

CHICAGO NORTH SHORE AND MILWAUKEE RAILWAY

ANNUAL REPORT

FOR THE YEAR 1955

WAY, STRUCTURES AND POWER DEPARTMENT

Highwood, Illinois  
February 20, 1958

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## F O R E W O R D

This report of work accomplished by the Way, Structures and Power Department during the year 1955 is, of necessity, brief due to the time which has elapsed prior to its preparation. It is a record, chiefly, of A.F.E. work and of such maintenance items as can be compiled from other office records.

On December 31, 1954, the Illinois Commerce Commission entered an order permitting the abandonment of passenger service on the Shore Line Route between Waukegan and Chicago. This was followed by a similar order dated May 19, 1955, from the Interstate Commerce Commission. At 4:01 A.M. on Monday, July 25, 1955, passenger service was discontinued and the track was broken at Linden Avenue, Wilmette, and at Elm Place, Highland Park. Freight service was maintained between North Chicago Junction and Highland Park. Equipment trains are also operated between Highwood Shops and North Chicago Junction. On December 30, 1955, a contract was entered into with the Commercial Salvage Company of Chicago for the removal of tracks, buildings, and trolley wire between Linden Avenue and Elm Place, and between North Chicago Junction and Tenth Street, Waukegan, and for the removal of one track and trolley wire and certain buildings between Elm Place and North Chicago Junction.



TRACK AND ROADWAY  
ADDITIONS AND BETTERMENTS

RAIL RENEWAL, NILES CENTER ROAD TO CHURCH STREET -  
A.F.E. 5345

Work was begun late in December on the renewal of 5265 track feet of 100# rail with 115# rail. By the end of the year 5616 lineal feet of rail had been installed. A Meco rail laying machine was rented from the C&NW Ry. to handle the new rail. In connection with this work, the main line crossover north of Niles Center Road was retired on October 21, 1955.

SIDETRACK CONSTRUCTION, HILL-BEHAN LUMBER CO. - A.F.E. 5354

This A.F.E. contemplates the construction of 550 feet of sidetrack on the east side of the right-of-way north of Highmoor station. Work done in 1955 consisted of building the subgrade, using fill dirt furnished by the industry.

RAIL RENEWAL, LAKE BLUFF - A.F.E. 5316

1495 track feet of 100# rail was relaid with new 115# rail on the northbound track in the curve at Scranton Avenue, Lake Bluff. Track was fully tieplated and anchored with 10 anchors per rail.

EXTENSION OF TRACK NO. 1, PETTIBONE YARD - A.F.E. 5324

Extended Track No. 1 in Pettibone Yard north 126 feet and connected into northbound track in Commonwealth Avenue with a No. 6 turnout located opposite the Freight House. Track is built of 80# relay rail on new and secondhand ties and cinder ballast and is fully electrified.

TRACK CONSTRUCTION, WAUKEGAN - A.F.E. 5328

In preparation for Shore Line abandonment, the coach yard on the west side of the main line between Glen Rock Avenue and Edison Court was rebuilt and another track

## TRACK AND ROADWAY

### ADDITIONS AND BETTERMENTS - cont'd.

#### TRACK CONSTRUCTION, WAUKEGAN - A.F.E. 5328 (cont'd.)

added. The new and rebuilt tracks are of 100# relayer rail and special work on new ties and prepared gravel ballast. No. 1 track was extended south across Glen Rock Avenue to connect with the lead-out track to the southbound main track. This work was done by T. C. Bakas and Sons. All material was furnished by the Railway.

T. J. Killian and Son installed a two-inch water line and 12 yard hydrants with six-inch Armco perforated pipe for sub-drainage.

Company forces relaid the 80 pound rail in the loading track with 100# relayer material and extended the track 40 feet north. The south end of the canopy over the southbound platform was cut back to permit this extension.

Company forces also relocated the main line crossover from the north side of Cornelia Avenue to the south side, removed the trailing point crossover to the east siding and installed a new facing point crossover to the siding on the south side of Cornelia Avenue.

Jenkins and Boller had the contract for the grading in the coach yard and also replaced the concrete sidewalk on the south side of Glen Rock Avenue.

#### CAMPERS ROAD RELOCATION - A.F.E. 5309

In cooperation with the Town of Caledonia, Racine County, a new gravel road was built on the east side of the right-of-way from Mona Park Subdivision to State Route 31 (Ole Davidson Road). The new road is partly on Railway right-of-way and partly on adjacent property to which title was acquired by the Township. Grading and road construction was done by the Township. Railway forces relocated the east fence and the Railway contributed \$1500 towards the cost of the project. With the completion of the new road the north Campers Road crossing was removed and the south, or Mona Park crossing, was changed to the status of a farm crossing, secured by gates in both fences.

## TRACK AND ROADWAY

### ADDITIONS AND BETTERMENTS - cont'd.

#### SIDETRACK FOR NATURAL SAWMILL CO. - A.F.E. 5351

Company forces built a sidetrack 225 feet long on the south side of the right-of-way, extending west from a switch in the existing track serving the Richards Stone Co. at South Upton. Track is built of 80# relay rail on new ties and gravel ballast, and is partially electrified.

#### RAIL RENEWAL - KNOLLWOOD - A.F.E. 5326

Relaid 363 track feet of 80# rail and fastenings with 100# relayer material on the southbound main track east of Knollwood. This was done to obtain 80# rail for maintenance purposes.

#### TRACK WORK AT MUNDELEIN - A.F.E. 5332

In preparation for Shore Line abandonment, a new passenger car siding 630 feet long was built south of and parallel with the main line, extending west from a No. 10 turnout in the southbound main track. The west 194 feet of this track is adjacent to the loading platform. Track work was done by T. C. Bakas and Sons with material consisting of 80# special work, 100# relayer rail and fastenings, new ties and prepared gravel ballast all furnished by the Railway. Track is electrified throughout. Company forces moved the facing point crossover 373 feet east and the trailing point crossover immediately east of facing point crossover with 10 feet between switch points on the northbound main.



TRACK AND ROADWAY

MAINTENANCE WORK

Installed 9927 - 100# double shoulder tie plates as follows:

<u>Section</u>	<u>Tie Plates</u>
1 - Dempster Street	500
2 - Glenayre	766
3 - Briergate	2,747
4 - South Upton	517
5 - Waukegan	182
6 - Zion	800
7 - Kenosha	1,254
8 - South Racine	922
9 - North Racine	200
10 - Carrollville	888
11 - Grange Avenue	1,002
12 - Milwaukee	<u>149</u>
Total Tie Plates	9,927

TIES RENEWED

Ties were renewed by company forces as follows:

<u>Section</u>	<u>Main Line</u>	<u>Sidetrack</u>	<u>Switch</u>
1 - Dempster Street	704	32	-
2 - Glenayre	399	34	2
3 - Briergate	1,416	-	2
4 - South Upton	1,003	-	10
5 - Waukegan	191	84	1
6 - Zion	399	-	-
7 - Kenosha	737	7	-
8 - South Racine	462	-	-
9 - North Racine	232	-	-
10 - Carrollville	555	-	-
11 - Grange Avenue	481	-	20
12 - Milwaukee	-	171	13
13 - Libertyville	<u>691</u>	<u>35</u>	<u>43</u>
	7,270	363	91

BRIDGE AND BUILDING  
ADDITIONS AND BETTERMENTS

CONGRESS STREET BAGGAGE ROOM - A.F.E. 5325

Effective May 4, 1956, the Congress Street Baggage Room was removed to the City of Chicago's Parking Facility No. 3 located at 550 South Holden Court. The old building was acquired by the City and torn down to make way for the Parking Facility.

A Fairbanks, Morse 6000-pound capacity floor scale was purchased and installed under A.F.E. 5325. The pit for this scale was constructed as part of the building.

NORTHBROOK PARKING LOT - A.F.E. 5320

This parking lot was extended north about 100 feet.

BRIERGATE PARKING LOT - A.F.E. 5317

The parking lot on the east side of the right-of-way was extended north about 110 feet. 80 feet of 30-inch Armco culvert pipe was laid in the drainage ditch between the main line culvert and the east fence line.

HIGHMOOR PARKING LOT - A.F.E. 5318

This parking lot was extended north about 60 feet.

SKOKIE VALLEY PARKING LOTS - A.F.E. 5348

This A.F.E. was issued to cover cost of enlarging parking lots at all nine Skokie Valley stations and at Edison Court, Waukegan, and the installation of A.C. flood-lighting at each location. During the year 1955, extensions were made at Harmswoods, Woodridge, Briergate and Sheridan Elms.

## BRIDGE AND BUILDING

### ADDITIONS AND BETTERMENTS - cont'd.

#### ADDITIONAL STATION FACILITIES AT LAKE BLUFF - A.F.E. 5349

At Lake Bluff, Skokie Valley Line, the southbound platform was extended north 128 feet to accommodate a 6-car train. The northbound platform was extended north 160 feet to accommodate a 7-car train. The standard 32-foot shelter from 14th Street, East Line, was moved to the northbound platform at Lake Bluff.

#### INSPECTION PIT AT WAUKEGAN - A.F.E. 5329

Railway forces built a timber car inspection pit, 70 feet long, constructed of creosoted fir timbers and plank on stone subgrade, complete with drainage, lighting, and blacktop working area. Excavation was done by Jenkins and Boller. The space between the sides of the excavation and the walls of the pit was filled with stone. A 6-inch tile drain line was run from the pit to the ravine west of the tracks.

#### TRAINMEN'S BUILDING AT WAUKEGAN - A.F.E. 5330

In order to provide room for the large number of trainmen transferred to Waukegan by reason of Shore Line abandonment, the old frame restaurant building on Washington Street, west of the tracks, was remodeled to serve as a locker room and office. New rubber tile flooring was installed by contract on plywood sub-floor. Plywood partitions were erected to enclose office space in the northeast corner. Plumbing fixtures were rearranged, the attic was insulated and a new, oil-fired, hot-air heating plant installed. The switchmen's building was relocated and a walk built from the southbound platform to the building. A line of posts was set west of the building to enclose space for parking Waukegan North Chicago Transit Company buses. The interior of the building was painted.

#### MECHANICAL DEPT. SHOP BUILDING AT WAUKEGAN - A.F.E. 5331

An Armco sectional steel building, 12'x20', was purchased and erected on a gravel filled timber platform south of the station building and adjoining the northbound platform. Ceiling and side walls were insulated, blacktop



## BRIDGE AND BUILDING

### ADDITIONS AND BETTERMENTS - cont'd.

#### MECHANICAL DEPT. SHOP BUILDING AT WAUKEGAN - A.F.E. 5331 - cont'd.

floor placed and 600 volt lighting and power outlets installed. Building is heated with a Modine unit heater using bottled gas. The existing lamp house equipment was moved from Highwood to the new building.

#### REHABILITATION OF RACINE STATION - A.F.E. 5323

The interior of this station was modernized by the installation of rubber tile floor and baseboard, fluorescent lights and accoustical ceiling. The building and shelter were painted inside and outside. All work was done by company forces except floors and lighting which were contracted.

#### PARKING SPACE AT RACINE - A.F.E. 5294

Work was completed on a new parking lot, 220'x20', on the west side of the right-of-way north of Lindermann Avenue. This was started in 1954 and stopped until the property could be rezoned for parking purposes.

#### TRAINMEN'S ROOM AT MUNDELEIN - A.F.E. 5334

Concrete block walls were built to enclose a space 12'x14'6" inside the Mundelein station west of and adjoining the ladies' room. The existing doorway to the ladies' room was closed up and a new doorway cut through the brick wall into the passageway. Work was done by Jenkins and Boller.

#### REPLACEMENT OF SOUTH STOREHOUSE AT HIGHWOOD - A.F.E. 5346

The frame storehouse located in the south yard at Highwood was completely destroyed by fire on August 11, 1955. A contract was entered into with Butler Manufacturing Company to furnish and erect a new steel building 40'x80'x10' high on concrete foundations and a 5-inch reinforced concrete floor on sand fill. At the end of the year the footings and foundation walls had been installed.

BRIDGE AND BUILDING  
MAINTENANCE WORK  
BUILDINGS AND PLATFORMS

In addition to routine minor repairs to buildings and platforms, the following major work was done:

The smokestack for the Highwood heating plant was renewed by the American Boiler and Tank Company. The new stack is 36" diameter by 25' high.

At Kenosha Substation the A-1 Roofing Company installed a 4-ply built-up roof.

The concrete foundations for the towers at College Avenue Substation were repaired by Ed. Steigerwald and Sons of Milwaukee.

All defective concrete in Pit No. 3 at Milwaukee Terminal was replaced by Ed. Steigerwald and Sons.

BRIDGE AND BUILDING

MAINTENANCE WORK - cont'd.

BRIDGES, TRESTLES AND CULVERTS

The following repairs were made by company forces:

SOUTH MILWAUKEE ROAD

Renewed 12 stringers in the southbound trestle.

LAYTON AVENUE

Renewed 1 cap and 9 stringers and rebuilt the bulkhead walls on the north end.

MUTUAL COAL CO. TRESTLE

Renewed 10 piles and 2 braces.

GREAT LAKES TRESTLE

Renewed 1 cap, 32 braces and 18 stringers.

DES PLAINES RIVER

Renewed 8 piles, 10 braces, 1 stringer and 4 ties.



## BRIDGE AND BUILDING

### MAINTENANCE WORK - cont'd.

#### PAINTING

##### LOCATION

Adams & Wabash	Washed interior, varnished benches
Edison Court Trainmen's Room	Painted interior
Edison Court Car Cleaners' Building	" "
McKeon Road Substation	" "
Bose Road Substation	" "
Racine Station	Painted interior and exterior
Milwaukee Barn	Painted Kinnear doors
Milwaukee Terminal	Washed toilet rooms
Highwood Office	Washed and touched up restaurant
Highwood Office Annex	Painted interior
Highwood Boiler Room	Painted structural steel
St. Mary's Road	Painted railings
Libertyville Station	Painted exterior
Garfield Avenue	Painted shelter
Butterfield Road	" "
Perpetual Adoration	" "
Mundelein Station	" exterior

In addition, approximately 70 signs of various kinds were painted.

WAY AND STRUCTURES SUMMARY

	<u>1955</u>	<u>1954</u>
<u>TRACK CONSTRUCTION - LINEAL FEET</u>		
Sidetrack Constructed on Railway R/W	2,803	227
" " " Private Property	-	291

RAIL INSTALLED - SINGLE TRACK FEET

115#	4,303	--
100#	3,963	495
80#	<u>438</u>	<u>227</u>
TOTAL	8,704	722

RAIL REMOVED - SINGLE TRACK FEET

100#	4,303	--
80#	1,722	495
65#	<u>--</u>	<u>--</u>
TOTAL	6,025	495

TIE PLATES INSTALLED

100#	9,927	5,833
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SPECIAL WORK

Crossovers Relocated	4	--
Turnouts Installed	7	1
Turnouts Removed	1	--
Crossings Built Up	2	2

TIES RENEWED

Main Line	7,270	6,765
Sidetrack	363	768
Switch	91	426
Bridge	<u>4</u>	<u>207</u>
TOTAL	7,728	8,166

WAY AND STRUCTURES SUMMARY - cont'd.

	<u>1955</u>	<u>1954</u>
<u>TIES INSTALLED ON NEW WORK</u>		
Sidetrack - New	1,025	49
Sidetrack - Secondhand	170	--
Switch - New	404	32
 <u>BALLAST - CARS</u>		
Stone	--	10
 <u>CROSSINGS</u>		
Crossings Removed	--	2
 <u>BRIDGE REPAIRS</u>		
Bridges Repaired	5	6
 <u>PAINTING</u>		
Buildings - Painted & Decorated	12	11
 <u>FENCING</u>		
Right-of-Way Fence Rebuilt - Lin. Feet	--	3,330
 <u>WEED KILLER</u>		
One Application - Single Track Miles	160	160
Total Solution Used - Gallons	50,000	50,000
 <u>CARLOAD MATERIAL</u>		
Sand and Stone	32	15
Coal	3	7
Ties	22	--
Cinders	41	20
Miscellaneous	4	7
TOTAL	102	49



COMMUNICATION AND SIGNALS DIVISION

ADDITIONS AND BETTERMENTS

AUTOMATIC CROSSING PROTECTION - GROSS POINT ROAD -  
A.F.E. 5163

Installed two Griswold automatic gates with flashing light signals replacing one flasher signal. These gates are interconnected with the crossing signals on the C&NW Ry. The new facilities were put in service on November 3, 1955.

AUTOMATIC CROSSING PROTECTION - SUNSET RIDGE ROAD -  
A.F.E. 5164

Installed two Griswold automatic gates with flashing light signals replacing old style autoflag. Northbound automatic block signal No. 203 was moved to a new location north of the crossing at the same time. The new crossing protection is interconnected with that on the C&NW Ry. and was put in service on July 29, 1955.

CROSSOVER PROTECTION CIRCUITS - A.F.E. 5322

The program of installing signal protection on crossovers in block signal territory was continued in 1955 by the installation of circuits on the crossover at Lake Avenue, Skokie Valley Line. This work is necessitated by the August 8, 1951 Signal Inspection Report of the Interstate Commerce Commission which listed twenty-two violations. Of this number, seven crossovers have been protected and five retired, including the four on the Shore Line.

AUTOMATIC CROSSING PROTECTION AT 14TH STREET, NORTH CHICAGO -  
A.F.E. 5260

Installed two Griswold automatic gates with flasher signals and four automatic sidewalk gates, replacing old style automatic gates. Northbound automatic block signal No. 359 was relocated north of the crossing. The Griswold gates were salvaged from the Shore Line.

AUTOMATIC CROSSING PROTECTION AT 45TH STREET, KENOSHA -  
A.F.E. 5338

To comply with orders of the Wisconsin Public Service Commission, work was started on the construction of a new grade crossing at 45th Street, Kenosha, and the installation

## COMMUNICATION AND SIGNALS DIVISION

### ADDITIONS AND BETTERMENTS - cont'd.

#### AUTOMATIC CROSSING PROTECTION AT 45TH STREET, KENOSHA - A.F.E. 5338 (cont'd.)

of Griswold automatic gates and flashers. When this installation is completed the crossing at 48th Street will be closed. Work was 40% completed at the end of 1955.

#### VOICE CARRIER TELEPHONES IN WISCONSIN TOWERS - A.F.E. 5340

Voice carrier telephones were installed on the physical circuit of the Milwaukee commercial telephone line at each of the three interlocking towers in Wisconsin replacing the leased Bell System line used for manual block operation. These phones operate independently of the Milwaukee commercial line. Also installed single party local Bell telephone at each tower for emergency use. This installation will result in over \$1000 annual saving in cost of telephone service.

#### RENEW TELEPHONE CABLE - A.F.E. 5299

This A.F.E. was issued in 1954 to cover the cost of renewing the main trunk line telephone cable between Highwood Office and Bloom Street, Highland Park. During 1955 the old 31 pair cable was removed and a new 51 pair cable installed on messenger wire put up the year before.

#### INTERCONNECTION OF TRAFFIC LIGHTS AND CROSSING GATES AT KNOLLWOOD - A.F.E. 5308

The automatic gates at Knollwood crossing were interconnected with the controls for the highway traffic signals at the intersection of Waukegan Road and Route 176. Material and labor were paid for by the State of Illinois. At the same time the northeast non-traffic gate was removed.

#### PURCHASE OF CABLE LOCATOR - A.F.E. 5319

A Dualtronic pipe, cable, and leak locator was purchased for use in locating underground cables and pipes.

COMMUNICATION AND SIGNALS DIVISION

MAINTENANCE WORK

In addition to the routine work of maintaining interlocking plants, block signals and crossing protection devices, the following work was done and charged to maintenance accounts:

Renewed track wires from southbound track cut at Signal 114 to the signal case and to the relay case east of East Prairie Road.

Installed manual pushbutton controls for automatic gates at Oakton Street and renewed connecting rod on derail, broken by switching movement.

Replaced both Model "M" automatic gates at Main Street, Skokie, with Model 31 gates.

Installed battery box and renewed battery with 5 cells of DME-9A at Lake Avenue, Skokie Valley Line. Changed out Model 31 automatic gate at southwest corner due to broken section.

The Model 31 automatic gate on the northeast corner at Willow Road was changed out for overhaul and again due to being struck by an automobile. Pushbutton stick relays were installed for manual control of the gates.

Changed out Model "M" automatic gate on the northeast corner at Deerfield Road after the lower section and door were damaged by a gas explosion.

Renewed the vertical air pipes in gateman's cabin at 22nd Street, North Chicago.

Installed new track wire and bottlegs at track cut for Signal 366 at 10th Street, Waukegan. Changed out both Model 31 automatic gates due to leaking oil.

Renewed derail, crank, compensators and 95 feet of pipe and carriers for derail on crossover from southbound main to siding south of Glen Rock Avenue, Waukegan.

Installed 2-inch pipe and new light cable across the tracks on the north side of Washington Street, Waukegan, to serve the manual gates.



COMMUNICATION AND SIGNALS DIVISION

MAINTENANCE WORK - cont'd.

Changed the 110 volt power feed for operation of manually controlled autoflags at Cornelia, Clarkson and Brookside, Waukegan, from the Washington Street gate cabin to the 2300 volt signal line at the relay case south of the station platform.

Changed out northwest sidewalk gate at Ridgeland Avenue, Waukegan.

Changed out broken impedance bond at Tobin Road, damaged by dragging equipment.

Changed out southeast sidewalk gate at 75th Street, Kenosha.

Removed, repaired and replaced Model "M" automatic gate on the southwest corner at Roosevelt Road, Kenosha. A Model 31 gate was installed temporarily while repairs were being made.

Added new circuits for the northbound manual block signal at Kenosha Tower. Replaced derail in C&NW west yard at Kenosha which was broken by C&NW freight cars.

Changed out Model "M" automatic gate at 52nd Street, Kenosha, due to accident which damaged gate beyond repair.

Installed two junction boxes and new 12 conductor cable over culvert at south end of Burlington Road curve.

Renewed 110 volt power line from Durand Road south to the northbound start. Changed out the Model "M" automatic gate on the northeast corner which had been damaged by an automobile.

Renewed interlocking control wires from Racine Tower west to the CMStP&P eastbound home signal.

Changed out defective switch circuit controller at Grange Avenue crossover.

Changed out northeast sidewalk gate at 4th Street, Libertyville.

Renewed track wire connections at Stewart Avenue, Libertyville.

COMMUNICATION AND SIGNALS DIVISION

MAINTENANCE WORK - cont'd.

Renewed track wire and changed circuits at  
Garfield Avenue, Libertyville.

Replaced broken derail pipe, crank and stand  
damaged by freight train in Borchardt Yard, north of  
Elm Place, Highland Park, Shore Line.

COMMUNICATION AND SIGNALS DIVISION

CROSSING GATES AND SIGNALS MAINTAINED AS OF DEC. 31

	<u>1955</u>	<u>1954</u>
Automatic Gates	36	39
Automatic Gates and Flashers	38	41
Manual Gates	3	5
Flasher Signals	4	5
Autoflags - Track Circuit	13	14
Autoflags - Manual Control	3	3
Block Signals - S.T. Miles	96.2	112.6
Switch Protection Signals	6	8
Interlocking Plants	4	4
Smash Gates	2	3
Gate Indication Signals	9	14



COMMUNICATION AND SIGNALS DIVISION

TELEPHONE FACILITIES

As of December 31

	<u>1955</u>	<u>1954</u>
Aerial Cable - Miles	11.70	12.14
Underground Cable - Miles	23.64	26.68
2-Wire Open Line	126.76	143.64
Cable Terminals - All Classes	121	121
XYZ Cable Terminal Protections	18	21
Cable Houses	37	37
Telephone Booths	64	64
Telephone Boxes on Poles	7	7
Telephone Stations	187	187
Interlocking Plant Telephones	16	16
Dispatch Boards - 20 Line	1	1

## DISTRIBUTION AND POWER DIVISION

### ADDITIONS AND BETTERMENTS

#### RAIL RENEWAL WORK - SYSTEM

Installed rail bonds on new 115# rail laid north of Niles Center Road - A.F.E. 5345; Lake Bluff curve - A.F.E. 5316; and on 100# relayer rail laid east of Knollwood - A.F.E. 5326.

#### TRACK CONSTRUCTION - WAUKEGAN - A.F.E. 5328

Performed necessary overhead and bonding work in connection with the reconstruction and enlargement of the coach yard at Waukegan and the relocation of main line and siding crossovers at Cornelia Avenue.

#### TRACK CONSTRUCTION - MUNDELEIN - A.F.E. 5332

Installed trolley wire and rail bonding for new storage track and relocated crossovers at Mundelein.

#### SIDETRACK CONSTRUCTION - SYSTEM

Installed trolley wire and rail bonding for extension to Track No. 1 at Pettibone Yard - A.F.E. 5324, and sidetrack for Natural Sawmill Co. at South Upton - A.F.E. 5351.

#### CONVERSION TO 60-CYCLE POWER IN WISCONSIN

The program for conversion of the Wisconsin substations to operate on 60-cycle power was continued. Cleanup work and removal of 25-cycle equipment was completed at McKeon Road, Bose Road and Taylor Avenue, Racine.

#### FOUR-MILE ROAD - A.F.E. 5313

Work was begun on conversion of Four-Mile Road Substation to a 60-cycle, 1000 KW automatic substation. The substation was taken out of service on September 6, 1955, at which time the Load Dispatchers were moved from Racine to Quarry substation. At the end of the year this project was 85% complete.



# DISTRIBUTION AND POWER DIVISION

## POWER STATISTICS FOR YEAR 1955

### POWER DISTRIBUTION

			<u>1955</u>	<u>1954</u>	<u>% Inc. or Dec.</u>
Wisconsin - exclusive of Milwaukee City	K.W.H.	A.C.	7,767,839.1	7,363,105	5.5
Milwaukee City	K.W.H.	A.C.	4,240.9	26,137	83.8
Wisconsin - including Milwaukee City	K.W.H.	A.C.	7,772,080	7,389,242	5.2
Milwaukee D.C. furnished by W.E.P. Co.	K.W.H.	D.C.	1,492,850	1,558,625	4.2
Wisconsin D.C. furnished by Winthrop Harbor	K.W.H.	D.C.	269,240	318,766	15.5
Wisconsin Total	K.W.H.	A.C.&D.C.	9,534,170	9,266,633	2.9
Illinois - Public Service Co. & C.T.A.	K.W.H.	A.C.&D.C.	20,248,143	22,025,809	8.1
Total Purchased	K.W.H.	A.C.&D.C.	29,782,313	31,292,442	4.8
Total Used by Freight Locomotives	K.W.H.	A.C.&D.C.	1,827,680	1,439,681	27.0
Used by C.T.A. Skokie Shops	K.W.H.	A.C.&D.C.	1,118,868	1,186,862	5.7
Total Interurban Use			26,835,765	28,665,899	6.4
Milwaukee City	K.W.H.	D.C.	1,495,710	1,576,784	5.1
Average Monthly Demand for Year as Billed	K.W.		8,777.6	9,062.4	3.1
A.C.&D.C. K.W.H. Purchased on Demand					
Charge Basis			27,640,769	29,235,128	5.5
Load Factor for Year			35.27%	34.77%	1.4
Car Miles Operated on North Shore Power, including C.T.A. on Skokie Division			5,773,112.17	5,785,460.50	0.2
Car Miles Freight			910,065.37	792,680.68	14.8
Car Miles Other Interurban			4,863,046.8	4,992,779.82	2.6
Kilowatt Hours per Car Miles Less Freight and Skokie Shops			5.52	5.74	3.8
Average Mean Temperature for Year			52.2	52.9	1.3
Normal Mean Temperature for Year			49.7	49.7	



DISTRIBUTION AND POWER DIVISION  
COST OF ELECTRICAL ENERGY PER CAR MILE

K.W.H. - C.N.S.&M. RY.

1955

	<u>Total K.W.H.*</u>	<u>Car Miles on N.S. Power</u>
January	3,027,615	500,066.93
February	2,781,741	462,584.34
March	2,926,079	512,517.26
April	2,542,986	494,577.49
May	2,484,495	522,076.79
June	2,363,534	494,549.36
July	2,236,768	482,102.14
August	1,984,005	453,275.81
September	2,028,183	450,167.23
October	2,192,776	456,270.42
November	2,523,174	462,365.24
December	<u>2,690,957</u>	<u>482,559.16</u>
Total	29,782,313	5,773,112.17

Purchased Power - Account 59                      \$488,493.24

Operating Expense - Power Accounts              \$584,648.46

Operating Expense                                      \$ 96,155.22

Total Car Miles on North Shore Power    5,773,112.17

Unit Power Cost:                                      1.640¢ / KWH

Unit Power Consumption:                      5.159 / car mile

Unit Car Mile Power Cost:                      8.462¢ / car mile

Unit Total Power Accounts Expense:    10.127¢ / car mile

\*Includes Consumption at C.T.A. Skokie Shops

DISTRIBUTION AND POWER DIVISION

POWER STATISTICS FOR YEAR - 1955

LOCOMOTIVE METERED K.W.H.

<u>Engine No.</u>	<u>K.W.H. Used</u>	<u>Mileage</u>	<u>K.W.H. per Mile</u>
452	125,220	10,800	11.85
453	91,050	10,182	9.65
454	147,910	12,891	11.84
455	302,170	15,780	19.52
456	331,870	16,416	20.22
457	197,360	11,436	17.62
458	140,110	10,332	12.65
459	<u>287,620</u>	<u>20,151</u>	<u>14.50</u>
	1,623,310	107,988	14.731 Ave.

Total metered at locomotive - 1,623,310 K.W.H.  
Illinois Part 82.735% 1,343,046  
Plus 10% Distribution Loss 134,304

D.C. K.W.H. Used in Illinois at  
point of Delivery 1,477,350 K.W.H.  
Wisconsin Part 17.265% 280,264  
Plus 25% Transmission and  
Conversion Loss 70,066

A.C. K.W.H. Used in Wisconsin at  
point of Delivery 350,330 K.W.H.

Total Energy at Power Co. Metering  
Points 1,827,680 K.W.H.

K.W.H. Illinois part - 1,477,350 @ 1.9214¢ \$28,385.80  
K.W.H. Wisconsin part - 350,330 @ 1.3307¢ 4,662.19

Total Cost for Electric Energy \$33,047.99

Total Freight Car Miles Operated 910,065.37

A.C. and D.C. at point of delivery per  
freight car mile 2.008 K.W.H.  
Purchased power cost per freight car mile 3.63¢  
Total Net Freight Ton Miles 20,817,295  
Total K.W.H. per Net Freight Ton Mile 0.0878



POWER PURCHASED - 1955

	<u>1955</u>			<u>1954</u>			<u>Percent</u>		
	<u>Amount</u>	<u>Average Rate</u>	<u>Cost</u>	<u>Amount</u>	<u>Average Rate</u>	<u>Cost</u>	<u>Inc. or Dec. Amt.</u>	<u>Rate</u>	<u>Cost</u>
<u>Public Service D.C. Contract</u>									
Demand as Run	84,149	-	-	92,599	-	-	8.8	-	-
Billing Demand	* 85,186	\$2.102	*\$179,075.50	92,599	\$2.074	\$192,048.25	8.0	1.4	6.8
Energy - K.W.H.	19,868,689	1.007¢	200,124.32	21,845,886	1.006¢	219,845.90	9.1	0.1	8.9
Total and Average	-	1.909¢	\$379,199.82	-	1.885¢	\$411,894.15	-	1.3	7.9
<u>Public Service A.C. Contract**</u>									
Demand as Run	103	-	-	3,791	-	-	97.3	-	-
Billing Demand	* 103	\$1.500	*\$ 154.50	3,912	\$1.471	\$ 5,754.00	97.4	1.9	97.2
Energy - K.W.H.	1,600	0.750¢	12.00	667,272	0.750¢	5,005.21	99.8	-	99.8
Total and Average	-	10.406¢	\$ 166.50	-	1.612¢	\$ 10,759.21	-	87.9	98.5
<u>Wisconsin Electric Power Company</u>									
Demand as Run	19,975	-	-	17,334.2	-	-	15.2	-	-
Billing Demand	* 20,042.1	\$1.200	*\$ 24,042.06	18,718.1	\$1.214	\$ 22,718.06	7.1	1.2	5.8
Energy - K.W.H.	7,770,480	1.020¢	79,224.58	6,721,970	1.047¢	70,380.86	15.6	2.6	12.6
Total and Average	-	1.329¢	\$103,266.64	-	1.385¢	\$ 93,098.92	-	4.0	10.9
W.E.P. CO. Metered D.C.	1,492,850	1.200¢	\$ 17,914.20	1,558,625	1.200¢	\$ 18,703.50	4.2	-	4.2
C.T.A. Calvary D.C. (A)	648,694	1.681¢	\$ 10,907.56	498,689	1.595¢	\$ 7,951.78	30.1	5.4	37.2
<u>GRAND TOTAL -</u>									
Demand - A.C. & D.C.	105,331.1	\$1.930	\$203,272.06	115,229.1	\$1.913	\$220,520.31	8.6	0.9	7.8
Energy - A.C. & D.C.	29,782,313	1.035¢	308,182.66	31,292,442	1.029¢	321,887.25	4.8	0.6	4.3
Cost	-	1.717¢	\$511,454.72	-	1.733¢	\$542,407.56	-	0.9	5.7

STATISTICS

	<u>Public Service D.C.</u>		<u>Public Service A.C.</u>		<u>Wisconsin Electric Power Co. A.C.</u>	
	<u>1955</u>	<u>1954</u>	<u>1955</u>	<u>1954</u>	<u>1955</u>	<u>1954</u>
Coal Cost per Ton - Mo. Avg.	-	-	-	-	\$6.94	\$7.26
Fuel Cost per Therm - Mo. Avg.	2.702¢	2.740¢	2.730¢	2.740¢	-	-
Adjustment per K.W.H.	Zero	0.15¢	0.15¢	0.15¢	0.32¢	0.35¢
Load Factor as Run	32.4%	32.3%	2.1%	18.3%	53.9%	53.4%
High Monthly Demand	Month K.W. Jan 8,492	Month K.W. Mar 8,500	Month K.W. Jan 103	Month K.W. Feb 523	Month K.W. Dec 1,971.4	Month K.W. Dec 1,802.3
Low Monthly Demand	Aug 5,412	Aug 6,630	Jan 103	Dec 127	June 1,433.3	Feb 1,186.3
Average Monthly Demand	- 7,037.4	- 7,716.6	** 103	** 315.9	- 1,664.6	- 1,444.5

\*Minimum Demand

\*\*Discontinued Public Service A.C. Supply 12:01 A.M. - January 15, 1955  
(A) 648,694 K.W.H. Supplied by Calvary - 1,118,868 Used at Skokie Shops



# DISTRIBUTION AND POWER DIVISION

## POWER SUMMARY AS BILLED - YEAR 1955

1,717,798	No. 30 Skokie	D.C.
1,136,999	No. 31 Lake Avenue	D.C.
952,738	No. 32 Kotz Road	D.C.
130,350	No. 32 Signals	A.C.
1,133,531	No. 33 Deerfield Road	D.C.
1,174,925	No. 34 Old Mill Road	D.C.
159,040	No. 34 Signals	A.C.
171,319	No. 35 Laurel Avenue	D.C.
1,469,161	No. 36 Libertyville	D.C.
295,232	No. 37 Central Street	D.C.
986,526	No. 38 Winnetka	D.C.
810,630	No. 39 Ravinia	D.C.
894,040	No. 40 Fort Sheridan	D.C.
2,163,280	No. A24 North Chicago	D.C.
1,114,870	No. 43 Waukegan, Pine Street	D.C.
192,780	No. 44 Beach Road	D.C.
807,700	No. 45 Winthrop Harbor	D.C.
3,375,990	No. 80 Lake Bluff	D.C.
301,440	Highwood Shops	A.C.
648,730	Skokie Shops	A.C.
24,800	Glencoe Signals	A.C.
27,800	Kenilworth Signals	A.C.
84,290	Howard Street Station	A.C.
66,340	Waukegan Signals	A.C.
28,380	Zion Signals	A.C.
19,868,689	Public Service Co. D.C. Contract Billings	
648,694	C.T.A. Calvary Billings	D.C.
20,517,383	Total Purchased - Illinois	D.C.
269,240	Less Winthrop Harbor to Wisconsin	D.C.
20,248,143	Total - Illinois	D.C.
1,600	Public Service Co. Billings	A.C.
20,249,743	Total - Illinois	A.C. & D.C.
7,770,480	Wisconsin Electric Power Co.	A.C.
1,492,850	Wisconsin Electric Power Co.	D.C.
269,240	Winthrop Harbor to Wisconsin	D.C.
29,782,313	Total A.C. & D.C. Purchased	
=====		
834,720	McKeon Substation	D.C.
556,630	Kenosha Substation	D.C.
635,590	Bose Road Substation	D.C.
515,920	Racine Substation	D.C.
171,100	Quarry Substation	D.C.
300,400	Four Mile Road Substation	D.C.
587,300	Nechuta Substation	D.C.
542,900	Carrollville Substation	D.C.
510,000	College Avenue Substation	D.C.
583,200	Milwaukee Substation	D.C.
5,237,760	Total Converted in Wisconsin	D.C.
1,492,850	Wisconsin Electric Power Co.	D.C.
269,240	Winthrop Harbor to Wisconsin	D.C.
6,999,850	Total - Wisconsin	D.C.
7,772,080	K.W.H. Wisconsin	A.C.
4,241	Less Milwaukee City	A.C.
7,767,839	K.W.H. A.C. to Wisconsin exclusive of Milwaukee City	
269,240	K.W.H. D.C. to Wisconsin from Winthrop Harbor	
8,037,079	K.W.H. to Wisconsin exclusive of Milwaukee City	

# DISTRIBUTION AND POWER DIVISION

## POWER STATISTICS FOR YEAR - 1955

### ENERGY PURCHASED

	<u>Public Service Company</u>		<u>C.T.A.</u>	<u>Wisconsin Electric Power Company</u>	
	<u>D.C.</u>	<u>A.C.</u>	<u>D.C.</u>	<u>A.C.</u>	<u>D.C.</u>
January	2,130,321	1,600	54,719	670,350	170,625
February	1,954,891	-	46,750	632,100	148,000
March	2,037,201	-	66,925	677,328	144,625
April	1,787,231	-	50,541	588,964	116,250
May	1,713,251	-	44,986	617,758	108,500
June	1,666,381	-	48,263	557,540	91,350
July	1,487,791	-	41,534	617,568	89,875
August	1,240,398	-	53,812	600,920	88,875
September	1,244,281	-	54,880	635,022	94,000
October	1,362,111	-	56,953	667,462	106,250
November	1,560,641	-	63,584	738,574	160,375
December	1,684,191	-	65,747	766,894	174,125
	19,868,689	1,600	648,694	7,770,480	1,492,850

Grand Total - System K.W.H. A.C. & D.C.  
 Energy Purchased on Demand - A.C. & D.C. K.W.H.  
 Average System Demand for the Year - K.W.  
 System Load Factor

29,782,313  
 27,640,769  
 8,777.6  
 38.732

DISTRIBUTION AND POWER DIVISION

POWER STATISTICS FOR YEAR - 1955

MILWAUKEE CITY POWER STATISTICS

Kilowatt Hours - D.C.

	<u>N.S. Feeder</u>	<u>W.E.P. Co.</u>	<u>Total</u>
January	520	170,625	171,145
February	370	148,000	148,370
March	190	144,625	144,815
April	100	116,250	116,350
May	200	108,500	108,700
June	780	91,350	92,130
July	500	89,875	90,375
August	20	88,875	88,895
September	130	94,000	94,130
October	50	106,250	106,300
November	-	160,375	160,375
December	-	174,125	174,125
Total	2,860	1,492,850	1,495,710

Kilowatt Hours - A.C.

January	751
February	546
March	280
April	150
May	282
June	1,190
July	752
August	29
September	187
October	74
November	-
December	-
Total	4,241

Total D.C. K.W.E. to Milwaukee City	-	1,495,710
Total A.C. K.W.E. to Milwaukee City	-	4,241
Wisconsin Ratio of Conversion	-	67.4%



# DISTRIBUTION AND POWER DIVISION

## POWER STATISTICS FOR YEAR - 1955

### ILLINOIS SUBSTATIONS D.C. OUTPUT IN K.W.H.

	<u>Calvary Sub.</u>	<u>Skokie No. 30</u>	<u>Lake Ave. No. 31</u>	<u>Kotz Rd. No. 32</u>	<u>Deerfield Rd.-No. 33</u>
January	54,719	181,009	106,578	76,690	90,129
February	46,750	163,659	90,508	70,590	81,639
March	66,925	154,209	104,218	80,290	86,279
April	50,541	124,439	83,628	75,790	80,659
May	44,986	133,069	87,168	76,390	80,809
June	48,263	118,199	86,148	75,290	81,989
July	41,534	126,719	79,618	76,190	84,469
August	53,812	129,280	90,189	81,570	102,690
September	54,880	123,770	87,039	82,570	97,910
October	56,953	132,445	102,515	79,256	107,446
November	63,584	167,665	106,925	82,356	115,326
December	65,747	163,335	112,465	95,756	124,186
	648,694	1,717,798	1,136,999	952,738	1,133,531

	<u>Old Mill Rd. No. 34</u>	<u>Laurel Ave. No. 35</u>	<u>Libertyville No. 36</u>	<u>Central St. No. 37</u>	<u>Winnetka No. 38</u>
January	85,690	20,088	163,759	52,990	165,118
February	89,690	1,698	148,009	44,720	154,318
March	103,490	58	146,239	45,480	152,318
April	98,690	68	98,689	41,350	130,718
May	100,990	2,878	92,819	43,480	146,418
June	91,490	16,068	91,949	37,860	139,118
July	89,690	12,378	81,859	29,610	98,518
August	98,757	10,679	92,180	6,211	"
September	105,770	7,949	96,870	6,469	"
October	100,756	18,025	116,646	-	"
November	98,256	35,915	167,156	-	"
December	111,656	45,515	172,986	-	"
	1,174,925	171,319	1,469,161	295,232	986,526

DISTRIBUTION AND POWER DIVISION

POWER STATISTICS FOR YEAR - 1955

ILLINOIS SUBSTATIONS D.C. OUTPUT IN K.W.H. (cont'd.)

	<u>Ravinia No. 39</u>	<u>Fort Sheridan No. 40</u>	<u>North Chicago A-24</u>	<u>Waukegan No. 43</u>
January	130,090	151,690	234,160	89,450
February	122,490	143,790	206,160	87,960
March	131,590	141,990	213,400	94,590
April	117,990	116,290	180,590	81,190
May	116,190	99,390	166,720	79,530
June	112,690	93,690	160,110	76,700
July	79,590	69,890	162,650	74,780
August	-	6,171	145,530	83,970
September	-	21,871	142,970	84,130
October	-	6,256	159,620	100,840
November	-	17,856	200,750	123,150
December	-	25,156	190,620	138,580
	<u>810,630</u>	<u>894,040</u>	<u>2,163,280</u>	<u>1,114,870</u>

	<u>Beach Rd. No. 44</u>	<u>Winthrop Harbor No. 45</u>	<u>Lake Bluff No. 80</u>
January	27,200	87,700	308,650
February	17,300	82,200	300,520
March	17,110	88,100	324,570
April	15,470	107,500	309,690
May	18,110	38,600	309,840
June	19,710	58,200	288,860
July	12,330	51,500	271,770
August	13,601	53,000	242,270
September	11,281	49,300	242,520
October	10,276	59,900	255,920
November	15,376	64,700	239,280
December	<u>15,016</u>	<u>67,000</u>	<u>282,100</u>
	<u>192,780</u>	<u>807,700</u>	<u>3,375,990</u>

Illinois K.W.H. D.C. - Less Auxiliary Load - 19,046,213

DISTRIBUTION AND POWER DIVISION

POWER STATISTICS FOR YEAR - 1955

AUXILIARY A.C. POWER FURNISHED UNDER  
D.C. POWER CONTRACT IN K.W.H.

	<u>Kotz Road Signals No. 32</u>	<u>Old Mill Road Signals No. 34</u>	<u>Highwood Shops</u>	<u>Skokie Shops</u>
Jan.	14,230	14,980	32,490	73,490
Feb.	12,280	13,050	29,370	71,730
Mar.	11,780	14,390	30,060	71,530
Apr.	10,140	13,420	24,640	53,780
May	10,090	12,960	24,810	52,090
June	9,520	11,970	23,760	52,480
July	9,460	11,580	18,830	26,690
Aug.	9,880	11,770	19,130	29,090
Sept.	10,150	12,410	20,340	39,090
Oct.	11,200	12,630	24,060	50,410
Nov.	9,510	14,610	25,900	61,040
Dec.	12,110	15,270	28,050	67,310
	130,350	159,040	301,440	648,730

	<u>Glencoe Signals</u>	<u>Kenilworth Signals</u>	<u>Howard St. Station</u>	<u>Zion Signals</u>	<u>Waukegan Signals</u>
Jan.	4,200	4,800	7,400	2,040	5,700
Feb.	3,600	4,800	7,070	2,040	5,700
Mar.	4,800	4,600	7,750	2,160	6,200
Apr.	3,600	3,900	7,120	1,980	5,900
May	2,800	3,800	6,640	1,860	5,800
June	3,200	3,200	6,500	1,980	5,700
July	2,400	2,700	6,750	2,220	5,600
Aug.	200	-	6,490	2,040	5,700
Sept.	-	-	6,550	2,160	6,100
Oct.	-	-	6,490	1,920	5,500
Nov.	-	-	7,130	2,040	5,700
Dec.	-	-	8,400	2,280	6,400
	24,800	27,800	84,290	24,720	70,000

Total Auxiliary A.C. under D.C. Contract - 1,471,152 K.W.H.



# DISTRIBUTION AND POWER DIVISION

## POWER STATISTICS FOR YEAR - 1955

### WISCONSIN SUBSTATION D.C. OUTPUT IN K.W.H.

	<u>McKeon</u>	<u>Kenosha</u>	<u>Bose Rd.</u>	<u>Racine</u>	<u>Quarry</u>	<u>4-Mile Road</u>
January	57,270	56,020	43,300	60,130	7,100	41,200
February	52,900	52,560	47,000	57,220	6,100	33,400
March	60,970	56,590	57,840	52,680	10,600	38,800
April	44,980	51,300	40,200	47,190	5,700	40,400
May	59,700	48,380	43,950	48,280	3,000	41,400
June	37,380	47,290	43,340	41,940	1,900	28,400
July	75,500	45,850	35,540	43,860	1,000	33,300
August	76,550	30,830	45,610	37,080	700	38,700
September	82,820	42,420	62,200	30,050	35,000	4,800
October	88,210	39,310	66,740	22,320	30,000	-
November	99,760	40,350	80,650	30,160	35,000	-
December	98,680	45,730	69,220	45,010	35,000	-
	834,720	556,630	635,590	515,920	171,100	300,400

	<u>Nechuta</u>	<u>Carrollville</u>	<u>College</u>	<u>Milwaukee</u>	<u>D.C. W.E.P. Co.</u>	<u>Win. Harbor to Wis.</u>
January	39,700	54,400	50,000	55,800	170,625	29,233
February	43,200	46,200	41,200	47,800	148,000	27,400
March	41,200	47,900	40,700	53,600	144,625	29,367
April	37,900	43,500	40,400	42,200	116,250	35,836
May	50,800	41,000	45,600	56,700	108,500	12,870
June	42,700	38,100	40,300	44,000	91,350	19,400
July	50,400	46,000	36,200	42,700	89,875	17,167
August	43,000	50,700	43,300	44,500	88,875	17,567
September	50,300	47,500	46,500	40,000	94,000	16,433
October	55,000	39,800	41,200	69,000	106,250	19,967
November	61,500	42,200	37,800	28,300	160,375	21,567
December	71,600	45,600	46,800	58,600	174,125	22,333
	587,300	542,900	510,000	583,200	1,492,850	269,240

Total Converted in Wisconsin - 5,237,760  
W.E.P. Co. D.C. in Wisconsin - 1,492,850  
Win. Harbor D.C. in Wisconsin - 269,240

DISTRIBUTION AND POWER DIVISION

POWER STATISTICS FOR YEAR - 1955

A.C. POWER FURNISHED IN WISCONSIN IN K.W.H.

	<u>Beach</u>	<u>Kenosha</u>	<u>Racine</u>	<u>Nechuta</u>	<u>Milwaukee</u>
January	1,600	179,520	134,400	52,800	303,630
February	-	231,360	48,000	55,200	297,540
March	-	259,200	4,800	52,800	360,528
April	-	204,480	76,800	46,800	260,884
May	-	227,520	72,000	62,400	255,838
June	-	202,560	67,200	55,200	232,580
July	-	246,720	72,000	63,600	235,248
August	-	247,680	67,200	55,200	230,840
September	-	271,680	52,800	61,200	249,342
October	-	293,760	43,200	68,400	262,102
November	-	319,680	62,400	75,600	280,894
December	-	320,640	72,000	86,400	287,854
	1,600	3,004,800	772,800	735,600	3,257,280

Total A.C. to Wisconsin 7,772,080 K.W.H.  
Total Converted in Wisconsin 5,237,760 K.W.H.  
Efficiency - Wisconsin 67.4%

Total A.C. for Nechuta 735,600 K.W.H.  
Total D.C. Converted-Nechuta 587,300 K.W.H.  
Efficiency - Nechuta 79.8%

# DISTRIBUTION AND POWER DIVISION

## POWER STATISTICS FOR YEAR - 1955

### MONTHLY K.W. DEMAND - ILLINOIS STATIONS

	<u>Power #30</u>	<u>Power #31</u>	<u>Power #32</u>	<u>Signals #32</u>	<u>Power #33</u>	<u>Power #34</u>
January	676.7	480.0	583.3	22.0	453.3	573.3
February	796.7	383.3	636.7	21.3	603.3	660.0
March	663.3	473.3	543.3	18.0	523.3	650.0
April	620.0	443.3	523.3	15.3	516.7	603.3
May	593.3	446.7	526.7	14.7	526.7	586.7
June	366.7	556.7	523.3	14.7	503.3	530.0
July	540.0	416.7	503.3	11.7	503.3	543.3
August	580.0	480.0	613.3	13.7	540.0	660.0
September	606.7	526.7	640.0	17.3	603.7	666.7
October	670.0	573.4	630.0	18.4	620.0	713.4
November	713.4	526.7	610.0	18.3	593.3	696.7
December	363.3	690.0	616.7	20.0	590.0	770.0
	7,190.1	5,996.8	6,949.9	205.4	6,576.9	7,653.4

	<u>Signals #34</u>	<u>Power #35</u>	<u>Lbtyville #36</u>	<u>Central Street #37</u>	<u>Winnetka #38</u>	<u>Ravinia #39</u>
January	22.3	130.0	673.3	230.0	820.0	530.0
February	22.3	-	683.3	190.0	726.7	490.0
March	20.7	-	620.0	186.7	750.0	523.3
April	21.3	-	513.3	173.3	680.0	503.3
May	19.0	-	476.7	180.0	636.7	463.3
June	17.0	160.0	483.3	176.7	656.7	473.3
July	15.3	73.3	463.3	163.3	670.0	303.3
August	15.0	76.7	473.5	6.7	-	-
September	20.0	113.3	553.3	-	-	-
October	19.4	126.7	630.0	-	-	-
November	18.7	266.7	786.7	-	-	-
December	22.0	280.0	706.7	-	-	-
	233.0	1,226.7	7,063.4	1,306.7	4,940.1	3,286.5



# DISTRIBUTION AND POWER DIVISION

## POWER STATISTICS FOR YEAR - 1955

### MONTHLY K.W. DEMAND - ILLINOIS STATIONS - cont'd.

	<u>Power #40</u>	<u>Power #A24</u>	<u>Power #43</u>	<u>Power #44</u>	<u>Power #45</u>	<u>Power #80</u>
January	543.3	880.0	350.0	110.0	120.0	1,083.3
February	453.3	806.7	406.7	60.0	240.0	1,103.3
March	500.0	836.7	400.0	26.7	200.0	1,120.0
April	503.3	783.3	346.7	90.0	146.7	1,046.7
May	460.0	776.7	323.3	110.0	90.0	1,000.0
June	423.3	683.3	326.7	63.3	163.3	930.0
July	460.0	690.0	313.3	70.0	96.7	953.3
August	6.7	556.7	316.7	56.7	103.3	830.0
September	36.7	530.0	293.4	63.3	103.3	813.3
October	46.7	566.7	350.0	103.4	113.3	820.0
November	36.7	633.4	363.4	80.0	156.7	820.0
December	56.7	646.7	310.0	100.0	160.0	856.6
	3,526.7	8,390.2	4,100.2	933.4	1,693.3	11,376.5

	<u>High- wood Shops</u>	<u>Skokie Shops</u>	<u>Kenil- worth Signals</u>	<u>Glencoe Signals</u>	<u>Howard Station</u>	<u>Waukegan Signals</u>	<u>Zion Signals</u>
January	46.3	128.7	4.0	6.3	14.0	9.0	3.0
February	40.0	84.7	6.0	6.7	15.0	11.0	3.0
March	40.7	82.0	3.0	3.7	15.0	9.0	3.0
April	32.3	91.3	2.0	3.3	13.0	9.0	2.0
May	33.0	79.7	2.0	3.0	11.0	11.0	2.0
June	35.7	59.0	2.7	2.7	13.0	9.0	2.0
July	30.3	23.0	2.0	2.3	11.0	9.0	2.0
August	28.0	29.0	-	1.0	11.0	12.0	2.0
September	36.3	93.0	-	-	11.0	9.0	2.0
October	40.3	98.3	-	-	12.0	9.0	2.0
November	32.3	90.0	-	-	13.0	9.0	2.0
December	38.3	160.0	-	-	14.0	9.0	3.0
	433.5	1,018.7	21.7	29.0	153.0	115.0	28.0

# DISTRIBUTION AND POWER DIVISION

## POWER STATISTICS FOR YEAR - 1955

### MONTHLY K.W. DEMAND AS RUN

	P. S. Div. A.C. Beach	W. E. P. A.C. Wis.	Total A.C.	P. S. Div. D.C. Ill.	Total System
Jan.	103.0	1,723.3	1,826.3	8,492	10,318.3
Feb.	-	1,624.9	1,624.9	8,450	10,074.9
Mar.	-	1,741.2	1,741.2	8,212	9,953.2
Apr.	-	1,514.0	1,514.0	7,683	9,197.0
May	-	1,588.1	1,588.1	7,372	8,960.1
June	-	1,433.3	1,433.3	7,176	8,609.3
July	-	1,587.6	1,587.6	6,870	8,457.6
Aug.	-	1,544.8	1,544.8	5,412	6,956.8
Sept.	-	1,632.4	1,632.4	5,739	7,371.4
Oct.	-	1,715.8	1,715.8	6,163	7,878.8
Nov.	-	1,898.6	1,898.6	6,467	8,365.6
Dec.	-	1,971.4	1,971.4	6,413	8,384.4
	103.0	19,975.4	20,078.4	84,449	104,527.4

### MONTHLY K.W. DEMAND AS BILLED

	P. S. Div. A.C. Beach	W. E. P. A.C. Wis.	Total A.C.	P. S. Div. D.C. Ill.	Total System
Jan.	103.0	1,723.3	1,826.3	8,492	10,318.3
Feb.	-	1,624.9	1,624.9	8,450	10,074.9
Mar.	-	1,741.2	1,741.2	8,212	9,953.2
Apr.	-	1,514.0	1,514.0	7,683	9,197.0
May	-	1,588.1	1,588.1	7,372	8,960.1
June	-	1,500.0	1,500.0	7,176	8,676.0
July	-	1,587.6	1,587.6	6,870	8,457.6
Aug.	-	1,544.8	1,544.8	5,944	7,488.8
Sept.	-	1,632.4	1,632.4	5,944	7,576.4
Oct.	-	1,715.8	1,715.8	6,163	7,878.8
Nov.	-	1,898.6	1,898.6	6,467	8,365.6
Dec.	-	1,971.4	1,971.4	6,413	8,384.4
	103.0	20,042.1	20,145.1	85,186	105,331.1

### Average Monthly Demand

Public Service Div.  
Public Service Div.  
Wis. Elect. Power Co.

D.C.  
A.C.  
A.C.

### As Run

7,037.4  
8.5  
1,664.6  
8,710.5

### As Billed

7,098.8  
8.5  
1,670.2  
8,777.5



# DISTRIBUTION AND POWER DIVISION

## POWER STATISTICS FOR YEAR - 1955

<u>Substation</u>	<u>Installed Capacity K.W.</u>	<u>Cycle</u>	<u>Number of Units</u>
No. 30 Skokie	2,000	60	1
No. 31 Lake Ave.	1,500	60	1
No. 32 Kotz Road	1,500	60	1
No. 33 Deerfield Rd.	1,000	60	1
No. 34 Old Mill Road	1,500	60	1
*No. 35 Laurel Ave.	1,000	60	2
No. 36 Libertyville	1,500	60	1
**No. 37 Central Street	2,000	60	2
**No. 38 Winnetka	1,000	60	1
**No. 39 Ravinia	1,000	60	1
No. 40 Fort Sheridan	1,000	60	1
No. A24 North Chicago	1,500	60	1
*No. 43 Pine Street	1,900	60	1
****No. 44 Beach	1,000	60	1
No. 45 Winthrop Harbor	1,500	60	1
*No. 80 Lake Bluff	<u>1,900</u>	60	<u>1</u>
	22,800		18
McKeon Road	1,500	60	1
Kenosha	1,000	60	1
Bose Road	1,000	60	1
***Racine	1,500	60	1
Quarry	1,000	25	1
4-Mile Road	500	25	1
*Nechuta Road	1,500	60	2
Carrollville	1,000	25	2
College Ave.	500	25	1
Harrison St.	<u>2,000</u>	25	<u>2</u>
	11,500		13

\*Mercury Arc Rectifier Substations; all others are Rotary Converters.

\*\*Ceased supplying power for Shore Line operation on July 28, 1955.

\*\*\*1,500 K.W. Rotary placed in operation 3-18-55.

\*\*\*\*Converted to 60 cycle operation 3-9-55.