

Section 305 Technical Subcommittee

Albany, NY: August 19, 2015



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

NGEC Technical Subcommittee Specification Creation and Approval Process

Mario Bergeron - Chairman



ConnDOT, Amtrak and Metro North FL-9 Dual Mode Locomotives Manufactured 1956-1960



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Retired

- ConnDOT = 2005
- Amtrak = 1998
- MNRR = 2009

Purpose of the Meeting

- The TSC's Locomotive Working Group has developed the Draft Dual Mode (DC 3rd Rail) Locomotive Specification
- This specification has involved NY State (working with Metro North RR and ConnDOT), Amtrak and the Technical Teams under the Loco WG
- Lessons learned from previous specification writing efforts have been incorporated
- By the end of this meeting, we expect to vote to approve:
 - The Dual Mode Locomotive Specification
 - Rev B to the Dual Mode Requirements Document
 - Rev B to the PRIIA Spec 305-912 Operating Environmental Conditions



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The PRIIA Specification Family

- Bi-Level: C.2 – 11/18/14
- Locomotive: A.1 – 12/9/14
- Single Level: A – 11/13/12
- Trainset: A – 12/10/13
- DMU: IR – 9/4/12



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Dual Mode Locomotive Specification Development

- Requirements Document Rev A
 - Approved by Executive Committee on January 6, 2015
 - Provides Basis for Specification Details
- Develop First Draft Chapters 1/7/15 to 5/7/15
- TSC Open Comment Period 6/4/15 to 7/2/15
- Technical Subcommittee Approval 8/19/15
- Send To Executive Committee
- Create Review Panel Review Spec vs. Req. Document
- Executive Committee Approval
- Subsequent Changes/Configuration Mgmt.

2 Amtrak P-32DMs - Built 1998



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Industry Role for Dual Mode-1

- At the outset of the Dual Mode specification process there was much discussion over the NY State demand for equipment. The PRIIA Diesel-Electric Locomotive cannot operate into Penn Station and Grand Central Terminal as it has no electric capability.
- A core group of people from NY State, Connecticut DOT, and MTA-Metro North Railroad took a leadership role that resulted in the specification being initiated.
- The Locomotive Working Group included members from State DOT's, Railroads using Dual Mode units, locomotive manufacturers, and other industry members; the Loco WG developed the Dual Mode (DC 3rd Rail) Locomotive Specification

MNRR P-32 DM in Heritage Livery
Built 2001



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Industry Role for Dual Mode-2

- The Loco WG used the Diesel-Electric Locomotive, currently under procurement from Siemens, as the starting point for the Dual Mode specification
 - Included changes made to the Diesel-Electric Locomotive specification during the procurement process (RFC's, DCR's)
 - Included known requirements for AMTK, MNR and LIRR Dual Mode locomotives learned during MNR DM Spec research
 - Included Northeast United States specific environmental requirements
 - Included new features beyond the PRRIA D-E Loco (e.g., Added Diagnostic Chapter)
 - Corrected and updated references used in the D-E Specification to current usage.
- Today is the culmination of the review process and we shall follow the process to approve this specification as was the case for the previous specifications

LIRR DM30AC
Built by EMD in 1997



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PRIIA 305 Tech. Subcommittee

Locomotive Working Group

Organizational Structure

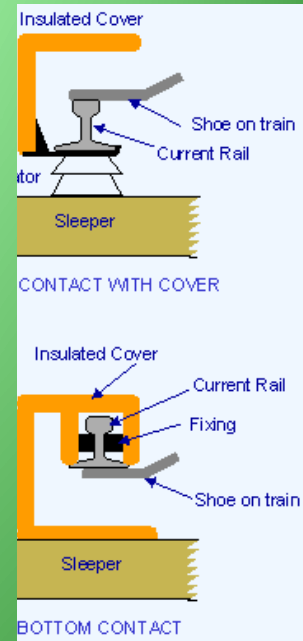
- The same Locomotive Working Group structure has been used as was the case for the previous Locomotive specification
- Specification Director– Jack Madden
- Technical Teams in Loco WG
 - General – Jack Madden
 - VTI – Brian Marquis
 - Mechanical/Carbody – Al Bieber
 - Customer Amenities – Jack Madden
 - Environmental – Glen Rees
- Many thanks to the Team Leaders and those members of their groups that have worked on this specification



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What Makes the Dual Mode Specification Different?

- Primarily controlled by New York State requirements to enter Penn Station and Grand Central Terminal
- Environmental consideration for tunnels and overrunning/underrunning third rail operation
- The goal is to have a specification that:
 - does not unduly favor any manufacturer over any other
 - does not favor any technological approach over any other
 - provides compatibility with PRIIA single-level equipment
 - is compatible with existing 3rd rail infrastructure



Types of 3rd rail

Amtrak P-32 DM 3rd rail shoe



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Dual Mode (DC 3rd Rail) Locomotives Currently in Service

- Amtrak, P32AC-DM: 18 units
 - Service on all trains between Albany and NY Penn Station
 - Service on one daily train to/from Rutland VT and NY Penn Station
 - Service on two daily train to/from Niagara Falls NY and NY Penn Station
- MNR, P32AC-DM: 31 units
 - Push-Pull Service on all trains between Poughkeepsie and Grand Central Terminal
 - Push-Pull Service on most weekday trains between Wassiac NY; New Canaan CT; Danbury CT; Waterbury CT; and Grand Central Terminal
- LIRR, DM-30AC: 23 units
 - Push-Pull Service on some weekday peak trains between Port Jefferson; Oyster Bay; and Montauk to NY Penn Station



Amtrak Service into Penn Station New York



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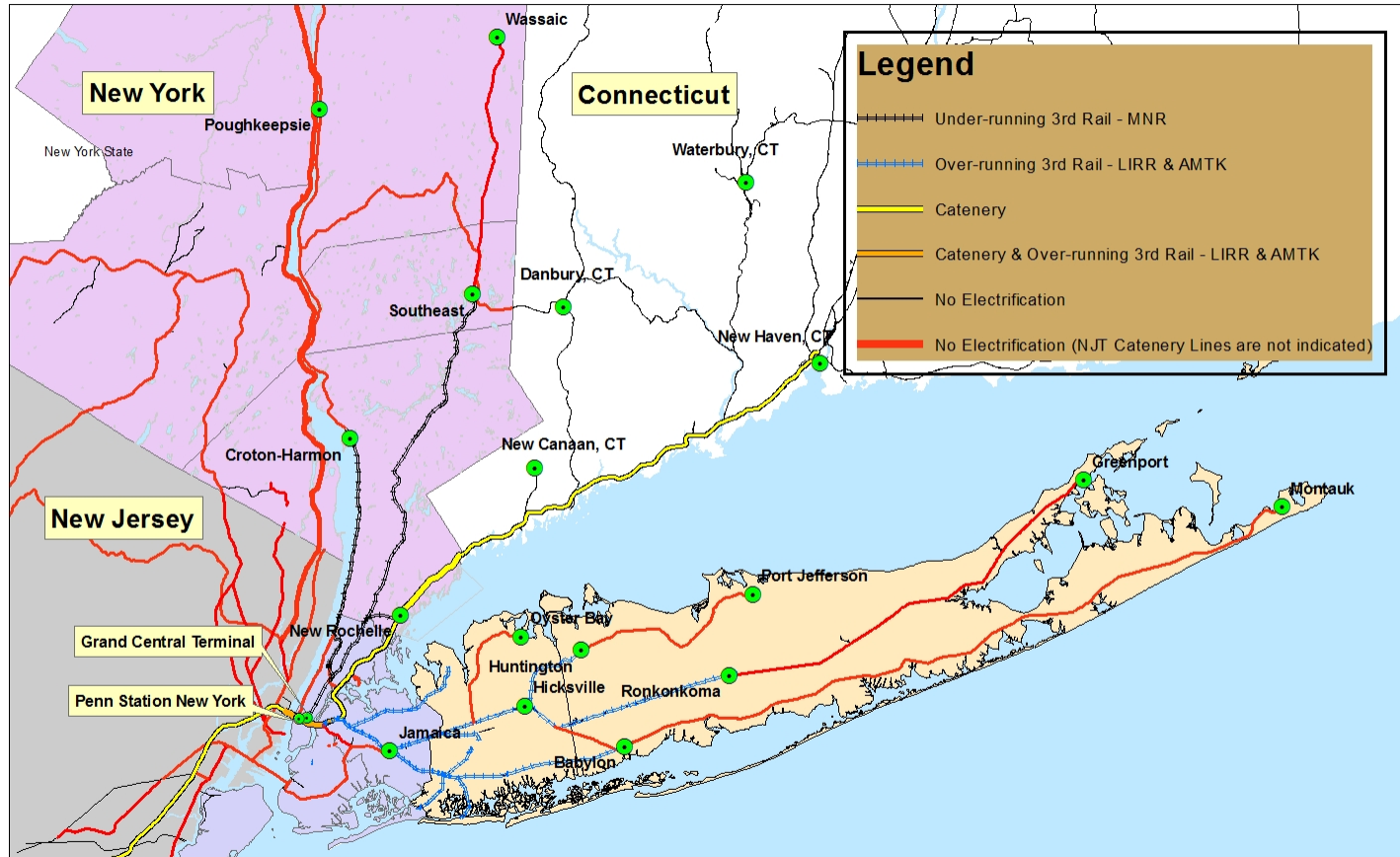
LIRR Service into Penn Station



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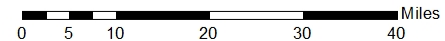
AMTK, MNR & LIRR Service into New York City

Tracks with Over-running 3rd Rail, Under-running 3rd Rail, and Catenery Electrification in NYC Metropolitan Area



Data Source: NYSDOT Rail Program Delivery Bureau
Various Railroad Employee Timetables
19 August 2015

Not All Lines Shown



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What Happens Next to the Specification?

- Executive Board will need to review the Dual Mode Locomotive Specification for approval, if it is recommended for approval by the technical subcommittee
 - A requirements document was approved by the Executive Board
 - Executive Board Chair Eric Curtit will establish a Review Panel that will assess the specification against those requirements and recommend acceptance or further work
 - The Executive Board will then vote on acceptance of the specification



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Thank You!



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Amtrak Observation Car 3342
Built by Budd in 1947 for the
Seaboard Air Line as 6602
Retired 1981