

NMRA Achievement Program Checklist

Revised – May 2006

Section A: Railroad Equipment.

Category 1 - Master Builder - Motive Power

- Completed Statement of Qualifications
- Build 3 Scale Models – all 3 with 87 ½ merit award points - All super-detailed.
 - Model 1 – Scratchbuilt - _____
 - Model 2 - _____
 - Model 3 - _____

Category 2 - Master Builder - Cars

- Completed Statement of Qualifications
- Build 8 scale models - 4 types - 1 passenger - 4 with 87 1/2 merit points - At least 4 built from scratch - all others super-detailed.
 - Model 1 - type: Passenger Points? Scratch? SOQ
 - Model 2 - type: _____ Points? Scratch? SOQ
 - Model 3 - type: _____ Points? Scratch? SOQ
 - Model 4 - type: _____ Points? Scratch? SOQ
 - Model 5 - type: _____ Points? Scratch? SOQ
 - Model 6 - type: _____ Points? Scratch? SOQ
 - Model 7 - type: _____ Points? Scratch? SOQ
 - Model 8 - type: _____ Points? Scratch? SOQ

Section B: Railroad Setting

Category 3 - Master Builder – Structures

- Completed Statement of Qualifications
- Build 12 Scale Models - 6 types - 1 bridge/trestle – 6 with 87 ½ merit award points - at least 6 built from scratch - all others super-detailed.
 - Model 01 - type: Bridge - Trestle Points? Scratch? SOQ
 - Model 02 - type: _____ Points? Scratch? SOQ
 - Model 03 - type: _____ Points? Scratch? SOQ
 - Model 04 - type: _____ Points? Scratch? SOQ
 - Model 05 - type: _____ Points? Scratch? SOQ
 - Model 06 - type: _____ Points? Scratch? SOQ
 - Model 07 - type: _____ Points? Scratch? SOQ
 - Model 08 - type: _____ Points? Scratch? SOQ
 - Model 09 - type: _____ Points? Scratch? SOQ
 - Model 10 - type: _____ Points? Scratch? SOQ

- Model 11 - type: _____ Points? Scratch? SOQ
 Model 12 - type: _____ Points? Scratch? SOQ

Category 4 - Master Builder – Scenery

- Completed Statement of Qualifications
 Completed section of model railroad - size based on model scale - documentation
 O - 60 Sq. Ft, S - 45 Sq. Ft, HO - 32 Sq. Ft, N - 18 Sq. Ft
 Terrain
 Structures
 Background
 Lighting
 Photos and written description
 Methods and Materials
 87 1/2 Merit Points

Category 4A - Master Builder - Prototype Models

- Completed Statement of Qualifications
 Model Scene – 87 ½ merit points - documentation - 6 scale models – 2 built from scratch
 Model 1 - type: _____ Points? Scratch? SOQ
 Model 2 - type: _____ Points? Scratch? SOQ
 Model 3 - type: _____ Points? Scratch? SOQ
 Model 4 - type: _____ Points? Scratch? SOQ
 Model 5 - type: _____ Points? Scratch? SOQ
 Model 6 - type: _____ Points? Scratch? SOQ
 Written Description - Prototype Documentation and evidence
 Photos, Maps, Source Documents
 Written Description - Model
 Color Photos
 Description - Methods and Materials

Section C: Railroad Construction and Operation

Category 5 - Model Railroad Engineer – Civil

- Completed Statement of Qualifications
 Plan
 Scale Drawing of Model Railroad

- Size, Scale, Track Elevations, Curve Radii and Turnout Sizes
- Terminal Facilities
- Storage and Service of Motive Power
- Mainline Passing Siding
- Four Switching Locations (other than yards, wyes, loops)
- Provision for turning Motive Power
- Provision for two train simultaneous operation

Execution

- 87 1/2 Merit Award Points
- Scale track work - Amount depends on scale

Scale	Z	N	TT	HO	S	O	#1	G	OTHER
Feet	25	25	25	50	50	75	100	100	In proportion to HO.

- Ballast
- Drainage Facilities and Roadbed profile

Six Track Work Features

- Passing Siding
- Super Elevation
- Spur
- Simple Overhead Wire
- Cross Over
- Compound Overhead Wire
- Reversing Loop
- Scale Track
- Wye
- Cog Railway Track
- Simple Ladder
- Coal Dump Pit
- Compound Ladder
- Ash Pit
- Turntable
- Service Pit Track
- Transfer Table
- Grade Elevation
- Other _____

Three scratch built models that operate satisfactorily (no commercial frogs are allowed in this section)

- Turnout
- Dual Gauge Turnout

- Crossover
- Gauge Separation Turnout
- Double Crossover
- Double Junction Turnout
- Single Slip Switch
- Three-way Turnout
- Double Slip Switch
- Spring Switch
- Crossing
- Operating Switch in Overhead Wire
- Gauntlet Track
- Other _____

Category 6 - Model Railroad Engineer - Electrical

- Completed Statement of Qualifications
 - Independent Mainline Control - 2 trains
 - For conventional DC – 5 blocks
 - For DCC/TMCC/Other – gaps, switches, phase
 - One Mainline Passing Siding
 - Reversing loop, Wye, Turntable or Transfer Table
 - Yard with 3 tracks and Switching Lead - Independent
 - Facilities for 2 Unused Motive Power Units
 - One Power Supply with Protective Devices for safe operation
 - Basic Track Wiring - 3 Items from List - Must Demonstrate
 - Turnout
 - Crossing
 - Crossover
 - Double Crossover
 - Single Slip Switch
 - Gauge Separation Turnout
 - Double Junction Turnout
 - Three-way Turnout
 - Gauntlet Turnout
 - Spring Switch
 - Operating Switch in Overhead Wire
 - Control and Signaling - 3 Items from List - Must Demonstrate SOQ
 - Electrical Turnout Status - 4 turnouts
 - Track Occupancy Status - 5 blocks

- Cab Control - 2 cabs, 5 blocks
- Engine Terminal with Turn/Transfer table, 3 stalls and 2 other parking places
- Two Turnout Junctions with Electrical Interlocking and Signals
- High Frequency Lighting
- Electronic Throttle with Inertia and Braking Provisions
- Grade Crossing with Electrically Activated Signals
- Two Way Block Signals and Detection - 5 blocks
- Operating Overhead
- Installation of Advanced Electronic or Computer Train Control
- Installation of a Command Control receiver in a Locomotive
- Installation of a Command Control Buss - 2 Throttles, 3 Locations
- Design, Installation and Operation of Electric Animation
- Design, Installation and Operation of Layout Lighting Displays

Note: Commercially assembled complete units are not acceptable in the following items.

- Construction and Installation of a Sound System
- Construction and Installation of a Signaling System
- Development and Installation of a CTC System
- Installation and Operation of an Onboard Video System
- Computer Generated Displays of Block Detection Information
- Hardwired or Stored Control Program for Railroad Operation
- Development and Demonstration of a Computer to MR Interface
- Other _____
- Documentation
- Schematics for All of the Selected Projects
- Track Plans as Required with Full Detail
- Descriptions
- Witness Certification

Category 7 - Chief Dispatcher

- Completed Statement of Qualifications
 - Fifty hours - A minimum of ten hours must be served in three of the five categories listed below, one of which must be **Dispatcher**.

The Model Railroad must have at least 2 mainline trains plus yard switching in simultaneous operation; both freight and passenger car movements.

- Engineer: Mainline Freight, Passenger or Way Freight

- Yardmaster, Station Master
- Hostler, Power Desk
- Towerman, Traffic Manager, Road Master
- Dispatcher
- Documentation
- Layout Schematic - Track Plan with Details
- Timetable - 8 Hours or more, 3 Mainline trains each direction
- Operating Train Chart - At Least 1 Train Meet
- Develop an Operational System with all Forms
- Witnessed Certificate of Operation

Section D: Service to the Hobby and NMRA Members

Category 8 - Association Official

- Completed Statement of Qualifications
 - Hold at least one of the following offices for the required duration.
 Note: The Trustee position was eliminated in January of 2005 when the new regulations were formally adopted; therefore only service as a Trustee before January 2005 can earn credit
 - President
 - Vice President
 - Secretary
 - Treasurer
 - Director
 - Duration and Level - One Required
 - 1 Year National
 - 2 Years Regional if 1 year is President or Trustee
 - 3 Years Regional if not President or Trustee
- SOQ with Qualified Witness Signature

Category 9 - Association Volunteer - 60 Certified Time Units

- Completed Statement of Qualifications
 - General Manager - National Committee 4 Units per month
 - Manager - National Committee 3 Units per Month
 - Member - National Committee 2 Units per Month
 - Manager - Regional Committee 2 Units per Month
 - Member - Regional Committee 1 Unit per Month
 - Official - Division 1 Unit per Month
 - Manager - Division Committee 1 Unit per Month
 - Member - Division Committee 1/2 Unit per Month
 - Member - Division Board 1/2 Unit per Month

- Editors - Treated Like Committee Chairmen
- Division Officers and Directors Treated Like Regional Committees
- Editors for 100% Clubs (4 pages) 1 Unit per Issue - Library Filing Requirement
- Official Judge - National Contest 3 Units per Contest
- Official Judge - Regional Contest 2 Units per Contest
- Official Judge - Divisional Contest 1 Unit per Contest
- Boy Scout Merit Badge Advisor 1 Unit per Month Plus a bonus of a unit per Merit Badge Award to each Scout
- National clinic given beyond the first time given – 3 Units per presentation
- Region/Division clinic given beyond the first time given – 2 Units per presentation

Volunteer Working Record

Volunteer Working Record			
Months	Units Per Month	Total	Serving As.....
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
		.	Total Accumulated Points

Category 10 - Model Railroad Author - 42 Points Required

Completed Statement of Qualifications

Preparation and Submission

- A page on the NMRA Website (about 1200 words or picture equivalents) also counts as a Full Page
- No more than 21 points can come from Division or Club Publications
- No More than 21 points can come from Electronic Publishing - Internet

Article Submission and Publication Working Record

Points Earned Per Full Page				
Item	National Publication	NMRA National	NMRA Region	NMRA Division & SIGs
Article or Column	3	3	2	1
Photos or Art Work	3	3	2	1
Scale Drawing of Prototype	6	6	4	2
Scale Drawing of Track Plan	3	3	2	1
NMRA Data/RP Sheet-One Subject	-	6	-	-

Points Earned For Live Clinics			
Item	National	Region	Division
Given At NMRA Sponsored Events	6	4	2
Given at NON-NMRA Sponsored Events	3	2	1

Section E: Master Achievement

Master Model Railroader

- Completed Statement of Qualifications
- Seven Achievement Awards including at least one from each section.
 - Section A - Railroad Equipment
 - 1 - Master Builder Motive Power
 - 2 - Master Builder Cars
 - Section B - Railroad Setting
 - 3 - Master Builder - Structures
 - 4 - Master Builder - Scenery
 - 4A - Master Builder - Prototype Models
 - Section C - Railroad Construction and Operation
 - 5 - Model Railroad Engineer - Civil
 - 6 - Model Railroad Engineer - Electrical
 - 7 - Chief Dispatcher
 - Section D - Service to the Hobby and NMRA Members
 - 8 - Association Official
 - 9 - Association Volunteer
 - 10 - Model Railroad Author