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LONG SENIORITY -- Theodore Barrow, Sr., left, and his son, Theodore, Jr., may have some kind of family seniority record on the Northern Pacific. The elder Barrow entered NP service at Bellfield, N.D., in 1910 and has been telegrapher and agent there for the last 54 years. His son is a train dispatcher at Missoula, Mont., and together they have a combined seniority of nearly 80 years.

### Our Cover . . .

... shows an overall view of Northern Pacific's giant tie-treating plant at Paradise, Mont. In all, there are some 25 million cross ties under NP track across the Northwest. For the story on NP's tie-treating processes at Paradise, turn to Pages 4-5 of this issue. MEMO ... FROM THE PRESIDENT

At the writing of this memo, Northern Pacific has just filed, with the Interstate Commerce Commission, its financial report for the first nine months of 1964.

In dealing with figures running into millions of dollars and even hundreds of millions of dollars, it is difficult to visualize their impact on our day-to-day operations.

With this thought in mind, I have broken down some of the figures to a daily average to illustrate more graphically the enormity of Northern Pacific's economic obligation to employes, shippers and stockholders.

### OPERATING REVENUES .... \$503, 198 PER DAY

Total railroad operating revenues for the first nine months of 1964 were \$137, 876, 378. Breaking this down to days, 274 days from January 1 through September 30, it means that our operating revenues average out to approximately \$503, 198 per day, including Saturdays, Sundays and holidays.

#### OPERATING EXPENSES .... \$429, 707 PER DAY

Operating expenses, on the other hand, were \$117,739,885 for the nine-month period. This breaks down to \$429,707 per day to be paid out in wages, equipment, operating costs, etc.

#### TAXES .... \$52, 300 PER DAY

Our tax bill for federal, state and local taxes for the first nine months of 1964 was \$14, 330, 361, which averages out to approximately \$52, 300 per day to be paid out in taxes.

These are only a few of the major items. Space does not permit a complete breakdown. There are items such as equipment rentals, interest on funded debt and other fixed charges which must come out of total income. There is additional income from non-rail activities, car rentals and joint facility rentals to name a few. Balanced out, however, the end result is a net income of \$17,055,643 for the first nine months of 1964.

It is interesting and informative to relate this net income figure on a daily basis to earnings per share and dividends per share paid to stockholders over the ninemonth period.

### EARNINGS PER SHARE \$ .0103 PER DAY DIVIDENDS PER SHARE \$ .0069 PER DAY

Earnings per share of stock average just over one cent per day and dividends paid to stockholders average just over 2/3 cent per day per share.

As we observe the Thanksgiving holiday this month, I trust all of us have many reasons to be grateful. I hope for each of you and your families, a day of true Thanksgiving.

Hurs Macfalane



BAGDAD AWARD -- F. G. Scott (left), Northern Pacific passenger traffic manager, and Leonard Holmstrom, assistant passenger traffic manager, admires a plaque presented to the NP from Bagdad Temple Shrine of Butte, Mont. The award was made in recognition of the Railway's assistance in transporting youngsters to the Shriners' Crippled Children's Hospital in Spokane, Wash.

## NP's Lindquist Named to Safety Committee

R. C. Lindquist, superintendent of Rules, Safety and Fire Prevention for Northern Pacific, has been named to the Railroad Section's executive committee of the National Safety Council, it has been announced by the Council.

The Railroad Section, one of the important industrial divisions of the Council, is composed of 117 member companies--employing 95 per cent of all railroad workers in the United States and Canada. Election to its executive committee is in recognition of exceptional ability as a safety specialist in the industry.

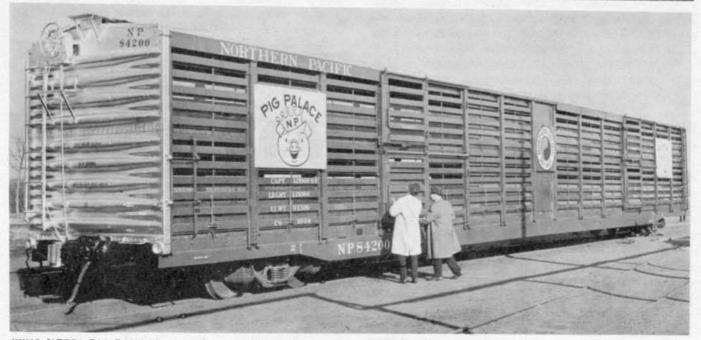
The section, one of the oldest of the Council, was organized in 1915.



Screen Actress Janet Waldo, sister of NP's Frank Waldo, ticket clerk in the Seattle Ticket Office, is currently co-starring in the new half-hour t.v. series, "Valentine's Day." Miss Waldo plays Tony Franciosa's Girl Friday in the situation comedy show concerning a whacky Park Avenue publishing house business.

W. F. Paar, Northern Pacific's Dining Car Superintendent, has been elected President of the Association of American Railroad Dining Car Officers. He was picked for the job during the 64th Annual Meeting of the organization recently in Miami Beach.

Governor of Alaska William A. Egan recently presented the Northern Pacific with a Certificate of Appreciation to acknowledge the part the Railway played in handling a shipload of materials to Anchorage, following the earthquake.



"KING-SIZED' PIG PALACE -- Northern Pacific's Como Shop in St. Paul recently turned out his new, experimental 85½-footlong stock car. The double-deck car was fabricated from two

the NP's 40-foot "'Pig Palace'' cars. It will be used primarily in shipping hogs.



AIR-SEASONED TIES are unloaded and sent through NP's adzing, boring and incising mill.



C-IRONS are driven into each cross tie to clinch wood fibers and prevent rail splitting.

# **Railroad Cross Tie Bul**

Throughout his ever-advancing civilization, industrial man has continually sought ways to make his plants and machines more efficient, more productive. In the field of transportation, the fundamental forces of his creativity and incentive to profit have led him to evolutionary and revolutionary changes in power sources and designs. Yet, despite these changes, there has been developed no improvement on the basic principle from which has grown the most gigantic, privately-owned transportation system in history, the American railroads.

The principle which has made this network possible is simplicity itself: the flanged wheel mated with the steel rail constitutes the most efficient means of transport in the world. However, while the principle has not been altered in the 130-year life of the industry, the physical foundation of its application has.

Better track and roadbed, achieved through development of new technology in materials, equipment and methods, is both an accomplished and a progressing fact on the Northern Pacific. Continuous welded rail and semi-automated maintenance-of-way equipment, for example, have placed the company among the nation's leaders in this respect, a situation which has been featured in story and headline in trade press and financial journal pages during the past two decades.

Almost overlooked in the process has been the lowly but all-important member of any good system of trackage, the cross tie. There are on the NP today some 25 million ties in track, each representing an investment of about \$6 at present day prices. And during the past century, uncounted millions of them have been worn out in service. The big change in cross ties is in the treatment to lengthen tie life. Originally, untreated ties lasted only about five years. Today, they can be kept in service from 40 to 50 years, thus saving the company about \$25 million a year.

For well over a half century, Paradise, Mont., has

played a major role in keeping the Northern Pacific on the move. NP's tie treating plant there is one of only two such company-run installations on the property, and was established principally for a "Lowry Process" treatment of air-seasoned cross ties and switch ties. The other plant is at Brainerd, Minn. In addition, the company contracts ties from a privately-owned plant in Seattle.

The primary difference in NP's own plants is that all ties treated at Brainerd are made from oak from Minnesota, Wisconsin and Iowa. At Paradise, the tie stock consists principally of Douglas fir, larch and yellow pine from Montana.

(The geographical location of the Northern Pacific provides a climate that affords the company an economic advantage in the use of wood rather than concrete cross ties. What we normally regard as adverse in northern winters becomes, in the case of ties, a distinct "plus" factor. Cold weather militates against decay action.)

"Green," untreated ties are purchased from suppliers in the Inland Empire for shipment to Paradise, where the ties are unloaded and cross-piled by species for six to 12 months of air seasoning. That is, they are piled so that air can circulate around each to insure proper drying before treatment.

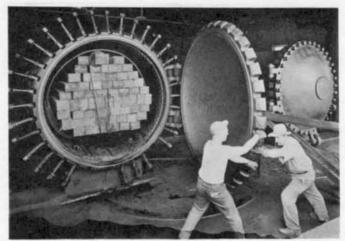
The green ties remain in the seasoning yard from not later than May 1 until the treating program is begun in fall. When ready for treatment, the ties are loaded on flat cars and moved to an adzing and boring mill where they receive a final shaping and drilling for rails. As they are expelled from this machine the ties are loaded on special tram cars, skeletal steel cars which run on a narrow-gauge track. Motive power is supplied by an electric locomotive called a "dinky."

Two trains of 15 tram cars each are loaded with a day's accumulation--about 50 ties per car--and an entire "train" is shunted into a retort, a steel cylinder about

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CROSS TIES are taken to the retort to be sterilized and treated with creosote preservative.



CONVEX STEEL DOORS or retort are closed and bolted before ties are given final treatment.

# wark: Paradise, Mont.

seven feet in diameter and 133 feet long. Then, a heavy, circular steel door is closed and bolted in place.

The retort is filled with a preservative that has been heated to 190 degrees F. Ties are left in this fuel oil

and creosote mixture overnight, or for about 16 hours, until the next treatment period. Heating and soaking insures complete sterilization of the ties which, next, are hydraulically pressure treated at 150 pounds' and 190 degrees up to ten hours, depending on the condition of the material treated. Sterilization of all ties is necessary to prevent rotting from the inside.

Following treatment, the pressure is released and the preservative is dropped into an underground collecting tank. Then a vacuum of 22 inches is applied (a near perfect vacuum would be 28 inches) for about  $1\frac{1}{2}$  hours, to withdraw excess preservative from the ties. At the end of this period, the vacuum is equalized, the doors of the retort are opened, and the cylinders are recharged. Ties removed from the retort are switched to a dock and allowed to cool until the next day, when they are transferred to box cars for shipment to field forces.

Numerous tests are conducted from the time a tie is received in the yard until it is treated and shipped. C-shaped irons are driven into the ends of those which might split and open up the interior wood. (S-irons are used on the hardwood ties at Brainerd.) Tests are made to determine moisture content, as a check on the drying process. Other tests determine the receptibility of the tie to treatment with a sufficient amount of preservative. And, finally, the ties are individually inspected before loading for shipment.

When a tie has reached the point where it is to be drilled for spikes, its destination on NP's 6,800-mile system is already known. This is so that it can be prepared for use in track of the varying rail weights employed on the Northern Pacific, and each tie must be drilled accordingly. The territory assigned to the Paradise plant extends from Glendive to Yakima. Within these limits, however, hardwood ties from Brainerd are used in all curves of two degrees and over. Northern Pacific replaces ties in track on a five-year cycle, so every fifth year a particular segment of the railroad is carefully inspected and a determination is made of the ties which must be replaced.

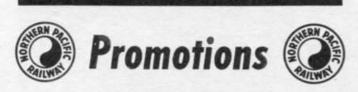
Because of fluctuating demand, the number of ties treated varies. Annually, the company requires an average of 450,000 cross ties, of which about 200,000 are treated at Paradise. Since it was built in 1908, this plant has produced more than 21 million of them.

In addition to cross ties, NP purchases and treats a great amount of timber for larger ties used in switches, as well as timber for bridges and other structures. However, the treatment of cross ties remains the primary function of the Paradise operation.

Of paramount importance to the survival of the tie plant is fire prevention, and such measures that are practiced help reduce the danger of fire throughout the area. The practice of fire and accident prevention is on a 24-hours-a-day, 365-days-a-year basis among the plant employes. All weeds in the extensive tie storage area-there may be up to 400,000 untreated ties and about a tenth that number of treated ties--are eliminated with creosote and chemicals.

On the strength of an outstanding record in 1963, the engineering department, under whose direction the Paradise plant is operated, earned President Macfarlane's Safety Award of Merit. According to Chief Engineer D. H. Shoemaker, the efforts of employes at the plant contributed greatly to this achievement.

"The men at the plant are quite jealous of this record," Shoemaker said, "and because of the nature of their work, we are happy and proud that they have a share in it."



R. W. Humphreys, assistant to the vice presidentoperating, St. Paul, was appointed to succeed M. W. Scott as assistant to the vice president-joint facilities in St. Paul, effective Oct. 1.

J. J. Auge, assistant superintendent of the Idaho Division at Spokane, was named to succeed Humphreys, and J. H. Hertog, special assistant to the general manager, Seattle, succeeded Auge.

In turn, J. C. Bergman, Tacoma Division trainmaster at Centralia, has succeeded Hertog; E. P. Hughes, trainmaster at Helena, was transferred to Centralia; and D. M. Tisdale, road foreman of engines at Dickinson, was promoted to Hughes' former post.

L. O. Aldahl, former Assistant Car Foreman for Northern Pacific at Superior, has been appointed Assistant Car Foreman at Duluth.

J. F. Lynch is new Assistant Car Foreman at Third Street Coach Yard in St. Paul. He was formerly Night Assistant Car Foreman in the same yards.

V. B. Boit, formerly Working Supervisor for the NP at Forsyth, is now Relief Assistant Roundhouse Foreman at Mississippi Street in St. Paul.

J. W. Reinsvold has been appointed Night Roundhouse Foreman at Tacoma. He was formerly Working Supervisor for Northern Pacific in Seattle.



WISE OWL AWARD -- D. T. Capistrant (left), NP Como Shop Superintendent, presents Passenger Carman J. W. Strobel with the Wise Owl Award for exercising care that saved his eyesight. Strobel was working on a baggage car recently when a piece of drill broke and glanced up into his glasses. One lens was broken, but safety glass kept it from shattering.



DOUBLE RETIREMENT -- Assistant Comptroller Dean Wigstrom, center, congratulates Herman Steinbach, left, and Clarence Linn on their retirements in St. Paul. Steinbach, leading AFE Clerk in the District Accountant's Office, retired after 48 NP years. Linn, special accountant in the Comptroller's Office, had 46 years of service.

## Safety Score Board

January 1 thru Sept. 30, 1964

RANK	REPORTABLE INJURIES 1964 1963		CAS.RATIO 1964 1963	
STANDING BY DISTRICTS				
1. Western District 2. Eastern District	73 105	66 73	8.44 12.34	7.66 8.60
STANDING BY DIVISIONS				
<ol> <li>Idaho</li> <li>Rocky Mountain</li> <li>Fargo</li> <li>Yellowstone</li> <li>Tacoma</li> <li>Lake Superior</li> <li>St. Paul</li> </ol>	18 16 11 24 39 16 54	16 14 4 19 36 12 38	6.75 7.076 7.082 8.93 10.47 11.50 18.76	5.92 6.05 2.63 7.13 9.85 8.29 13.05
STANDING BY MAIN SHOPS				
<ol> <li>Brainerd</li> <li>South Tacoma</li> <li>Livingston</li> <li>Como</li> </ol>	1 1 1 6	1 1 1 2	2.08 2.58 2.87 15.56	2.07 2.39 3.01 5.21
STANDING BY CLASS OF E	MPLOY	E		
<ol> <li>Stationmen</li> <li>Enginemen</li> <li>Shopmen</li> <li>Carmen</li> <li>Trackmen</li> <li>Bridgemen</li> <li>Trainmen</li> <li>Yardmen</li> </ol>	15 9 6 10 25 14 39 60	8 9 8 13 20 16 19 46	3.59 4.33 4.67 5.59 6.95 17.46 21.34 37.39	$1.92 \\ 4.03 \\ 6.13 \\ 7.28 \\ 5.58 \\ 20.14 \\ 10.77 \\ 29.36$
MISCELLANEOUS DEPART	MENTS			
Tie General Office & Misc. Tie Chief Special Agent Tie Mechanical Engineers 4. Signal Department 5. Communications Dept. 6. Store Department 7. Dining Car Department 8. Engineering Department 9. Electrical Engineers De 10. King Street Station		0 1 0 2 5 1 2 1 1	0.00 0.00 5.709 5.713 7.55 8.70 9.67 14.72 17.15	0.00 6.14 0.00 6.14 14.71 1.52 4.28 3.27 16.61
TOTAL FOR SYSTEM	210	158	8.69	6.54
Train and Yard Accidents Motor Car Accidents	121 24	173 24		

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WITH NP 51 YEARS -- Edgar L. Williams, chief clerk to the vice president - traffic in St. Paul, says a few words at his recent retirement party. Mr. Williams began service with the Northern Pacific on August 11, 1913. During his NP career he worked with five vice presidents.

## **NP** Transport Takes Third in National Safety Contest

National honors for outstanding safe driver performance were won by the Northern Pacific Transport Company in the Common Carrier Division of the 33rd National Fleet Safety Contest conducted by the National Safety Council.

The Northern Pacific Transport Company fleet, consisting of 83 vehicles and 109 drivers, was awarded third place in the Common Carrier, Truck Division at ceremonies held in conjunction with the 52nd National Safety Congress and Exposition in Chicago.

The award is based on the Company's safety performance from July, 1963, through June, 1964. During this period, the firm's drivers operated 5,484,078 miles and had 1.64 accidents per 1,000,000 miles of operation.



ST. PAULITE RETIRES - G. F. Hoolihan (center), assistant manager of Freight Revenue Accounting, and his wife pose at his retirement party with W. H. Goodyear, manager of Freight Revenue Accounting. Hoolihan retired in St. Paul after nearly 45 years with the NP.



George Adamcik **General Agent** Russell H. Anderson Olaf Andresen Mary T. Arnold Sam Azadian LeRoy E. Best Eugene G. Bray Otis H. Cox Jesse E. Davis Frank E. Dickson William H. Foster Martin E. Frazier Oral E. Freshour Frank L. Fulton Maurice F. Galbraith District Accountant Gerald M. Garritano Coach Cleaner James L. Green Anthony R. Haider Norman T. Haugen John M. Hedberg Roy G. Hill Ernest C. Hunton Frank H. Jordan Henry T.Katzenmaier Check Clerk Charles J. AcAloon Assistant Trainmaster Walter J. McComas Carmon Clemens L. Messerli Asst. Chief Clerk -Domenick Monaco Bernard T. Olson Michael J. Preiner Dewey A. Rhyner

Erwin C. Wass

Leo J. Wrisky

Dallas 30 Trainmaster Minneapolis 38 Freight Carman St. Paul 22 Chief PBX Operator Seattle 35 Section Laborer W. Fargo 43 Blacksmith-Welder Brainerd 44 Sheet Metal Worker I gurel 40 AFE Clerk St. Paul 44 Locomotive Carpenter Livingston 41 Roundhouse Foreman Staples 46 Sheet Metal Worker St. Paul 43 Locomotive Engineer Livingston 50 Asst. Forest Engineer Seattle 41 **B&B** Carpenter Glendive 21 Tacoma 48 Spokane 42 Conductor Mandan 47 Sheet Metal Worker St. Paul 38 Car Foreman Minneapolis 44 Chief Clerk Everett 45 Conductor Dilworth 21 Writer-Up-Man Missoula 12 Locomotive Engineer Yakima 47 St. Paul 48 William H. Leicken Chief Clerk-Yard Office Auburn 50 Jamestown 40 Brainerd 46 St. Paul 44 Pass. & Station Acct. **Tunnel** Watchman Blossburg 39 Section Laborer Glen Ullin 49 St. Paul Section Stockman 43 Telegrapher Columbus 47 Theodore Thorson Roundhouse Laborer St. Paul 38 Henry W. Sagehorn Night Roundhouse Frmn Tacoma 42 Charles W. Sempson Machinist Mandan 41 Locomotive Fireman So. Tacoma 20 St. Paul Stationary Engineer 37

### **NP** Puts in Reservation Charge

Northern Pacific has established a coach seat reservation charge, effective Nov. 1, 1964, on its Vista-Dome North Coast Limited.

By instituting this charge, the NP hopes to avoid the "no shows" which in the past prevented the Railway from accommodating customers who were on hand, but without reservations.

Only one reserved coach seat coupon is required between starting point and destination under this reservation charge plan.





RED LODGE is highest of Montana ski areas, and has over ten miles of runs down the face of 9,416foot Grizzly Peak.



MISSOUL A SNOW BOWL features a beginners' area over 7,000 feet above sea level, and a full 2,600-foot vertical drop.

## NORTHERN PACIFIC 'SKI COUNTRY' SHOWS PROMISE

Further development of three major Rocky Mountain ski areas along Northern Pacific's main line in Montana and Idaho has encouraged the Railway to promote ski trips more zealously than ever this season, according to F. G. Scott, NP's passenger traffic manager.

The three ski resorts are: Red Lodge outside Billings, Mont.; the Snow Bowl near Missoula, Mont.; and Schweitzer Basin at Sandpoint, Idaho.

"Red Lodge is the nearest western mountain ski area to Chicago and the Minneapolis-St. Paul area," Scott said, "and we expect to see a great deal of interest in it from the east end of our line.

"Schweitzer Basin, of course, is just an overnight train ride on the Mainstreeter from Seattle and Portland. Missoula Snow Bowl is also an overnight train trip from the principal north Pacific Coast cities, and approximately a day's trip from the Midwest."

The NP this year has produced a special ski folder, entitled "Northern Pacific Ski Country," on the three areas. Copies can be obtained by writing F. G. Scott, passenger traffic manager, in St. Paul.

The NP will handle all special group arrangements-including accommodations at the ski resorts--upon request. When large groups book passage to one of the Rocky Mountain resorts, the NP sees to it their skis are placed in special racks right on the coach car with the group.



SCHWEITZER BASIN near Sandpoint, Idaho, overlooks beautiful Lake Pend Oreille and has impressive slope accommodations.



ROCKY MOUNTAIN-BOUND skiers enjoy North Coast Limited train ride in the unique Lewis & Clark Travelers' Rest Lounge.