

NGEC Technical Subcommittee and Specification Development

NGEC Annual Meeting
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National Railroad Passenger Corporation (Amtrak)
Vice Chair NGEC Executive Board
Chair, NGEC Technical subcommittee



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



PRIIA 305 Technical Subcommittee

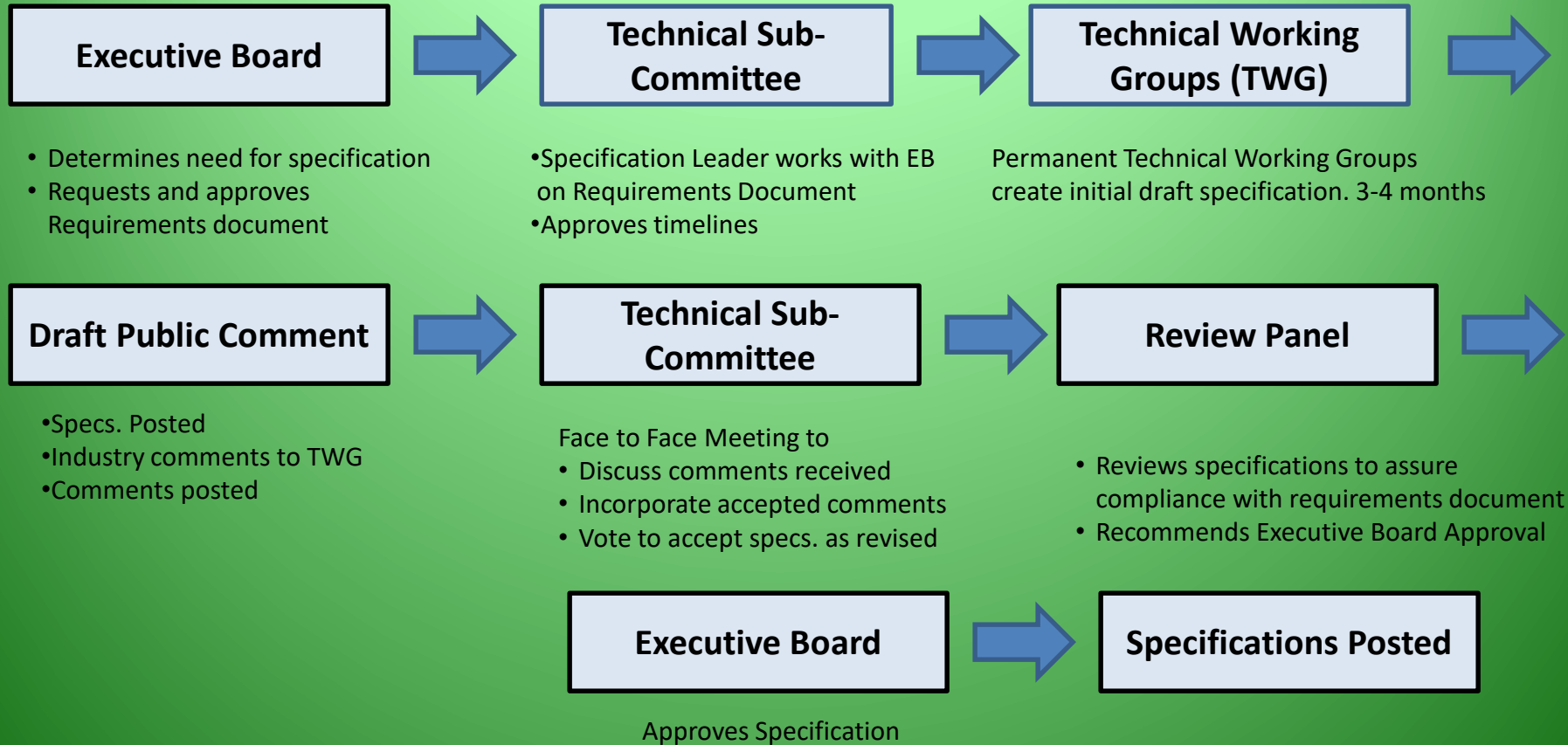
- Main purpose is to develop specifications as requested by the Executive Board.
- Comprised of representatives from Amtrak, FRA, States, and rail equipment manufacturers and suppliers.
- Currently we have 13 states involved; California, Connecticut, Illinois, Iowa, Maine, Michigan, Missouri, New York, North Carolina, Oklahoma, Oregon, Washington and Wisconsin.
- Presently over 225 volunteer members. Open to anyone from companies/consultants involved in rail.
- Each Specification has a Leader to coordinate the creation process.
- Majority of spec writing done by members of the 6 permanent working groups on a volunteer basis with support from a technical writer.



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Specification Creation Process



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Specification Creation

All of the chapters for the car specifications have the same titles and where possible the actual chapters are the same.

1. Specification Summary
 2. **References and Glossary**
 3. **Project Management**
 4. Carbody
 5. Trucks
 6. **Couplers and Draft Gear**
 7. **Brakes**
 8. Door Systems
 9. Interior
 10. HVAC System
 11. Lighting System
 12. **Communications System**
 13. Electrical System
 14. Food Service
 15. Water and Waste System
 16. Cab and Train Controls
 17. **Emergency Equipment**
 18. **Materials and Workmanship**
 19. Test Requirements
 20. **Tools, Consumables and Spare Parts**
 21. **Shipping Preparations**
 22. **Training and Documentation**
 23. Customer Variables
- Items in Bold are similar between equipment types.



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Specification Creation

The Locomotive chapters are the same as the cars where they can be. Again some of the chapters are the same, for example; References and Glossary.

1. **Specification Summary**
 2. **References and Glossary**
 3. **Project Management**
 4. **Locomotive Carbody**
 5. **Running Gear**
 6. **Couplers and Draft Gear**
 7. **Brakes**
 8. **Engineers Cab**
 9. **Locomotive Propulsion System**
 10. **AC Power Dist., Comm and MU**
 11. **Lighting System**
 12. **Locomotive to Train Communication**
 13. **Head End Power System**
 14. **Battery System**
 15. **Sanding System**
 16. **Engineers Cab Controls**
 17. **Fuel System**
 18. **Materials and Workmanship**
 19. **Test Requirements**
 20. **Tools, Consumables and Spare Parts**
 21. **Shipping Preparations**
 22. **Training and Documentation**
 23. **Customer Variables**
 24. **Safety Accessories**
 25. **Environmental Characteristics**
- Items in Bold are similar between car and locomotives.**



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The following 6 Equipment Specifications have been created since January 2010

- Bi-Level: C.4 – 8/2/16
- Locomotive: A.1 – 12/9/17
- Single Level: A – 11/13/12
- Trainset: A – 12/10/13
- DMU: IR – 9/4/12
- Dual Mode Loco: IR – 2/2/16



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Revising Specifications

After the specifications are completed and issued as version IR (initial release) the process of updating and revising the specification becomes an issue. This has led us to develop a complete and thorough process for managing change control.

Document Change Request Form (DCR)

- This is the basis for all changes.
- Changes can be proposed by anyone using a DCR.
- Evaluated by the TWG responsible for the section affected.
- Approved by the TWG.
- Approved by the Technical Subcommittee during the regular phone conference and sent to Executive Board for approval.



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Revising Specifications

- Review panel reviews change to verify compliance with requirements document.
- Executive Board approves.

This process can take months because typically the DCRs are processed and a specification is revised after several DCRs have been received.

There is an Urgent DCR process to address issues that may come up during a procurement. This pushes a DCR through the system in less than two weeks.



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Current Status of Revisions

- The Bi-level specification is currently on revision D and the TWGs processed a total of 295 DCRs to date.
- The Single level and Trainset specifications were both updated in 2019 and incorporated 180 and 102 changes, respectively.
- The Locomotive specification is on revision B and so far the TWGs have processed 70 DCRs.
- Starting this month, the TSC will begin the undertaking of updating the DMU specification. This will include evaluating every change made to every PRRIA specification to determine if it applies to the DMU. A DCR will be created for every proposed change.



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Comments or Questions?



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