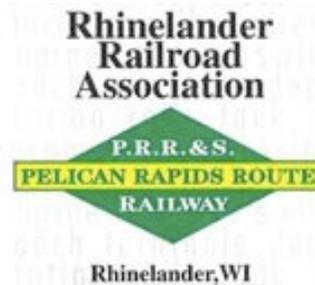


# Warrant



May 2011

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## Classes to be held 10 AM May 14 2011 @ Reiter Center, Three Lks

Layouts! Something different? This month we meet at the beautiful Three Lakes Reiter Center. 1858 S Michigan Street and located one block SW of the intersection of County Rd A and US 45. Take a look around while there: it looks like the perfect place for a major Free Mo setup!



Our class this month covers the basics of building a layout. It's timely for both the homebuilder and Free Mo builder (ah, they can be one in the same and save time and money in the process).

Jim Brown and your editor will discuss the various alternatives we've found beginning with dreams, plans, family support, room available, time available, eyesight as it impacts gauge, children on hand, who benefits, first cost, continuing cost and the difference between

want and need. This should be a spirited, photo filled, morning. Bring a friend.

Combined, the two old guys have about 130 man-years of model rail. We've worked in O, S, HO and N with excursions into everything from the real mc coy to other forms of transport. We keep coming back to S and O for our own personal reasons. We'll share our views and you can question our viewpoint. Where do emotion and careful reasoning win? You'll be the judge.

Many of us love rail history to include steam, the wild-west, cowboys and Indians, logging, mining, oil field, coal field, wharfs and docks of the coastlines or waterways, mountains, plains, yesterday, tomorrow-land and with many of us heading to Free Mo it's time to build our dream.

For those who want to become NMRA Master Model Railroaders the next article intends to point out how you can build in Free Mo and easily capture points (aspects and knowledge) that go a long way in the Achievement Program. It's all about learning about things to widen our knowledge and expand our proficiency while helping our fellow man in a hobby we enjoy.

Nope, the above line is not beyond comprehension. **Free Mo is the name of a set of standards** that allow HO modelers to develop 'layout modules' that are guaranteed to work with other Free Mo modules. Thus, a highly configurable, single track main, loop to loop, point to point or any combination and size is achievable. Module size can be varied: the endplates are where standards apply. So, with Free Mo, less is more. Curious? Try: <http://www.free-mo.org/about>

**MMR is Master Model Railroader**, sort of the Eagle Scout award of NMRA (the National Model Railroad Association). The standards for each of the several model railroad gauges were set and are maintained within NMRA. Wheel flanges, turnouts, DCC, car weights, essentially the entire field of model railroading is all governed by NMRA standards.

I've been in the hobby right at 66 years; and I finally was awarded one of the seven required AP (Achievement Program) Certificates toward becoming a MMR. I earned an '**AP Author Certificate**' in January 2011 based on a few short prior years writing articles and doing clinician work for the WISE Division. See <http://www.nmra.org/education/achievement/>

I'm working on the '**Volunteer Certificate**' by doing more clinician work. I practice at RRA and TLMRC and then do similar clinics at Division or National Level. Volunteer points can also be earned by counseling boys for BSA's Railroading Merit Badge. Editor of 100% NMRA clubs like TLMRC earns AP points. By summer I hope for enough points for AP Volunteer and someone can step into a newsletter editor job. Each Certificate attempts to take you to levels you've not experienced before. Let's get into how Free Mo and MMR intertwine directly.

The AP **Civil Certificate** is the first to look at when thinking any new layout. It requires you make a scale drawing of the layout, showing scale, elevations, curve radii and turnout sizes. It says your plan must have one terminal adequate for freight or passenger handling. It doesn't say you need build it. Same for engine service and storage. One mainline passing siding and four switching locations (spurs) and similar ideas. Plan and draw then construct and demo fifty feet of HO track (yep 50 feet fits on one or two Free Mo modules); pretty loose but the actual track-work need six types of track components: wye, crossing, turnout, etc. of which three must be hand built (hand laid). The good news is there are templates and kits to make your work both inexpensive and meet NMRA criteria. Better news: a clinic on the topic and you've a winner!

The AP **Electrical Certificate** should be a 'piece of cake' to earn. Remember my layout? Two engines running, reverse, passing, three track yard, storage for two engines, power-supply with short protection. That's the first requirement! Bet I'm close. Next wire up the three turnouts or items of track-work for Civil and requirement #2 is done. Wire a few items and make a few electrical drawings of the affair you designed for Civil and you're pretty much done. Paul Wussow expects to have his layout judged in the foreseeable future. I'll work on mine for a year-end adventure in wiring satisfaction. Free Mo would make this task comparatively easy.

Eighteen in N, thirty-two of HO, sixty in O gauge. That's the square footage of scene for the **Scenery Certificate**. Score, terrain (35 pts), structures (20 pts), background (25pts), lighting (20 pts), realism & conformity (25pts). Build the scene, prepare photos, write what you intended to do and provide a list of the components. Could life be any better? Two Free Mo modules, with a bit of planning, would allow for scenery, electrical and track requirements easy. But wait there are more requirements. We should be able to do all AP requirements in two Free Mo sections.

**AP Structures Certification** presents an interesting opportunity; twelve structures of six types must be completed. One of the types must be a bridge (I like bridges). Six of the models must be scratch built. The other six can come from kits but should be augmented with other stuff to make them look somewhat unique. Six of your products need to be judged and earn 87.5 points. A write up on what went into each of the 12 models. Photos might be used to help the write-up.

**AP Car Certificate** requires that you build eight cars of at least four types. Four must be scratch built and they all must earn 87.5 points. There are details to the requirement but you can see that using Free Mo as a start it seems possible to earn MMR in a few years and get the recognition of your peers as being a Master Model Railroader. Alternatives? There are other AP Certificates.

Good luck if you've decided to follow the MMR path. Read the rules: I've simply skimmed the highlights. MMR is meant to provide a workout for the serious hobbyist. There are less than 500 MMRs and the hobby is 75 years old. If you have questions ask Paul or myself and when you get serious you'll need contact Marvin Preussler our Midwest Region AP Manager.

## Heart of Dixie Railroad Museum *by R.G. Blocks*



Little to see or amaze you driving down Interstate 65 in Alabama. You're either going to or returning from somewhere like Ft Walton Beach, Gulf Shores, Orange Beach or perhaps Pensacola.

Then, you pass the little burg of Calera, Alabama and the Heart of Dixie Railroad Museum becomes apparent. We turned off the super highway, always a soft touch for anything riding on steel rail. See

<http://www.hodrrm.org/Home/tabid/36/Default.aspx>

If you want to call: try 205-668-3435.

Write: them at PO Box 727, Calera, AL 35040.

It's an exciting little rail museum and very accessible from the street. Handicap folks don't miss much of an overview if they stay right in the car.

Thomas the Tank Engine will be there April 17, and 18 this year. September 18, 19, 25 and 26 they'll have a 6-mile excursion pulled by Flag Coal #75 an 0-4-0 Tank engine built by Vulcan Iron Works in 1930 that looks a lot like a Varney 0-4-0 Dockside.





Marge and I spent about a half hour prowling about the place. Wish we'd called ahead and found out their hours and organized activity. You now have the entire scoop we missed.

Speaking of objectives missed: I never did find the exact location where Casey Jones wrecked old 99 in Vaughn (see last month's story). Dave Krembs did locate the place after a visit to New Orleans. I've now more than one good reason to return to points south.

Good luck in your rail fan adventures. It is the hunt that makes life interesting. History and the positive economics of our country is closely tied to railroad expansion that allowed farmers to get crops to market, and manufacturers their product to customers. Today, we've gone intermodal and the unit train dominates the scene. We'll explore that sort of thing on another day. Meanwhile, if you find a beautiful business along a rail-line, please take photos and write.

## **Programs and Stuff of Interest:**

April 30 & May 1, 2011- Titledown Train Show- Shopko Hall- Green Bay, WI  
Info at: [www.ttsgblc.com](http://www.ttsgblc.com)

May 14, 2011 NMRA Winnebagoland Division Spring Meet – partnering with the Soo Line Historical and Technical Society for a first time joint meeting. Public welcome. Many Clinics, Layout Tours 8AM-8PM Info at:  
[www.mwr-nmra.org/region/waybill/waybill20111spring.pdf](http://www.mwr-nmra.org/region/waybill/waybill20111spring.pdf)

May 14<sup>th</sup>, Reiter Center, Three Lakes, WI Joint Meeting TLMRC & RRA 10 AM to Noon Clinic on Layout Building See: <http://tlmrc.org/>

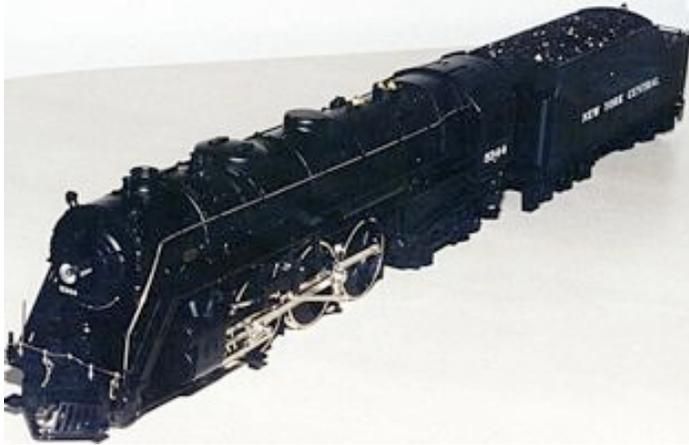
May 14, 2011- NMRA Winnebagoland Division Annual Spring Meet Neenah, WI (partnering with Soo Line Historical & Technical Society)  
See Page 5 of: <http://www.mwr-nmra.org/region/waybill/waybill20111spring.pdf>

July 3-9, 2011 NMRA 76<sup>th</sup> National Convention, Sacramento, California  
See <http://www.x2011west.org/>

## Thinking about a little Tender Behind:

by R.G. Blocks

Behind every successful man is a perhaps surprised woman. So too is it with steam locomotives. They burned an evolution of combustibles that were either more available or efficient. Thus,



over several decades, railroads first burned wood, then lignite, soft coal, hard coal and various grades of oil to heat water to make steam. Both fuel and water were carried in a car directly behind the combustion chamber. We call that car the tender. It's always behind.

The bigger the locomotive, the larger the demand for fuel and water. Thus, within reason we find the tender grows proportional to the engine's requirement

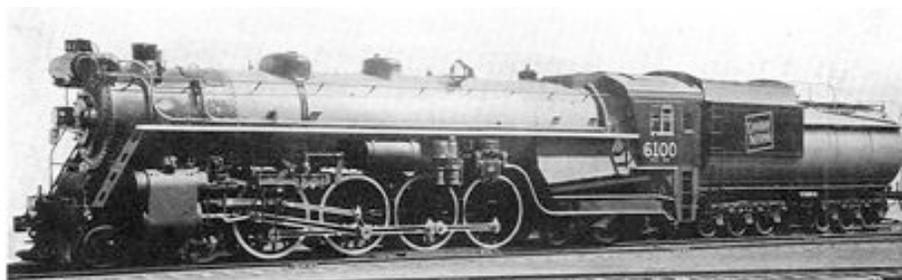
for steam. The tender began as a flat car with a horseshoe shaped water tank surrounding the solid combustible. Perhaps the floor was sloped to aid the fireman shovel the coal. Later, an auger would feed coal slowly into the hearth then in many cases oil replaced coal and plumbed to nozzles that discharged a stream or vapor.

Water, at 62.4 lbs per cubic foot is rather heavy. Black or Bituminous coal is better than lignite but inferior to anthracite. The bulk density of coal is about 85 lbs per cubic foot, but ranges plus or minus 15% nominally. It's even heavier than water and shoveled by hand for many years.

A pound of coal, on average can turn 6 pounds of water to steam. The railroads used a ratio of about 10,000 gallons of water to 14 tons of coal (roughly 24,000 pounds).

The ratio of water to fuel in the tender was typically based on two water stops per fuel stop. Thus, we expect to see a ratio of two water tanks per coaling tower. Class 1 railroads might use track pans to avoid stopping for water or extend their range.

I remember the dog-house on top of the Pennsylvania RR tenders was unusual. However, freight handling at times required a brakeman near the engine. There wasn't room for the brakeman in some older engines; so the doghouse was erected on the rear of the tender with a nice little ladder to allow alighting.



A round Vanderbuilt tender was an efficient and strong structure. This made considerable sense when oil came along as a cleaner fuel. The photo above shows the round Vanderbuilt

shape and volumetric efficiency.



The slope back switch engine tender gave the yard crew improved visibility to the rear. It lessened the water carrying capacity; however, the yard engine was generally close to water all day long.

See "Guide to North American Steam Locomotives, railroad reference series 8", by George H Drury, published by Kalmbach Books for further information and inspiration.

### **President's Message: Greetings from the "Old Man"** *by Jim Brown, President RRA*

Well now, I am sitting here on Sunday morning, April 3rd, looking at the falling snow and wondering what is next for the great "nort woods"? It is like a continuing saga, will it be over by the 4th of July? Will it melt? Will it stop? Will it warm up? Tune in next month to find out!

Any how, RRA had two clinics given on two Saturdays in a row at the Rhineland Public Library by Paul Wussow on the subject of DCC control systems, how they operate, and how to install decoders in engines. Dave Krembs added to the program on installation of newer type can motors in older engines that have old style open pole motors that would be a possible problem if you tried to put a decoder into them. He likes the old junk like I do!

The programs were great and very informative as usual. For old geezers like myself, catching on to it will take a little longer, or should I say quite a bit longer! I am still living in the old school world, but it is still great to get new information from these clinics because one can always learn something that will help you down the road. Great job Paul and Dave, thanks again!

The free mo layout is somewhat under way. Our first purchase took place for the tabletops and it was on sale! More will be discussed at future meetings.

Again, a reminder that on April 30th, Saturday, we will be heading down to the Green Bay train show. So far we have six of us going down to it. Anyone else interested, contact Jim Brown. We will leave the Depot at 8:30am Saturday morning.

Another reminder for Saturday May 21st, starting at 9:00am, clean up at the Depot. We must get it ready for the summer months starting Memorial Day weekend. Please give us a hand if you can. The next business meeting of RRA will be on Wednesday, May 4th, at 7:00pm at the Depot. Hope to see you there! Take care, Jim Brown, President, RRA.