



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

Section 305 Next Generation Corridor Equipment Pool Committee (NGEC)

Monthly Activities Report: April 30, 2021

Submitted By: Steven J Hewitt, Program Manager, S305 NGEC

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, considering 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: Ray Hessinger, NYSDOT

Vice Chair: George Hull, Amtrak

Secretary: John Oimoen, IDOT

Treasurer: Tim Ziethen, Amtrak

The Executive Board holds bi-weekly conference calls – Tuesdays at 11:30am Eastern

During the month of April 2021, the Executive Board met twice via web conference, on the 6th and the 20th.

Highlights, decisions, and action items from the month of April 2021 include:

- Technical subcommittee review of the Access Board Advance Notice of Proposed Rulemaking regarding accessibility guidelines for Rail vehicles:

The intent of this effort is for states to submit their comments to the Access Board Docket on the Accessibility Requirement Guidelines Advance Notice of Proposed Rulemaking. Amtrak has submitted its comments already and will share them with the Executive Board. Once the comments have come back (The comment period has been extended) and there is ultimately a Final Rule, the Technical subcommittee (through its technical working groups) will compare them with the NGEC specifications to ensure compliance and make any necessary changes by utilizing the NGEC DCR process.

The comment period on the advanced NPRM which had been extended until July 14, 2020, has ended. As of 8-20-20, the FRA reported that the Access Board is reviewing comments received. On 8-20 -20, Melissa Shurland, FRA, reported to the Technical subcommittee, "we are in a holding pattern to see what the comments were and what the Access Board's disposition of them will be." Melissa will keep the NGE technical subcommittee informed as the process is completed.

As of 4-30-21 – this item remains in a holding pattern.

- Executive Board review of NGE documents to ensure there are no holes in the NGE portfolio of specifications and other documents.

Development of a TSSSA template/primer:

In April it was agreed that developing a TSSSA template/menu of potential options would be undertaken by the Technical subcommittee.

As expressed by Chairman Hessinger, the intent is to have an "a la carte" menu of options when considering a TSSSA as a part of the procurement process.

Once the DRAFT is prepared, it will be provided to Tammy Krause to get it ready to be included as an NGE document for Technical subcommittee approval and, ultimately for Executive Board review and approval.

As of 4-30-21, a DRAFT TSSSA primer, developed by Amtrak Mechanical, and reviewed by CMO George Hull has been distributed to NGE Technical subcommittee members for review and comment. The subcommittee will discuss the document on its call on 5-13-21. When consensus is achieved the DRAFT primer will be submitted to the executive Board for its review and consideration.

- Treasurer's Report – 4-30-21:

Balance and Spend Rate

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

Amount Spent through February 2021: \$741,394.50

Balance remaining: \$ 508,605.50.

Estimated spend at current rate for the remaining grant period (through 9-30-23): \$433,645.84.

Current Spend Rate per month (as info and used in calculating): \$13,988.58.

Estimated Balance at the end of the Extension Period (Contingency): \$74,959.66

- 2021 NGE two-pager:

The 2021 version of the NGE two-page backgrounder/educational document has been released and is available electronically or in hard copy by request - contact Steve Hewitt at shewitt109@aol.com.

- Update – Multi-State Rail Car Procurement (provided by Caltrans) as of 4-30-21:

Design review for the standard coach is complete. The Cab Car structure FDR is complete and the structural test plans are being coordinated with Caltrans, Siemens, and FRA. The Cab Car IDR phase is complete and FDR meetings are scheduled to resume in May. FDR meetings for the Caltrans Vending Car Water/Waste system occurred April 7, and the Electrical review took place on April 14. IDOT Café Car are ongoing, FAIs are being planned, and open items are being addressed.

The Cab Car Compression Test setup will begin in May in Sacramento. A follow-up Maintainability Demonstration is scheduled for the week of May 5th. NEC testing for standard coach is complete and the report is accepted by FRA. Caltrans 238.111 testing is complete, and the report has been submitted to Amtrak and FRA. IDOT 238.11 testing is complete, and the test report is under final review.

78 cars total are in production or have been produced at Siemens Sacramento Facility. There are currently twelve Caltrans cars at the Stockton Facility and twenty-six IDOT cars delivered to Chicago and Indiana and

Metro-North Dual Mode Locomotive Equipment as of 4-30-21:

Siemens and Metro-North have “jumped” into the initial design review with a focus on systems that remain unchanged from the Chargers and ALC 42’s. Metro-North will review and provide any comments they may have.

- Amtrak Equipment Procurement Update – as of 4-30-21:

On the Charger Locomotives: The first Unit #300 was delayed for 4 weeks due to issues with the fuel system. The problem has been identified and rectified. They will likely wait until the second unit is ready and ship them both together.

On the Intercity Passenger Rail Trainset – Siemens has been announced as the provider and has entered into negotiations with Amtrak.

CAF: Nothing new to report.

- Connecticut DOT Rail Car RFP as of 4-30-21:

This procurement remains in the “cone of silence” period.

- VIA Rail Equipment Procurements:

On 2-23-21 at the Annual Meeting a comprehensive overview/update of the VIA Rail procurement was presented by Mario Bergeron, Bruce Cacciola, Ron Bartels, and Joe DiLiello. This full presentation was distributed to NGEC members and is posted on the NGEC website.

The next update is anticipated to take place around June 2021.

- Document Control Update - as of 4-30-21:

The Stadler DMU proposed changes (120) have been sent to the team leaders of the Mechanical, Interiors and Propulsion technical working groups.

Tammy Krause will provide a list of those changes to NGEC Review Panel Consultant so that he can revise his scope of work accordingly.

The rewrite of the trainset specification continues. No technical changes are being made, just rearranged to match the other PRIIA specifications. I am now having weekly meetings with Camren Cordell to review the chapters and the changes. I have gone through four chapters so far.

- METRA Equipment Procurement Effort:

As of 4-9-19, an RFP was on the street for 200-400 bi-level cars. They were going through the process now. Interested parties were to respond by August 2019.

METRA has the NGEC specification, but it was unknown if they plan to use it or if they will be in contact with the NGEC or not.

John Oimoen, IDOT, is scheduled to provide an update on this procurement to the Executive Board in a future Board call.

As of 4-30-21 – nothing new has been reported.

- Updates: States and Amtrak – Charger Locomotive and Rail Car Experience:

In-depth updates were provided during the 2021 Annual Meeting and were distributed to NGEC members and can be found on the NGEC website.

- Reauthorizing the NGEC as of 4-30-21:

Steve Hewitt reported to the Executive Board, FASC and the Technical subcommittee in April that the States for Passenger rail Coalition (SPRC) sent a letter (4-12-21) requesting the reauthorization of the NGEC and providing suggested language, scope, and funding.

After sending the letter, SPRC chair, Arun Rao, received a call from the House Railroad subcommittee staff (Majority) Frances Bourne, asking about the NGEC:

Are the specs being used? Isn't the work done if specifications have been completed and standardization is occurring? Why not ask that states be required to use NGEC specifications if using federal dollars?

Arun responded that the specifications are not only being used widely across the country and beyond (VIA Rail, Canada) but they are being relied upon. They have saved millions of dollars as they are used as the baseline specification and there is no need to start from scratch which would be at a cost estimated to be about \$2 million.

Arun also noted that the work is not complete – the specifications need to be maintained and updated constantly as they are used, and changes are developed that will keep them current and useful and if the NGEC is not reauthorized the specs would become obsolete. He also noted there may be additional specs yet to be developed as technology changes.

The last question, Arun did not specifically respond to as there are different views on this – the specs are being widely used now without there being a federal requirement which could potentially add more onerous requirements where not necessary.

Steve Hewitt commented on the fact that there is some back and forth on whether there should be a requirement that the NGEC specifications be used when federal dollars are involved. The fact that the specs are already being utilized so widely is a testament to their quality as well as cost savings they provide. Steve noted that if a state is required to use the specs, when document change requests (DCRs) are brought forth during a procurement it triggers what is called the Urgent DCR process whereby NGEC procedures for accepting or rejecting changes to the specification based on those changes being in-compliance with the Specification's requirements document. While this is done in a relatively expedited manner, it still can slow the procurement process down. If there is no requirement to use the specs, the entities are still using them as the baseline spec – provide free to them by the NGEC – and are asked to provide the as built spec to the NGEC at the end of the procurement so that it can be reviewed and changes that have been made can go through the complete document control process to determine if they should be included as a revision to the specification if it makes it better and is in compliance.

Shayne Gill, AASHTO, had reported on the NGEC FASC call on 4-28-21, that he also had received a call from Frances Bourne. He was asked pretty much the same questions and provided similar responses. Shayne emphasized that the NGEC is needed, that it has worked well towards the goal of revitalizing the passenger rail manufacturing and supply industry in the US, and it has been successful in achieving the objectives of developing and maintaining standardized specifications.

Shayne also emphasized that AASHTO supports the NGEC and its continuation (reauthorization) and recognizes the value it has added in cost savings and job creation.

The word is getting out, and it is a positive that the House Rail Subcommittee has reacted to the SPRC letter and language and has reached out to ask questions and gain an understanding of what the NGEC is and what value it brings. The effort will need to continue, but the NGEC is, at least, on their radar now with a raised profile.

Steve Hewitt also noted that he has distributed the letter along with the agenda for this call and encouraged states and industry members to weigh in with congressional staff as well.

Technical Subcommittee:

Chair: George Hull, Amtrak

Vice Chair: Joe Paul, Amtrak

The Technical subcommittee holds bi-weekly conference calls on Thursdays at 3:00pm Eastern

During the month of April 2021, the Technical subcommittee met twice, via conference call, on the 1st and the 29th.

Key decisions and action item updates from the month of April 2021, included:

- Backgrounder educational document:

The Executive Board has approved the 2021 NGEN educational document. It has been distributed electronically to all NGEN members and is available in hard copy and/or in a PDF by sending a request to Steve Hewitt at shewitt109@aol.com.

Total distribution is approximately 500 as of 4-30-21. All distributions have been electronic to date.

- AWG/RVACC:

Technical subcommittee review of Access Board advance NPRM Accessibility Guidelines and compare with current NGEN Specifications

The intent of this effort is for states to submit their comments to the Access Board Docket on the Accessibility Requirement Guidelines (advanced) Notice of Proposed Rulemaking. Amtrak has submitted its comments already. Once the comments "have come back", the Technical subcommittee will compare them with the NGEN specifications to ensure compliance.

As of 4-30-21 – the Access Board continues to be in a holding pattern on this review.

- Document Control Update:

See the update provided in the Executive Board section of this report.

Procurement Updates:

- Multi-State Car Procurement - Caltrans (Lead State): Progress reports from the lead state on the PRIIA multi-state car procurement is provided on each Technical subcommittee call and each Executive Board call.

See the update provided in the Executive Board section of this report.

- Metro North Dual Mode Locomotive Procurement:

See the update provided in the Executive Board section of this report.

- Amtrak Equipment Procurement Updates: Progress reports are provided by AMTRAK Acting CMO and NGEN Vice Chair George Hull on a regular basis.

See the update provided in the Executive Board section of this report.

- Connecticut DOT Rail Car Procurement:

See the update provided in the Executive Board section of this report.

- University of Nebraska study on High Speed wireless technology as of 4-30-21:

As reported on 4-1-21 by Hamid Sharif-Kashani:

"We continue our effort in designing and implementing our computer models and simulations for the sub-1-GHz frequency bands for rail applications. Currently, we are investigating the 160 MHz band with the consideration of propagation model for different rail environments. The 160MHz band is of interest since it provides good communication range but has the three main challenges of: (1) channelization, (2) availability of neighboring channels, and (3) lack of characterization of system performance at higher layers. We hope with the computer models and simulation results, the performance limitations of this band and the impact on different rail application could be determined."

For more information, please contact Hamid Sharif (hamidsharif@uni.edu)

Next Update: 4-29- 21

- Update: Electronics on Trains Working Group as of 4-30-21:

The last report Steve Hewitt received from David Brabb, provided on 4-12-21, he noted that the NGEC Electronics sub (working group) was to have its periodic meeting on 4-13-21. They are just ramping back up and will be issuing the PRIIA 305-919 DTL Hardware Spec. Rev. A. shortly.

On 4-29-21, Steve Hewitt asked Tammy Krause to reach out to David to ensure that he is aware of and following NGEC procedures, and that he sends the proposed Revision A DCRs to Tammy.

- Working Group on Specification Wright Issues as of 4-30-21:

The group had met on March 26 with 11 participants.

Had good discussion led by Siemens regarding car-to-car production weight issues.

Group seems to agree that a $\pm 2\%$ tolerance is reasonable for coaches.

Siemens to provide additional information to help make determination of whether that is also applicable for locomotives.

Also, to be determined, is the baseline (the weight against which the tolerance is applied): first pilot car, first production car, etc.

Next meeting had not yet been scheduled but was expected to be during week of 4/19.

Always looking for more participants.

If interested in participating on this working group, contact Jeff Gordon at Jeffrey.gordon@dot.gov or Steve Hewitt at shewitt109@aol.com

- Reauthorizing the NGEC:

See Executive Board section of this report for an update on activities related to this topic.'

The Finance and Administrative Subcommittee

Chair: Tim Ziethen, Amtrak

Vice Chair: Brian Beeler II, NNEPRA for Maine DOT

Second Vice Chair: John Oimoen, Illinois DOT

The Finance and Administrative subcommittee (FASC) will hold a conference call every four weeks on Wednesdays at 3:00pm Eastern.

During the Month of April 2021, the Finance and Administrative Subcommittee met on 4-28-21:

- Treasurer's Report as of 4-30-21:

Balance and Spend Rate:

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

Amount Spent through February 2021: \$736,122.37

Balance remaining: \$ 508,605.50.

Estimated spend at current rate for the remaining grant period (through 9-30-23): \$433,645.84.

Current Spend Rate per month (as info and used in calculating): \$13,988.58.

Estimated Balance at the end of the Extension Period (Contingency): \$74,959.66

- Conveying the message (Federal Surface Transportation Authorization) as of 4-30-21:

Executing action Plan:

2021 NGEC two-page handout:

Approximately 500 of these documents have been distributed electronically. Feedback has been positive, and they are proving useful in making the case with congressional staff.

Interactions with others – SPRC, Amtrak, AASHTO, Industry, Congress:

Steve Hewitt reported that SPRC Chairman Arun Rao, had sent a letter requesting the reauthorization of the NGEC and providing suggested language, scope, and funding.

After sending the letter, Arun received a call from the House Railroad subcommittee (Majority) Frances Bourne, asking about the NGEC:

Are the specs being used? Isn't the work done if specifications have been completed and standardization is occurring? Why not ask that states be required to use NGEC specifications if using federal dollars?

Arun responded that the specifications are not only being used widely across the country and beyond (VIA Rail, Canada) but they are being relied upon. They have saved millions of dollars as they are used as the baseline specification and there is no need to start from scratch which would be at a cost estimated to be about \$2 million.

Arun also noted that the work is not complete – the specifications need to be maintained and updated constantly as they are used, and changes are developed that will keep them current and useful and if the NGEC is not reauthorized the specs would become obsolete. Arun also noted there may be additional specs yet to be developed as technology changes.

The last question, Arun did not specifically respond to as there are different views on this – the specs are being widely used now without there being a federal requirement which could potentially add more onerous requirements where not necessary.

Steve Hewitt also reported on his interaction with Siemens. He provided Siemens with the SPRC letter and Steve Morrison, Siemens, said they will support the NGEC and would utilize the letter and the information provided. They will also stress that the NGEC work is good for the industry as a whole – beyond just one company.

Steve Hewitt also noted that he has provided the letter to the 200+ NGEC industry members and will discuss it on the 4-29-21 NGEC Technical subcommittee call.

Shayne Gill, AASHTO, also reported on a call he had with Frances Bourne. He was asked pretty much the same questions and provided similar responses. Shayne emphasized that the NGEC is needed, that it has worked well towards the goal of revitalizing the passenger rail manufacturing and supply industry in the US, and it has been successful in achieving the objectives of developing and maintaining standardized specifications.

Shayne also emphasized that AASHTO supports the NGEC and its continuation (reauthorization) and recognizes the value it has added in cost savings and job creation.

Ray Hessinger reported on his discussion with Paul Nissenbaum, FRA, who asked some similar questions. He wondered if the NGEC had run its course and achieved its objectives. Ray advocated for the reauthorization of the NGEC and noted the importance of continuously maintaining and updating the NGEC specs to keep them current and useful. He too noted that their use is widespread throughout the US and beyond (Canada – VIA Rail). Ray also noted that the NGEC continues to develop new products/documents – the most recent of which is the PRIIA Recommended Practices 305-200 document which will be of great value for those who are new to passenger rail equipment procurement by identifying best practices as well as being a guideline for those who have gone through the process and can refer to lessons learned and best practices.

The Committee is now in the process of developing a TSSSA primer for use by procuring entities as well.

The word is getting out, and it is a positive that the House Rail Subcommittee has reacted to the SPRC letter and language and has reached out to ask questions and gain an understanding of what the NGEC is and what value it brings. The effort will need to continue, but the NGEC is, at least, on their radar now with a raised profile.

Shayne Gill also noted that it is important that FRA and Amtrak weigh in and “speak highly of the importance of the Committee and of its accomplishments.” All should be saying the same thing. (Amtrak, AASHTO, FRA and SPRC as well as the industry). Additionally, he commented on the value and usefulness of the NGEC two-pager in making the case for the NGEC. It is a great tool for conveying the message.

Posing the question to FRA grants re: current funding availability if no authorization -Jeff Gordon:

Jeff Gordon read the following FRA response to the question posed and provided it to Steve Hewitt for inclusion in the minutes of this call (4-28-21):

Response presented on 4/28/2021 FASC call:

Generally, committees and entities are authorized to exist until explicitly abolished by law. The FY14 money (\$1.25M) is part of an active grant with an entity (here NGEC) that still exists. As long as the NGEC still exists, it may spend down the previously appropriated no year funds.

Posing the question to Amtrak grants re: same question as above – Tim:

Tim Ziethen was pleased to hear the FRA response and said that he was not sure that Amtrak would have anything to add to that.

Tim added that Amtrak is supportive of the NGEC and its reauthorization. He will share with Ken Altman, Amtrak Government Affairs, the outreach by Frances Bourne.

- Quarterly Grant Progress Report:

The quarterly report for the period ending 3-31-21 was submitted on time to FRA on 4-30-21.

Next report due – 7-31-21.

- Annual Review of NGEC By-Law:

Task complete – next review – Fall 2021.

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.

The Trainset Specification Review Panel met on October 17, 2019 and approved the Trainset Specification 305-007 Revision B Review Panel Report and recommendations as presented by consultant Larry Salci. On 10-22-19, the NGEC Executive Board accepted the Review Panel's Report and Recommendation and formally adopted PRIIA Single Level Trainset Specification 305-007 Revision B.

In October 2020, NGEC Executive Board Chairman, Ray Hessinger re-convened the DMU Specification Review Panel and tasked Technical consultant Larry Salci with reviewing the changes approved by the Technical subcommittee on 10-15-20 and preparing a Review Panel report with recommendations.

As of 11-30-20, additional comments submitted on weight, by the mechanical working group have not yet been adjudicated. Industry members from Stadler (builders of DMUs) have come in late to the process and requested time to develop and submit more changes through the NGEC DCR process. As noted above, Mr. Salci emphasized that

any changes requested by Stadler must be FRA compliant. As of 11-30-20, the Stadler comments have not been submitted and they have requested and were provided more time to develop those comments internally before submitting through the NGEC Document Control process as DCRs. The timeline for consideration of the additional DCRs by the Technical subcommittee is now anticipated to be sometime in January 2021. The view is that it is better to get it right than rushed.

Additionally, the broader issue of weight across the vehicle procurements will likely be taken up by a working group being established to look at that issue and report back to the NGEC technical subcommittee with recommendations. Establishing the working group will be on the 11-10-20 Technical subcommittee agenda.

As reported earlier in this document, a technical working group on equipment weight was established under the jurisdiction of the NGEC Technical subcommittee on 12-20-20 and is led by Jeff Gordon, FRA.

As of 1-31-21, the DMU specification update Revision B was on hold pending the Stadler DCRs.

As of 4-30-21 – DCRs submitted by Stadler for the DMU Specification Revision B have been distributed to the appropriate working groups.

The rearranging/reformatting of the Single Level Trainset specification is in process and is expected to be completed within the current quarter.