

Next Generation Equipment Committee's Technical Subcommittee

Railroad Safety Advisory Committee
Passenger Safety Working Group Meeting
May 4, 2021

Raymond Hessinger, P.E. (NYSDOT)
Chair
Next Generation Equipment Committee



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

NGEC Origins

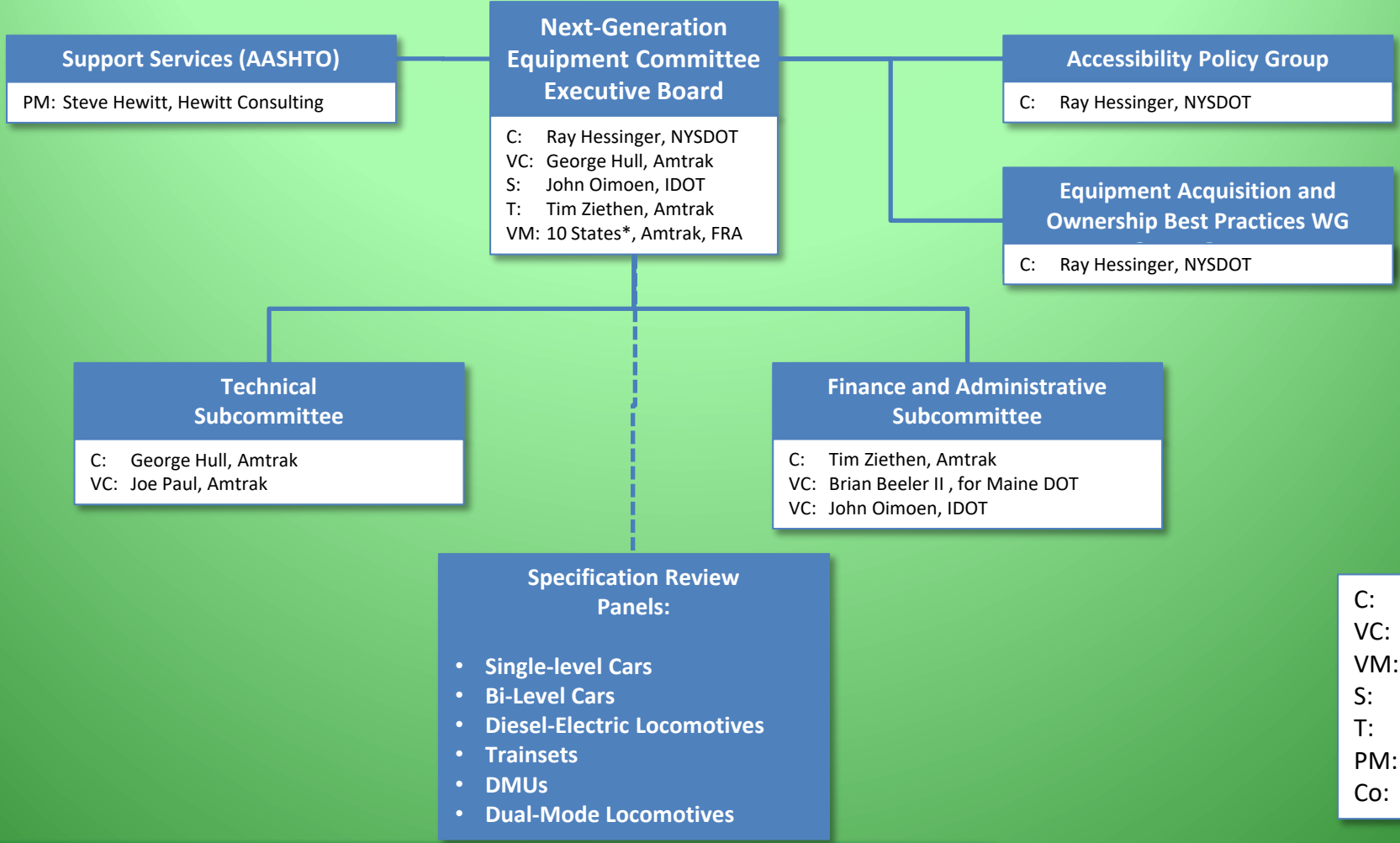
§ 305 of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA)

- Amtrak was required to establish the *Next Generation Corridor Equipment Pool Committee*
- Per statute, membership is comprised of representatives from:
 - Amtrak,
 - Federal Railroad Administration,
 - Interested States (Current Membership: CA, CT, IA, IL, ME, MO, NY, OK, OR, WA, WI),
 - Host freight railroad companies,
 - Railroad equipment manufacturers & suppliers (currently over 200 industry members),
 - Other passenger railroad operators
- The Committee was formed to design, develop specifications for, and procure standardized next-generation corridor equipment.
- Revitalization of the American Passenger Railcar Manufacturing Industry.



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NGEC Organization



- *Represented States:**
 California
 Illinois
 Iowa
 Maine
 Missouri
 New York
 North Carolina
 Washington
 Wisconsin
 Oregon

Support Services (AASHTO)
 PM: Steve Hewitt, Hewitt Consulting

Next-Generation Equipment Committee Executive Board
 C: Ray Hessinger, NYSDOT
 VC: George Hull, Amtrak
 S: John Oimoen, IDOT
 T: Tim Ziethen, Amtrak
 VM: 10 States*, Amtrak, FRA

Accessibility Policy Group
 C: Ray Hessinger, NYSDOT

Equipment Acquisition and Ownership Best Practices WG
 C: Ray Hessinger, NYSDOT

Technical Subcommittee
 C: George Hull, Amtrak
 VC: Joe Paul, Amtrak

Finance and Administrative Subcommittee
 C: Tim Ziethen, Amtrak
 VC: Brian Beeler II, for Maine DOT
 VC: John Oimoen, IDOT

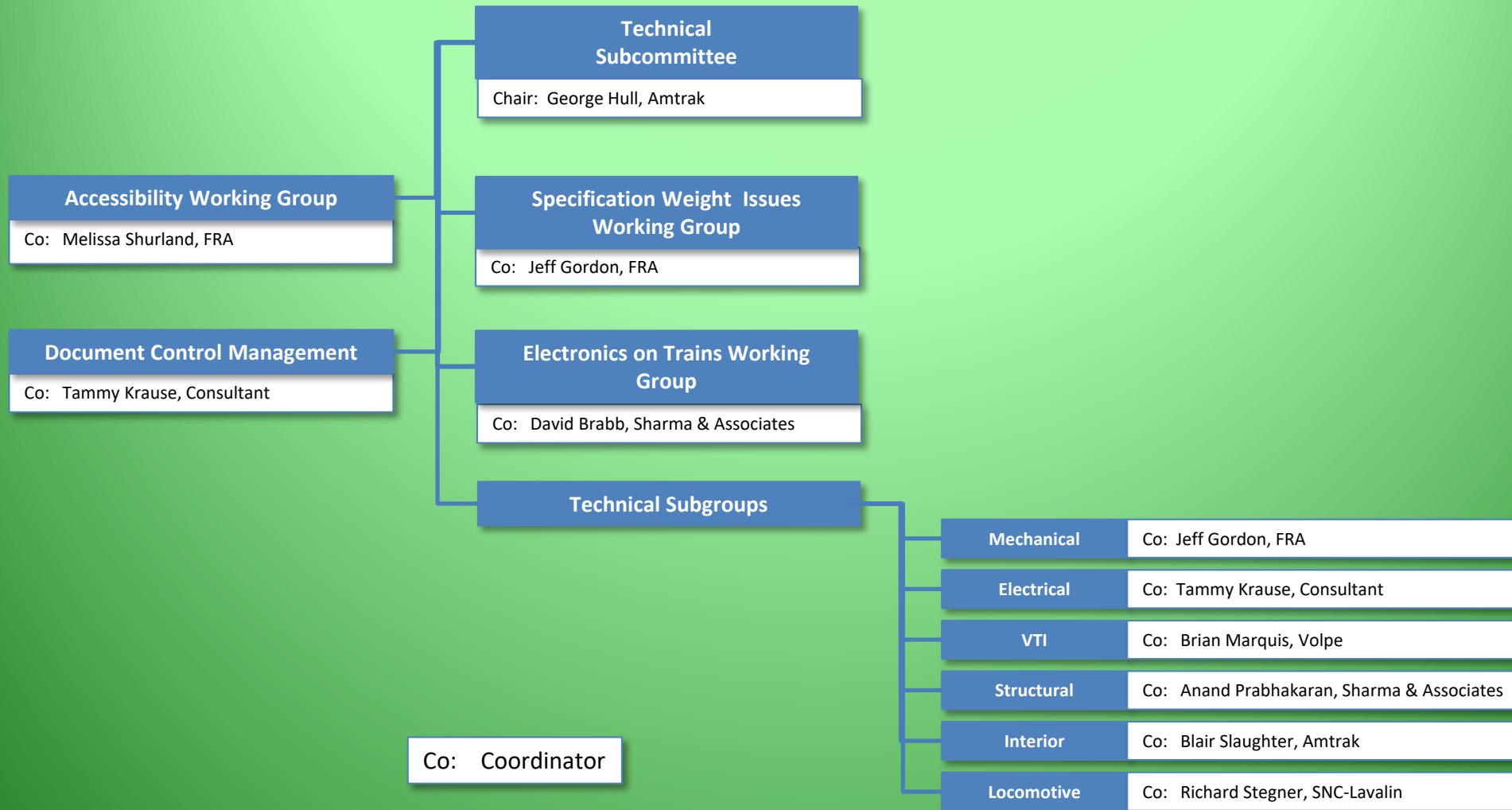
- Specification Review Panels:**
- Single-level Cars
 - Bi-Level Cars
 - Diesel-Electric Locomotives
 - Trainsets
 - DMUs
 - Dual-Mode Locomotives

C: Chair
 VC: Vice-Chair
 VM: Voting Members
 S: Secretary
 T: Treasurer
 PM: Program Manager
 Co: Coordinator



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Technical Subcommittee Organization



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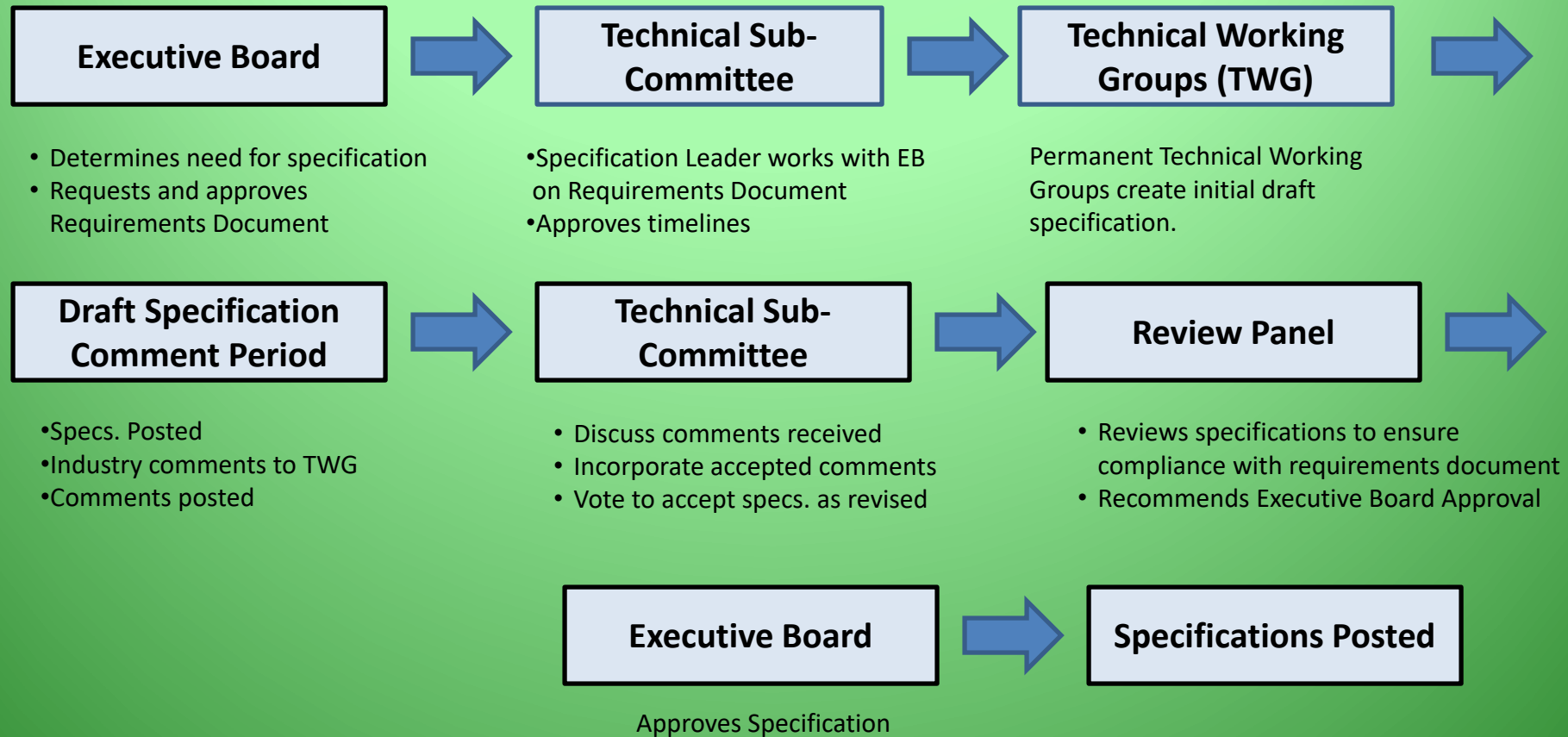
NGEC Technical Subcommittee

- Develop specifications as requested by the Executive Board.
- Regularly review/maintain/update specifications to keep them current.
- Each Specification is developed and/or updated through the Technical Working Groups – each addressing relevant chapters.



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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.



Specification Creation

The Locomotive chapters are the same as the cars where they can be. 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.**



6 Equipment Specifications and 1 Recommended Practice have been created and maintained since January 2010

| <u>EQUIPMENT TYPE</u> | <u>INITIAL RELEASE</u> | <u>LAST UPDATE</u> |
|--|------------------------|--------------------|
| Bi-Level Coach | Aug 2010 | Aug 2016 |
| Single Level Coach | Feb 2011 | Feb 2019 |
| Diesel Locomotive | Mar 2011 | Jun 2017 |
| Single Level Trainset | Aug 2011 | Oct 2019 |
| Diesel MU | Sep 2012 | Spring 2021 |
| Dual Mode (3 rd Rail) Locomotive | Feb 2016 | n/a |
| Acquisition & Ownership Recommended Practice | Feb 2021 | n/a |



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Revising Specifications

After the initial release of the specifications, the process of updating and revising the specification becomes an issue. The NGECC has developed a complete and thorough process for managing change control.

Document Change Request Form (DCR)

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



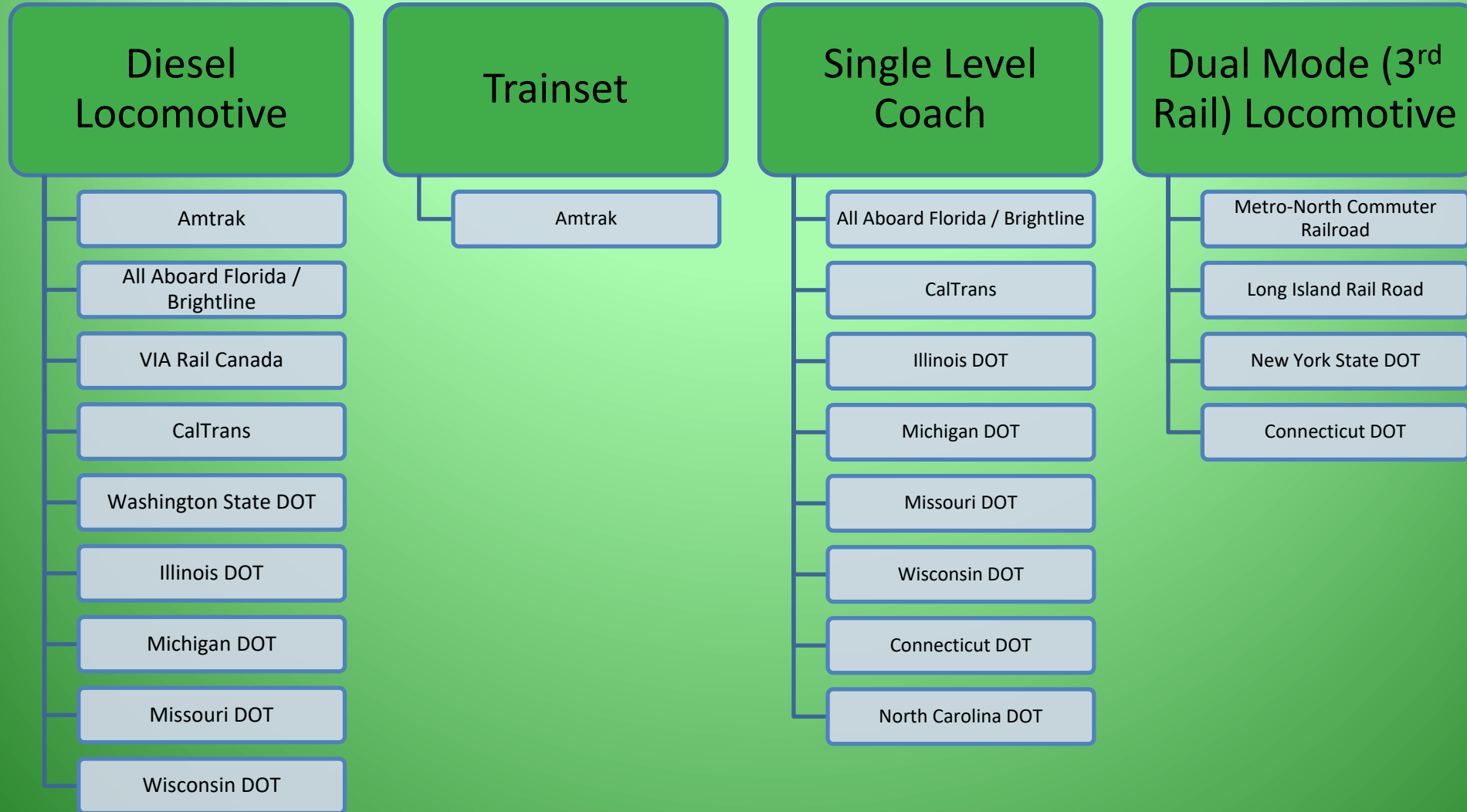
Safety Benefits of NGECC Specifications

- Specifications include requirements for compliance with CFR and all relevant AAR and APTA safety standards
- Specifications include component and vehicle testing and analysis requirements that simplify compliance demonstration
- Standardized specifications result in rolling stock with common characteristics (“platforms”) to expedite safety compliance demonstration.



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NGEC Specifications In Use



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Comments or Questions?



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