DOE/TIC--10536

COAL RAIL TRANSPORTATION OUTLOOK

Office of Coal

Federal Energy Administration

Washington, D.C. 20461

950 0729

May 1976

MASTER

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EXECUTIVE SUMMARY

The Federal Energy Administration's Office of Coal contacted 16 major railroads in February through April of 1976 to determine their ability to handle coal traffic projected for 1980-85. The study showed:

-- All solvent railroads plan to acquire the equipment they will need to meet increased coal traffic.

-- Most railroads have already installed 130-lb. welded rails.

-- The railroads will be capable of meeting only a normal demand growth projected by the National Energy Outlook. Any sudden increase in coal rail traffic could result in backlogs and delays.

-- The railroads, like the coal mines, seek a near-term, national policy solution to the environmental question: will high sulfur Eastern coals continue in widespread use?

-- Capital availability is not viewed by the railroads as a problem for either expansion of track or rolling stock.

-- The railroads believe that slurry pipeline development would be a serious setback to railroad expansion and financing plans.

-- The ICC now permits only annual rate agreements. They are urged to permit long-term rate agreements to facilitate expansion of facilities.

In short, the solvent railroads can handle future coal traffic without significant U.S. Government help.

The bankrupt railroads, now merged into Conrail, present other problems:

-- By 1985, Conrail will need at least 10,000 new hopper cars.

-- Massive upgrading of existing track and rolling stock are needed.

-- Although several billions of dollars have been made available to Conrail for these purposes, it is not yet clear whether much, if any, of these funds will be used to upgrade coal hauling track or equipment.

Close FEA attention to this problem is needed in the months ahead.

INTRODUCTION

The doubling of coal production by 1985 to meet national energy needs requires an increased capacity for transporting this bulk commodity between producer and consumer. The major and most versatile movement of coal traffic is via the railroads. In order to assure the movement of increased coal production two essential requirements have to be established:

1. a market has to be developed
2. transportation has to be readily available.

This report address the second requirement with regard to railroad transportation. The following sixteen major coal hauling railroads were contacted to establish their ability to rapidly increase their coal traffic.

- Atchison, Topeka & Santa Fe Railroad
- Bessemer & Lake Erie Railroad Co.
- Burlington Northern Inc.
- Chessie Railroad System
- Chicago and Northwestern Transportation Company
- Denver & Rio Grande Western Railroad
- Illinois Central Gulf Railroad Co.
- Louisville & Nashville Railroad
- Milwaukee, St. Paul & Pacific (Milwaukee Railroad)
- Missouri Pacific Lines
- Norfolk & Western Railway Co.
- Penn Central Transport Co.
- Pittsburgh & Lake Erie Railroad Co.
- Seaboard Coast Line & The Clinchfield Railroads
- Southern Railway System
- Union Pacific Railroad

This report, developed by Dr. M. C. Schneider and Mr. W. McClanahan, consists of five pages of summary information divided into Solvent and Bankrupt railroads followed by individual summaries of the sixteen railroads listed alphabetically.

COAL RAIL TRANSPORTATION OUTLOOK

MAY 1976

A majority of American coal carrying railroads, which transport most of America's domestic and export coal, appear to be capable of handling any growth in coal traffic that they feel can reasonably be expected during the next 10 years.

The only significant possible exception are found among the bankrupt Eastern roads. The Penn Central is the largest volume coal carrier in this category, but several smaller insolvent Eastern roads also have key functions in coal delivery because of their strategic locations and essential role in connecting shipments between other roads or from other railroads to water terminals or to final destination.

These conclusions and those that follow, were reached through contacting 16 principal coal hauling railroads by the FEA Office of Coal February through April. Information obtained has been augmented by talks with the Department of Transportation and the American Association of Railroads and by reference to information and testimony before congressional committees by railroad officials.

The principal points made, and issues raised, by the railroads were:

Solvent Railroads

1. All of the solvent roads believe they will be able to acquire needed equipment commensurate with growing demand for coal transportation. Several noted that the lead time for manufacturing railroad equipment is generally less than opening new coal mines or building new electric generating plants.

2. This group of roads also anticipate little or no trouble with making any needed improvements to track. Most of them already have largely installed heavy duty (130 pounds), welded rails, and have ongoing repair and upgrading programs.

3. The confidence expressed in numbers 1 and 2 above is contingent on coal demand growth being reasonably orderly and spread evenly over the next decade. If there should be a sudden large unanticipated spurt in demand for new equipment, possibly caused by a government decision to move much faster on turning from dependence on foreign oil to far greater utilization of domestic coal than has so far taken place, most of the roads consulted feel there might be some problems. If all or several large roads stepped up orders for cars, locomotives and steel rails at the same time, there could result a shortage of steel plate, castings and forgings, and some component parts such as wheels, which are often produced by subcontractors, including a number overseas.

4. Most of the Eastern roads are concerned over the uncertainties they face because of the large volumes of high sulfur coal which practically all of them now handle, and which will ultimately be uneconomical for fuel use under present clean air standards. They also feel that the government has failed to make a sufficiently positive public commitment to using domestic coal, with the need for dependable fuel given claim to national priorities at least comparable to the presently overwhelming commitment to environmental control, and levels of air quality, or rigid methods to achieve such levels, which may not always be justified. They particularly emphasize that such a national commitment to coal must be long term, to justify the risk and cost of opening new mines and building the facilities to transport and consume many billion of tons of U.S. coal.

5. The solvent railroads as a whole are not concerned over the availability of capital for new facilities. Many pointed out that most new rolling stock would be acquired to handle new deliveries or loadings on their line, and with such new business assured there should be no problem in financing. Others noted that many of the new cars they will haul will be in unit train service with the hoppers, and sometimes the locomotives, owned by the customers or, occasionally, the shipper.

6. Several of the Western roads, and particularly the Burlington Northern, expressed fears that their ability to build plant and equipment needed to meet future demand might be hampered by the threat of coal slurry pipelines in the West. BN has testified before a Senate Committee that one proposed line, from Wyoming to Arkansas, could deprive it of 25 million tons of coal traffic, and $150 million in gross revenue annually.

7. Finally, several railroad officials urged a rate setting change by ICC which would permit long term rate agreements to facilitate long term unit train contracts. At present, rates are set and approved by ICC on a 12 months basis.

Bankrupt Railroads

The problems faced in meeting both present and future coal hauling demands by seven bankrupt railroads, which, by act of Congress were amalgamated under Conrail April 2, are more serious than those of the solvent coal hauling roads. However, since this is right in the period of changeover, it is difficult to determine now just how successfully these problems can be overcome.

The extent of the difficulty these roads face is caused by the fact that for several years they have not had funds available to maintain first class track conditions, and to replace or repair old coal cars and acquire new cars and locomotives adequate to meet substantial increases in coal traffic demands.

By far the most important of these insolvent roads is the Penn Central System, which hauled 74.5 million tons of coal in 1974. (The four other largest solvent carriers in 1974 were: N&W - 79 million tons, Chessie System - 63.6 million tons, L&N - 52 million tons, and Southern - 36.6 million tons.)

Of the smaller bankrupt roads, the Reading, which now operates the only coal dumping dock in New York Harbor, the central of New Jersey, and the Erie Lackawana, are important transport links. The other three are the Lehigh Valley, the Ann Arbor and the Lehigh and Hudson.

Of these seven railroads, it had been expected that the Erie Lackawana would be acquired by the Southern and a considerable portion of the Penn Central by the Chessie

System. However, failure to reach an agreement with several unions over job reductions wrecked this plan at the last minute, so that all portions of these roads went under Conrail.

Conrail did not accept 5,700 miles of track on these railroads located in 18 States. Some 3,000 miles of this total is to be abandoned, and the other 2,700 miles, all little used tracks, are expected to be continued under Federal and State subsidy.

A portion of this abandoned track will be protected under the new Railbank plan. The Railbank concept, that originated in January 1975 in the FEA's Office of Coal, has now become law (Section 810 of the RRRR Act of 1976). Consequently, some of these coal hauling lines, although abandoned for the purposes of current use, could be kept intact as a land right of way.

A current FEA Office of Coal study concludes that the Railbank concept for 800 miles of potential coal hauling track designated as appropriate for railbanking in the USRA Final System Plan is also an economically sound Federal action. The railbanking of these abandoned bankrupt rail lines would return to the U.S. Treasury, in terms of discounted present net value, an excess over the acquisition cost on almost all the 800 miles of rail lines studied.

Because of the immediate uncertanties regarding the seven insolvent roads now coming under new federally supervised management, we have included only the largest, the Penn Central System, in the survey. Its situation is believed to generally reflect that of the others, on a varying scale.

Penn Central - There is an immediate need for 3,000 new hopper cars, and another 1,600 will be needed by 1980 if the railroads' projection of traffic growth prove accurate. By 1985, the Penn Central expects to require more than 10,000 new hopper cars, net.

The above figures are based on the company's projection that coal traffic demands will increase from 74.5 million tons in 1974 to 142 million tons by 1980 and to 225 million tons by 1985.

Although most of Penn Central tracks are designed to carry the large 100 ton coal cars, a lot if it is in poor condition causing sharply reduced speed and resulting in costly and traffic disrupting derailments. A great deal of repair work and upgrading is needed, as is a much better continuing program of track maintenance.

Penn Central spokesman say that because of lack of funds very little has recently been done to overcome these shortcomings, or to build up capacity and capability for future coal load growth.

The PIES model projections, assuming $13 per barrel as the cost of imported residual oil, is for 1985 production in Northern Appalachia to increase by only 19 million tons above the 1975 total. (Production in 1980 is forecast by PIES at about one million tons below 1975, due to an expected shut down of 100 million tons of high sulfur production!)

Northern Appalachia - all of Pennsylvania, Maryland, Ohio and Michigan, and Northern West Virginia - is where Penn Central originates practically all of its coal.

On the other hand, PIES forecasts the greatest regional production growth in the East in Central Appalachia - Virginia, Southern West Virginia, East Kentucky and part of East Tennessee. This projection is for an increase of 64 million tons by 1980 and 92 million by 1985. Of the large coal haulers serving the region, only the N&W has forecast large increases in tonnage over the period - from 79 million in 1974 to about 105 million in 1980. The L&N (52 million in 1975) expects the gain to be "large" by 1985, but offers no tonnage figures. The Chessie System and Southern look for "moderate" and "modest" increases, respectively, by 1985.

Atchison, Topeka & Santa Fe Railroad

The Santa Fe, although one of the nation's largest railroads, in 1975 only transported about 4.5 million tons of coal. This is roughly divided evenly between coal originated on its lines and coal originated by other railroads and carried to the final destination by the Santa Fe. They have made no projections as to coal traffic as far ahead as 1985, but by 1980 they anticipate that coal originated will amount to some 12-20 million tons and they will haul an additional 8-10 million tons picked up from other railroads. The reason for the 8 million ton spread in projections was given as problems being met by Western producers in obtaining mine permits. These permits may delay some anticipated mines being opened within 4 years. Also, there is the uncertainty remaining over the possible building of slurry pipelines in the West. There are two active mines now operating on Santa Fe lines, both in New Mexico. A third mine, which has been producing, is now closed because of a labor dispute between the new owners and the United Mine Workers of America as to the proper union representative for its workers. The present coal volume is slightly ahead of previous years but not comparable to what they anticipate in the foreseeable future.

The Santa Fe has a total of 30,000 gondolas and hopper cars for all services. The gondolas are rotary dump types, usually designed principally for coal. Most of the hopper cars are suitable for coal service although they can be used for gravel, grain and other commodities. They anticipate no trouble in obtaining all the hopper cars necessary. This railroad purchases most of its cars but has the capability of building some. They are confident that from both sources there will be sufficient lead time in demand to permit them to acquire all of the new coal cars necessary. They also do not anticipate any problems with financing additional cars. However, this railroad made a point of suggesting that consideration be given to some system whereby tariffs could be set for more than 1 year, which is the present limitation. Then they could cover a long-term contract for unit train hauling of coal from a specific mine to a specific destination. This could be adjusted each year by a formula which would consider changes in labor and other costs. This would greatly stablize the coal transportation picture as far as the railroads are

concerned and permit them to establish lower long-term tariffs. Long-term contracts would benefit the consuming public, and would give the railroads an assurance of a major shipment. For this they would provide locomotives, cars, and adequate equipment and have assurance that roadbeds would not be taken away after a short period and switched to a slurry pipeline or some other form of transportation.

Most of the Santa Fe track is currently in good condition but some may need up-grading between now and 1985 as the number of unit trains in service increases. They anticipate that practically all of the future coal hauling growth will be by unit trains. In general, their track speed now is 40 m.p.h. loaded and 50 m.p.h. empty and track is continually being up-graded as needed.

All of the coal originated by the Santa Fe now comes out of New Mexico. One unit train originates at York Canyon, New Mexico to ship about 200,000 tons per year of metallurgical coal to a Kaiser steel plant in California. The railroad picks up coal from the Denver, Rio Grande and Western which originates in Colorado and Utah including 2 unit train deliveries to the Santa Fe at Barstow, California for delivery to Ventura, California. Other deliveries are to various utilities and industrial plants in Colorado, Utah and other states serviced by the Santa Fe and adjoining railroads. Since a 5-fold increase by 1982 over 1975 would only be about 22 million tons, they would anticipate no problems in handling it. In fact, they expect their traffic to reach or exceed this figure by 1980 as noted above. They expect unit trains to continue to increase and to equal 75-90% of the total coal haulage in the future. They now handle 4-5 unit trains per week including originated and destination. The sulfur content of both metallurgical and steam coal on their lines is only about 0.5%. The Btu content of the metallurgical coal is 12,000 Btu's per lb. and of steam coal, 10,500 Btu's per lb. The railroad has no competitive lines in the coal field where they originate tonnage, but they have several competitors for destination which they haul. They have no competitive barge lines but two of the proposed slurry pipelines would enter into territory they serve. The Itse line running across their territory to Arkansas, they feel, would be competitive for some amount of coal, and in addition, Houston Natural Gas Company has just announced a proposed slurry line from Colorado to Houston which would cross several Santa Fe points and some of those of their

feeder lines. The railroad has no major river crossings that offer any restrictions on transportation. They connect with the Great Lakes at Chicago, with the Pacific Ocean at San Francisco and Los Angeles areas, and with the Gulf of Mexico in Glavaston, Houston and Beaumont, Texas. At present they are not delivering coal to these ports. They also connect wit a number of navigable rivers including the Arkansas, Catoosa in Oklahoma and possibly others, but are handling no shipments to river barges. The company owns all of its hopper cars now but anticipates that utility ownership may be a big factor in the future. They can handle 100 ton hopper cars on all of the lines and many of the present cars are of this size.

They have applied to ICC for no rate changes but they do have an application pending for a new railroad running from Grants, New Mexico on the main line to an area slightly East of Chaco in the Northwestern part of the state and near the well known Four Corners area. This will serve a coal area now being developed, initially 3 mines of 4-5 million tons each per year, which are to be opened there. The Environmental Impact Statement on the new 72 mile track has been filed and they anticipate no serious problems in obtaining a permit. They are reluctant, however, to forecast a date for completion of the railroad and the 3 mines because of the possibility of delays in licensing and other legal questions that now affect practically all such new ventures. The coal from this area will probably go to Arizona, New Mexico and Texas. The hoped for target date is to have the new line in operation by 1979.

ATCHISON, TOPEKA AND SANTE FE RAILWAY CO.

80 East Jackson Blvd., Chicago, Illinois 60604
Telephone: 312/427-4900

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F.J. Wright, Assistant Vice President - Traffic
J.A. Stevenson, Assistant to Vice President - Traffic
A.A. Moser, Assistant to Vice President - Sales
J.A. Grygiel, General Manager - Freight Traffic
J.B. Hardin, Assistant General Manager - Pricing
H.W. Elliott, Manager - Traffic

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Telephone: 415/781-7600

J.R. Walter, Manager - Traffic

125 East 6th Street, Los Angeles, California 90014
Telephone: 213/628-0111

F.L. George, Manager - Traffic

9th & Jackson Streets, Topeka, Kansas 66612
Telephone: 913/235-0041

R.T. Snook, Manager - Traffic

Suite 525, 1810 Commerce Street, Dallas, Texas 75201
Telephone: 214/747-6301

F.H. Hemphill, Manager - Traffic

Santa Fe Building, Amarillo, Texas 79101
Telephone: 806/376-5131

E.C. Burnes, Manager - Traffic

Suite 2000, 330 Madison Avenue, New York, New York 10017
Telephone: 212/953-1320

M.M. Benya, Manager - Traffic

214 First Street, S.W., Albuquerque, New Mexico 81701
Telephone: 505/247-0741

J.P. Bullard, Manager - Traffic

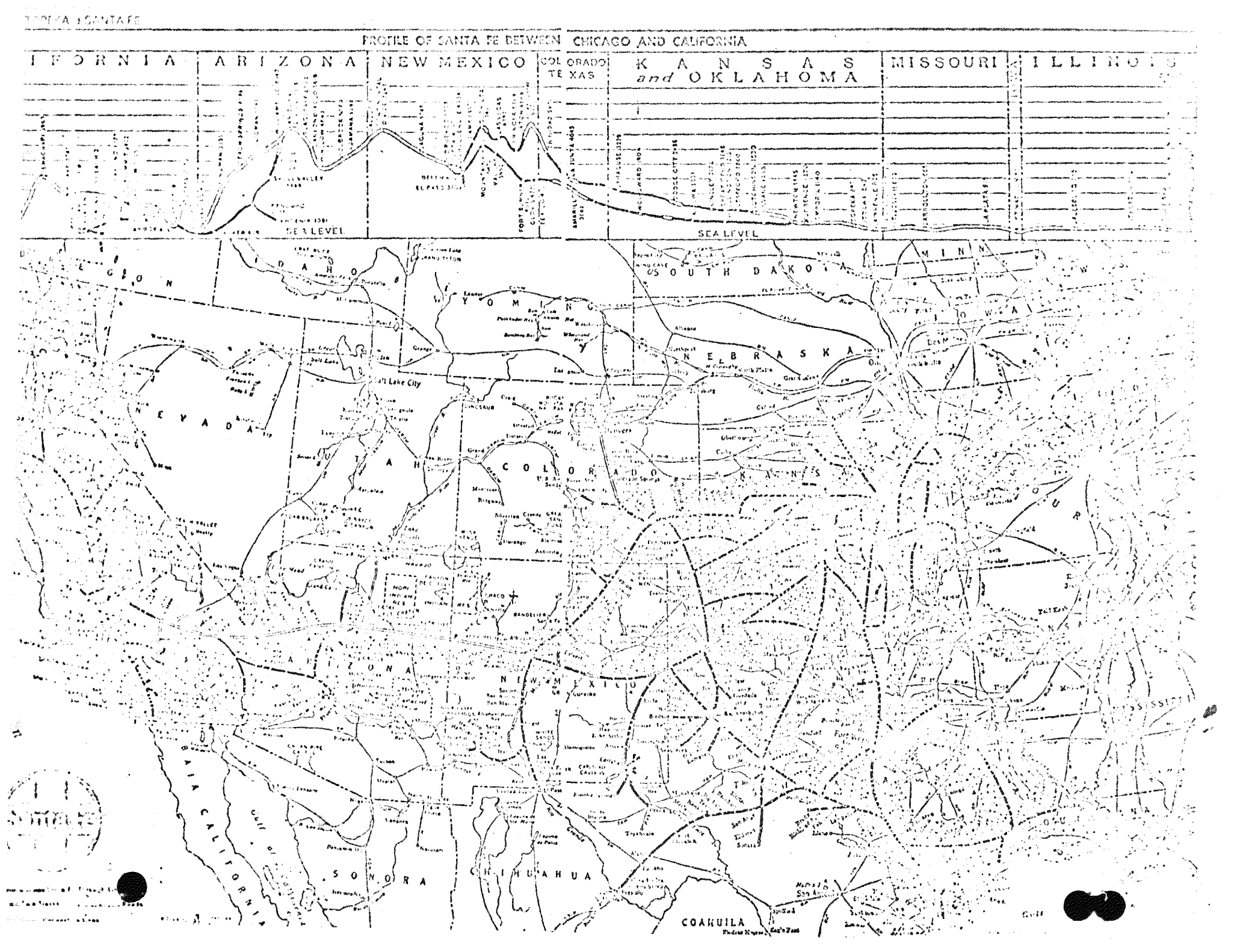
858 First National Bank Building, Phoenix, Arizona 85004
Telephone: 602/258-8521

H.G. Jones, Manager - Traffic

Territory served: Chicago and West, including Illinois, Iowa (Ft. Madison), Missouri, Kansas, Colorado, Oklahoma, Texas, Louisiana, New Mexico, Arizona and California.

1974 Coal Tonnage Moved: 4,544,000 T.
Unit Train Tonnage: 3,252,000 T.
Per Cent of Total 72%

PROFILE OF SANTA FE BETWEEN CHICAGO AND CALIFORNIA



BESSEMER & LAKE ERIE RAILROAD CO.

A large coal traffic increase is expected by 1985 due to an expected increase in coal demand. Six hundred new hopper cars were received in 1974-75 and more are on order for the next several years. These are mostly 100 ton cars which are owned by the railroad. The track speed is 50 MPH and this is to remain indefinitely. Continual upgrading of the rail line is standard policy.

Coal originates in the Pittsburgh area and some is transfer coal from other railroads. Most of this coal is exported to Canada through the Lake Erie port of Conneaut, Ohio. The use of unit trains is on the increase averaging 25 per week. Mostly high sulfur coal with 11-13,000 BTU's dominates this coal traffic volume. Some competition is from the Penn-Central System and there are no competing barge lines. There was a competing coal slurry pipeline. This pipeline did carry coal until the railroads lowered their rates. The major river crossing is at the Allegheny River northeast of Pittsburgh. River transfer facilities occur at the Monongahela River southeast of Pittsburgh.

Coal traffic volume is currently down. A large, rapid increase by 1982 has not been contemplated, but the railroad is expecting to expand. The main needs for a large, rapid increase, as much as five-fold, by 1982 would be a detailed study of the total problem to pinpoint where potential problems may exist. Excluding such a study the major bottleneck would probably be the shortage of hopper cars.

Problem: The lack of detailed studies to identify weak points in the rail transport picture prior to a rapid increase in coal traffic will reduce the U.S. ability to respond effectively to a rapid coal demand increase. Railroads that handle most of the coal traffic should be encouraged to make studies and have contingency plans to allow an orderly rapid coal traffic increase.

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Roland J. Hoch, Mgr. Marketing
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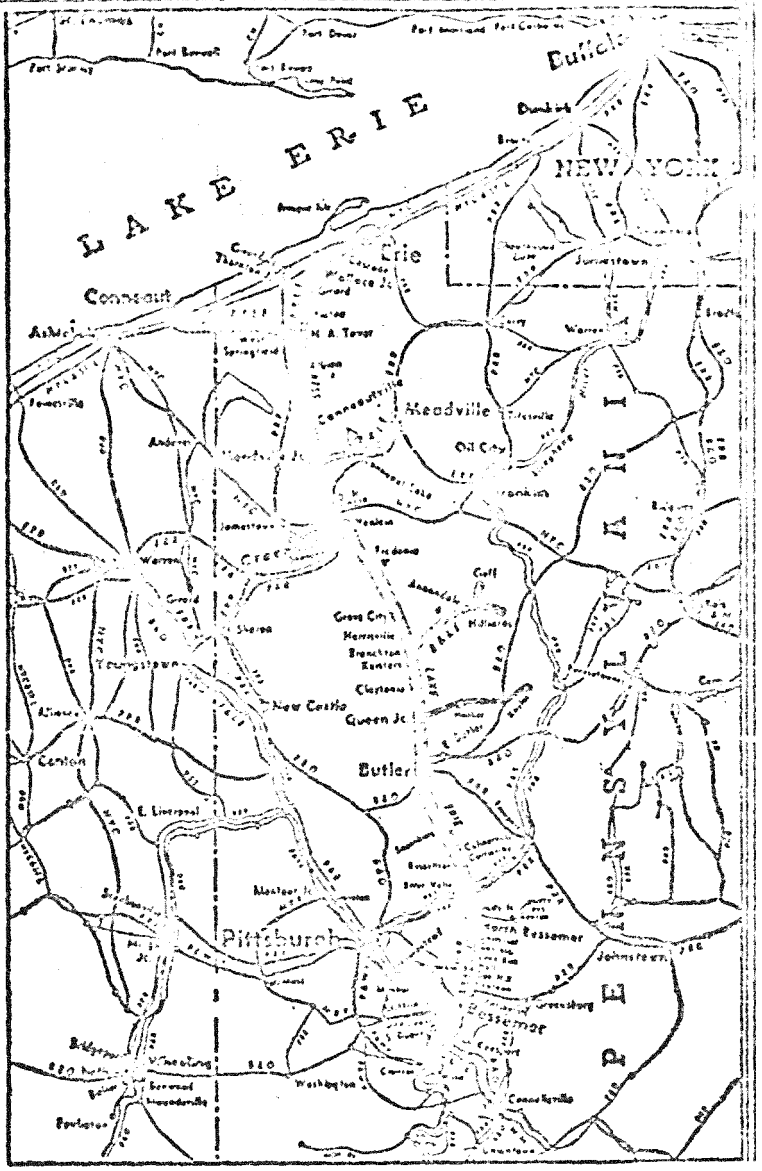
Guy A. Rea, Asst. to Mgr. of Pricing
James G. Leonardo, Supv. Marketing
Thomas W. Durkin, Coal Serv. Rep.
Daniel J. Humphrey, Coal Sales Rep.

Territory Served: Pittsburgh, Freeport, Butler-Mercer coal origin groups. Operates from North Bessemer, Pa., through Saxonburg, Pa., Butler, Pa., Greenville, Pa., to Erie, Pa., and Conneaut, Ohio. In addition extensive portions of Ohio, West Virginia, Maryland and Pennsylvania are served through connections with BO, PC, EL, P&S and Montour railroads, and with barge to rail transfer facility at Duquesne Wharf, Pa.

1974 Coal Tonnage Moved: 8,700,000 T.
approximately 63% moved in volume shipments.

General Offices: 620 Grant Street, P.O. Box 678, Pittsburgh, PA 15230—Tel. 535-6420,
Area Code 412. Operations: P.O. Box 471, Greenville, PA 16125



BURLINGTON NORTHERN INC.

The Burlington Northern is by far the most optimistic of the coal carrying railroads over expected traffic growth in that fuel during the next decade.

In view of the anticipated great production expansion in the Fort Union fields of Wyoming and Montana, and the continuing turn toward low sulfur western coals by utilities, BN predicts a growth in coal carried of from 16 million tons in 1974 to between 140 and 150 million tons by 1980. While no solid projections have been made beyond this, railroad spokesmen say that some predictions have indicated total coal volume of 225 million tons by 1985, and this is being used as a "target".

The railroad has an adequate supply of hopper cars at present, but will need 24,000 by 1980. BN Chairman Louis W. Menk told a Senate Committee last summer that the company would require $454.5 million for new coal transporting rolling stock by 1980. Some of the new equipment will be purchased through conventional equipment trust methods, other cars and locomotives will be leased, and in most cases, he said, cars will be purchased by the electric utilities which will use them. This accounts for the railroads expected acquisition of only 3,250 cars, against the total requirement for 24,000 new cars by then.

The company's track is generally in adequate condition for near term traffic needs, and is continually being upgraded. Track speed is generally about 45 mph.

Most of the BN's self-originated coals which, as noted, come from Montana and Wyoming, is delivered to Texas, the Northern midwest and to Mississippi River points for transfer to other railroads or barges for final delivery. Competition comes from the Missouri Pacific and Chicago and Milwaukee railroads and future competition may develop from coal slurry pipelines now being considered or planned for the west. BN says that 25 million tons of coal traffic per year, which one planned pipeline would haul from Wyoming to Arkansas, would mean $150 million per year in coal freight revenue lost to the railroad.

BN expects unit trains in operation to increase from 55 per week to about 200 by 1985, although most of the cars, as noted earlier, will be owned by utility customers. In addition to transfer points on the Mississippi and Missouri Rivers, the railroad hauls coal to a dumping dock on Lake Superior, and is building a new 50 mile track in the Gillette, Wyoming, area in conjunction with the Chicago and Northwestern railroad. To meet a five-fold coal traffic increase by 1982 would not pose insurmountable problems, since it is already expected to handle almost a four-fold increase by 1980. However, it would likely necessitate its capital improvement program being increased to some $900 million, with considerable more track improvement and replacement than is now being contemplated in that period. It would also require a continuation of utilities' willingness to purchase their own cars in the required numbers.

Problems: Mr. Menk told the Senate Committee that the company now foresees a need to finance road and equipment improvements of about $1 billion. This will include substantial ballasting and rail replacement work, on one route in particular, he said. It will be necessary to sell a large bond issue or issues to raise the necessary funds. Somewhat later the BN will have to make larger investments "to increase the capacity of other segments of our lines" to meet the requirements of the heavy operations which face us, he added. He expressed concern that construction of competing slurry pipelines to transport coal might restrict realization of an appropriate return on these interrelated investments which will depend greatly on the anticipated economies of scale.

The BN, along with several other roads, also has advocated a statutory authorization of a freight rate structure that would make possible long term rate assurances to provide rail shippers with incentives for initiating and continuing rail use for substantial, predetermined periods.

Mr. Menk told the Senate Committee that adoption of some such "contract rate" or other similar rate structure to accomplish this objective would probably require Congressional amendment of the Interstate Commerce Act.

Under the Interstate Commerce Commission interpretation of the Interstate Commerce Act, freight rates are now filed for a 12 months period. Although they are usually

renewed at the same level, there is not assurance that they will be, and thus railroads feel they are at a disadvantage in negotiating coal carrying agreements at a specific and foreseeable level over a period of several years.

Burlington Northern Inc.
176 E. Fifth St., St. Paul, Minn. 55101
Tel. 612-298-2121

N. M. Lorentzsen, Pres. Transport, Div.
M. M. Scanlan, Vice Pres. Marketing
R. W. Morrison, Asst. Vice Pres. Mkt. Devel. (Energy & Metall.)
G. R. Powe, Asst. Vice Pres. Commodity Mktg. (Energy & Metall.)
R. S. Sandgren, Dir. Pricing (Energy & Metall.)

Territory Served: From Chicago, Ill., across the northern and central regions of the U.S. to Portland, Seattle, Vancouver, B.C., including states of Ill., Ind., Ky., Mo., Kans., Iowa, Wyo., Wis., Minn., N.D., S.D., Mont., Idaho, Wash., Ore., Calif., Neb., Colo., Tex., Manitoba and British Columbia.

1974 Coal Tonnage Moved: 31,000,000 T.
Unit Train Tonnage: 21,000,000 T.
Per Cent of Total: 68%

Loading Point: Colstrip, Mont.
Cap: 10,000 T
Destination: Cohasset, Minn.
Time: 5 days
Rate: $3.63

Loading Point: Belle Ayr, Wyo.
Cap: 10,000 T
Destination: E. St. Louis, Ill.
Time: 5 days
Rate: $7.66

Loading Point: Belle Ayr, Wyo.
Cap: 10,500 T
Destination: Pueblo. Colo.
Time: 3 days
Rate: $3.33

Loading Point: Decker, Mont.
Cap: 5,300 T
Destination: Minneapolis, Minn.
Time: 6 days
Rate: $6.75

Loading Point: Colstrip, Mont.
Cap: 6,600 T
Destination: Minneapolis, Minn.
Time: 5 days
Rate: $5.32

Loading Point: Colstrip, Mont.
Cap: 2,000 T
Destination: Billings, Mont.
Time: 2 days
Rate: $1.74

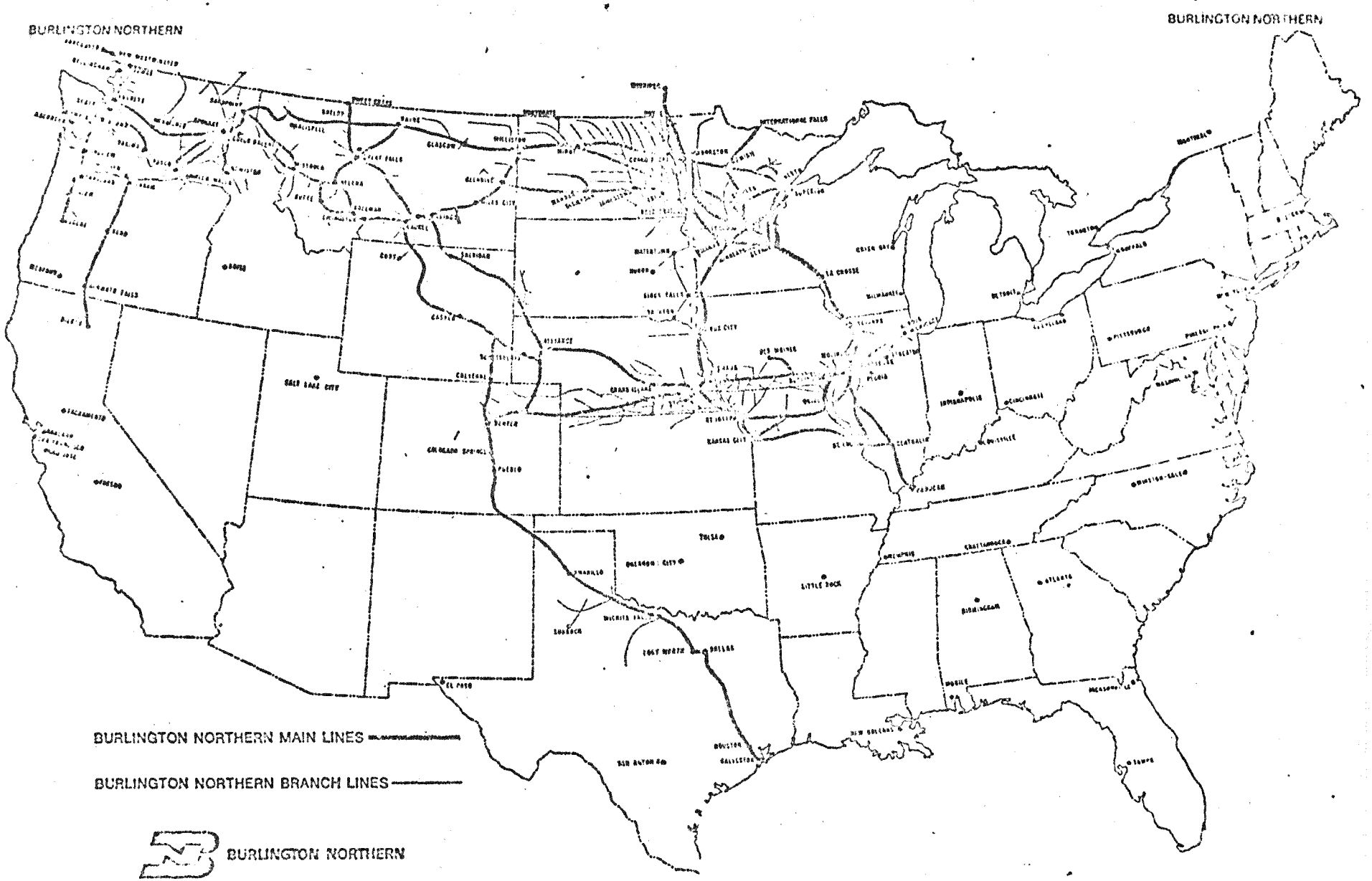
Loading Point: Zap, N.D.
Cap: 4,000 T
Destination: Glenharold, N.D.
Time: Daily
Rate: $.48

Loading Point: So. Illinois
Cap: 7-10,000 T
Destionation: Machens, Mo.
Time: 30 hours
Rate: $1.63

Loading Point: Sesser, Ill.
Cap: 12,500 T
Destination: Oak Creek, Wis.
Time: Bi-Weekly
Rate: $3.64

Loading Point: Decker, Mont.
Cap: 10,000 T
Destination: Havana, Ill.
Time: 5 days
Rate: $9.25

Loading Point: Colstrip, Mont.
Cap: 6,600 T
Destination: St. Paul, Minn.
Time: 5 days
Rate: $5.58



Combining the Former Great Northern, Northern Pacific, Chicago, Burlington &

CHESSIE RAILROAD SYSTEM

(Includes the Chesapeake & Ohio, the Baltimore & Ohio and the Western Maryland Railroads)

By 1985 a moderate increase in coal traffic is expected due to an expected increase in the demand for coal. Hopper cars are sufficient to meet current needs. Within the next 2-4 years, or before 1980, 16,000 cars are on order and are expected to be in use. After 1980 additional hopper cars are expected to be ordered. These cars are owned by the Chessie System which can handle 100 ton cars. The tracks are continually being upgraded and the track speeds vary according to the condition of that particular section of the line at any given point in time.

Most of the coal originates in West Virginia, Kentucky, and Pennsylvania and is exported from Hampton Roads, Virginia, Baltimore, and Toledo, Ohio. A portion of the domestic coal is consumed in Michigan utilities. Unit train use is on the increase averaging 50 trains per week. The coal transported consists of both low and high sulfur coal with an average BTU of 12,000 per pound. Competition is mainly from the Norfolk and Western railroad, and with barge lines competing along the Ohio River. No coal slurry pipelines are planned in this region. Major railroad river crossings occur at the Ohio and Mississippi Rivers, with coal transfer facilities at Huntington, W. Va., on the Ohio River and Glenwood, Pa., on the Monogahela River. Lake and ocean port facilities are located at Toledo and Lorraine, Ohio; Lovington, Michigan; Baltimore and Newport News, Va.

Coal volume is currently down. The question of a large, rapid increase in coal traffic was a difficult question for the Chessie System to answer without some form of study. However, the minimum would be a distinct increase in hopper cars, locomotives and track maintenance. No constraints are anticipated to the expected normal expansion of coal traffic.

Problem: This particular railroad system is set up to export a large volume of coal. If foreign markets could be expanded their facilities could be put to better use.

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2104 One Charles Center
Baltimore, Md. 21201
Tel. 301-237-2000

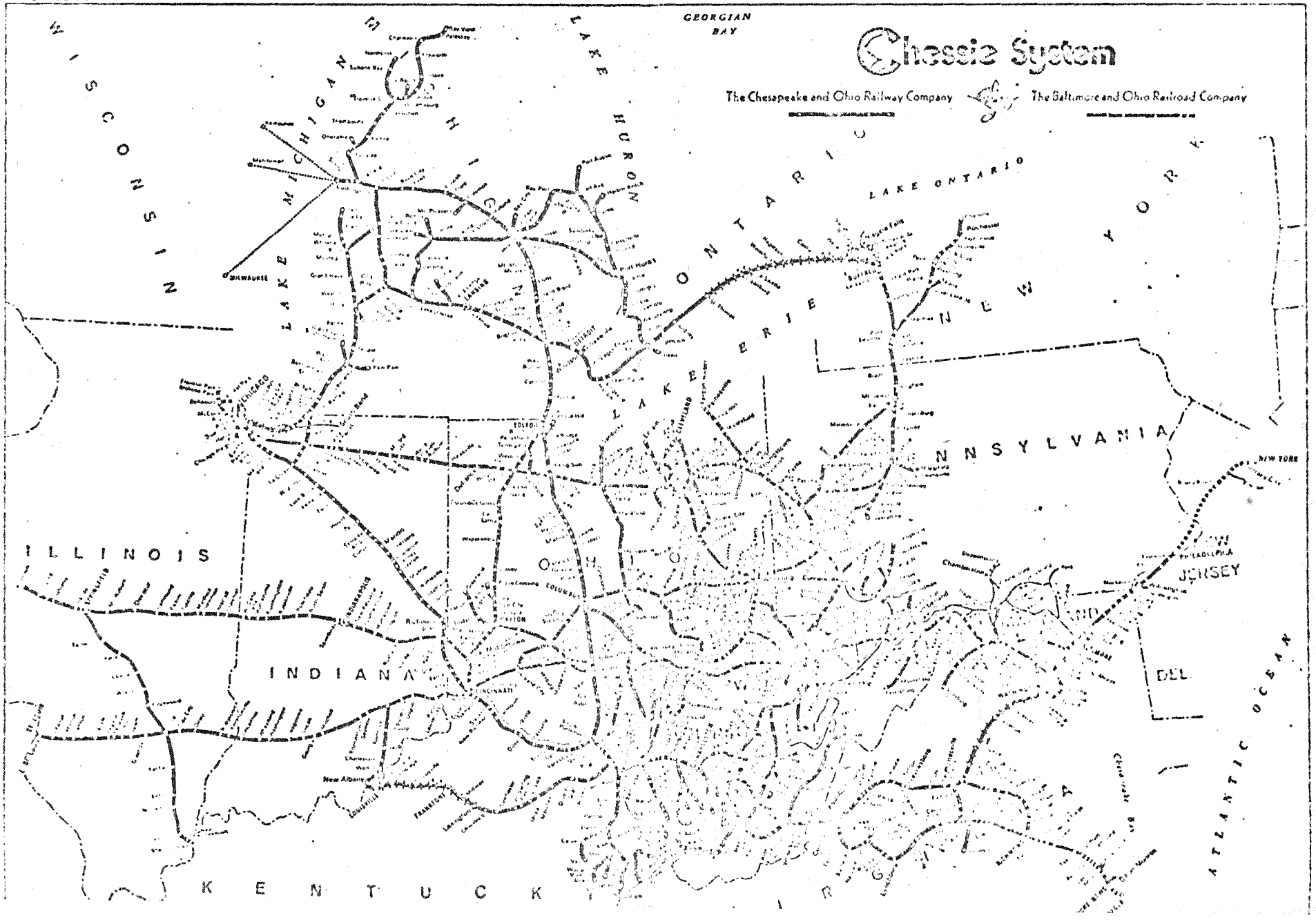
G. M. Riley, Asst. Vice Pres. (Rates)
100 Operating Headquarters Bldg.
Huntington, W. Va. 25704
Tel. 304-525-0341

Fred R. Toothman, Asst. Vice Pres. (Development)
12 Grant St.
Pittsburgh, Pa. 15219
Tel. 412-261-6220

C. E. Schroeder, Dir. Iron Ore Traf.

1974 Coal Tonnage Moved: C&O 63,636,774 T
B&O 43,898,536
Chesapeake and Ohio Railway Co.
Baltimore and Ohio Railroad Co.

CHESSIE SYSTEM



A large coal traffic increase is expected by 1985 due to the new 116 mile rail line to be constructed through the Powder River Basin coal deposits in Wyoming. Hopper cars are currently in surplus but in anticipation of increased coal traffic more cars are currently on order to meet the anticipated demand. The current maximum track speed is 50 MPH for unit coal trains and this is expected to be increased by 1985 as the track is continually upgraded. Present coal traffic originates in southern Illinois for northern Illinois and Wisconsin markets. Future coal traffic increases will originate along the new railroad line in Wyoming for Texas, Arkansas, Illinois and Wisconsin markets. Present coal traffic volume is up over last year. A five-fold increase by 1982 would require a considerable investment to upgrade track and increase the number of hopper cars and locomotives. What is needed to accomplish such a feat are iron-clad contracts. Unit trains average about 35 per week and are on the increase. The coal is high sulfur, high BTU from Illinois, and low sulfur, low BTU from Wyoming. Competing rail lines are primarily the Burlington Northern and the Chicago - Milwaukee. No barge lines are in direct competition but the proposed western coal slurry line could reduce coal traffic. Major water crossings occur at the Missouri and Mississippi Rivers with a proposed barge transfer facility planned for St. Paul. Port facilities occur indirectly through Chicago. The hopper cars are owned by both utilities and the railroad. Most of these cars are 100-ton capacity. No constraints are expected to coal traffic increases as the railroad is currently expanding. This expansion is contingent upon the coal production in Wyoming coming on line.

Problem: The rapid development of the new rail line in eastern Wyoming, which is to be constructed in conjunction with the Burlington Northern Railroad, is essential to increased low sulfur coal production. This new rail line is designed to go through the Powder River Basin coal deposits. This new rail line should be encourged at all levels of State and Federal government for rapid completion.

Chicago and Northwestern Transportation Co.
400 W. Madison St.
Chicago, Ill. 60606
Tel. 312-454-6000

R. A. Sharp, Asst. Vice Pres. Marketing Planning
J. R. Kunkel, Asst. Vice Pres. and Dir. Rates and Divisions
R. E. Gotshall, Gen. Market Mgr.
R. N. Boesen, Market Mgr. Energy
E. P. Donnelly, Asst. Market Mgr.
G. E. Cordes, Market. Asst.
G.G. Galey, Market Analyst

Territory Served: Ill., Wis., Minn., Iowa, Mo., Neb., Wyo., N.D., S.D., Major gateways served: Chicago, E. St. Louis, Kansas City, Omaha, Fremont, Sioux City, Minneapolis, St. Paul, Duluth-Superior, Milwaukee.

1974 Coal Tonnage Moved: 14,572,391 T
Unit Train Tonnage: 10,322,459
Per Cent of Total: 70.8%

Loading Point: Elm, Ill.
Cap: 8,500 T. Min.
Destination: Shebogyan, Wis.
Time: 3-day cycle
Rate: $2.57

Loading Point: Orient, Ill.
Cap: 11,500 T. Min.
Destination: Oak Creek, Wis.
Time: 3-day cycle
Rate: $3.64

Loading Point: River Queen, Ky.
Cap: 11,500 T. Min.
Destination: Oak Creek, Wis.
Time: 4-day cycle
Rate: $4.14

Loading Point: Sesser, Ill.
Cap: 9,500 T. Min., 12,500 T. Max.
Destination: Oak Creek, Wis.
Time: 3-day cycle
Rate: $3.64

Loading Point: Monterey Mine No. 1, Ill.
Cap: 5,500 T. Min., 6,500 T. Max.
Destination: Powerton, Ill.
Time: 1-day cycle
Rate: $1.74

Loading Point: Dana, Wyo.
Cap: 90 cars, 9,000 T. Min., 100 car Max.
Destination: Waukegan, Ill.
Time: 5-day cycle
Rate: $7.03

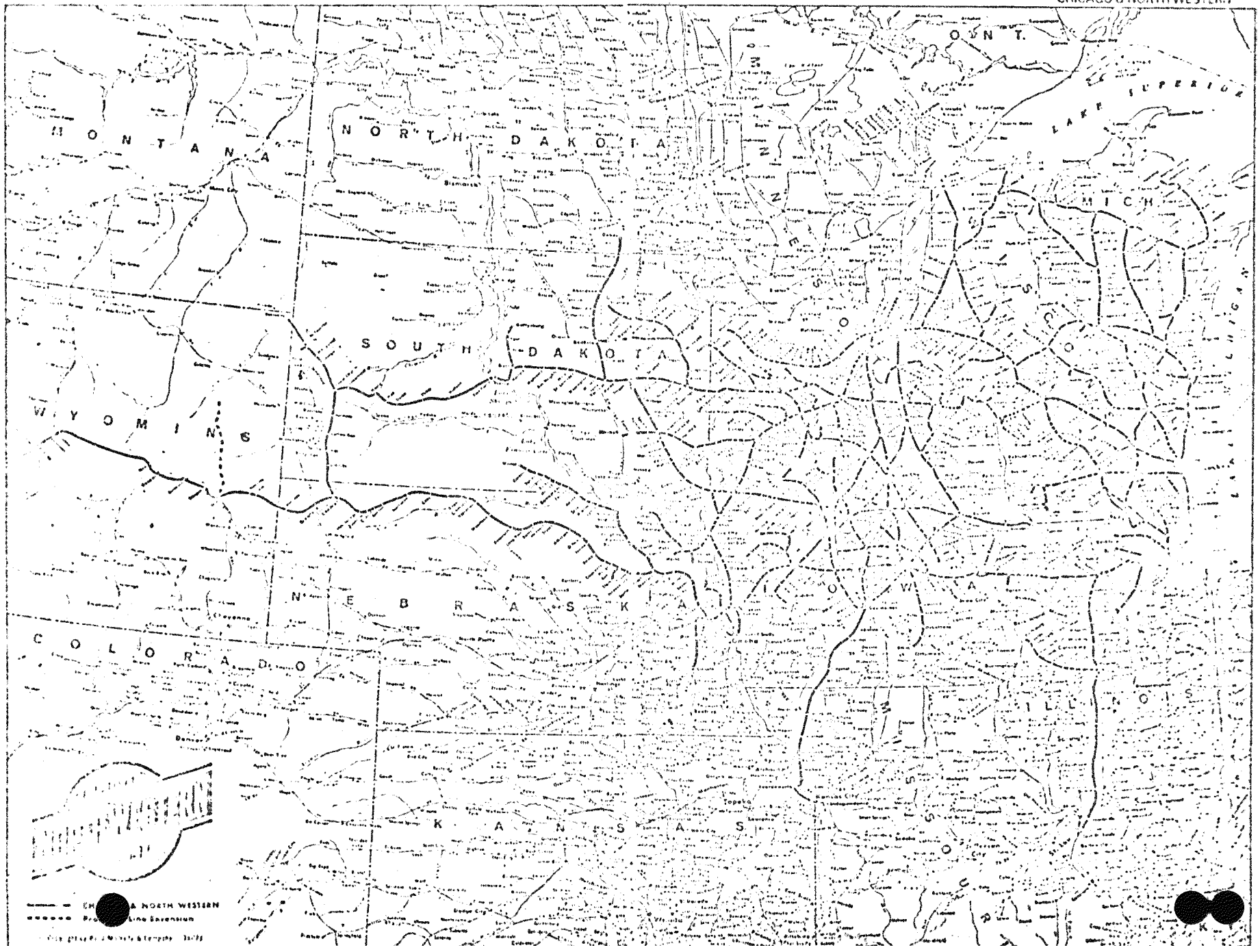
Loading Point: Dana, Wyo.
Cap: 90 cars, 9,000 T. Min.; 100 car Max.
Destination: Hammond, Ind.
Time: 5 1/2-day cycle
Rate: $8.04

Loading Point: Hanna, Wyo.
Cap: 9,500 T. Min.
Destination: Sergeant Bluff, Iowa
Time: 3-day cycle
Rate: $3.43

Loading Point: Hanna, Wyo.
Cap: 11,000 T. Min.
Destination: Oak Creek, Wis.
Time: 5-day cycle
Rate: $6.90

Loading Point: Hanna, Wyo.
Cap: 9,000 T. Min., 100 car Max.
Destination: Gary, Ind.
Time: 5 1/2-day cycle
Rate: $8.04

CHICAGO & NORTH WESTERN



Large increases in coal traffic are anticipated due to an expected increase in the use of low sulfur western coal by 1985. Hopper cars are sufficient to meet current demand and a moderate increase is anticipated by 1980 with a large increase by 1985. Almost all of these cars are owned by the railroad. The rails are set up to handle 100-ton unit train cars with a track speed maximum of 50 MPH loaded and 70 MPH empty. The tracks are continually being upgraded.

Most of the coal originates in Colorado and Utah some of which is used as metalurgical coal in California steel production. Unit train use is on the increase and average 25 per week. The coal is low in sulfur with a BTU rating of 11,000 to 13,000 BTU's. Competition is mainly from the Union Pacific. Coal slurry pipelines may develop into competition in the future. The cost to upgrade the track varies from 2 to 5 million dollars per mile. No major rivers are crossed and there are no direct connections with lake, ocean, or river port facilities.

Coal traffic volume is up at present. The major constraint to rapid and large increases in coal traffic is the lack of a national energy policy. Additional coal could be more easily carried if the Denver line takes over parts of the Rock Island Line.

Problem: Corporate planning is indefinite due to the uncertainties of government actions and a national energy policy. The railroad maintains that if an energy emergency develops political action cannot substitute for a 2-3-year lead time required to plan, purchase and manufacture the new facilities to carry expanded coal traffic.

Denver and Rio Grande Western Railroad
1515 Arapahoe Street
Denver, Colorado 80202
MAIL: P.O. Box 5482, Denver, Colorado 80217
Tel. 303-222-5533
C. R. Lennig, Vice Pres.-Traf.
J. D. Key, Asst. Vice Pres.-Sales
H. E. Cash, Mgr. Mkt. Serv.
G. A. Bennewitz, Jr., Mkt. Dir. Fuels
R. A. Jones, Mgr. Coal Devel.
V. E. Haas, Mgr. Mkt. Devel.
J. E. Timberlake, Dir. Unit Train Oper.

Territory Served: Colorado and Utah
1971 Coal Tonnage Moved: 11,[illegible]00,000 T.
Unit Train Tonnage: 8,1[illegible]0,000 T.
Per Cent of Total: 72.3%

Unit Train Shipments:

Loading Point: Sunnyside, Utah
Cap.: 8,400 T.
Destination: Kaiser, Calif.
Time: 4 Days R.T.
Rate: $6.00

Loading Point: Carbondale, Colo.
Cap.: 6,400 T.
Destination: Kaiser, Calif.
Time: 4 Days R.T.
Rate: $7.64

Loading Point: Somerset, Colo.
Cap.: 3,100-4,500 T.
Destination: Wash., Utah
Time: 12 Hrs. OW
Rate: $2.01

Loading Point: Columbia, Utah
Cap.: 3,100-4,500 T.
Destination: Wash., Utah
Time: 10 Hrs. OW
Rate: $8.05

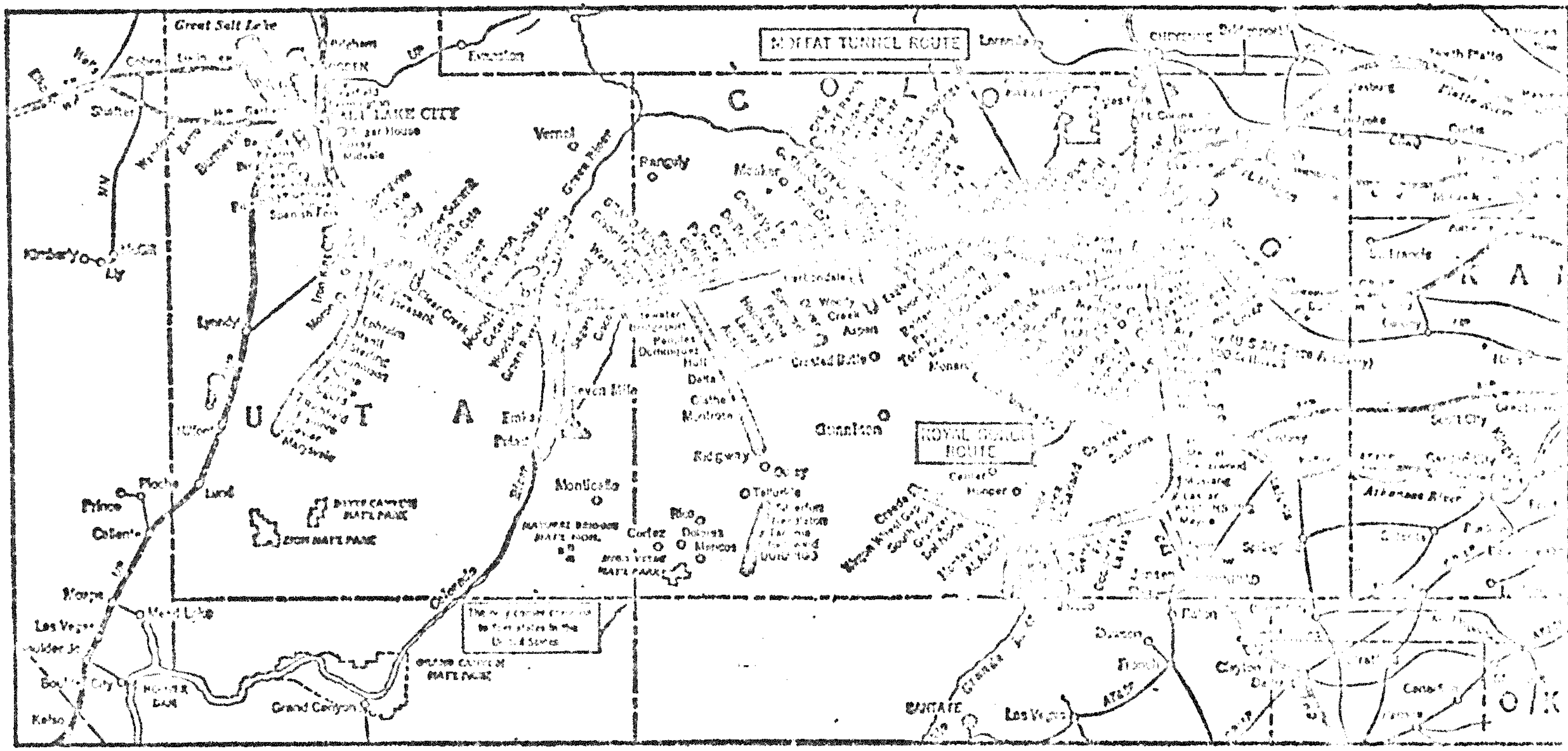
Loading Point: Wash., Utah
Cap. 2,600-3,700 T.
Destination: Geneva, Utah
Time: 4 Hrs. OW
Rate: $1.33

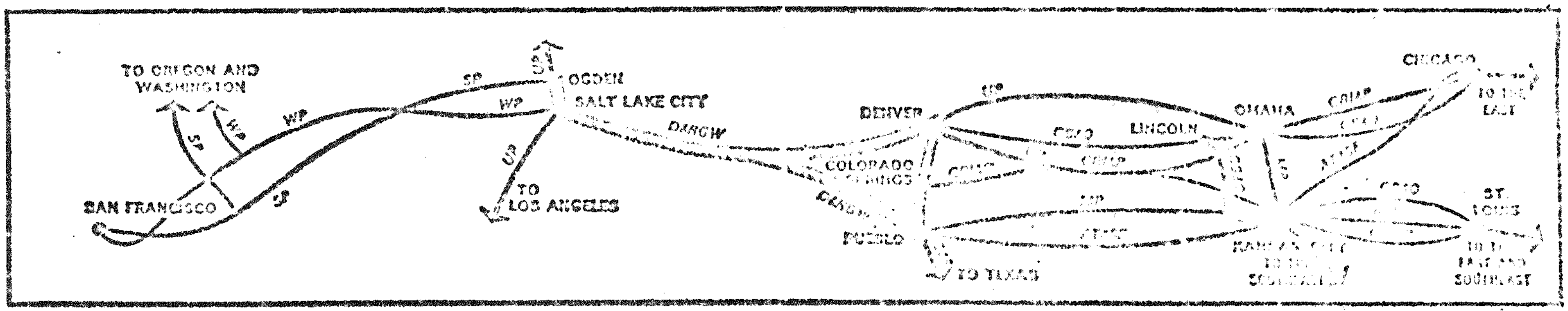
Loading Point: Carbondale, Colo.
Cap.: 3,200-6,000 T.
Destination: Geneva, Utah
Time: 12 Hrs. OW
Rate: $3.03

Loading Point: Acco, Utah
Cap. 3,000 T.
Destination: Gadsby, Utah
Time: 24 Hrs.
Rate: $2.60

Loading Point: Allen Mine, Colo.
Cap.: 4,000 T.
Destination: Minnequa, Colo.
Time: 2 Days R.T.
Rate: $1.754

Loading Point: Acco, Utah
Cap.: 2,000 T.
Destination: Castle Gate, Utah
Time: 24 Hrs. R.T.
Rate: $0.60


Great Salt Lake
MOFFAT TUNNEL ROUTE
Evanston
OGDEN
SALT LAKE CITY
Vernal
Rangely
Ely
Lynndyl
Pioche
Prince
Caliente
Lund
Moapa
Las Vegas
Kelso
HOOVER DAM
Grand Canyon
U T A
C O L O R A D O
ROYAL GORGE ROUTE
Gunnison
Carbondale
Aspen
Crested Butte
Montrose
Ridgway
Ouray
Telluride
Monticello
Cortez
Rico
Dolores
Mancos
Delta
Raton
Trinidad
Clayton
Las Vegas


TO OREGON AND WASHINGTON
SP
WP
SAN FRANCISCO
UP
OGDEN
SALT LAKE CITY
D&RGW
TO LOS ANGELES
DENVER
COLORADO SPRINGS
PUEBLO
TO TEXAS
UP
LINCOLN
OMAHA
CHICAGO
TO THE EAST
KANSAS CITY
ST. LOUIS

LOUISVILLE & NASHVILLE RAILROAD

As a result of an anticipated increase in coal demand a large increase in coal traffic is expected by 1985. Two thousands new hopper cars have just been received and 1,800 old cars are being retired. Car additions are on order and increases are expected into 1980-1985. Most cars are owned by the railroad while a few are owned by utilities. The major portion of the line is carrying 100 ton cars. Maximum track speed is 45 MPH and this will remain so indefinitely. Track lines are upgraded in a continuing process.

Eastern and Western Kentucky is the main source of coal with some coming from Alabama and Indiana. This coal is used mostly by utilities in the mid-west and south-east. Unit trains are on the increase with 90-100 trains operating per week. The sulfur content of East Kentucky coal is low while that of West Kentucky and Indiana is high. The BTU of these coals varies widely from 9,500 to 13,000. No other rail lines compete but the barging of coal on the Mississippi and Ohio Rivers drains off some coal traffic. No local coal slurry pipelines are anticipated but the planned western slurry lines may have a future effect. Major rive crossings occur at the Ohio and Mississippi with a coal transfer to barges occuring at Ghent, Kentucky. Direct rail connections with Great Lakes traffic takes place at Toledo and Chicago with ocean facilities at Mobile, Alabama.

Coal traffic is currently down slightly. The concept of a large rapid increase in coal traffic has not been considered by the Louisville and Nashville Railroad at this time. However, such an action would result in massive requests for equipment, materials, shops and even possibly some experienced labor.

Problem: If coal traffic is rapidly expanded it will require a strain on railroad supply and equipment manufacturers to the point that long waiting periods will result.

Louisville & Nashville Railroad
908 W. Broadway
Louisville, Ky. 40201
Tel. 502-587-500

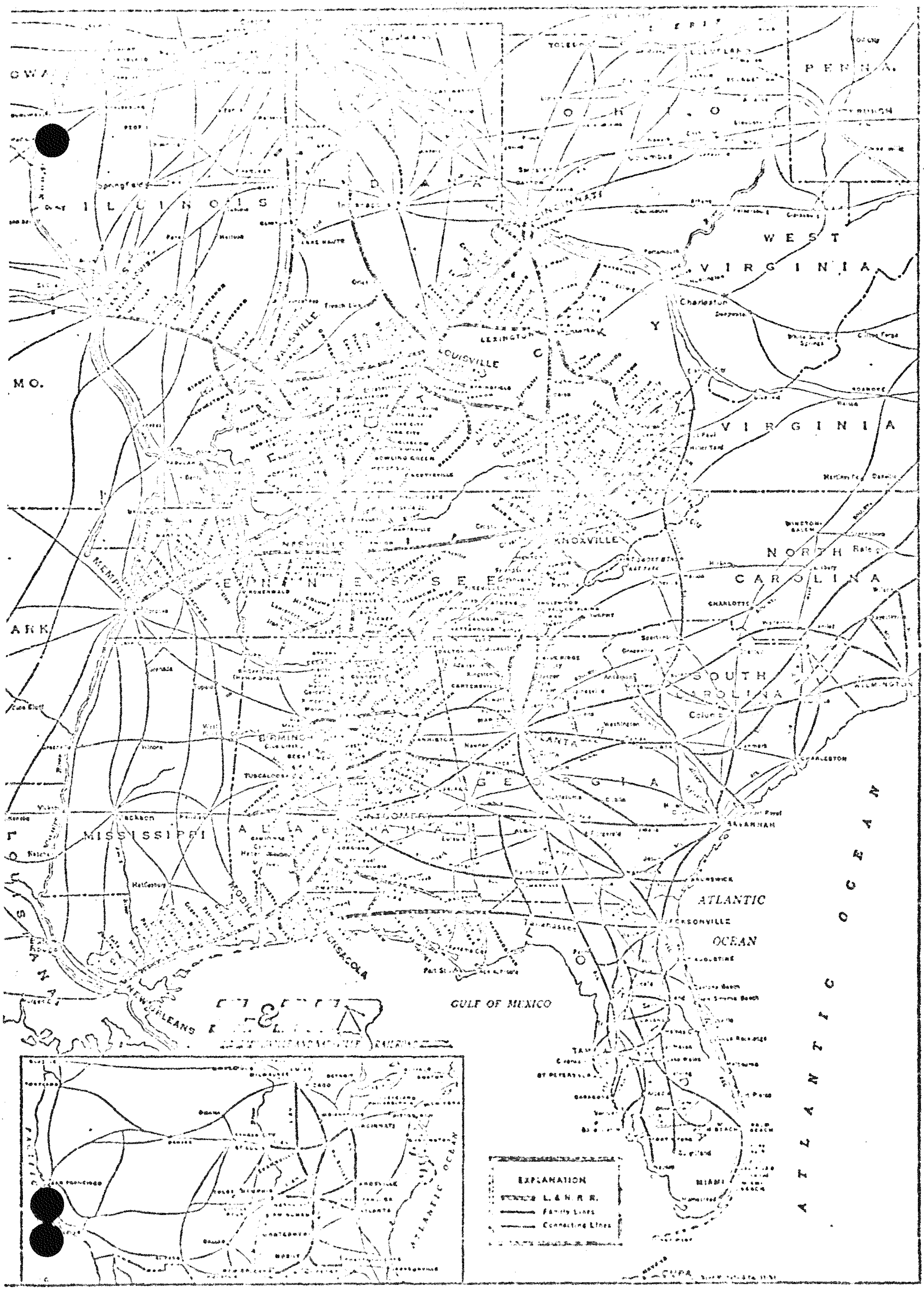
J. E. Gobrecht, Vice Pres. Coal Traffic
G. M. Timberman, Coal Traffic Mgr.
W. P. Shoemaker, Dir. Coal Mng, & Engrg. Serv.
A. F. Hohmann, Dir. Mktg.
J. W. Hartmann, Asst. Coal Traffic Mgr.
D. B. Bashore, Coal Traffic Agt.
R. E. Lunch, Mgr. Serv. & Equip. Coal
R. L. Zeh, Asst. Mrg, Serv. & Equip. Coal

120 S. Riverside Plaza, Chicago, Ill. 60606
Tel. 312-236-8901
G. J. Sapikas, Gen. Coal Traffic Agt.

4100 Vanderbilt Rd., Birmingham, Ala. 35217
Tel. 205-849-0141
C. A. Jones, Coal Land & Sis. Agt.

Territory Served: Great Lakes to Gulf of Mexico; Mississippi River to Atlantic Seaboard

1974 Coal Tonnage Moved: 52,000,000 T



LOUISVILLE & NASHVILLE

The large demand for coal in the future indicates that the I.C. Railroad will double its coal traffic by 1985. Current hopper cars are in adequate supply but 1,000 are on order and more are to be ordered by 1980-85. These 100-ton cars are owned by the railroad and also by the utilities. Track speeds vary from 25 to 60 and this is expected to increase somewhat by 1985 as the result of the lines being continually upgraded.

The coal originates in western Kentucky and southern Illinois. This coal is used in Chicago, Wisconsin and Michigan primarily by utilities. Unit trains are on the increase with approximately 50 trains running per week. The sulfur content of the coal is high in the 3-5% range with a high BTU count of 12,000 to 14,000 per pound. There are three competing railroads: the Louisville-Nashville, the Burlington Northern, and the Penn-Central. Barge lines also compete along both the Ohio and Mississippi Rivers. No coal slurry pipelines are expected in this region. New rail lines, if developed, are expected to cost from 3/4 to 1 million dollars per mile, but no new lines are contemplated. Major rail-water crossings occur at the Ohio, Mississippi, and Missouri Rivers with rail to river transfer facilities at East St. Louis. Ocean port connections are at Baton Rouge, Gulfport, and Mobile. Lake transfer facilities are present at Chicago.

Coal traffic volume is currently down. A large rapid increase in coal traffic by 1982 would require new hopper cars, new locomotives, and upgraded rail lines. However, the only major constraint to preventing a rapid coal traffic increase is the lack of a market. The I.C. Railroad feels that if it can get firm contracts, preferably with a 1 to 2-year lead time, it will be able and happy to handle a large rapid increase in coal traffic.

Problem: The I.C. would like to see a national policy for increased utility use of coal. Federal policy encouraging increased use of coal, in industry as well as utilities, would reduce imported foreign energy and stimulate the U.S. industry. What is needed is a broad national policy to stimulate the use of coal throughout the broad spectrum of U.S. energy needs.

Illinois Central Gulf Railroad Co.
233 N. Michigan Ave., Chicago, Ill. 60601
Tel. 312-565-1600

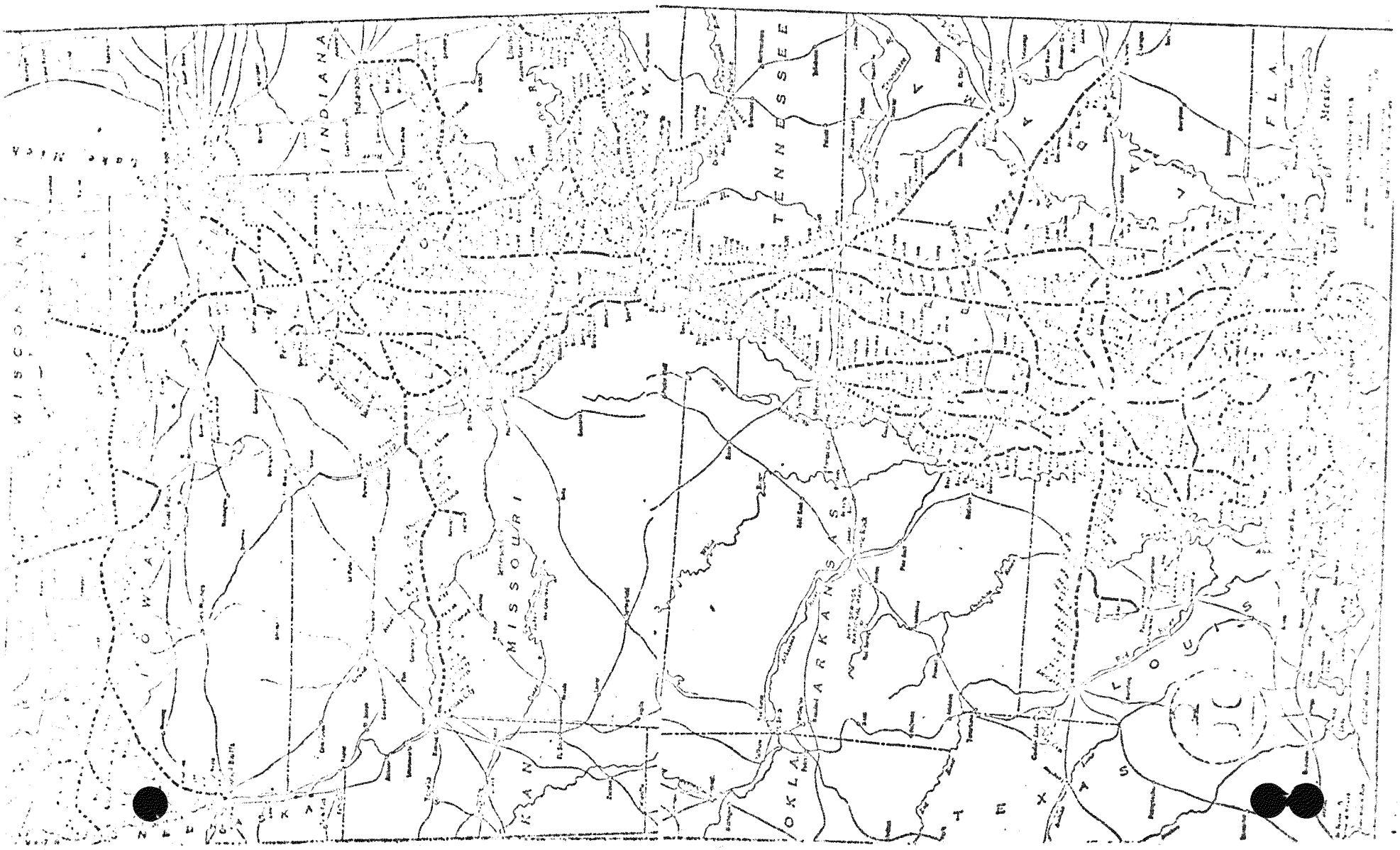
P. H. Reistrup, Sr. Vice Pres. - Traffic
J. E. Anderson, Asst. Vice Pres. - Coal
S. T. Dolemare, Mgr. Coal Sales & Serv.

R. J. Neubauer, Mgr. Coal Pricing
I.C. Station, Carbondale, Ill. 62901
Tel. 314-241-9400

R. K. Markley, Coal Devel. Rep.

1974 Coal Tonnage Moved: 29,100,000 T.
Unit Train Tonnage: 16,900,000 T.
Per Cent of Total: 58.07
Loads in volume of 7,000 tons or more.

Illinois Central Gulf Railroad



In 1975 the Milwaukee Road hauled 6.7 million tons of bituminous and 1.9 million tons of lignite, although not all was originated by this carrier. Among its principal deliveries are:

- Three unit trains of about 10,000 tons per week, originated by the Burlington Northern at Coal Strip, Montana, and delivered to the Milwaukee alternately at Miles City, Montana, and St. Paul, Minnesota. These trains are then carried by the Milwaukee Road to a Wisconsin Power and Light Co. generating plant at Columbia, Wisconsin.

- Two unit trains per week of bituminois from Latta, Indiana, one to Public Service of Indiana plant at Fayette, Indiana, and one to Indianapolis Power and Light Co. plant at Indianapolis. Each train carries 10,000 tons.

- Lignite from Gascoyne, North Dakota, to various points in the midwest and southwest. One unit train moves to a municipal plant at Big Stone City, South Dakota, and various other shipments go by regular freight to Minnesota, Texas, and various other sites.

The only other bituminous coal which is on the Milwaukee line is at Roundup, Wyoming, but there are no plans to mine it in the near future. The reserves are "substantial" and the coal is of good quality. Consolidation Coal Company has evidenced some interest, but nothing definite.

Since the company knows of no definite plans to increase coal mining and shipments from areas it serves, they have no projections for future growth. They do expect some and perhaps considerable increase within the next decade, and are making plans for improving tracks and increasing cars if necessary.

There has been some shortage of hopper cars in the past two years, but this has not forced missing any scheduled deliveries. One problem is that most of the fleet is composed of old 50 and 60-ton cars, rather than the newer, more efficient 100-tonners. They have budgeted for new cars in the coming fiscal year, but no orders have gone out and no total decided on. They do not expect to have trouble financing such purchases, since most of them would be for contracted long-term deliveries, and can likely be purchased using conventional equipment trust methods.

As for [illegible] condition, and they foresee no need for other than regular maintenance in the next several years. Opening of new mines in the Roundup area could require the building of some spur and short-line beds. (Some small mines are operating in that area now, but all the coal is being trucked to nearby users.)

Problem: The Milwaukee Railroad feels that there are no problems requiring outside or government assistance at this time. If coal shipments over Milwaukee lines expand greatly within the next five to ten years, the situation could change.

The Milwaukee Road
516 W. Jackson Blvd.
Chicago, Illinois 60606
Tel. 312-236-7600

G. H. Kronberg, Vice Pres.-Traf.
Glenn F. Reynolds, Vice Pres. Mkt. Devel. & Pricing
M. Garelick, Asst. Vice Pres. Mkt. Devel. & Pricing
W. P. Mullen, Dir. Pricing, Mkt. Devel. & Pricing
John T. Burke, Mgr. Pricing, Mkt. Devel. & Pricing

1974 Coal Tonnage Moved: 5,280,363 T.
Unit Train Tonnage: 3,570,000 T.
Per Cent of Total: 68%

Loading Point: Latta, Ind.
Cap.: 3,500 T.
Destination: Fayette, Ind.
Time: 10 Hrs.

Loading Point: Latta, Ind.
Cap.: 3,500 T.
Destination: Fayette, Ind.
Time: 10 Hrs.

Loading Point: Latta, Ind.
Cap.: 5,000 T.
Destination: Indianapolis, Ind.
Time: 24 Hrs.

Loading Point: Colstrip, Mont.
Cap.: 8,500 T.
Destination: Columbia, Wis.
Time: 5 Days

MISSOURI PACIFIC LINES

The Missouri Pacific Lines experienced an increase in coal traffic from about 10 million tons in 1974 to some 13 million tons last year, and anticipate that this growth will continue and even increase for the next decade. This expectation is based on their belief that there will be a very great increase in western coal mined and shipped to destinations which they serve. They currently have no problem with hopper cars and do not anticipate any as they are assured that their own building program and cars available from commercial builders will easily be able to keep up with any increase in coal traffic. No trouble is anticipated in financing car purchases or building, since practically all will be acquired to transport coal on unit train schedules and on long term contracts. Many of the cars presently in use are owned by utilities receiving the coal, and this is expected to continue to provide a large number of their cars in the future.

Much of their coal traffic originates on other railroads, and thus in many cases the cars used belong to other roads. A five-fold increase by 1982 would mean an increase of from 13 million tons to some 65 million. The equipment could be obtained if needed, particularly since much of it would be furnished by other railroads and by coal customers.

The railroads lines are all in good shape, most of them being heavy duty continuous welded, and easily able to carry large trainloads of 100 ton cars. Most of the present fleet is made up of 100 ton cars and all of the future acquisitions will be 100 ton cars. The company carries on a continuing program of track maintenance and upgrading wherever necessary. The only speed limitations are caused by natural terrain, curves, hills, etc., and not by any track weakness.

Practically all of the coal originates is from southern Illinois, and goes mostly to utilities in various midwestern States; in addition, they haul a sizeable volume to river points for transhipment by barges, and ship two or three million tons per year of metallurgical coal from the Illinois fields to Chicago. The metallurgical coal is about 1% to 1 1/2% sulfur, and most of the utility coal contains from 3% to 4%. Both have a BTU content of from 10,000 to 12,200 per pound. In addition to the coal

they originate, the railroad has connections at various western terminals with the Santa Fe, Burlington Northern, Union Pacific and Denver and Rio Grande, all of which either now do, or later expect to, originate coal for ultimate delivery by the Missouri Pacific.

This road presently operates four unit trains per day of self-originated coal, plus an indeterminate number delivered over its tracks to destination after originating on other railroads. The total number is expected to increase greatly, since they expect that most future contracts will involve unit train hauling. It not only connects with and complements many western railroads, but also competes with many western railroads as well as barges along the Ohio and Mississippi Rivers systems. As noted above, however, they are joint carriers with barges for much coal which they originate and deliver to river points, principally at St. Louis and at Ford, Illinois. The railroad also has connections with the Gulf of Mexico at Freeport and Galveston and with the Great Lakes at Chicago.

The Missouri Pacific expects to have no problem in handling any increase in coal traffic that develops unless the industry as a whole runs into car supply problems as a result of greater demands than are now anticipated. If that should happen, it would probably be in fittings, forgings, castings and possibly wheels. For some years past many wheels used by domestic car builders have been imported from Europe, and their future availability may be in question, particularly in very large volume. The shortage of other parts might develop due to the fact that many small foundries have been shut down because of the high cost or by EPA because of their inability to meet air pollution standards.

Problem: The acquisition of foreign made parts could reduce this railroad's capacity to rapidly increase coal traffic.

Missouri Pacific Lines
210 N. 13th St.
St. Louis, Mo. 63103
Tel. 314-622-2961

J. A. Austin, Vice Pres. Traffic
G. A. Craig, Asst. Vice Pres. Sales & Service
W. G. Taylor, Asst. Vice Pres. Pricing & Divisions

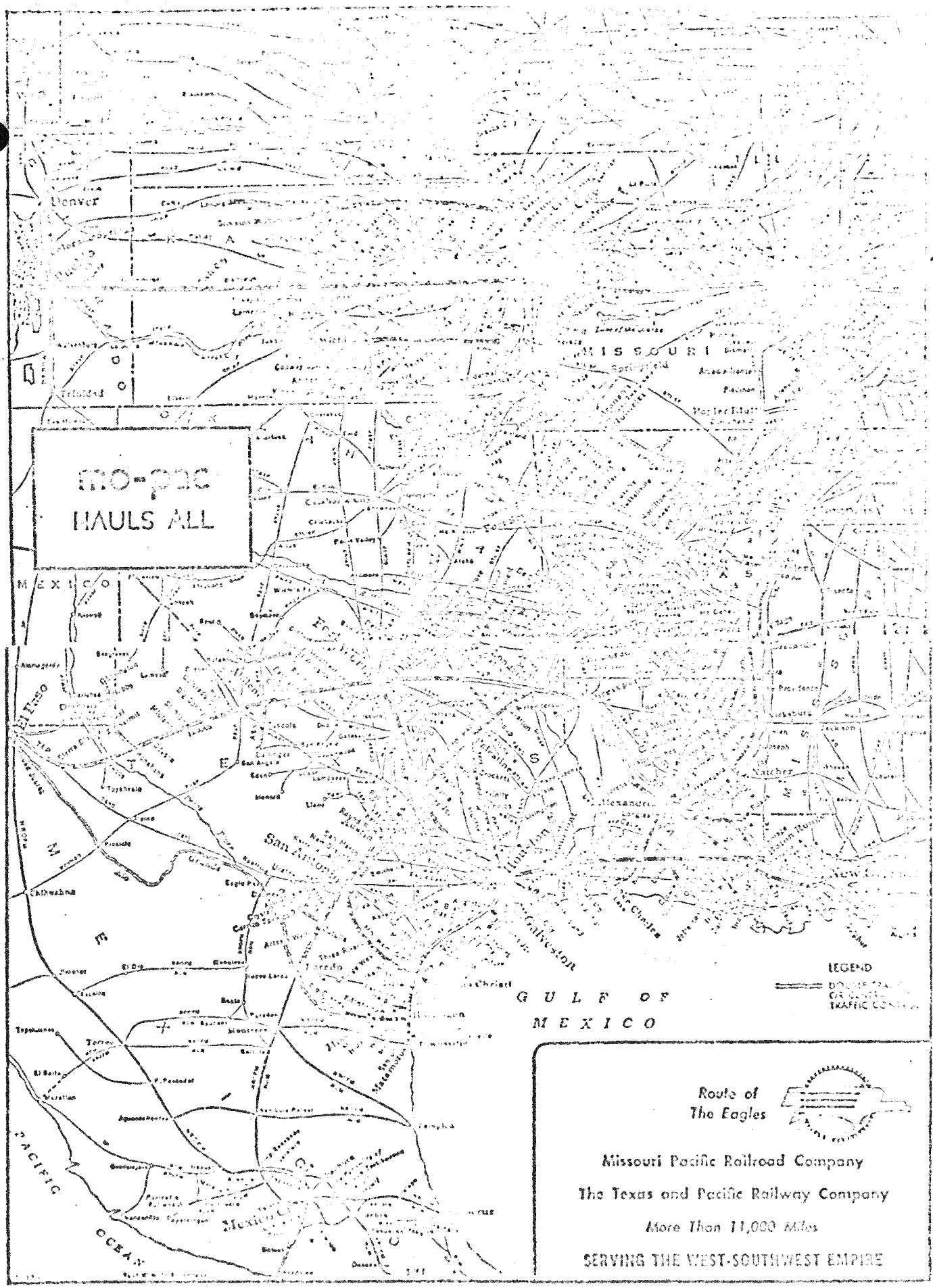
J. L. Stanislaus, Mgr. Coal & Coke Sales and Serv.
J. W. Lheaden, Mgr. Coal & Coke Rates

Territory Served: Midwest, South West and Western United States.

1974 Coal Tonnage Moved: 10,350,852 Tons
Unit Train Tonnage: 7,677,426 Tons
Per Cent of Total: 74%

Loading Point: Southern Ill.
Cap: 5,700 Tons
Destination: Kellogg, Ill.
Time: 12 Hours

Loading Point: Southern, Ill.
Cap: 9,300 Tons
Destination: W. Labadie, Mo.
Time: 24 Hours


mo-pac
HAULS ALL
Denver
MISSOURI
MEXICO
El Paso
San Antonio
Houston
Galveston
Laredo
GULF OF
MEXICO
PACIFIC
OCEAN
LEGEND
Route of
The Eagles
Missouri Pacific Railroad Company
The Texas and Pacific Railway Company
More Than 11,000 Miles
SERVING THE WEST-SOUTHWEST EMPIRE

The Norfolk & Western anticipates an increase in coal traffic originating on their lines from 67 million tons in 1975 to between 90-95 million tons by 1980. During the same period they expect the volume of coal traffic delivered by Norfolk & Western, but originated on other lines, to go from about 16 million tons to possibly 15 million. Volume handled this year up to this period is about 8% below 1975. They have made no projections beyond 1980 but know of various mine properties which are likely to be opened by then.

These estimates are based on their own surveys and discussions with coal companies, utilities, steel companies, and export sources.

They at present have a surplus of hopper cars, but are now building 2,000 cars which should be ready by this summer and will then begin work on an additional 2,000. This railroad builds all of its own cars and has the capacity to build up to 80 cars per week or about 4,000 per year, if the demand requires. The president of the company has been quoted as saying that they are capable of building all the cars needed to handle any traffic increase that can possibly occur on the Norfolk & Western system. The question was asked if Norfolk & Western could handle as much as a five-fold increase by 1982. This was felt to be an unreasonable projection--it would equal approximately 350 million tons. However, they still felt that they were capable of producing enough equipment to stay ahead of any possible increase in mine production. At present, their coal car fleet consists of cars which can handle an average of 85 tons per car per year, but this is going up by 2-3 tons per year per car as they continue to replace the old 50 and 70-ton cars with the new 100-ton hoppers and gondolas. They have no problem with condition of tracks and roadbeds and thus no speed limit other than those dictated by normal precautions. All of the mainline tracks already consist of 132-lb. welded rails and no "up-grading" is necessary, although continuous maintenance is, of course, carried on.

Norfolk & Western's originated coals are from Southern West Virginia, Eastern Kentucky, Southwest Virginia and about 5-6 million tons per year from Ohio. Their coal is about one-third divided between exported coal, mostly metallurgical, domestic metallurgical, and steam coal, practically all of

which is for domestic use. The principle areas of destination [illegible] for export; domestic metallurgical goes to the Chicago, Detroit, Gary, Indiana, Pittsburgh and Cleveland areas and the Sparrows Point Plant at Baltimore, with some going to Canada and a small amount to Alabama. Utility coal goes to the Carolinas for Duke Power and Carolina Power and Light, and to utilities in Cleveland, Detroit, Dayton, Pennsylvania, Northern Virginia and the District of Columbia.

Norfolk & Western operates 4 - 5 unit trains per day and owns all of the cars on these trains, in contrast to a number of railroads on which the unit train cars are owned by shippers. Most of their coal is low sulfur content, probably 1-1/2% or less with a heat value of around 13,000 BTU's per pound or 26 million BTU's per ton. They do not have rail competition for coal in most of the originating areas, although there are some points where the fields could be served by C&O or the Penn-Central and, of course, there could be competition for some of the non-originated delivered coal, particularly if a different routing were chosen. They do not have a competitive barge line on any major coal traffic route and no slurry line is planned. They have quite a few river crossings on the Ohio and the New Rivers and others. Norfolk & Western connects with Lake Erie at Sandusky, Ohio, and is one of the two major railroads with export facilities at Hampton Roads (Norfolk, Virginia). It connects with rail barge transportation at Kenova, West Virginia, where it delivered 6-1/2 million tons to barges for further transportation in 1975. The railroad owns all of its own cars and is moving into full utilization of 100-ton hopper cars and it sees no constraints on handling any expansion of coal production. It has no present applications before ICC for route or rail changes, except that they are joined with other railroads in seeking a general rail increase now pending.

Norfolk and Western Railway Co.
8 North Jefferson Street
Roanoke, Virginia 24042
Lawrence T. Forbes, Vice Pres., Coal and Ore Traf.
Tel. 703-981-4220

Thomas C. Hamill, Asst. Vice Pres., Coal and Ore Traf.
Tel. 703-981-4117

William D. Roe, Asst. Vice Pres., Rates
Tel. 703-981-4110

H. A. Kiester, Dir. Engrg. Serv. Coal and Ore
Tel. 703-981-4218

W. C. McDonald, Mgr. Sales and Serv.
Tel. 703-981-4119

W. A. Snyder, Dist. Coal & Ore Traf. Mgr.
Tel. 703-981-4129

E. J. Sicmon, Jr., Gen. Coal Traf. Mgr. - Rates
Tel. 703-981-4120

C. C. Manning, Jr., Coal Traf. Mgr. - Rates
Tel. 703-981-4216

522 Fifth Ave., New York, N. Y. 10036
Tel. 212-869-0400

Jerome C. McCarthy, Dir. Internat. Coal & Ore Traf.

Terminal Tower, Cleveland, Ohio 44101
Tel. 216-621-9000

A. E. Suter, Gen. Coal Traf. Mgr. - Sales and Serv.
W. B. Bales, Mgr. - Lake Coal
R. D. Carter, Dist. Coal and Ore Traf. Mgr.

Suite 509 Raleigh County Natl. Bank Bldg.
Beckley, West Virginia 25801
Tel. 304-252-6421

W. H. Hunton, Dist. Coal & Ore Traf. Mgr.
R. P. Keneda, Asst. Dist. Coal & Ore Traf. Mgr.

327 S. LaSalle St., Chicago, Illinois 60604
Tel. 312-778-3000

G. B. Chilicot, Dist. Coal & Ore Traf. Mgr.

Suite 210, 801 W. 8th St., Cincinnati, Ohio 45203
Tel. 513-381-1325

J. W. Rowland, Dist. Coal & Ore Traf. Mgr.

Suite 1334, North Park Plaza Office Tower
17117 W. Nine Mile Rd., Southfield, Mich. 48075
Tel. 313-275-4344

L. D. Weaver, Dist. Coal & Ore Traf. Mgr.

Suite 3255, 600 Grant St., Pittsburgh, Pa. 15219
Tel. 412-261-1468

R. T. Hairston, Dist. Coal & Ore Traf. Mgr.

Railway Exchange Bldg., St. Louis, Mo. 63101
Tel. 314-241-[illegible]

A. W. Kaeshoefer, Coal & Ore Traf. Rep.

P. O. Box 2112, Winston-Salem, N.C. 27102
Tel. 919-722-7116

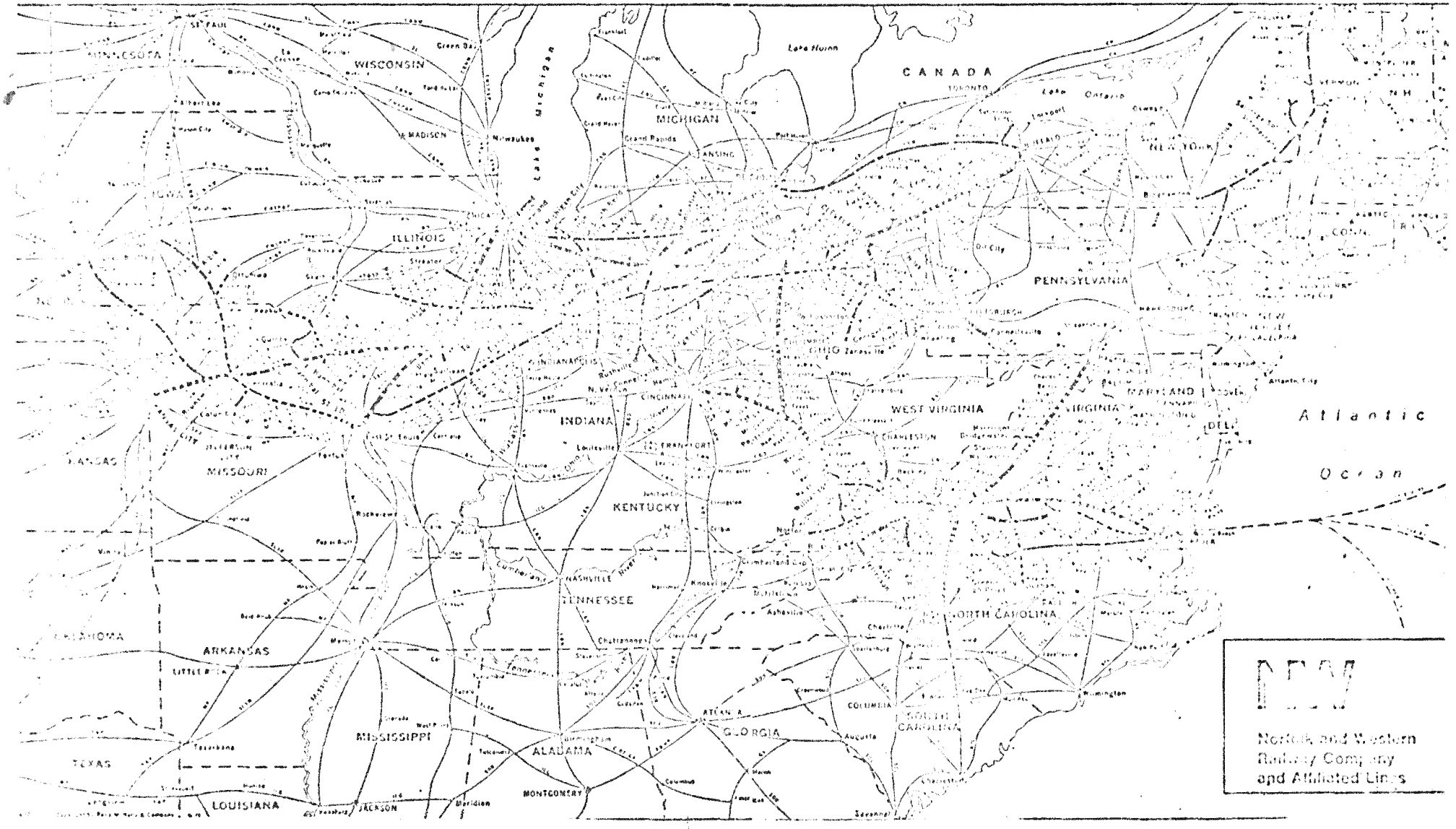
H. L. Tiller, Jr., Dist. Coal & Ore Traf. Mgr.
O. L. Thomas, Asst. Dir., Engrg. Serv.
T. E. Rappold, Coal & Ore Traf. Repr.

Territory Served: Runs from Norfolk, Va. in the east and terminates at Kansas City, Mo. and Omaha, Neb. in the west. Provides service for 14 states and serves the southern coal fields of W. Va., Va. and eastern Ky. Also serves the Ohio coal fields and a few mines in Ill. and Mo.

1974 Coal Tonnage Moved: 79,000,000 T.

NORFOLK AND WESTERN RAILWAY COMPANY

NORFOLK AND WESTERN RAILWAY COMPANY



A large increased coal traffic volume is anticipated as follows:

(years)	1974	1980	1985
(million tons)	74.5	142	225

These increases are estimated on an expected large coal demand. At present 3,000 hopper cars are needed and an additional 1,600 will be necessary by 1980. By 1985, a total of 10,621 coal hopper cars are anticipated to be needed. Due to the reorganization of the railroad very very little is being done about these needs. Both the railroad very little is being done about these needs. Both the railroad and the utilities own hopper cars but most of the coal is transported by a small disproportionate volume of utility cars. A major portion of the railroad can carry 100 ton cars but the speeds vary from a maximum of 30 MPH loaded to 50 MPH empty. On some smaller lines the limit is as low as 10 MPH. These speeds are expected to increase with a continual track improvement program. No improvements are taking place because there is no money.

The main area of coal origin is Pennsylvania and northern West Virginia. Most of the Pennsylvania coal goes to the east coast with the remainder exported to Canada via Lake Erie. The northern West Virginia coal is used predominently in Detroit. Unit trains are on the increase and currently run at 125 trains per week. The coal has a high to medium sulfur content with a BTU of 10-13,000. Competition is from the Chessie Railroad and barge lines on the Monongahela and Ohio Rivers. No coal slurry pipeline competition is contemplated. The Ohio, Mississippi, and Hudson are the major rivers crossed. On the Ohio there is a rail to barge transfer at Jacks Run at Pittsburgh and a barge to rail transfer at Conway, Pennsylvania.

Coal traffic volume is down slightly but is forecast to grow significantly under 1985 projections.

Problem: The physical condition of most of this railroad network is in poor shape. It is an intricate part of the eastern U.S. coal distribution system. In 1974 it moved 74.5 million tons of coal. It is essential that this railroad be improved to increase its ability to transport.

Penn Central Transportation Co.
1538 Six Penn Center
Philadelphia, Pa. 19104
Tel. 215-594-1000

Charles H. Wolfinger, Asst. Vice Pres. Coal & Ore
Tel. 215-594-3551

Donald W. Korn, Dir. Coal & Ore Sales.
Tel. 215-594-3022

J. D. Sutton, Director Coal & Ore Devel. Serv.
Tel. 215-594-3798

W. L. Lloyd, Dir. Coal & Ore Serv.
Tel. 215-594-3029

J. T. Bodell, Dir. Coal & Ore Pricing
Tel. 215-594-3017

E. H. Furst, Coal Sales Mgr.
Tel. 215-594-3014

466 Lexington Ave., New York, N.Y. 10017
Tel. 212-340-3313
J. P. Bannon, Coal Sales Mgr.

700 Walnut St., Cincinnati, Ohio 45202
Tel. 513-381-4027
W. R. Haynes, Coal Sales Mgr.

707 Penn Central Sta., Pittsburgh, Pa. 15222
Tel. 412-471-6000
G. E. Thomas, Coal Sales Mgr.

1610 Rockefeller Bldg., Cleveland, Ohio 44113
Tel. 216-771-1244
John F. Duink, Coal & Ore Sales Mgr.

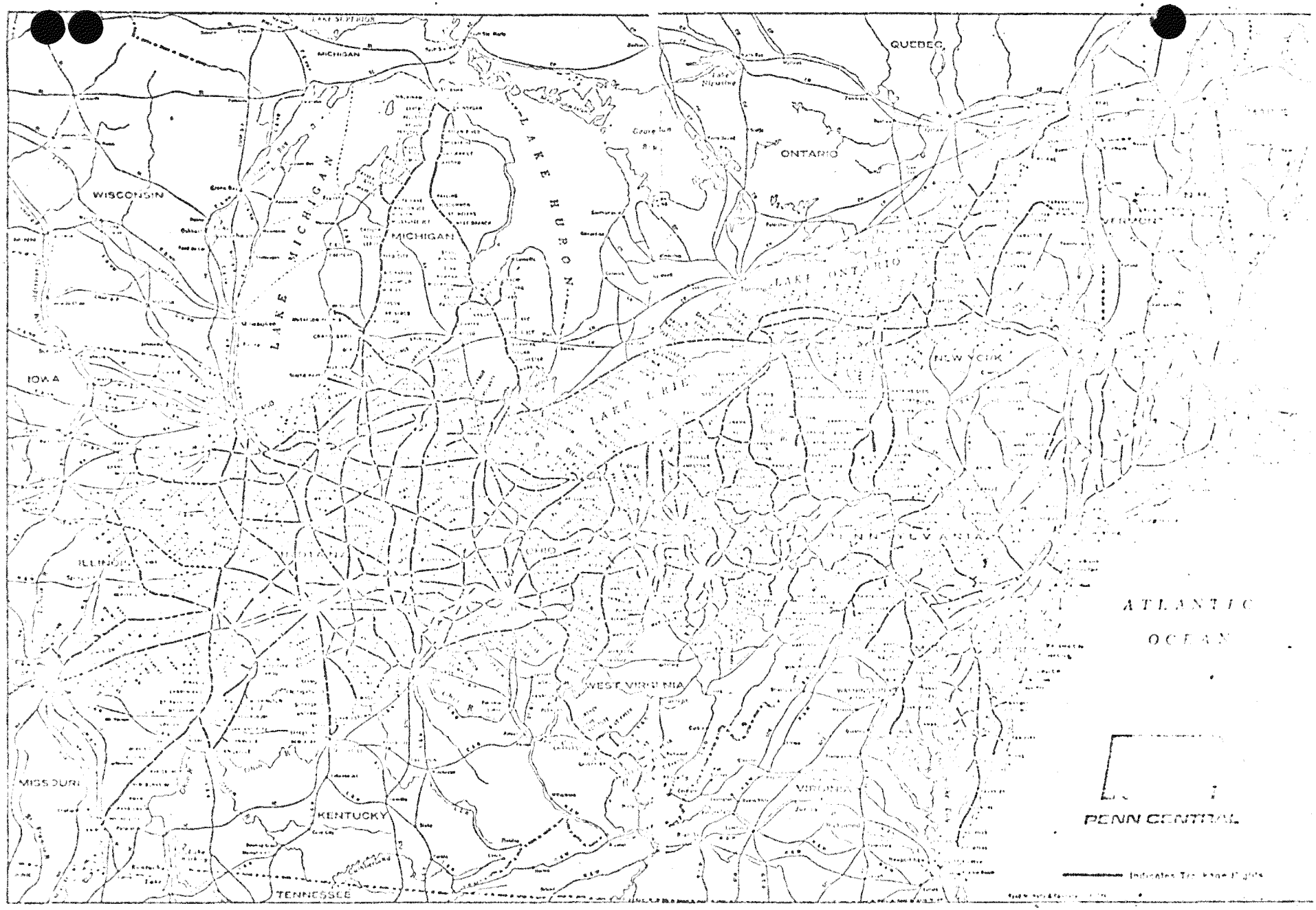
669 Union Sta., Chicago, Ill. 60606
Tel. 312-230-7200
W. B. Neal, Coal Sales Mgr.

228 Penn Central Bldg., Detroit, Mich. 48216
Tel. 313-833-7000
H. L. Shepherd, Coal Sales Mgr.

P. O. Box 751, Clearfield, Pa. 16830
Tel. 814-765-8721
J. C. Reimer, Dist. Coal Agt.

Territory Served: Penn Central serves a fifteen state area of the northeastern U.S. and originates coal in Pa., Md., W. Va., Ohio, Ind., and Ill.

1974 Coal Tonnage Moved: 74,500,000 T


LAKE SUPERIOR
MICHIGAN
QUEBEC
ONTARIO
WISCONSIN
LAKE MICHIGAN
LAKE HURON
MICHIGAN
LAKE ONTARIO
IOWA
NEW YORK
LAKE ERIE
ILLINOIS
OHIO
PENNSYLVANIA
ATLANTIC
OCEAN
WEST VIRGINIA
MISSOURI
KENTUCKY
VIRGINIA
PENN CENTRAL
TENNESSEE

PITTSBURGH & LAKE ERIE RAILROAD CO.

By 1985 coal traffic on this railroad is expected to increase at a moderate rate due to expected increases in coal production. At present the hopper car supply is adequate and there are no definite plans to increase the supply in the near future. The current maximum track speed is 50 MPH and this is not intended to increase in the future. Planned upgrading of the rail bed is a continuing process to maintain current speeds.

The origin of most of the coal is West Virginia and this is destined for Michigan. Unit train use is on the increase averaging 10 per week at present and they carry a high sulfur coal. Competing transportation is the Penn-Central system primarily with some competition from steel company barges. No coal slurry lines are planned in this area. Major river crossings occur at the Monangahela and Ohio Rivers. There are no direct port connections but if track rights are obtained over ConRail lines, there will be a connection with the port on Lake Erie at Ashtabula, Ohio. Barge transfer facilities connect on the Ohio at Monaca, Pennsylvania.

Coal volume is currently down slightly from last year. A five-fold increase in coal traffic by 1982 could be absorbed without undue disruption of service. No constraints to moving coal are anticipated with the expected increased coal production and consumption.

Problem: Inability to obtain access to Lake Erie Ports over ConRail lines could reduce the coal traffic potential of this railroad.

Pittsburgh & Lake Erie Railroad Co.
P&LE Terminal Bldg.
Pittsburgh, Pa. 15219
Tel. 412-288-9014
Robert Barker, Coal Sales Mgr.

Territory Served: Serves the area from Youngstown, Ohio to connections at Connellsville, Pa. and Brownsville, Pa. The P&LE also extends service from the Monongahela Rwy. and the Montour RR through joint ownership in those roads.

1974 Coal Tonnage Moved: 9,374,412 T.
Unit Train Tonnage: 4,173,427 T.
Per Cent of Total: 44.5%

Loading Points: Fairview, W. Va.
Cap.: [illegible] T.
Destination: [illegible], N.H.
Time: 6 Days turn around

Loading Points: Blacksville, Miracle Run, Wana,
all in W. Va.
Cap.: 17,500 T.
Destination: Monroe, Mich.
Time: 3 Days Turn Around

Coal traffic in 1985 is expected to show a moderate increase over today due to increased utility demand for coal. Hopper cars are adequate at present as the result of a recent purchase of 2,000 cars. Orders for additional cars have been placed and are expected to continue through 1985. All the hopper cars are owned by the railroad and the rail bed can carry 100-ton cars. Maximum track speed is 40 to 50 MPH and will be increased by 1985 due to an ongoing program to upgrade the tracks. Most of the coal originates in Alabama and Eastern Kentucky and its three destination are: the Chicago area, southeastern utilities, and the Tennessee Valley Authority.

The use of unit trains is increasing with the current average at 25 unit trains per week. The coal transported is of moderate sulfur content at 1.5% with a BTU of 12-13,000. The Norfolk and Western is the main competing railroad line and there is competition from barge on the Mississippi River. Coal slurry lines present no problems. The only major river crossings are the St. Johns in Florida and the Ohio River. Connections with ocean ports exist on both the Gulf and East coasts. A river transfer point from rail to barge exists in western Kentucky.

Coal traffic is currently up from last year. The only constraint to expanded coal traffic is the need for additional cars, locomotives, and the continual upgrading of track. The major factor restricting the possibility of a five-fold increase in coal traffic by 1982 is the surge of demand by all railroads at the same time for additional hopper cars, locomotives, rails and ties.

Problem: The Tennessee Valley Authority has expressed interest in reducing the number of coal fired utilities. If this occurs the projected coal traffic increase will be reduced.

Seaboard Coast Line Railroad
500 Water St.
Jacksonville, Fla. 32202
Tel. 904-353-2011

H. M. Emerson, Sr., Vice Pres. Traffic
N. S. DeMuth, Vice Pres. Mktg.

Territory Served: States of Ala., Fla., Ga., N.C., S.C., and Virginia. Two privately owned and one state owned electric utilities not served by unit train.

1974 Coal Tonnage Moved: 14,931,167 T
Unit Train Tonnage: 3,873,816 T
Per Cent of Total: 25.9%

Loading Point: Hilo, Ky.
Cap: 5,760 T
Destinaton: Terrell, N.C.
Time: 3 Days
Rate: $4.04

Loading Point: Ratliff, Ky.
Cap: 5,000 T
Destination: Riverbend, N.C.
Time: 3 Days
Rate: $5.53

Loading Point: Kilowatt, Ky.
Cap: 5,000 T
Destination: Canadys, S.C.
Time: 3 Days
Rate: $5.43

Loading Point: Red Bird, Ky.
Cap: 5,000 T
Destination: Irmo, S.C.
Time: 3 Days
Rate: $4.82

Loading Point: Viall, Ky.
Cap: 5,000 T
Destination: Pinopolis Jct., S.C.
Time: 3 Days
Rate: $4.94

Clinchfield Railroad Co.
229 Nolichucky Ave.
Erwin, Tennessee 37650
Tel. 615-743-9161

G. W. Guinn, Traf. Mgr.
R. L. Branham, Asst. Gen. Frt. Agt.

Territory Served: Serves coal fields of southwest Virginia. Operates from Elkhorn City, Ky. to Spartanburg, S.C.

197[illegible] Coal Tonnage [illegible]: 7,[illegible]22,0[illegible]0
Unit Train [illegible]. None. Operate trainload volume movements.

SEABOARD COAST LINE RAILROAD

SEABOARD COAST LINE

The Southern Railroad anticipates a considerable increase in coal hauled within the next few years, both because of new tonnage already committed from new mines on its own lines, and also because of expected increases in volume originated on other railroads and carried to final destination by the Southern.

No tonnage predictions have been made for the long range future, but by 1980 present annual tonnage of about 36.5 million tons would grow to at least 40 million from the new shipments originating on Southern's lines alone. Including the non-origin coal traffic, one rough estimate of future volume that has been made is 46 million tons by 1980, and the railroad will have the equipment to handle this much under present building schedules.

Although in the past most of Southern's coal hauled has been of its own origin, the road does not serve some of the largest coal fields. In the future, however, it anticipates a large increase in non-originated coal. Among others, such coal is hauled from the West by the Burlington Northern to Southern transfer yards at St. Louis, and then by Southern to Alabama and Tennessee; by the BN to the Southern at Centralia, Ill., and by the Union Pacific and Denver, Rio Grande and Western to the Southern at Memphis.

The Southern is in good shape for coal cars, and has a continuing two-year program of building and restoring cars. The fleet of 100 ton cars has been increased by 42% in recent years, and by 1978, when annual coal capacity is expected to reach 46 million tons, the road will have: 5,000 100 ton hopper cars, 4,000 70 ton hoppers, and 750 gondolas for use on unit trains, where bottom dumping is necessary. Asked if the Southern could handle a rapid increase in coal traffic by 1982, the railroad commented that this was possible because of the lead time now required to build new mines and utility plants. Practically all future hauling will be by unit train contracts, and this requires about one-fifth of the number of cars needed for individual car, commercial deliveries. The Southern can handle all the coal available to it and with a good market demand in the indefinite future. The construction of new cars and

underground mines have about a two-year lead time, compared to five to seven years for surface mines or five years or more for underground mines and utility plants. There is a recent American Association of Railroads study which concluded that car builders have the capacity to build twice what the industry will require, even if coal production doubles by 1985.

The Southern's rail lines are in good shape, and the company is currently spending more on right of way maintenance and improvement than on equipment. Most of the lines are now of 133 lb. all welded steel rails, and can handle any required traffic loads. There is no track speed limit caused by condition of the rails, although such limits are in effect for other safety or terrain reasons.

Southern's coal now originates in Southern Virginia, East Tennessee and Kentucky, Alabama and Indiana. In addition a large new mine whose output will be shipped by Southern is being built in Illinois, and another of 3,000,000 tons annual capacity in Alabama.

Sulfur content of the coal ranges from about 1% in Virginia and Alabama, to 1 1/2% in Tennessee and Kentucky, and about 2 1/2% in Indiana. It is about 11,500 to 12,000 BTU's per pound. The Southern has both rail and barge competition. Several railroads serve all or part of some of its routes. Barges are competitive on the Tennessee River and the Warrior and Tombigbee Rivers and canal system in Alabama. The railroad connects with ocean port facilities at Mobile, Alabama, where a new unloading facility with a capacity of about five million tons per year has just been opened. This could be doubled within two years. It is also building a river barge to rail facility at Sheffield, Alabama, which can handle 10 to 12 million tons per year, and is studying building a large rail to barge facility on the Kentucky side of the Ohio River near Cincinnati.

Problem: The Southern expects continued, steady growth in coal traffic, and does not foresee any problems in handling any growth in demand that occurs. Like many others, however, they do foresee a possibility of steel forgings, and some parts shortages hampering car and engine production if a great surge in demand should develop all at once and create wide competition for such material and assemblies. This would, of course, be enhanced if a similar vast increase in demand for steel and other materials occurred on the part of utilities, machinery manufacturers and mine building at the same time.

Southern Railway System
P. O. Box 1808
Washington, D.C. 20013
Tel. 202-628-4100

R. S. Hamilton, Exec. Vice Pres.
R. N. Morris, Mkt. Mgr. Fuel
F. M. Williams, Rate Off.

Territory Served: All states east of Mississippi River and South of a St. Louis, Cincinnati, Washington, D.C. line except W. Va.

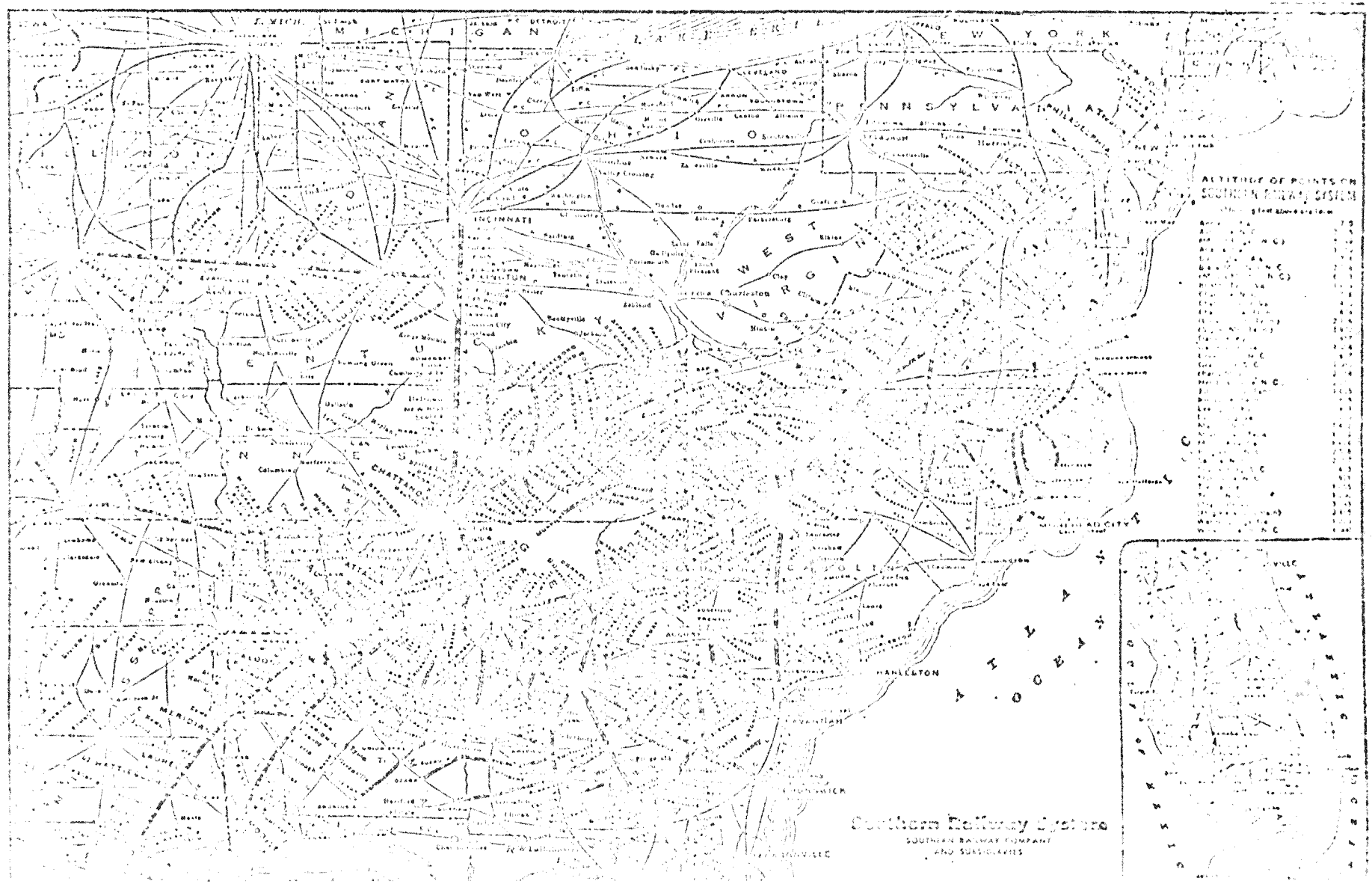
1974 Coal Tonnage Moved: 36,633,000 T

SOUTHERN RAILWAY

SOUTHERN RAILWAY SYSTEM

SOUTHERN RAILWAY

SOUTHERN RAILWAY SYSTEM



Due to the increase anticipated for Western coal production, a moderate increase in coal traffic is expected by 1985. One thousand new hopper cars were received recently and this same amount is on order over the next several years. Seventy-five percent of the new hopper cars are owned by the railroad and twenty five percent by utilities. The rail beds are upgraded to carry 100 ton cars. Current track speed is 40 MPH loaded and 50 MPH empty. Continual upgrading of the track will allow this speed to increase slightly by 1985.

The principal area of coal origin is southern Wyoming, and this coal is consumed in the mid-west. Unit train use is on the increase and currently averages 23 per week. The coal is low in sulfur and has a BTU range of 9500 to 1050 per pound. A planned coal slurry pipeline will be in direct competition for coal traffic, and to a lesser degree so is the Burlington Northern, but there is no competing barge traffic. There are no major river crossings or transfer points; however, the Union Pacific reached several west coast port facilities from Seattle, Washington, down to Long Beach, California.

Coal traffic volume is up from last year. A five-fold increase in coal carrying could be maintained without undue strain on the system. No significant constraints exist that would prevent the rapid expansion of coal traffic capacity.

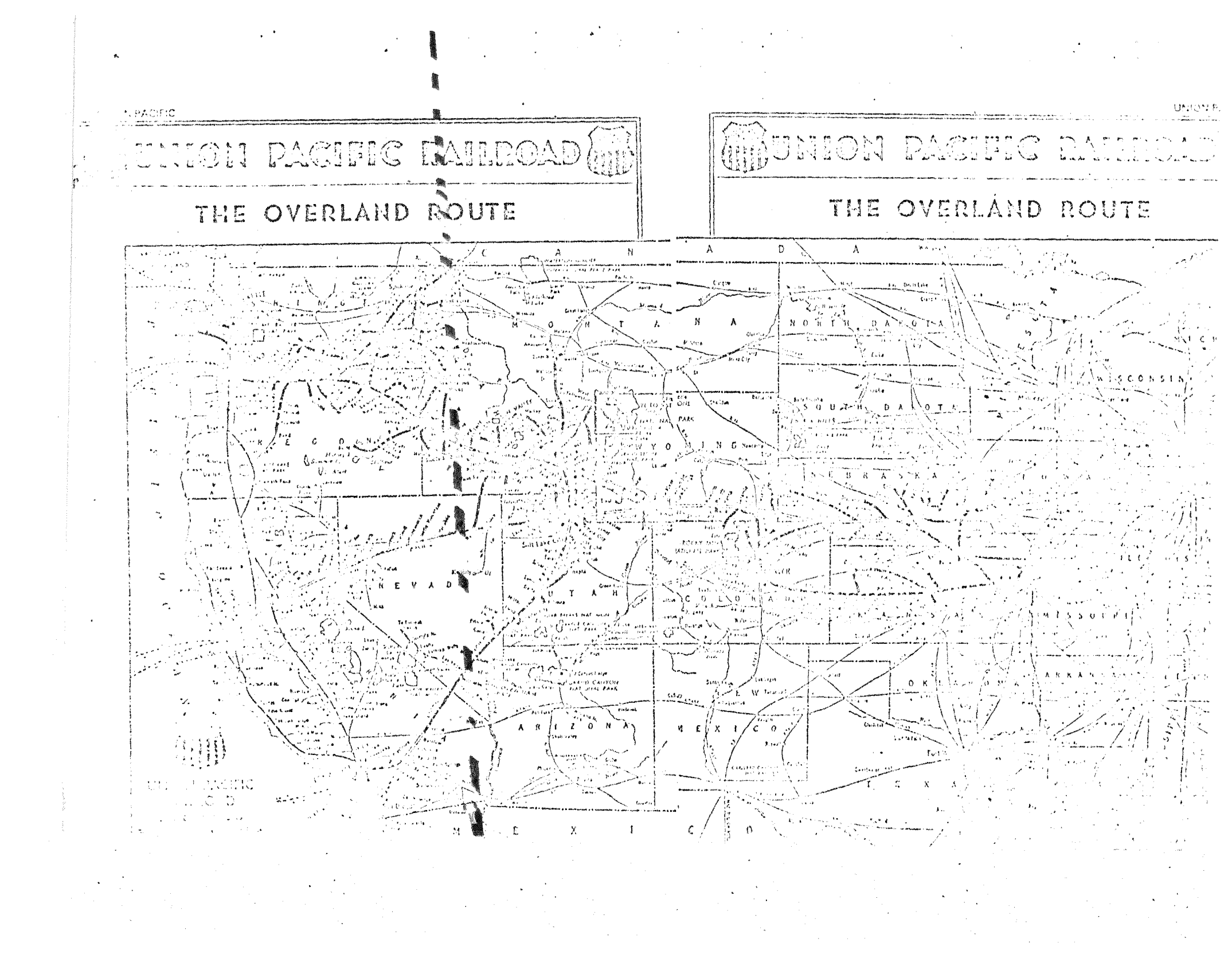
Problem: Here the potential coal traffic capacity exists. The problem is to get increased Western coal demand and increased Western coal production.

Union Pacific Railroad Co.
1416 Dodge St.
Omaha, Neb. 68179
Tel. 402-281-5822

W. P. Barrett, Vice Pres. Traffic
T. B. Graves, Jr., Asst. Vice Pres. Mktg.
N. R. Linse, Mktg. Mgr. Energy Resources

Territory Served: Serves 13 Western States extending from Kansas City, Mo. and Council Bluffs, Iowa on the east to Seattle, Wash. and Los Angeles, Calif. on the west.

1974 Coal Tonnage Moved: 12,600,000 T
Unit Train Tonnage: 7,200,000 T
Per Cent of Total: 57%


UNION PACIFIC RAILROAD
THE OVERLAND ROUTE
UNION PACIFIC RAILROAD
THE OVERLAND ROUTE
C A N A D A
M O N T A N A
NORTH DAKOTA
SOUTH DAKOTA
WISCONSIN
NEBRASKA
W Y O M I N G
NEVADA
U T A H
COLORADO
MISSOURI
ARKANSAS
OKLAHOMA
ARIZONA
NEW MEXICO
TEXAS
M E X I C O