

SECTION 305 TECH SUB COMM

MINUTES

NOVEMBER 20,
2014

3:00PM EASTERN

CONFERENCE CALL

FACILITATOR	<i>Mario Bergeron, Chair, NGEC Technical Subcommittee</i>
ATTENDEES	Core Team Members: Mario Bergeron, Jeff Gordon, Allan Paul, Jack Madden, Marci Petterson, Jennifer Bastian, Phil Meraz, Art Peterson, Tammy Krause, Michael Burshtin, Andrew Wood, Jeff Schultz, Curtis McDowell, Steve Hewitt Industry Members: Paul Jamieson, Josh Coran, Steve Morrison, Lew Hoens, Tom Sisler, Al Bieber, Bill Slater, Richard Stegner, Dave Warner, Bill Saddler, Walt Stringer
ABSENTEES	<i>Stan Hunter, Dale Engelhardt, Charles Poltenson, Troy Hughes, Darrell Smith, Nikki Rudnick, Vincent Brotski, Melissa Shurland, Anand Probhakaran, Charles Bielitz, Sal DeAngelo, Sara Sarkhili, Michael Coltman, Brian Marquis, Patricia Llana, Larry Salci, Shayne Gill, Nico Lindenau</i>

DISCUSSION/DECISIONS MADE

1.

Chairman Bergeron called today's meeting to order and asked Steve Hewitt to call the roll.

After calling the roll, Steve 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

2.

Review of the Meeting Agenda – Mario Bergeron:

Mario Bergeron provided a brief overview of today's meeting agenda.

3.

Review of Action Items – Steve Hewitt:

Steve Hewitt reviewed the open action items, providing a brief update on those items that were not to be specifically covered on the agenda:

Maintaining Industry Participation List: Status: Steve reported that this remains an ongoing action item. There are currently **232** registered industry participants.

Requesting Backgrounder educational document: With changes to the NGEC organizational structure at the October 24th Fall Meeting, the Backgrounder will need to be updated. Steve Hewitt is working with AASHTO to incorporate the changes into a new Backgrounder.

Updating ECP Standards: This is an ongoing item which the Technical subcommittee is tracking – it is anticipated that status updates will take place on every other call.

Paul Jamieson provided the following update for inclusion in today's minutes:

"The 4 cars continue to operate in emulation in the Keystone service (Harrisburg to New York). One ECP portion developed a leak which was determined to be an aluminum chip from machining across a valve seat. This fault is not attributed to the ECP design but is a quality issue. A second ECP portion fault has been reported and is under investigation. A relay valve was found to be leaking and was attributed to debris in the piping and not the valve operation.

The next car inspection will occur in January in Philadelphia.

One operational concern has been determined through the emulation testing. If the car is set out, the ECP battery can be drained and the brakes will not probably function when connected to a locomotive without connecting the HEP trainline. The manufacturers are working on a solution to this concern.

Work is progressing on the full ECP test for hardware acquisition, installation and development of the dynamic test plan.

An ACS64 Locomotive will be equipped with NYAB ECP equipment which will be interfaced with the CCBII equipment. A cab car will be modified with the Wabtec FastBrake and ECP equipment. Final schedule is being developed.

The safety analysis work continues and a final review with the contractor is scheduled for December 18th at APTA in Washington, DC. The two manufacturers, APTA, FRA and the contractor will be in attendance."

4. Approval of the Minutes of the November 6, 2014 Technical subcommittee conference call – Mario Bergeron:

On a motion by Jack Madden, NYSDOT, and a second by Phil Meraz, Iowa DOT, the Minutes from the November 6, 2014 Technical subcommittee call were approved without objection.

5. Accessibility Working Group/RVAAC related issues update – Jeff Gordon for Melissa Shurland:

Jeff Gordon, on behalf of Melissa Shurland, noted that there was nothing new to report for today's call.

6. Document Control update - Steve Hewitt for Tammy Krause:

Tammy Krause provided the following update for inclusion in today's minutes, which Steve Hewitt read into the record:

"The only update is on the Diesel Electric Locomotive Specification. Discussion of the Review Panel approval recommendations of D/E Locomotive Specification Revision A.1. is scheduled for tomorrow 11/21/14."

Steve added that the next step, if the Review Panel approves Revision A.1, is to submit it to the Executive Board with a recommendation for approval and a request for its consideration.

7. Status/Discussion: Technical explanation – 110 mph maximum speed rationale DM Locomotive – Jack Madden:

Jack Madden provided the following update for inclusion in today's minutes:

"On the last Technical Subcommittee call, the FRA requested that the Technical Subcommittee defer voting upon the Revised Dual Mode (DC 3rd Rail) Locomotive Requirements Document, and requested that the Locomotive Working Group provide a technical explanation for the requested revision of the maximum speed to 110 MPH vs. the 125 MPH as contained in the original issue of the Requirements Document.

I will update the Committee on the progress of that response as well as raise some issues concerning Standardization and the Empire Corridor Tier I Draft Environmental Impact Statement, on which I spoke briefly on the last call. I have provided two documents to Steve containing some back up information on these latter two issues for him to send out to the members.

1. *Technical Explanation: The Locomotive Working Group met by conference call on Thursday 11/13 and discussed the request made by the FRA. The four major locomotive manufacturers went back to their technical people to address the consequences of the addition of the 3rd Rail gear and electronics as well as the on-board energy storage capability, to the Diesel-Electric locomotive platform. Siemens has already responded; Bombardier will meet with NYSDOT, CT DOT and MNR in NYC tomorrow morning; and MPI/GE and EMD/Progress Rail are working on their responses.*

Siemens advises that, using the 272,000 pound PRIIA Charger D-E locomotive as a base platform, the addition of the 3rd Rail DC gear and associated electronics will add weight as well as 3 feet of length to the locomotive. The resulting DM locomotive would weight approximately 291,500 pounds, which is a little over our 286,000 pound target for the NYC legacy infrastructure; at 291,500 pounds, the locomotive would be below the PRIIA P2 force limit at 110 MPH, however, it would exceed the PRIIA P2 force limit at 125 MPH. The addition of the on-board energy storage system will add about 15,000 pounds, and would require either more locomotive length and weight or a reduction in other items such as fuel tank size or a smaller engine. (This is how GE modified the Genesis P40/P42 to develop the P32AC-DM, reducing the fuel tank from 2,200 to 1,800 gallons and reducing the engine size from 4,000/4,200 HP to 3,200 HP.)

We anticipate that we will have a similar technical explanation from the other 3 locomotive manufactures by the next Technical Subcommittee call.

2. *I have provided Steve with a background paper which discusses the Standardization issue, as well as the Empire Corridor DEIS to which I referred last call.*

Standardization: Although the Bi-Level car and the Diesel-Electric Locomotive meet the 125 MPH maximum speed, they are not truly nationally "standard" vehicles as they cannot be used north of Washington DC either due to vertical clearances and high-level platforms (Bi-Level), or the prohibition of internal combustion engines in the NYC Tunnels and Stations. (Diesel-Electric Locomotive) In addition, the Diesel Multiple Unit specification was approved with a maximum top speed of 110 MPH, although the DMU could be used nationally.

3. *Empire Corridor Tier I Draft Environmental Impact Statement: The FRA is the Lead Agency for the Empire Corridor Tier I DEIS. The DEIS advances four speed alternatives: 79 MPH, 90 MPH, 110 MPH and 125 MPH. The 79 MPH, 90 MPH, and 110 MPH alternatives west of Albany/Rensselaer would operate with locomotives in Diesel Mode. The 125 MPH alternative west of Albany/Rensselaer would operate under AC Catenary, using a Dual Mode (AC Catenary) Locomotive, similar to the Bombardier ALP-45DP. Accordingly, as per the FRA's status, as Lead Agency, there are no plans to operate locomotives in diesel mode at 125 MPH in the State of New York.*

Mr. Chairman, pending your questions, that concludes my update report."

Chairman Bergeron thanked Jack for an excellent presentation and explanation, and added that "it sounds like you got valuable information from one OEM who had responded to the RFI, and that others are going to be responsive as well before we take this to a vote."

Jack responded that he expects to have the additional responses distributed in advance of the next subcommittee call (48 hours prior).

Mario asked Jeff Gordon, FRA if what Jack had explained is what he was looking for when he made the request on the last call.

Jeff noted that "this is exactly what we were hoping for". He added that Jack's explanation was very well said and greatly appreciated.

Jeff further noted that a summary responders explanations appended to the requirements document would be the way to go.

Additionally Jeff commented "it is what I was asking for and everything Jack said is true and I agree and have no objection."

8. Technical subcommittee consideration of approval or next steps towards approval – Mario Bergeron:

Consideration of the revised requirements document will take place when Jack has received the additional technical explanation from the other RFI responders and has prepared a summary explanation that can be appended to the requirements document.

9. Update: NGEC Procurements:

Diesel-Electric Locomotive Jennifer Bastian, IDOT:

Rich Stegner provided the following update for inclusion in today's minutes:

- "The last two Milestone 'A' CDRLs (#10 & #11) are being processed.*
- b) Intermediate design review (IDR) week #3 was held last week in Chicago. All of the review meetings for IDR are complete and follow-up action items to close IDR are underway.*
 - c) Mock-up reviews for the diesel engine room are planned to be conducted at Siemens' 3-D reality-lab in Munich week of December 8th.*
 - d) Long-range planning for Final Design review (FDR) is underway for February and March 2015. The location for FDR has been confirmed for Seattle by WSDOT.*
 - e) A few more draft DCRs are being generated after the completion of IDR. We understand that Tammy Krause will be the NGEC contact for the document control for the PRIIA specifications. Rich Stegner will contact Tammy to*

advise status."

Bi-Level Car Procurement –Steve Hewitt for Stan Hunter:

At the request of Chairman Bergeron, and, in the absence of Stan Hunter, Steve Hewitt read the update that had been provided by Stan Hunter on the last NGECE Executive Board call – 11-18-14.

The excerpt, below, is from the minutes of that call and represents what Steve read into today's record:

The week before last First Article Inspections (FAI) took place in Willets, Ca. and went "quite well".

This Thursday (11-20-14) the FAI of wheelchair lifts will take place.

Caltrans is working with IDOT and the FRA on the revised schedule and grant and contract amendments.

On 11-17-14 there was a call with FRA's Office of Safety in regard to CEM alternate analysis.

Requests made by the Office of Safety were discussed and clarified and all participants came to an accord on what the requests were and what was to be provided.

Negotiations on an agreement between Amtrak and Caltrans in regard to the On Board Information System (OBIS) have stalled and Stan noted some concern.

In January and February FAIs will continue on a variety of systems.

A few weeks ago a quality audit took place in Rochelle, Illinois. Stan noted overall satisfaction with the quality of work in Rochelle so far.

**10.
Other Issues – All:**

Mario Bergeron asked Steve Hewitt to give a brief overview of the upcoming NGECE Annual Meeting;

The 4th Annual NGECE meeting will take place in Washington, DC on February 20, 2015. This meeting is an opportunity for all members (voting and non-voting) to participate in the meeting and to interact with their peers and with the members of the NGECE Executive Board as well. All subcommittee and industry members are encouraged to attend.

Logistical information will be forthcoming over the next few weeks. Please note the date on your calendars.

Adjourn: At approximately 3:35 PM, Mario Bergeron adjourned today's Technical subcommittee conference call meeting.

Next conference call – December 4, 2014 – 3:00pm Eastern

Decisions and Action Items

RVAAC subcommittee conference calls are held once a month. The schedule was included in the meeting minutes of April 24, 2014. The full RVAAC was set to meet today - September 11-12, 2014. Information on the meetings can be found on the RVAAC website. Members of the Technical subcommittee and Industry participants are asked to assist with support for the subcommittees. If interested in helping please contact Blair Slaughter – slaughB@amtrak.com.

Updating ECP Standards: remains as a standing action item and as activities occur; Paul Jamieson will provide status updates to the subcommittee. (Ongoing)

Maintaining Industry Participation List: This remains an ongoing action item. There are currently **232** registered industry participants. (ongoing)

Requesting Backgrounder educational document: With changes to the NGECE organizational structure at the October 24th Fall Meeting, the Backgrounder will need to be updated. Steve Hewitt will work with AASHTO to incorporate the changes into a new Backgrounder.

Consideration of the revised Dual Mode requirements document (DC 3rd rail: Consideration will take place when Jack has received the additional technical explanation from the other RFI responders and has prepared a summary explanation that can be appended to the requirements document. This is expected to occur on the next Technical subcommittee call – 12-4-14.

Following today's call, Steve Hewitt will distribute the back-up documentation provided by Jack Madden in regards to Standardization and the Tier 1 DEIS.

ATTACHMENTS

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November 20, 2014

The agenda for the meeting is below:

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| 1. Roll Call | Steve Hewitt |
| 2. Review meeting agenda | Mario Bergeron |
| 3. Review Action Items | Steve Hewitt |
| 4. Approve Minutes of November 6, 2014 | Mario Bergeron |
| 5. Accessibility Working Group/RVAAC related issues update | Melissa Shurland |
| 6. Document Control update | Tammy Krause |
| 7. Status/discussion: Technical explanation – 110 MPH maximum speed rationale DM Loco | Jack Madden |

- 8. Technical sc - consideration of approval or next steps towards approval Mario Bergeron

- 9. Update: Procurements
 - a. Diesel-electric locomotive Art Peterson
 - b. Bi-level Cars Stan Hunter

- 10. Review this meeting: Steve Hewitt
 - a) Decisions
 - b) New Action Items

***Technical Sub Committee Conference Call Meeting:
Thursday November 20, 2014 3:00 Eastern 1-866-209-1307 / passcode 6486648#***

***Please call in a few minutes early so all is in attendance for Roll Call.
Thank you***

Next Call – 12-4-14 at 3:00pm Eastern