

## NEW PFE REEFER JOINS MUSEUM

- Norman Holmes, Director

A new addition to our museum arrived in July, 2008. PFE 100468 was built in February, 1958. It is a mechanical refrigerator car PFE class R-40-30. The compressor and motor are missing, but this car fills an important spot in railroad transportation history.

From the first experimental ice refrigerator car in the 1800's to the present state of the art mechanical refrigerator car, the nation's railroads were the major source for transportation of perishable food. (Yes, trucks have made inroads in perishable transport.)

Early refrigerator cars were nothing more than converted box cars with a thin layer of insulation. Gradually, special built cars with thick walls for insulating material and bunkers in the ends of the cars for ice were constructed. Our museum has two complete ice refrigerator cars that are examples of this technology. (We have two older wooden refrigerators that require extensive restoration.)

As early as 1885, a mechanical refrigerator car was patented using an axel driven ammonia compressor. A few cars were built and the project dropped. Other schemes were tried over the years, but it was not until the early 1950's that mechanical refrigerator cars began to replace the ice filled cars. This was brought

about mainly because of the shift to frozen food and the high cost of servicing the ice filled cars.

Pacific Fruit Express, the nation's largest owner of refrigerator cars, ordered its first mechanical refrigerator car in 1953 and by the end of the year some 380 were in service. These cars were 55 feet long over the coupler faces. To meet the needs of smaller shippers, PFE ordered 500 40-ton cars that were 45 feet long with an inside length of 35 feet. These cars had refrigeration equipment which handled a wider range of temperatures, suitable for everything from fresh produce to frozen foods. The R-40-30 class pioneered this "all-purpose" refrigeration system. We have car number 468 of this order.

Ice refrigerator cars slowly disappeared in the 1970's as icing facilities were shut down and the mechanical systems pioneered by PFE 100468 and her sisters were embraced. The ice cars remained in service for a few years longer hauling loads that only required an insulated car. At this point, larger box cars were being built with insulated walls, filling this need.

Our car came to us as a donation from the California State Railroad Museum. Due to a change in plans for their museum expansion into the old Southern Pacific Shops they found they had more equipment than they had space to store and display. A number of cars and locomotives were transferred to other museums.



*PFE 100468 arrives at its new home in Portola. - photo by Norman Holmes*