



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: May 31, 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 May 2021, the Executive Board met once via web conference, on the 18th.

Highlights, decisions, and action items from the month of May 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 NGECE technical subcommittee informed as the process is completed.

As of 5-31-21 – this item remains in a holding pattern.

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

Development of a TSSSA template/primer:

In May 2021, the NGECE Technical subcommittee approved the DRAFT TSSSA for submittal to the Executive Board for its review and consideration.

The Executive Board has been provided with the DRAFT Primer and it is currently under review with the Board intending to discuss any potential changes and potentially consider it for approval on 6-15-21.

- Treasurer's Report – 5-18-21:

Balance and Spend Rate

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

Amount Spent through March 2021: \$748,062.38

Balance remaining: \$ 496,665.49.

Estimated spend at current rate for the remaining grant period (through 9-30-23): \$418,519.17.

Current Spend Rate per month (as info and used in calculating): \$13,950.64.

Estimated Balance at the end of the Extension Period (Contingency): \$78,146.32

- 2021 NGECE two-pager:

The 2021 version of the NGECE 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.

To date approximately 510 electronic versions have been distributed.

- Update – Multi-State Rail Car Procurement (provided by Caltrans) as of 5-31-21:

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 Interiors FDR occurred on May 25. The remaining cab car FDR sessions are being planned with Caltrans and Siemens. FDR meetings for the Caltrans Vending Car Water/Waste system and Electrical Systems occurred in April. IDOT Café Car FDR releases are ongoing, and the Galley FAI is scheduled for June 23 in Texas.

The Cab Car Compression Test setup is in process in Sacramento with testing planned for July. Cab Car Collision and Corner Post testing is tentative for August in Germany and the test specimen is being prepared for shipment. 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 has also been provided to FRA.

82 cars total are in production or have been produced at Siemens Sacramento Facility. Car deliveries are ongoing to Chicago and Beech Grove for IDOT, and Stockton for Caltrans. The initial consists for Caltrans and IDOT are being prepared for Conditional Acceptance and revenue service while open items are addressed.

Metro-North Dual Mode Locomotive Equipment as of 5-31-21:

Metro-North and Siemens have just wrapped up initial Design Review meetings with the focus on Charger systems that will remain unchanged. Additional Design Review documents and meetings are forthcoming.

- Amtrak Equipment Procurement Update – as of 5-31-21:
On the Intercity Passenger Rail Trainset – Siemens has previously been announced as the preferred bidder and has entered into negotiations with Amtrak – this process continues.

On the Long-Distance Locomotives – the first unit should be ready by mid-June to be shipped for use on the East Coast.

CAF: Nothing new to report.

- Connecticut DOT Rail Car RFP as of 5-31-21:

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 or July 2021.

- Document Control Update - as of 5-31-21:

The rewrite of the trainset specification continues. All the chapters have been reviewed. The non-technical specification change sheet is now complete. Camren and I are now working on the DCRs for the missing sections. I will be reaching out to a few WG leaders to get their input on missing sections.

I have reached out to the WGs that are working on the DCRs for the DMU and I have received the status on the comments from two of the four groups.

I attended the Electronics on Trains WG. The revision of the DTL Hardware specification has been sent to the WG for final review and it will be finalized at the next WG meeting. The next task for this WG is the DTL software specification.

- 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 the 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 5-31-21 – 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 5-18- 21:

Steve Hewitt reported that since the last Executive Board call held on 4-20-21, the Midwest Intercity Passenger Rail Commission (MIPRC) has submitted its Principles for Federal Surface Transportation Authorization and has also (along with others such as the States for Passenger Rail Coalition (SPRC) and AASHTO) included the reauthorization of the NGEC. The wording is consistent with what others have said and also includes funding as a part of the request.

As noted earlier, Arun Rao, Chair of SPRC, is following up with the House T&I Committee to provide additional information, including the presentation given to the RSAC Passenger Safety Working Group on 5-

4-21 by Ray Hessinger. The presentation was sent out to all with today's meeting materials. This presentation along with the SPRC letter and the NGEC 2021 two-pager, the MIPRC and AASHTO Principles, are all valuable tools that can/should be utilized to educate congressional staff/members on the value of the NGEC and the need to reauthorize it with funding.

Steve also noted that SPRC is working with staff from Senate Commerce on getting language in its version of the bill that would reauthorize the NGEC with funding.

- Summary: NGEC Presentation to RSAC's Passenger Rail Safety Working Group on 5-4-21:

On 5-18-21, Ray Hessinger provided a brief summary of a presentation he gave on 5-4-21 to the RSAC Passenger Rail Safety Working Group on the NGEC – what it is, what it does and what it has accomplished. The presentation was distributed to all Board members along with the meeting materials for this call.

The presentation went well and was a great opportunity to provide the working group of a basic understanding of the NGEC and how it is structured. The presentation has (or will be) been sent to the House T&I committee staff (Frances Bourne) as a follow up to her discussion with SPRC's chair Arun Rao about the NGEC and the need to reauthorize it.

This presentation is yet another educational tool that can and should be used to further educate and convey the message of value added by the work of the Committee.

- Executive Board Meeting with FRA Deputy Administrator Amit Bose:

On 5-18-21, Ray Hessinger reported that FRA Deputy Administrator Amit Bose has requested a meeting with the NGEC Executive Board to discuss the Administration's American Jobs Plan and get input from the Board.

Steve Hewitt reached out to the Deputy Administrator's staff (Perrin Bradley) to coordinate scheduling the meeting. Ultimately, it was set for the Executive Board call scheduled for 6-1-21, as recommended by Ray Hessinger, with the full agenda being dedicated to the discussion with Amit Bose.

This is a great opportunity for the NGEC to hear about the American Jobs Plan and to provide input.

Steve Hewitt emphasized that the request from Amit Bose was to meet with the NGEC Executive Board. Steve will contact Perrin Bradley to confirm that this is understood and that the meeting will be with the Board and its support staff only and will be solely dedicated to the discussion with the Deputy Administrator. – no other NGEC business will be on the agenda.

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 May 2021, the technical subcommittee met twice, via conference call, on the 13th and the 27th.

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

- Backgrounder educational document:

The Executive Board has approved the 2021 NGEC educational document. It has been distributed electronically to all NGEC 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 510 as of 5-31-21. All distributions have been electronic to date.

- AWG/RVACC:

Technical subcommittee review of Access Board advance NPRM Accessibility Guidelines and compare with current NGEC 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 5-31-21 – 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 5-13-21:

As reported on 5-13-21 by Hamid Sharif-Kashani:

We completed our first phase of our modeling and simulations for the sub -1-GHz frequency bands for rail applications. We modeled and studied the 160 MHz band with the performance consideration focusing on the impact of signal propagation related to different rail track locations. We are in the process of verifying our simulation results based on the channelization and the availability of neighboring channels for reliable communications.

I will be happy to share our results with the group and receive any comments, suggestions, or simulate any specific application of interest for our group.

For any questions, please contact Hamid Sharif at hamidSharif@UNL.edu.

Next Update: 6-10-21

- Update: Electronics on Trains Working Group as of 5-31-21:

As reported by team leader David Brabb on 5-27-21:

1. *We submitted the 305-919 DTL Hardware to the group Tuesday. Once received back, will submit for a Revision A.*
2. *We are beginning on 305 -920 Software spec now.*
3. *Met with Amtrak (Mr. Matt Sidden and Mr. Jesse Whaley) and will be addressing the following list of items, one at a time, starting during next month's call.*

The list includes:

- *Evolving Security in Onboard Technology and the Groundside Systems that support them.*
- *Establishing Standards for Train to Ground communications.*
- *Establishing standards for Train Telemetry, both from a Metadata and Data perspective.*
- *Establishing Standards for Integration that promote modern integration architectures*
- *Aligning Onboard Passenger Information Systems with Digital ADA Standards*

We are not yet sure of the order in which we will address them. The results of the discussions will need to be incorporated into 919 and 920 where appropriate.

Next Update: 6-24-21

- Working Group on Specification Wright Issues as of 5-13-21:

Jeff Gordon provided the following update for inclusion in today's (5-13-21) minutes:

The NGEC Vehicle Weight Working Group held its fifth meeting on May 3. Of the 24 members, 16 were in attendance.

Items of discussion included, in part:

- *a brief presentation by Stadler on how it weighs articulated trainsets,*
- *Siemens presented information on production weight variances for its locomotives. Based on those data, it appears that the proposed $\pm 2\%$ weight tolerance for coaches (as it relates to the "production" vehicle(s)) could also be applicable to locomotives,*
- *lateral imbalance and how this might also be related to requirements in the FRA Low-Speed Wheel Climb Safety Advisory,*
- *allowable scale tolerances. The group is discussing including a reference to a relevant AREMA standard on this.*
- *how the vehicles should be configured when weighed. It appears that different criteria need to be applied to coaches and locomotives to account for required items such as DEF and fuel, and*
- *a member provided some suggested language to define the baseline "production" vehicle against which the weight tolerances would be applied.*

The next meeting of the group is on June 9 at 1pm ET.

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

Next Update: 6-10-21

- 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 5-26-21:

- Treasurer's Report as of 5-26-21:

Balance and Spend Rate

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

Amount Spent through March 2021: \$748,062.38

Balance remaining: \$ 496,665.49.

Estimated spend at current rate for the remaining grant period (through 9-30-23): \$418,519.17.

Current Spend Rate per month (as info and used in calculating): \$13,950.64.

Estimated Balance at the end of the Extension Period (Contingency): \$78,146.32

- Conveying the message (Federal Surface Transportation Authorization) as of 5-26-21:

Executing action Plan:

2021 NGEC two-page handout:

Over 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 - Tim/Steve/Arun Rao:

Tim Ziethen reported that he has reached out to Ken Altman, Amtrak Government Affairs to ascertain around the mark ups of any of the proposed authorization bills that the NGEC is included. He has also emphasized and encouraged Amtrak Government Affairs to stress the importance of the NGEC and the value it has added in the procurement and standardization of equipment. He has also stressed the point that the specifications are being used widely.

Steve Hewitt reported that efforts continue to be made on behalf of the NGEC to have it included in the next Federal Surface Transportation Authorization.

The bill is currently being developed in the House and Senate, and SPRC, AASHTO, MPIRC, Amtrak, and members of the industry (specifically Siemens) have reached out to House and Senate staff to request that the NGEC be reauthorized for the life of the bill and that it be funded at \$2.5 million over that time.

The House staff (Frances Bourne) has had a conversation with SPRC Chair Arun Rao, and with Shayne Gill, AASHTO, trying to understand why the NGEC should be continued. Both have provided feedback on the importance of the NGEC's work. Arun has pointed out the NGEC Specifications are not only used widely (all across the country and beyond our borders - VIA Rail) – but are also being relied upon by the states.

NGEC Chairman Ray Hessinger met with FRA and reiterated the same points as well as emphasizing that maintaining and updating/improving the specifications is critical going forward. The NGEC is also developing best practices (PRIIA 305-200 – Recommended Practices) and documents such as a TSSSA primer that can be utilized by states during the procurement process.

Ray also gave a presentation on the NGEC (5-4-21) to the RSAC Passenger Rail Safety Working Group. He provided an overview of what it is, how it is structured and what it has accomplished.

The presentation given during the 5-4-21 meeting with the working group has or will be provided to Frances Bourne as a part of Arun's follow up with her. It has also been widely distributed to the industry and other NGEC members to add as a tool to be utilized along with the SPRC letter to House and the NGEC two-pager.

SPRC has also interacted with the Senate Commerce committee staff to request the inclusion of the NGEC with funding in their authorization legislation.

Steve also emphasized that at this point, through early discussions with congressional staff of preliminary drafts. It is apparent that neither the House nor Senate has included the reauthorization of the NGEC in those initial drafts. It is critical that SPRC and others continue to press for its inclusion as the drafting process continue. As noted above, SPRC and others have been providing vocal and written feedback to the House and Senate, as well as to FRA to get the NGEC on their radar and express the importance of its continuation.

Ray Hessinger added that he and Steve Hewitt have talked about the fact that they since the NGEC published its specifications no one has done a procurement of passenger rail equipment and not used those specs.

Ray added that this emphasizes the point that the NGEC should be authorized to continue to maintain and update specifications and develop new ones as needed; and it also underlines the fact that there is no real need to mandate the use of these specs.

Most entities that use the NGEC specs tinker around the edges, but do not make wholesale changes. Their changes are often improvements to the specifications. If entities are mandated to use the NGEC specs it would mean that the NGEC document control process would kick in and that involves review of change requests during the procurement to ensure compliance and can delay it. It is also a "big lift" for the NGEC in time and effort.

If the use of the specifications is outside of a mandate, the NGEC can take the as-built specifications and review them thoroughly against the NGEC specification requirements document and determine if the changes comply or not, and do they improve the specification. They can go through the full document change process and update the specs accordingly.

Shayne Gill commented that the questions he received during his conversation with the House T&I staff were more focused not on whether to reauthorize the NGEC - that did not seem to be in dispute – but whether or not to mandate the use of NGEC specifications.

Shayne also asked if FRA supported the NGEC – what is their position on this? If they do not support it, it will not happen. Shayne asked Jeff Gordon if he was aware of the FRA position – and his response was that he did not know as that he is not in the position to know.

Steve Hewitt emphasized that he continues to keep this discussion on the agendas of the various NGEC subcommittees to be sure to keep the issue on the radar of those who can go to congressional staff and FRA and press the issue. The NGEC, as a whole, cannot "lobby" because of its membership (FRA, Amtrak, and States), but the individual members of the NGEC – including the industry – can certainly appeal to congressional staff and members and to FRA.

- 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, NGEN 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 NGEN 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 NGEN 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 NGEN 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 NGEN 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.

No changes as of 5-31-21 – Stadler DCRs for DMU are with the technical working groups. The Trainset spec rewrite is in process – there will be several DCRs required.

Timeline goal for completion is likely to move to the third quarter 2021.