



## Section 305 Next Generation Corridor Equipment Pool Committee (NGEC)

Monthly Activities Report: December 31, 2016

Submitted by: Steven J Hewitt, Manager, S305 NGEC Support Services

### Public law 110-432 required Amtrak to:

*...establish a Next Generation Corridor Equipment Pool Committee, comprised of representatives of Amtrak, the Federal Railroad Administration, host freight railroad companies, passenger railroad equipment manufacturers, interested States, and, as appropriate, other passenger railroad operators.*

*"The purpose of the Committee shall be to design, develop specifications for, and procure standardized next-generation corridor equipment.*

*(b) Functions – the Committee may –*

*1) Determine the number of different types of equipment required, taking into account variations in operational needs and corridor infrastructure.*

*2) Establish a pool of equipment to be used on corridor routes funded by participating states; and*

*3) Subject agreements between Amtrak and States, utilize services provided by Amtrak to design, maintain and remanufacture equipment."*

### Executive Board

**Chair: Eric Curtit, Missouri DOT**

**Vice Chair: Mario Bergeron, Amtrak**

**Secretary: Ray Hessinger, NYSDOT**

**Treasurer: Darrell Smith, Amtrak**

**The Executive Board holds bi-weekly conference calls – Tuesday's at 11:30am Eastern**

During the month of December 2016, the Executive Board met once - via conference call - on the 6<sup>th</sup>.

Key decisions and action item updates from the month of December, 2016 included:

- 514 Subcommittee update: The subcommittee continued its work with Amtrak on the quarterly reconciliation. In mid -December the subcommittee met to begin work on the next CIP document.
- Educational/outreach document: The order for 300 printed copies was filled by AASHTO and an initial distribution was made to Executive Board members and Steve Hewitt and is now available upon request through Steve Hewitt. An electronic version was sent to all NEC members.

- New Grant Quarterly Report Requirements – Milestones: The new Grant agreement calls for a change in reporting requirements in that it includes milestones. In the initial Grant quarterly report, the NGEC activities reports were used as a basis for the quarterly grant report. That will remain the case, with the additional element of including milestones in the report. In December, proposed milestones were approved for use beginning with the first Quarterly report to be done for the October 1, 2016 through December 31, 2016 period.

On 10-25-16 the Board requested IDOT and/or Caltrans to work with the manufacturers (Nippon Sharyo and Siemens) to provide jobs numbers from the two ongoing NGEC procurements to be included as a milestone in the quarterly report. John Oimoen, IDOT, agreed to work on getting jobs numbers from the manufacturers for inclusion as a milestone in the reports. This remains an open item.

- Review of NGEC By-Laws: As of 12-6-16, Ray Hessinger, Co-Vice Chair of the FASC, and Steve Hewitt are in the process of doing the annual review of the NGEC By-Laws. It is not anticipated that there will be many (if any) changes recommended following this review. Ray and Steve will review the new Grant Agreement SOW against the By-Laws to ensure consistency. Any changes that may be needed will be recommended to the Board for its consideration consistent with NGEC procedures.
- Syncing contracts with the new grant: Darrell Smith reported on 11-22-16 that because the current Amtrak/AASHTO contract (and AASHTO's contract with its sub-contractors) is in effect through 9-30-17, there is no need for action now. Once the 9-30-17 date draws near there will be an extension consistent with the new grant period and grant amount between Amtrak and AASHTO and AASHTO and its subcontractors as called for in the SOW and budget.

- Mid-West States – Section 6 Update:

The states are in the process of "setting up" a Mid-West Equipment Board.

The Fleet Manager is on board.

They continue to work on a lease of the equipment to Amtrak.

- Status Update – Diesel-Electric Locomotive Procurement:

On December 15, 2016, the following update was provided to the Technical subcommittee by IDOT:

- JPEs continue to receive Siemens' weekly revised schedule and conduct weekly conference calls. The main basis for revised weekly schedules reflects on-going locomotive delivery and testing up-dates.*
- *Locomotive 4604 is stored at MARC after the successful completion for Vehicle Qualification Testing on the North East Corridor. Plans to ship to Chicago are now in motion.*
  - *As of now, successful 500-mile conditional acceptance tests have been completed on: 4601, 4602, 4604, 4605, 4606, 4608, 4609 & 4610. Locomotives 4603 & 4607 will ship next to TTCL.*
  - *After 500-mile testing is complete, all locomotives will next ship to Chicago, when IDOT and Amtrak are ready.*
  - *IDOT will now send locomotive 4611 to WSDOT for 238.111(b) testing on the Cascades route. WSDOT will conduct the 238.111(b) test. Other JPEs are working with Amtrak for 238.111(a) test plans.*
  - *JPEs are working with Siemens for Wi-Tronix application, as required by Amtrak.*
  - *All Document Change Requests (DCR) have been distributed to the locomotive sub-team leaders for review, and reviews are nearing completion with no apparent issues.*
  - *As-Built weights have been reported at a bit less than 267, 000 lbs (+/-). This is a little bit better than previously estimated. The calculated P2 force is within specified limits. As other locomotives are weighed, we will report.*

Status Update Bi-Level Car Procurement:

- On December 6, 2016, Bruce Roberts, Caltrans, reported that there have been some changes to the Caltrans Rail Division. Bruce is moving on to CALSTA and this will be his last NGEC meeting. As the

interim Chief and the Assistant Chief of the Division transition into their new roles, John Pagano will be the point of contact at Caltrans for the NGEC, and will keep the Board informed as the transition moves forward.

As of December 6, 2016, the following was reported to the Board:

- Sumitomo has informed Caltrans that the Final Design Review (FDR) will not take place in January, 2017, as initially anticipated, and has been postponed to a later date – possibly sometime in the Spring of 2017.
- Other activities continue to move ahead: (described below as submitted by Caltrans staff)
  - *FAIs – Caltrans, IDOT and FRA are still evaluating the test results from the dynamic test and quasi static test of the seat/table. Once the evaluation is completed, the FAI will be scheduled. The other remaining FAIs (Food Service and ATR/UTR) will take place next year. Amtrak Public Health team will visit NS facility in Rochelle on December 14 to review the 3D models of the food service system prior to the official FDA inspection.*
  - *Testing – Caltrans and Amtrak OBIS team will visit NS Rochelle Facility on December 14 through 16. The main purpose of the visit is to create and refine a design for the installation of the OBIS equipment on-board the various train cars. The coupler test is scheduled for 12/15 in Germany.*
- Preparing for the NGEC Annual Meeting 2017 - February 24, 2017, Washington, DC – Hyatt Regency, Capitol Hill:
  - a. Review of DRAFT Agenda:
 

On December 6<sup>th</sup>, Steve Hewitt briefly reviewed the DRAFT Annual Meeting agenda, finalizing speakers and setting a timeline for getting out the DRAFT agenda for states to use for travel approval requests.

Steve asked all Board members to let him know if they are unable to attend the meeting, and, if that is the case, to please be sure to provide a proxy so that a quorum can be established.

A DRAFT agenda was distributed to all Board members and subsequently, to all NGEC members by mid-December. It was also posted to the NGEC website.
  - b. Bringing the Charger to DC:
 

As of December 6<sup>th</sup>, after some discussion over timing, costs, complexity, it was agreed that the DRAFT agenda will not include the Charger Locomotive viewing at this point. If it is deemed to be economically feasible and can be brought to DC for the meeting, the agenda can be revised accordingly.
- NCDOT Use of NGEC Bi-Level Car Specification: NCDOT will use the NGEC Bi-level spec as a basis for developing a specification for its purchase of 5 Bi-level cars for its fleet. Modifications will be made to fit the NCDOT's fleet requirements. NCDOT will keep the NGEC apprised of the changes it makes to the spec. Tammy Krause, NGEC Revision Control Coordinator (RCC) has provided an unsecured version of the specification for NCDOT use.
- Scheduling Subcommittee updates to the Executive Board:
 

In December, Chairman Curtit asked subcommittee Chairs to plan on providing brief, but regular, updates to the Executive Board on its calls in 2017. Each subcommittee will be asked to report monthly. Steve Hewitt will set up a schedule for the reports.

**Technical Subcommittee:**

**Chair: Mario Bergeron, Amtrak**

**Vice Chair: Dale Engelhardt, Amtrak**

### The Technical subcommittee holds bi-weekly conference calls on Thursday's at 3:00pm Eastern

During the month of December, 2016, the Technical subcommittee met once, via conference call, on the 15<sup>th</sup>. Key decisions and action item updates from the month of December, 2016, included:

- Updating ECP Standards: This is an item which the Technical subcommittee is tracking – it is anticipated that status updates will take place on every other call. (ongoing) On 12-15-16, Paul Jamieson reported that they are in the process of finalizing test reports.
- Backgrounder educational document: The new educational document has been printed and is now available, by request, through Steve Hewitt.
- Diesel- Electric Locomotive procurement - On 12-15-16 an update on the Diesel-electric locomotive procurement was provided by IDOT: See Executive Board report above.
- Update: Bi-Level Car Procurement – On 12-6-16 an update on the Bi-Level car procurement was provided by Caltrans: See Executive Board report above.
- AAR Committee: As of 12-15-16, Jeff Gordon, FRA, reported:

The first four sections of the standard covering administrative requirements were released on AAR Circular Letter on July 15, 2016. No comments were received. AAR is working with the Locomotive Committee to implement these four sections of the standard.

Section 5.0, "Loss of Shunt (LOS) Performance Test Requirements," is suspended until addressed by the AAR research program.

Section 6.0 "Interoperability of Equipment on Class I Railroads" is in rough draft form, and has a focus on coupling systems, braking systems and clearances.

Section 7.0 "Vehicle/Track Interaction in Freight Track Environment – Modeling and Testing," is on hold until prototype draft recommendations are developed.

AAR's David Cackovic has arranged for an all-day meeting of working group on Tuesday, January 24, 2017 from 8:00 AM-5:00 PM at its offices in Washington, DC to discuss sections 6 and 7 of the standard.

- Document Control Update: As of December 15, 2016, the following update was provided by RCC Tammy Krause:

An unsecured version of the bilevel specification was provided to NC to use as a base document for their upcoming procurement. I have requested a list of members of each technical subcommittee from the group leaders. I have also sent to the group leaders the table of contents from the single level specification asking which chapters the various groups would like but I have not received any replies yet.

#### PRIIA Specification 305-003 Single Level Specification Update Timeline

Task	Due Date (Red = Completed)
1. Table of Contents Issued to Technical Subcommittee Group Leaders	11/18/16
2. Chapters Selected to Review back to Document Control Manager	1/12/17
3. DCRs Associated with Chapters sent to Subcommittee Group Leaders	1/13/17
4. DCRs Back to Document Control Manager	2/23/17
5. Single Level Revised per Approved DCRs and Submitted to Members	3/23/17
6. Revised Single Level Specification Sub Tech Approval	4/6/17
7. Approved Revised Single Level Spec submitted to Exec Board	4/11/17
8. Review Panel appointed by Exec Board	4/25/17

- |                              |         |
|------------------------------|---------|
| 9. Review Panel Approval     | 5/23/17 |
| 10. Executive Board Approval | 6/6/17  |

- TRB invite to the NGEN Technical subcommittee to participate on a panel session at the TRB Annual Meeting: Tammy Krause has been named as the representative from the Technical subcommittee on the TRB Panel.

On December 15, 2016, Jack Madden provided the following information on the TRB session:

Information concerning the PRIIA Transportation Research Board Session for inclusion in the minutes:

The PRIIA TRB Session #545 "PRIIA Equipment Specifications: Lessons Learned in the First Use for Construction of Locomotives and Cars" will be held on Tuesday, 1/10/2017, 8a to 945a, in Room 143A of the Washington Convention Center.

The proposed sequence of the presentations is:

1. Tammy Krause, Amtrak; Director of Rolling Stock Engineering: Provide an overview of NGEN and an introduction to the Specifications which its Technical Subcommittee has developed.
  2. Bruce Roberts, California Department of Transportation [Caltrans]; Chief of Rail and Mass Transportation: Discussion of the use of the PRIIA Specification 305-001 - Bi-Level Specification (Revision C.4) for construction of the Multi-State Bi-level Passenger Car and lessons learned.
  3. Dave Ward, Siemens Industry; Vice President Locomotives North America: Discussion of the use of PRIIA Specification 305-005 - Diesel Electric Passenger Locomotive (Revision A) for the construction (under contract to Illinois DOT, as well as All Aboard Florida/Brightline) of the Charger SC-44 Multi-State Passenger locomotive and lessons learned.
  4. Craig McKeen, Progress Rail Locomotives [Former EMD/Progress Rail]; General Manager, Sales & Marketing, Passenger Locomotives: Discussion of the use of PRIIA Specification 305-005 - Diesel Electric Passenger Locomotive (Revision A) for the construction (under contract to Metrolink [Southern California Regional Rail Authority]) of the Spirit F-125 Metrolink Locomotive.
  5. Kevin Kesler, Federal Railroad Administration; Chief-Rolling Stock Research & Development: Provide FRA's perspective on the PRIIA Specifications and turning paper into steel.
- Accessibility Update – On December 15<sup>th</sup> Melissa Shurland, FRA, provided the following summary presentation on:

Inclusive and Universal Design Guidelines for HSR passenger cars: Safety and Feasibility Review of Accessibility

Summary

Contract DTFR5315P0034  
Oregon State University

#### Phase 1 Summary

Working with the PRIIA Next Generation Equipment Committee, recommendations were developed for accessibility on single-level and bi-level coach cars.

The bi-level recommendations as outlined below:

- Increase wheeled mobility device accessibility space – 32 x 59 inches {this does not include maneuvering space}
- Increase vestibule width – 44 inches
- Increase design load of car borne wheel chair lift – 800 pounds
- Increase surface platform of the car borne wheel chair lift – 30 x 54 inches

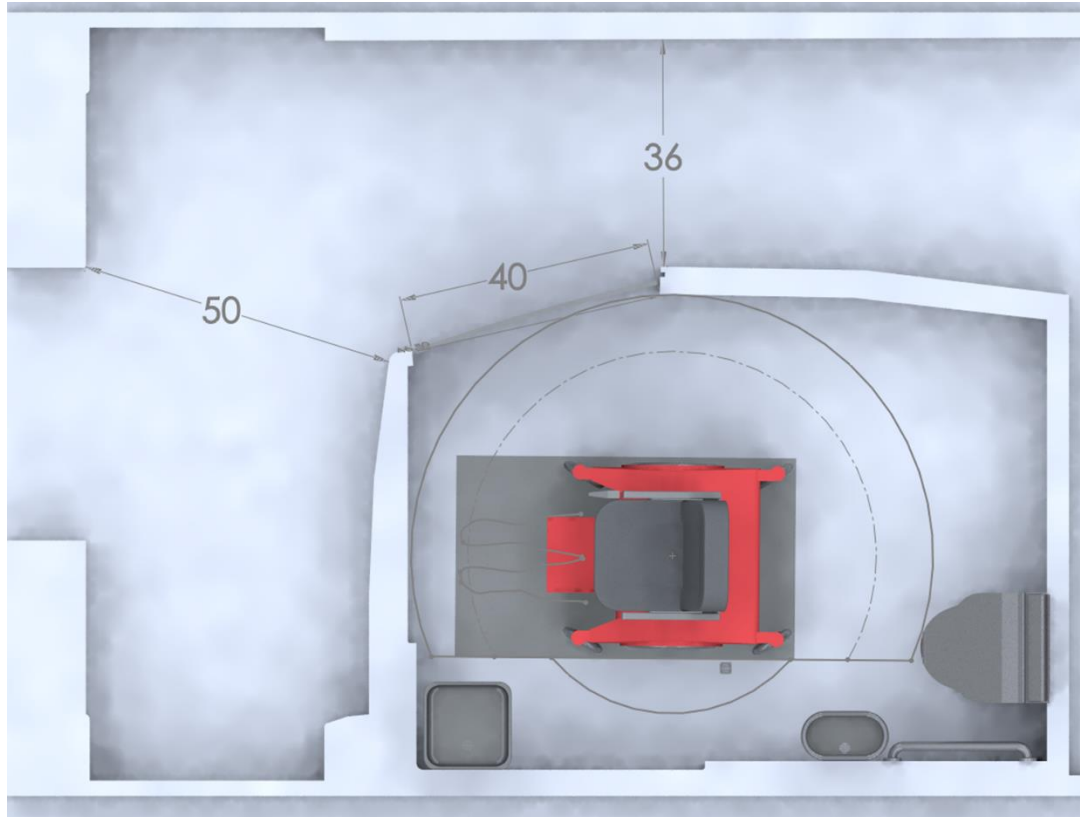
#### Phase 2 Evaluation of impact of Phase 1 and RVAAC Recommendations

- Accessible Restrooms

- Seat loss resulting from accommodating two or more wheeled mobility devices
- Access to bi-level passenger cars

Accessible Restrooms – Spatial layout that permits large power base to drive forward in and out of restroom

- Toilet is oriented in the longitudinal orientation a small sink that is accessible from the toilet by a 5<sup>th</sup> percentile female
- wider entry door of at least 40 inches (42 inches clear opening is preferred to accommodate entry into the restroom from the 36-inch-wide aisle)
- a 12-inch vertical toe clearance under the sink is also recommended to facilitate access to the sink and general movement about the restroom.

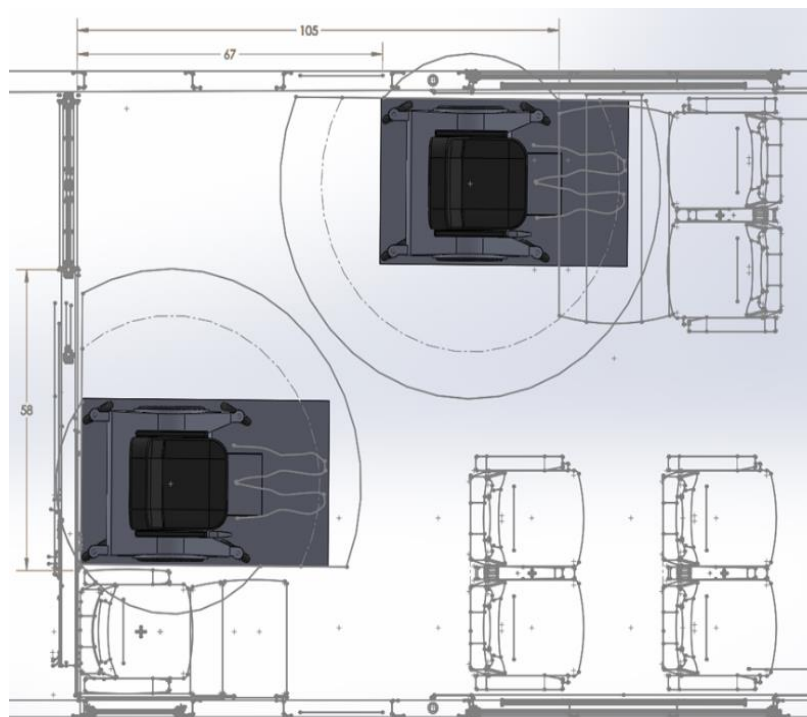


#### Seating Area

- Occupant protection and containment and respect for the independence of passengers requires further study
- There is no single seating configuration that balances access and containment.
- The number of wheeled mobility devices accommodated is not directly related to seat loss. It is possible with minimal seat loss to accommodate more than one wheeled mobility device.
- Folding or flip up seats in wheelchair spaces may be an option.

#### Seating Area Table

- Access to a fixed table by the passengers in power bases or regular wheelchairs is very limited.
- There is a need for further investigation to develop a new table that can be both adjustable and collapsible and satisfy the functional requirements and safety regulations.
- This would provide significant opportunities for accommodation of wheeled mobility devices.
- This shows the accommodation of two power base wheelchairs with table access for one, and space for service animal or stowage of other wheeled mobility devices.
- Shows need for containment



#### Access to upper level of bi-level passenger rail car

- There is a need to examine FRA requirements for Tier I, II and III operating environments and the applicability to passenger rail car elevators and other devices that move passengers between levels on bi-level rail cars.
- Currently there are no manufacturers of elevators for use on bi-level trains

#### Access to upper level of bi-level passenger rail car

- The RVAAC developed recommendations for devices and equipment to move passengers with limited or no mobility to the upper level of bi-level equipment. There are no existing standards for elevators used on bi-level trains.
- The new RVAAC recommendations include:
  - Increase the weight limit to 800 pounds from the current 550- 750 pounds.
  - Increase internal cab from 33.5 inches by 48 inches to 33.3 inches by 54 inches
  - Permit drive through operations rather than the current drive in back out operation.

#### Access to upper level of bi-level passenger rail car

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  - Increase the weight limit to 800 pounds from the current 550- 750 pounds.
  - Increase internal cab from 33.5 inches by 48 inches to 33.3 inches by 54 inches
  - Permit drive through operations rather than the current drive in back out operation.

#### Key Recommendations:

- Additional research to determine the appropriate level of containment for wheeled mobility devices in the seating area for Tier II and Tier III operating environments.
- Refine the technical requirements for equipment that provides access to the upper-level of bi-level for the next generation of bi-level long distance trains. The technical requirements need to balance the RVAAC recommendations, the Tier I, and II operating environments.

#### Layout of Report

- Executive Summary
- Section 1 – Introduction
- Section 2 – Functional Accessibility Requirements for Single-level Coach
- Sections 3-5 – Spatial Analysis of larger accessible restroom and multiple accessible seats
- Section 6 – Study of current use of elevators to access upper level of bi-level cars
- Section 7 – Conclusions
- Section 8 – Recommendations

Layout of Report, Continued

- Appendix A
- Functional Specification Reference Document
- Demographics and Mobility Device Size
- Current Issues addressed in existing standards and regulations
- Onboard Passenger Information Systems, OPIS
- Armrest Requirements
- Draft Guidelines for Accessible Restrooms for High Speed and Intercity Rail Vehicles
- Appendix B - Accessible Restroom
- Appendix C - Seating Area Analysis
- Appendix D - Review of vertical movement on bi-level trains

Any Questions?

Contact Info:

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Comments or questions are due January 12, 2017.

- 2017 NGEC Annual Meeting – Steve Hewitt:

On December 15<sup>th</sup>, Steve Hewitt provided a brief overview of the DRAFT agenda for the upcoming 2017 NGEC Annual Meeting. The agenda is subject to change.

On December 21<sup>st</sup>, Steve provided all NGEC members with the link to the room block at the Hyatt Regency Hotel. Hotel bookings will be done by each individual attendee.

Registering to attend the NGEC meeting:

If you plan to attend, please send an email to Steve Hewitt to register as an attendee. The deadline for registering with Steve is January 30, 2017.

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#### **The Finance and Administrative Subcommittee**

**Chair: Darrell Smith, Amtrak CFO**

**Vice Chair: Brent Thompson, Washington State DOT**

**Vice Chair: Ray Hessinger, New York State DOT**



**The Finance and Administrative subcommittee holds a conference call every four weeks on Wednesdays at 3:00pm Eastern.**

During the Month of December 2016, the Finance and Administrative Subcommittee (FASC) did not meet due to schedule conflicts. The next call will take place on January 11, 2017.

**The 514 Subcommittee:**

**Chair: Brian Beeler II – NNEPRA (Maine DOT)**

**Vice Chair: Jonathan Dees - NCDOT**

**The 514 Subcommittee holds a monthly conference call on Mondays at 4:00PM Eastern.**

In December, the subcommittee continued its work with Amtrak on the quarterly reconciliation. In mid -December the subcommittee met to begin work on the next CIP document.

**NGEC Specification Review Panel(s):**

For each PRIIA NGEC specification a Review Panel has been established to compare the specification (as developed by the Technical subcommittee) against a requirements document previously adopted by the Executive Board. As the Review Panel completes its work, it prepares a report with recommendations. This report is submitted to the Executive Board for its consideration. Once accepted by the Board, the specification is subsequently formally adopted by the Executive Board. As part of the Document Control process, any proposed revisions to a PRIIA NGEC specification must go through the Review Panel process as well. At such times, the Review Panel, previously established for a specification, is re-convened by the Executive Board chair.

In December, 2016, the NGEC Review Panels did not meet.

**Milestones – Quarterly update (October 1, 2016 through December 31, 2016)**

**Capital Improvement Program (CIP) completion and updates by the 514 Subcommittee:**

In December 2016, the 514 subcommittee began the activity of doing a “major” update of the 5-year Capital Improvement Plan (CIP)

**Bi weekly meetings:**

Throughout the quarter, the NGEC Executive Board and the Technical subcommittee held bi-weekly conference call meetings. The only exception to this was during the month of December, when vacations and the holiday schedules of members resulted in a reduced December schedule – one meeting was held by the Board (12-6-16) and the Technical subcommittee in December (12-15-16).

**Monthly meetings:**

Throughout the Quarter, the Finance and Administrative Subcommittee (FASC) and the 514 Subcommittee held monthly conference calls. The one exception being the month of December, during which the FASC meeting was cancelled due to a schedule conflict.

**Dissemination of educational/informational pieces:**

During the quarter, the Educational/outreach document that had been under development, was finalized, printed, and distributed to NGEC members, congressional staff, and related organizations and it was posted to the NGEC website. It is available in hard copy upon request, through NGEC Manager Steve Hewitt.

Also during the quarter, the NGEC Technical subcommittee (at the direction of the NGEC Executive Board) agreed to provide a representative (Tammy Krause, Amtrak, NGEC Revision Control Coordinator (RCC) to participate on TRB Session #545 "*PRIIA Equipment Specifications: Lessons Learned in the First Use for Construction of Locomotives and Cars*" to be held Tuesday, 1/10/2017 during the TRB annual meeting.

#### **NGEC Annual Meeting:**

The NGEC Annual Meeting has been scheduled for 2-24-17 at the Hyatt Regency Capitol Hill, Washington, DC. A notice was sent out to all NGEC members announcing the date of the meeting. This occurred during the quarter. Also, a DRAFT agenda was sent to all NGEC members to assist in making travel plans. The hotel room block information was provided as well (on 12-21-16) to all NGEC members. The DRAFT agenda has also been posted to the NGEC website.

#### **Annual Review of NGEC By-Laws and Operating Procedures:**

During the quarter, the NGEC's Finance and Administrative subcommittee (FASC) began its annual By-Laws and Operating Procedures review. The FASC will discuss and consider recommended changes (if there are any) during its January 11, 2017 conference call meeting, and will provide a recommendation for approval to the Executive Board in advance of its call on January 17, 2017. If revisions are recommended the Board will have a 30-day review period before taking up those changes/revisions for consideration.

#### **Grant reporting:**

As required by the Grant Agreement, Amtrak will submit a quarterly report to the FRA. The first such quarterly report will include the period from October 1, 2016 through December 31, 2016, and will be submitted by Amtrak by January 31, 2017. The information included in the monthly NGEC Activities reports for this quarter, prepared by the NGEC Manager, will be utilized as a basis for the Quarterly Report to the FRA.

During this quarter, the NGEC and Amtrak closed out the previous FRA Amtrak/NGEC Grant. In accordance with FRA requirements a Final Project Close Out Report was prepared by the FASC – approved by the NGEC Executive Board - and submitted by Amtrak to FRA in December, 2016.

#### **Fiscal and contractual actions:**

During the quarter, and with the execution of the new Grant Agreement, as a part of the Statement of Work and Budget for the NGEC, a review of current consultant and administrative support contracts occurred. Each contract was included as a part of the SOW and budget for the new grant agreement and was to be continued consistent with the Grant Agreement through 9-30-19. No action is necessary on these contracts now since each of them currently runs through 9-30-17. As the contracts' expiration dates approach, action will be required to execute extensions consistent with the intent of the NGEC Board and in compliance with the Grant Agreement and the approved SOW and budget.

#### **Review/Update of NGEC Specifications (Document Control):**

During the quarter, the NGEC Technical subcommittee, through its Document Control Process, began a review of the PRIIA Single Level Car Specification 305-003 and established a timeline for its completion:

#### **PRIIA Specification 305-003 Single Level Specification Update Timeline**

Task

Due (Red = Completed)

1. Table of Contents Issued to Technical Subcommittee Group Leaders 11/18/16
2. Chapters Selected to Review back to Document Control Manager 1/12/17
3. DCRs Associated with Chapters sent to Subcommittee Group Leaders 1/13/17
4. DCRs Back to Document Control Manager 2/23/17
5. Single Level Revised per Approved DCRs and Submitted to Members 3/23/17
6. Revised Single Level Specification Sub Tech Approval 4/6/17
7. Approved Revised Single Level Spec submitted to Exec Board 4/11/17
8. Review Panel appointed by Exec Board 4/25/17
9. Review Panel Approval 5/23/17
10. Executive Board Approval 6/6/17