



Evolution of refrigerator cars on the SMVRR

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UPCOMING EVENTS:

SMVRR Online Presentation
"Railroad Update"
October 28, 2020 6 PM
Check website for details

Friends Annual Dinner Gala
Santa Maria Fairpark
May 22, 2021

Friends Annual BBQ
August 21, 2021

Huntington Library Rail Trip
Sept 24 to 26, 2021

Iced reefers to mechanical reefers to GPS controlled super jumbos

When the Santa Maria Valley Railroad was built in 1911, refrigerator cars, or reefers as they are commonly known, were already in widespread use. Their design was fairly standardized as an insulated wooden car with a compartment at each end to hold ice and hatches in the roof through which the ice was loaded. Early reefers were typically all wood, 36 feet in length and had about a 15 to 20 ton capacity. Although the Santa Maria Valley Railroad had been built to support the booming oil industry in the early part of the 20th Century, reefers would become a mainstay in the following decades.

By the time Captain G. Allan Hancock acquired the railroad in 1925, the reefer had grown to 40 feet in length and now with a steel under frame had an increased capacity of 30 tons. Hancock built an icing facility for reefers in the downtown yard in Santa Maria and helped develop the agricultural industry in the Santa Maria Valley. In the following decades reefers by the thousands would depart the Valley on the Santa Maria Valley Railroad for destinations all across the country with stops along the way for ice replenishment. During these ensuing decades the reefer would continue to evolve. Wood cars gave way to steel cars. Insulation improved. Improvements in trucks, axles and bearings allowed reefers to continue to grow in size and capacity.

Ice reefers could be used to ship both fresh and frozen produce. Cars were developed with thicker insulation and by salting the ice, lower temperatures could be obtained. It's like salting the ice in your ice cream maker! Even with the improvements, reefers were still using the same basic technique to keep their cargo cold from origination to destination. Ice! The development of the mechanical reefer in the 1950's changed all that!

The mechanical reefer is an insulated boxcar with a refrigeration system mounted in a compartment at one end of the car. This system was typically a small diesel engine driving a refrigeration compressor, associated controls, and fuel tank for the engine. Developed in the 1950's these new mechanical reefers came into wide spread use in the 1960's. Like a lot

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Reefers being iced at La Brea Ice Company in SM



ARMN 90 Mechanical Reefer at Pictsweet in SM

Scholarship Application Now Available

BETTY HIMOTO MEMORIAL RAILROAD SCHOLARSHIP

As previously announced, the Friends of the Santa Maria Valley Railroad have established the annual Betty Himoto Memorial railroad scholarship for eligible students within Santa Barbara and San Luis Obispo Counties. An annual scholarship of \$1000 will be awarded based on merit to a qualifying student pursuing a degree or technical training in the Industrial Arts with a career goal in the rail industry.

Applying for a Scholarship:

Applications will be accepted between January 1 and March 31, 2021. All materials, including reference letters and transcripts, must be postmarked or submitted on-line by March 31, 2021 to be considered.

Applications and additional information is now available on the Friends-SMVRR website at www.friends-smvrr.org/scholarship.

Donating to the Scholarship Fund:

If you would like to donate to the scholarship fund, you can contribute with your credit card by going to www.friends-smvrr.org/scholarship or mail your check to Friends of SMVRR.

2020 AWARD WINNERS

We are pleased to announce the winners of the Santa Maria Valley Railroad Public Safety Award and the G. Allan Hancock Historic Preservation Award. These awards are usually announced and presented to the recipients at our annual fundraising dinner gala, but due to Covid-19, the gala was cancelled. We want to recognize and thank them now for their dedication to our organization and the railroad. We will publicly recognize them at our annual Gala in 2021.

The 2020 Award recipients are:

PUBLIC SAFETY AWARD:

Dottie Lyons is the first two-time award winner for the SMVRR Public Safety Award. This year Dottie is recognized for her efforts in personally donating and installing fencing to close an opening to the railroad right-of-way in the Foxenwood Estates. The new much more aesthetically pleasing fencing replaced an unsightly fence that was regularly breached.

HISTORIC PRESERVATION AWARD:

John Marchetti and the Central Coast Model Railroad Association is awarded the G. A. Hancock Historic Preservation Award for 2020. John has been heading up the work on the Betteravia Sugar Plant and Guadalupe yard scenes on the San Luis Obispo Railroad Museum model railroad layout. The detail and care John and the members of the CCMR put into both scenes conveys how the areas looked in the 1950's. Before the museum closed due to COVID-19 visitors were able to get a sense of what it was like when the sugar beet plant operated in Betteravia and the bustling Guadalupe yard.

OUR SPONSORS:

We welcome new sponsors to expand our programs and tours and fund educational activities.



**G. A. Hancock
Family**

Where Are They Now?

SMVRR Steam Locomotive #150

Santa Maria Valley #150 was one of four locomotives acquired during WWII to support the increased traffic on the railroad. It was an ex logging locomotive, first as Vance Lumber Company #4 and then Mason County Logging #4. It was given the number 150 after coming to the Santa Maria Valley Railroad in 1942. At 44 inches, its relatively small driving wheels would give it good slow speed power, making it well suited for a shortline like the Santa Maria Valley with its many industrial spurs requiring switching.

On Jan. 12, 1948, #150 was involved in a grade crossing accident and never repaired. The fact that the war was over and the plan to dieselize SMVRR was underway, may have been factors in the decision not to repair the locomotive. Starting in July of 1948 and ending in March of 1952, the SMVRR purchased five new GE 70 ton diesel locomotives. Steam engine #150 was scrapped in 1952.

Details on SMVRR No. 150:

Builder: Baldwin Builder#: 55804 Type: 2-8-2 Weight: 144,300 lbs.
 Cylinders: 18"x24" Drivers: 44" Tractive Effort: 27,800 lbs.
 Built: May 1922 Acquired: 1942 Scrapped: 1952



SMVRR #150 in its heyday



SMVRR #150 in the yard with its boiler jacket removed

1801 "Back in Service"

Santa Maria Valley Railroad's flagship locomotive, SMV 1801 is back in service after being down for repairs. With assistance from Matt Monson of Dieselmotive rebuilding the injector system and Jared Bissen of the Fillmore and Western Railway rewiring the electrical system, the 1801 was back in revenue service in July.



Reefer Evolution (continued from page 1)

of technological advances it did not immediately replace its' predecessor. Mechanical reefers and ice reefers coexisted for many years. In the late 1960's you could see reefers being iced at the La Brea icing dock just east of Miller St. in Santa Maria and hear a string of mechanical reefers running on an adjacent track in the yard. Mechanical reefers of this era had grown to 50+ feet and had a 40 ton capacity.

Mechanical reefers greatly improved the viability of frozen produce loads shipped by rail. They were able to produce lower and more consistent temperature throughout the loaded car. The shift of fresh produce from rail to trucks greatly increased in the 1960's and continued with a vengeance in the 1970's. The mechanical reefer was in widespread use and by the early 1970's the ice era was over. Some fresh produce continued to be shipped in mechanical reefers on the Santa Maria Valley Railroad into the 1980's.

Most of the reefers spotted on the SMVRR would have been Pacific Fruit Express cars. PFE was jointly owned by Southern Pacific Railroad and Union Pacific Railroad and was the largest fleet of reefers in the nation by far! By the late 1970's PFE's R-70 class reefer was a common sight on the SMVRR. Often referred to as the 57' mechanical reefer it had a 50' interior cargo space and 70 ton capacity. This design would be dominant through the 1980' and 1990's.

In 1996 Union Pacific Railroad merged with Southern Pacific Railroad. Pacific Fruit Express as a standalone entity ceased to exist and was eventually absorbed into the UP Corporation. The early 2000's the PFE Reefers were overhauled and given a new paint job with the cars painted white with blue lettering along with the reporting marks ARMN. The reefers were updated with new Thermo King refrigeration units which were more fuel efficient and computer controlled. The cars can now be tracked 24 hours a day using GPS. Temperature can be tracked and if the refrigeration system malfunctions or the door is opened, alarms at a central tracking office will alert someone. The cars can be remotely pre-tripped at any time, meaning the cars can be remotely started, and diagnostic tests can be run on the engine and cooling system.

In 2002 the first of the new generation jumbo reefers appeared on the scene. As the former PFE 50 ft 50 ton reefers started to go into retirement, Union Pacific Railroad ordered the new 64 ft 110 ton reefers with the latest Carrier refrigeration units and updated GPS systems that can track temperature, fuel levels, along with tracking the cars in real times. New urethane insulation keeps the cars cold longer. SMVRR's frozen vegetable customer Pictsweet was one of the first companies to utilize the new 64 ft 110 ton ARMN reefers on a regular basis.

Typically, refrigerator cars are owned by railroads and then shippers order rail cars from the railroads such as Union Pacific Railroad as needed. The problem lies in the fact that seasonal crops such as fruits and vegetables makes the demand for rail cars hit all at once, and shortages of rail cars are common during peak harvesting season. To alleviate car supply problems, in 2012 Santa Maria Valley Railroad customers started to lease cars from Cryotrans, the largest owner of privately owned refrigerator cars. The Cryotrans Cars are all state-of-the-art jumbo reefers similar to the ARMN 110 ton cars. Additional features include a built-in accelerometer where impacts are recorded. The cars are monitored 24 hours a day and technicians can be dispatched when problems arise. The constant monitoring improves food safety and insures the product stays in top quality while in transit.



GPS Monitored 64 foot Jumbo Reefer in Osburn Yard

Cryotrans cars are unique in that they name all of their cars. Some of the names that frequent the Santa Maria Valley Railroad are Downers Grove, Hopkins, McKenzie River, Rosemont, and Santa.

Today almost all the vegetables and fruits that travel by refrigerator rail cars are frozen and thus the product is not as time sensitive. A single car can haul over 91 tons of product. As demand for healthy fruits and vegetables rises, refrigerator rail cars are now a growing market.



Named for Powder River Wyoming

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All photos are from the archives of the Santa Maria Valley Railroad unless otherwise noted.