



The CRM&HA Newsletter

September/October 2001

Dennis Moriarty/Editor

Volume 10 Number 5

Meetings are held at 7:30 PM on the 1st Thursday of the month at the Central SC Library.

Headline #1: Starting in October the meeting nights have been changed to the first Thursday of the month.

Headline #2: The September 20th meeting will be a picnic at the Clemson RR station. See the newsletter articles for details!

Editorial

By Dennis Moriarty

Keep the September 20th meeting in mind as we are going to have a picnic on the regular meeting night. The location will be at the Clemson Depot again this year. Arlene Young will be the speaker and give us a tour of the Depot renovation. See an article that follows about what to bring and who to call.

We will not be able to have our train show at the UAG Church next year as they are having Saturday services. It was decided to have the train show on February 16, 2002 at the Seneca N.G. Armory, which is 2 blocks from downtown Seneca. Please keep this date open on your calendar, as all members will be needed to help make it a success. The set up will start on February 15th. There will be more information at a later date. Many thanks to Bob Hanson and Bill Hughes for making this happen.

Howard Garner and Steve Zonay are still traveling to different train shows and Bob Folsom is going to join them promoting the TextilExpress SER 2002 convention. The latest trips are Virginia Beach and Birmingham, Al. These members deserve a big hand from the membership for their hard work. Please call Howard at 878-4705 if there is anyway you can help with the convention.

The layout exhibit at Southern Wesleyan University was a big success. A thank you is also due to Bob Folsom and all who helped with this project.

The meeting night has been changed to the first Thursday of the month starting on October 4th. Same time same place.

For those of you that are interested in joining the National Model Railroad Association so that you can work at the convention in 2002, you may want to get your application in before the end of September. The dues will be \$34 until then. There will be a dues increase after that date.

If you received a snail mail issue of the newsletter and have an E-Mail address, please send your E-Mail address to me.

Please support the newsletter by submitting articles, news and or information. If you don't wish to write please give me a phone call. E-Mail, copy on disk and written contributions are most appreciated. My address is Dennis Moriarty, 519 Beacon Shores Drive, Seneca, SC 29672. Phone 864-888-2332. E-Mail MQK @ carol.net.

Thank you!

Thank you, Ralph Milz, Bill Hughes, Bob Hanson, Rodney Cowen, Bob Folsom, and Mike Moore for your contributions this month.

Thank you!

We wish to thank Clarence Harold of **Realty Executives** in Seneca for printing our newsletter at **no cost** to the club. 888-8225



HO Division Report By Bob Folsom

What do the Big League World Series of baseball and CRM&HS have in common? Why, the HO modular layout, of course! Thanks to the efforts of Dennis Moriarty, Richard Nichols, Rob Seel, Pat Street, Wayne

Todd, and Steve Zonay, and a Clemson University college student, Mark Kostreva, the layout was set up in the student center cafeteria at Southern Wesleyan University on Sunday, August 5, and operated during the noon hours of the following Monday through Friday. **It was well** received by SWU officials, and appeared to be enjoyed by the visitors from Venezuela, Ukraine, Canada, Saipan, and all Four Corners of the USA.

Returning the layout to 105 Santee Trail was especially taxing since it was a hot sunshiny day, and the modules had to be carried up the steep driveway back to the basement.

Many thanks to those involved!

It was decided at the July meeting that the club should try to have our regular show as well as the SER Convention in May. If so, the HO layout has lots yet to be done on it. The wiring needs to be re-configured, more ballast applied, connector track sections painted and ballasted, new recessed control panels for the yards, skyboards repaired, repainted and clouds applied, some cabooses decorated, and possibly some more sophisticated control units purchased. A few hundred dollars and some help from club members will enable some great and well-warranted improvements in the layout.

Also, those of you who would be interested in helping make these improvements please consider the possibility of weekend work sessions rather than evenings. It seems like the evenings are too short to get much done these days. I would like to suggest that we consider Saturday mornings or Sunday afternoons. The Saturday deal would be that if you wanted to stay through the afternoon as well, we might just party a little afterwards!

I will be contacting everyone in the HO division regarding this, and if you are not a HOer, but want to be involved, please let me know. If you attend a work session, I can promise that you will have plenty to do and plenty of guidance if you want or need it!



CRM & HA ANNUAL PICNIC
By Bob Hanson

When: September 20, 2001 (Our old regular meeting night)

Where: **Clemson Depot**

Who: All CRM & HA Members and any train-loving guests they can round up. (Even wives and husbands if they are not train loving Ed.)

Time: 6:30 PM (**One hour earlier than the regular meeting time.**)

Needed: You to bring a potluck dish to pass---salad, desert, veggie or whatever. Also---please bring a **folding table and chair(s).**

Program for the Evening: Arlene Young of the City of Clemson and head of the depot restoration effort.

Please: call, fax, snail mail or E-mail Bob Hanson so he knows how much fried chicken to get.

Phone: 885-0136

Fax: 885-0338

E-Mail: rhanson@statecom.net

2001 Train Show Information By Bill Hughes

Bob Hanson and I met at the Seneca N.G. Armory on Friday afternoon (8-17-01) and confirmed the reservations for Feb. 15/16, 2002. That is a Friday and Saturday. The space is just a little smaller than the site we have been using in the past. There is one large area, about 5200 SF, a small stage, one large classroom, and a separate kitchen and dining room. There is an ice machine on site that we can use. There is also a roll-up door at one end that will make it easy for unloading and loading. There seems to be plenty of power outlets along the walls of the large room.

Minutes of Regular Meeting July 17, 2001

The meeting was opened by Bob Hanson at 7:30 PM at the Pickens County Library in Central. Sixteen members (*even Bob Folsom!*) and no guests were in attendance. The minutes from the last meeting were read and approved, as was the treasurer's report. Cash on hand totaled \$5,373.43. The deadline for the next newsletter is August 30. The new meeting time must be settled by then.

Business in Process

New meeting time: The second Thursday of each month is not available at the library. We need to check on the possibility of the first Thursday or the possibility of a different meeting place altogether. The newly renovated Clemson depot may be a potential location. Rob Seel will continue to check on this.

February Train Show: There was discussion regarding whether we should cancel the show this year because of lack of manpower and the pressures of the upcoming *TextilExpress* show in May. The point was made that many people look forward to our February show and that the two shows attract different clientele. It was decided to give the show an "unofficial go-

ahead” while Bill Hughes and Bob Hanson investigate potential locations.

TextilExpress 2002: Howard Garner has been on the road again promoting the show. Recently he was in Huntsville, Alabama and getting good publicity. He will be in Virginia Beach and Birmingham in mid-September. The website is about 1/3 done. Richard Nichols has volunteered to be the registrar for the show. We will not be bringing the HO modular layout. We invited the Hendersonville club to come and display their N gauge layout, but they wouldn't come unless we paid them. Mac McMillin will contact the Winnsboro museum and the Greenville chapter of NRHS regarding display tables at the show.

Southern Wesleyan Exhibit: Bob Folsom reported that space is probably available. Set up would be Aug. 4,5,11, or 12 and he needs help.

New Business:

The annual picnic will be held at the Clemson depot, not the Seneca depot, September 20 at 6:30 under the direction of Bob Hanson.

Rodney Cowen has the August show. Mac McMillin has the October show.

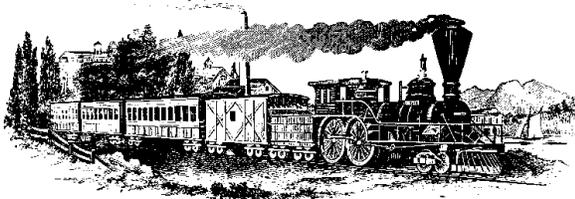
Division Reports:

HO: Bob Folsom said the track and scenery has been checked and repaired. He also had some pictures of a great train wreck on the layout.

Railfan: Dennis Moriarty reported the opening of a restaurant in the old Seaboard Station in Columbia, SC. Mac McMillin announced that October 6 is caboose day on the Great Smoky Mountain Railroad. He also announced that the County of Greenville has purchased the former Greenville and Northern right of way as well as a section of the old C&WC right of way between Pleasantburg and Haywood roads. On Saturday, July 20, the Greenville NRHS will be out on the C&WC with their motorcars clearing out the brush and weeds.

The Meeting was adjourned at 8:24 PM. After a short break, Michael Moore presented a slide show entitled “Railfanning in the Southeast” which included photos of the Lancaster and Chester, the Carolina Piedmont, the Pickens, Florida East Coast, CSX, and Norfolk Southern in South Carolina, Georgia, and Florida.

Respectfully Submitted by Michael Moore - Station Master



**Minutes of Regular Meeting
August 16, 2001**

The meeting was opened by Mac McMillin at 7:30 PM at the Pickens County Library in Central, SC. Twelve members and 1 guest was present. Stationmaster Michael Moore read the minutes from the previous meeting. They were approved with no corrections. Richard Nichols presented the Treasurer's report. It was also approved with no corrections. Dennis Moriarty announced August 30 as the deadline for next newsletter.

Business in Process

February show: Bob Hanson gave a brief history on our February show regarding location, expenses, and income. He shared information gathered by Bill Hughes on potential locations for the upcoming show since we won't be at UAG anymore. After weighing the pros and cons of each location, the membership voted to reserve the Seneca Armory for Friday, February 15 and Saturday, February 16, 2002. The rental fee is \$400.00 and includes the use of a kitchen and tables. Bill Hughes and/or Bob Hanson will make the reservations. Bob Hanson graciously offered to head up the show. Steve Zonay will probably take care of the dealers again. We need someone to take care of the magazine publicity ads—possibly Rob Seel?

TE2002: Steve Zonay reported that the Internet site address is www.textilexpress.org. There are downloadable registration forms and dealer table reservation forms at the site. Ten tables have already been reserved. Steve Zonay and Howard Garner are still taking the show on the road. Steve announced that NMRA membership dues are going from \$34 to \$45 beginning September 1, 2001. Those wishing to participate in the convention in May must be NMRA members. Membership forms were available at the meeting.

New meeting time: Beginning October 4, 2001, the club will meet on the first Thursday of every month instead of the third Thursday. The actual time (7:30 PM) and the location will remain unchanged. This was approved unanimously by all members present.

Southern Wesleyan University show: According to Steve Zonay, the show was a success. He and Bob Folsom, Dennis Moriarty, and Rob Seel helped move the club's HO layout over to the university for the big league baseball event. There is still a possibility that there might be a "permanent" home for the layout there. Currently it resides in Bob Folsom's basement.

Picnic: September 20, 6:30 PM, Clemson Depot. Bob Hanson needs to know who is coming.

New Business

October meeting: Mac McMillin

November meeting: Dennis Moriarty

Division Reports

Large scale: Bob Springs shared some spectacular photos of his Clinchfield engines.

N scale: Michael Moore reported that he hoped to begin wiring his layout soon.

Railfan report: Several reported seeing a track blitzing crew replacing cross ties on the NS track one. Michael Moore reported that most of the slow orders have been annulled on the CSX Belton Sub (former P&N) since the crossties have been replaced. Mac McMillin reported seeing a high/wide movement on NS recently. He also told about the Greenville NHRS chapter's recent clean up of and motorcar excursion on the former C&WC line between Pleasantburg Drive and Haywood Road in Greenville, SC. He had a copy of "Palmetto Rails" on hand with pictures from the event.

Hobby news: Rail and Spike Anniversary Sale, Friday, August 24 – Sunday, August 26.

The meeting was adjourned at 8:19 PM. The next meeting will be held at the Clemson Depot at 6:30 PM on September 20.

After the meeting, Rodney Cowen showed a video entitled "New England Main Lines."

*Respectfully submitted by Michael W. Moore –
Stationmaster*



The Gardner Extra's By Rodney Cowen

Most Saturday nights after all the regular trains had gone, the YardMaster in Mechanicville would send his report of all the cars still in the yard.

If enough cars, management would order an extra train to run from Mechanicville to Gardner. Now those extras were usually very heavy with well over a hundred cars.

In those days the conductor had to write up a long wheel report on each car in his train. It contained the number and initial, consignor and consignee, where the car was received and left, net weight and loaded weight, origin and designation etc. just about everything that was on the waybill.

Just as the conductor was writing up the last car, the middleman decided for some reason or other to take down the stretcher. Now, the stretcher was attached by brackets to the ceiling of the caboose and one end was right over the conductor and his desk. It was also right under a leak in the roof and was full of black dirty water.

When the middleman raised the end of the stretcher away from the desk, all that dirty water poured down on the conductor and his just finished report.

Soon from that conductor, I learned a lot about that middleman's ancestry and intelligence. I think I learned couple of new swear words that night also.

River Junction in N Scale by Michael W. Moore

I am modeling the Greenville and Northern, CSX, and Norfolk Southern in downtown Greenville (River Junction) circa 1986. This area is special to me because I can remember my father taking me down to the Junction and the Piedmont and Northern shops when I was much younger. Because of my limited space, I have had to "improvise" a little with the track plan on my layout, but I think I've captured the essence of the locale and its railroad operations.

The layout itself is 12 feet long and about 16 inches wide. I had originally intended to mount it on shelf brackets on our living room wall, but I decided I would like to stay on my landlord's good side, so right now it's just propped up by a desk and a couple of bar stools. The track arrangement favors switching-based operations as opposed to just "runnin' trains." With four industries, two yards, and NS/CSX and CSX/G&N interchanges, there's plenty of action to keep two or three people busy for a while.

The base is made of pine and consists of two six-foot sections connected by hinges so that I can fold it up and get it out the door when I need to. I used pink Styrofoam insulation boards and joint compound to shape the landscape. I found that works very well. I am currently working on wiring and ballasting the track. I still have a lot to do scenery-wise and I have yet to build the legs underneath. Most of my locomotives and rolling stock are weathered at this point. I hope to have everything completed before February so I can bring it to our show. Maybe Steve Zonay will even let me bring it to the big show in May! (Hint, hint.)

Since this is my first "real" layout, I am learning a lot as I go along. My experience with "helping" (read: watching) Rob Seel, Bob Folsom, Richard Nichols and others work on the club's HO modular layout has served me well and I have used a lot of their tricks on my own layout. Also, reading Dennis Moriarty's articles in the newsletter has provided me with good ideas. Here's a trick of my own for gravel parking lots: paint the base a light gray or brown (depending on how muddy you want it to look) and let it dry. Then come back over it with Plasti-kote "Fleck Stone--Gotham Gray" spray paint (Available at Wal-mart for about \$7 a can. This stuff is normally used to make clay pottery look like stone). Make sure you mask off the area very well since this stuff really flies everywhere. (I found out the hard way!) After it's dried, you've got a great-looking gravel parking lot. (PS use the black Fleck Stone for great looking asphalt - Ed.)

Roundhouse

From an Article Submitted by Ralph Milz Written and Edited by Dennis Moriarty

Ralph gave me an article from Michigan History magazine, which included a nice article about the roundhouse that was built at Greenfield Village in Dearborn, Michigan. For those of you that have never been there, Henry Ford the founder of Ford Motor Company and inventor of the assembly line, became interested in preserving historical buildings and other interesting historical items. Mr. Ford had a 90 acre village constructed of historical buildings that he moved into it such as the Menlo Park Research Laboratory where inventor Thomas Edison discovered the light bulb, a train station, saw mill, Noah Websters house, the first house with electric power, Steven Fosters house and many many others. In addition he had a

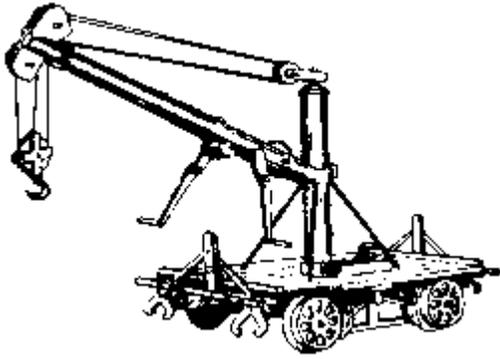
large museum built next to the village and of course included a large collection of historic automobiles. But of interest to us, he dedicated a section to RR memorabilia including some very large steam engines. **In 1975 the village** laid 3 miles of standard gauge track around the grounds and even today you can ride behind a small beautifully restored steam engine. A turntable was added 13 years later. Believe it or not, this turntable is balanced so precisely that only two people are needed to turn the biggest and heaviest locomotives.

All that was needed to complete the picture was a roundhouse. The institution placed advertisements in RR magazines asking readers to share information on any abandoned roundhouses that they could find. From this effort 90 structures were identified of which eight matched the requirements of the village (four to six stalls and aged from the 1880 to 1890s). It had to be constructed of brick or stone and have 70 feet long bays. The roundhouse selected was in Marshall, Michigan and was originally owned by the DT&M (Detroit Toledo and Milwaukee). Next came a massive search for facts, photographs and information of the original structure. They made drawings of the structure as it stood and probed the site to determine what kind of roofing and other materials were in or on the original building. (Sort of like the Clemson Depot).

The old roundhouse had been used for other purposes since the DT&M abandoned it in the early 1930s. It was used as a foundry. In WWII ship propellers were manufactured there. The foundry closed in the 1960s. Later it was used by a buyer and seller of used machine tools. The last tenant was a junk dealer. After all this abuse, it was decided that the old roundhouse could not be moved but the cast iron window sills, the five front door support columns and parts of five roof trusses were salvaged. These parts and other new materials were used to rebuild the roundhouse in the village exactly as it was in Marshall. The new bricks matched the color and hue of the original. The construction started in 1999 in the NE corner of the village. Since this was the first full-scale roundhouse built from scratch in America in some years, many craftsmen were interested in building a part of this history-making project. Throughout the construction process an effort was made to duplicate accurately the nature of the original structure. The only deviations were the installation of a concrete floor instead of the original dirt and cinder floor and a simulated slate roof that cut down on weight but is still resistant to the smoke, sparks and sulfur that are common in the air around roundhouses.

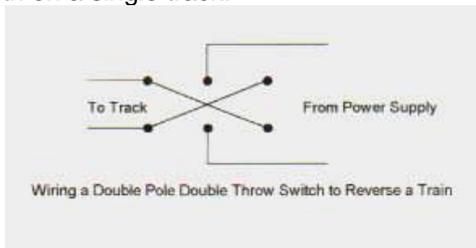
Roundhouse tools and equipment from the 1880's and early 1900's were located and installed in the roundhouse and it was opened to the public on June 10, 2000. You can now go and watch as they work on the village's engines. There is much more interesting

information in these articles and I hope we can present it in future newsletters.



Inside/Out Current Sensor Control for Reversing Trains By Dennis Moriarty

DC current train engines can be made to reverse by using a double pole double throw-latching relay, which can change the polarity of the track. This relay can be used to make a streetcar or other type engine go back and forth on a single track.



To activate the relay, current sensor controllers are placed at short blocks at each end of the track. **A latching relay has two coils in it.** When you power one coil it pulls the contacts one way and when you put power on the other coil it pulls the contacts back. So when the street car enters the block on one end the current sensor activates one coil and when it enters the block on the other end the current sensor at that end activates the other coil in the same relay and the streetcar returns. Timers could be used at each end to stop the car at stations.

How does it work? **Note:** With this, as with any electrical system, follow all established safety rules. Such as fuses, circuit breakers, proper insulation etc.

A block is an electrically isolated section of track. An isolator can be a plastic spacer in the track or simply an air gap. A wire is run to each block from the cab to provide power. In our case, the gaps only have to be on one side of the track. A single wire run to the other trackside will complete the circuit.

The current sensors are located at the cab on the wires to the blocks.

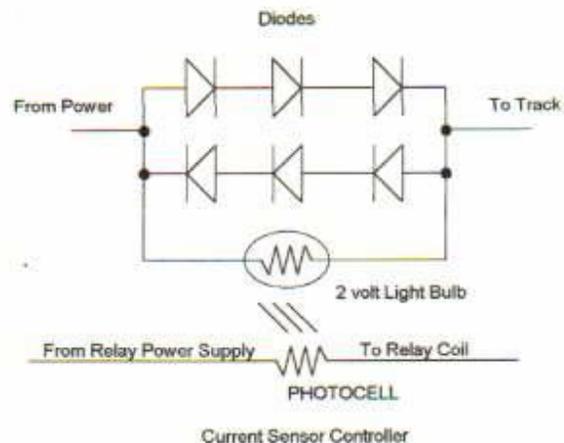
When there is no train on the block there is no current in the wire because there is an open circuit between the two tracks.

When the train reaches the block it acts like a switch closing the circuit and current is then flowing through the wire to the block.

Since the current sensor controllers are at the cab where all the block wires terminate from the train board, it is easy to reverse the track polarity at that location by controlling the double throw double pole latching relay with the current sensor controllers.

What is a Current Sensor Controller?

The current sensor consists of three diodes wired in series and placed in the wire to the block. Since there are three diodes the voltage drop across the diodes is about 2 volts. A 2-volt light bulb (I use the small Christmas tree bulbs) can be wired directly across the 3 diodes and it will not burn out even at maximum voltage to the train. Of course there must be at least 2 volts on the wire to get the bulb to light. (Note: LED bulbs also work great at this voltage). **This becomes the current sensor because when there is current flowing in the wire to the track, the light bulb will light.** (Note: be sure to obtain diodes with a current rating high enough to operate your engine. Any diode voltage range will work as long as it exceeds the maximum engine voltage.)



Diodes are also rectifiers, which means that they only allow current to flow in one direction. So if we used the current sensor that is indicated in the paragraph above, the train engine would only go in one direction. This is easily solved by placing three more diodes in the opposite direction and in parallel with the other three diodes. Now current can flow in both directions and we can back up our train.

Incandescent bulbs are bi-directional so will work with no problems. (If LED's are desired, a special bi-directional LED can be purchased that will light in both forward or reverse. A normal LED will only light when the DC current is one direction.)

How to make a reversing system.

In the wires to each track end block, we can solder a current sensor (the six diodes and an incandescent light bulb in parallel with them). The light bulbs will light to indicate when the streetcar is on an end block.

We want our train to control the reversing latching relay at the blocks at each end. To do this, add a cadmium-sulfide photocell (photo resistor) next to each light bulb. (Radio Shack cat. no. 276-1657 or equal.) These photocells come in multipacks and there are several different photocells in the pack. Be sure there are at least two that are about ½ inch or more in diameter). The photocell is a light sensitive resistor. When the bulb lights, the photocell drops from about 1,000,000 ohms to about 100 ohms. Be sure the photocell is right next to the light bulb filament and covered with tape to keep room light from activating the photocell. You can wire the photocell at the block at one end of the track in series with one coil of the latching relay and the photocell at the other end of the track to the other coil. When the train reaches the block at one end the latching relay pulls in. The relay terminals are wired at the train power supply to reverse the polarity of the track. The train heads back to the other end where the latching relay pulls out and the train reverses back. This will keep repeating. If you would like to slow the train down in the end blocks, some more diodes can be added in the wire to the track. Each one will lower the voltage to the end blocks by about .65 volts. But if you run your streetcar at normal slower speeds this will not be necessary.

Because there is **no electrical connection** between the train block wire and the relay coil wire (activated by light) relay coils of any voltage from 6v to 28volts can be used. I would not recommend relay coils of higher voltage for safety reasons.

The actual voltage to operate the relay coil will vary because of the photocell resistance. I use a train transformer to find a voltage that activates the relay cleanly. It is interesting to note that when using a 6 or 12 volt relay coil, the photocell must be touching the bulb next to the filament to activate the relay; at 28 volts the photocell is so sensitive that even dimmed ceiling lights in the room will activate the relay. **At higher than 6 volts the bulb and photocell must be**

enclosed in a dark box or taped with black tape to keep extraneous light out.

Summary:

Use the trains location to activate current sensors where you want to have an LED or light bulb light and current sensor controllers where you need to have relay contacts to control other functions. A current sensor controller is simply 6 diodes (three in each direction), a light bulb, a photocell, and a relay.

Trivia

An interesting screen saver site. <http://members.fortunecity.com/ms2f/steam/steam.html>

Future Meeting Programs

- September:** Picnic at the Clemson Depot.
- October:** Mac McMillin. Mac has collected many, many slides over the years, as he is a devoted Railfan. Mac will bring some of the best for the meeting program.
- November:** Dennis Moriarty will bring train related videos he has taken at Greenfield Village Michigan and if time permits, steam at Milan, Michigan.
- December:** Christmas party and show and tell.

CMR&HA TRAIN CREW

- Engineer and CEO: Rob Seel
- General Division Super: Mac McMillin
- Station Master: Mike Moore
- Paymaster: Richard Nichols
- HO Division Super: Bob Folsom
- Large Scale Division Super: Bob Hanson
- N Scale Division Super: Bill Hughes

HTTP:\central-railway.tripod.com is the club website.

HTTP:\WWW.TextilExpress.org is the SER convention website.

Cartoon from WWW.toytrunkrailroad.com



**Central Railway Model & Historical Association
Membership Application**

Name: _____ Member # _____
Address: _____ Phone: _____
City: _____ State: _____

E-Mail Address: _____

1. Declared Interest Group: HO N General (Circle one)
2. Other Railroad Interests: Modeling Collecting Railfanning History
Other? _____
3. Modeling Scale: Z N HO S SN3 O G (Circle yours)
- 4 Railroad Memberships: NMRA NRHS Other? _____
5. Do you have a home lay-out? Y N Open to Visitors? Y N
6. I can help the Association by:
 - Working on one of the modular projects
 - Helping with set-up and operation of lay-outs at shows.
 - Organizing an excursion to a show or museum.
 - Serving on a committee (i.e. Audit, Publicity, etc.)
 - Serving as Officer or Director.
 - Preparing a short program for monthly meeting.
 - Other: _____
7. Please record my membership in the Association for 2000. Enclosed is my (check) or (cash) in the amount of \$20.00, Send to: Treasurer, CRM&HA, P.O. Box 27, Central SC, 29630-0027. Phone (864) 261-3496

Signature _____

C.R.M.&H.A.
Dennis Moriarty, Editor
519 Beacon Shores Drive
Seneca, SC 29672

FIRST CLASS MAIL

ADDRESS CORRECTION REQUESTED

