirm the process to request additional funding to close out this year under the current grant. At this point we are projecting to be slightly over budget but most likely within 1% and may need to request the FRA for authorized funding to cover this small amount. Amtrak with George Hull's support is moving forward to request a project for next year (at least until the CRISI grants are determined) to fund the continued operation of the NGEC 305 at the current spend rate that would be covered out of annual grant from the FRA.*

Steve noted that, although it is not in Tim's summary, Steve is certain that Tim understands that once this goes through the approval process internally with Amtrak Senior Management, it still will need FRA review and approval.

## **9.**

### **Adjourn:**

With no other business forthcoming on today's call George Hull adjourned the meeting at 3:35PM Eastern.

**Next meeting – 6-8-23**

### Decisions and Ongoing Action Items

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Result/Action:

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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).

**Next Update – As Appropriate**

#### **Metro North Dual Mode Locomotive Procurement –5-25-23:**

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Once this goes through the approval process internally with Amtrak Senior Management, it still will need FRA review and

approval.

**Next Meeting – 6-8-23**

**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**

**5-25-23**

- |  |                                |
|--|--------------------------------|
| 1. Roll Call   | Steve Hewitt                   |
| 2. Review Action Items   | Steve Hewitt                   |
| 3. Approve Minutes from 5-11-23  | George Hull                    |
| 4. Update: Multi-State Venture Rail Car Procurement  | Jodi Lehmkuhl                  |
| 5. Update; Metro-North Dual Mode Locomotive Procurement -  | Steve Hewitt for Ray Hessinger |
| 6. Update: Amtrak Vehicle Procurements   | George Hull                    |
| 7. Document Control Management –   | Tammy Krause                   |
| Status: Current activities   |                                |
| Materials Working Group Update   |                                |
| Discussion: Question raised by the working group:  | Tammy Krause/Michael Gill      |
| <i>Question: Can the Materials WG evaluate the use of EN welding standards for Aluminum carbodies?<br/>They feel that they need to do this to continue with this effort.</i> |                                |
| 8. Status: NGEC Funding  | Steve                          |
| 9. Adjourn   | George Hull                    |

**Next Meeting 6-8-23**



