

SHORE SUBSTATION

PS CO #30

VIEW LOOKING NORTH EAST

10 MAY 1957



Shortly when first started
to work to use multiple running contact
NCL refused. so I changed 3 DC contacts
to running contacts.

DC voltage was too low for the DC
contacts to close & hence the Crown
was used to wedge them on.

@ 6:00 AM the first train ran
on the stable wheels.

C. & G. gave report of situation at night. The
first report & pulled in information.

SHORE SUBSTATION



VIEW LOOKING NORTH



VIEW LOOKING NORTH

SHORE SUB STATION
PS CO. # 30

1-2000 KW WESTINGHOUSE ROTARY
CONNECTED TO ACCELERATION CRT
CONNECTED TO HIGHWAY SUPERVISOR
CONTROL
FIRST STARTED WITH 10' GROSS AM CA.
DATE FEB 1965

LAKE AVE SUB STATION (CLEVELAND)
PS BOT # 31
N.E.L. # 1



VIEW LOOKING N.E. July 1954



VIEW LOOKING NORTH
MAY - 1954

1- 1500 KW (W) ROTARY + PS DIST. CTR.
ON ACCELERATION CIRCUIT
ON HIGH VOLTAGE SUPERVISORY CONTROL

DATE MAY 1956

K&T2 RD SUBSTATION (NORTHBROOK)
PS Co. No. 32
WSE No 2



VIEW LOOKING WE MAR 1954



VIEW LOOKING NORTH MAR 1954

1 - 1500 KW GE ROTARY GENERATOR
ON REGULATION CIRCUIT
ON SUPERVISORY (HARWOOD) CONTROL

DATE March 26

BRIARCLIFF SUB STATION
 PSC # 38
 WCL # 3



VIEW LOOKING S. WOODLAND
 May 1954



VIEW LOOKING West May 1954

1- 1000 KW (4) ROTARY
 ON ACCELERATION CIRCUIT
 ON HIGHWOOD SUPERVISORY CONTROL

BRIARDALE SUB STATION



VIEW LOOKING NORTH WEST
May 1957

ORIGINALLY HAD GE 1500 KW ROTARY
WHICH WENT TO LIBERTY LAKE IN
1953

1500 KW (W) ROTARY CAME
FROM LIBERTY LAKE 1953

$$\begin{array}{r} 3.56 \\ -0.017 \\ \hline 3.543 \end{array}$$

ORIGINAL DATE May 1926

OLD MILL R. SUBSTATION
 PS. #237
 WSLMV



VIEW LOOKING SOUTH-EAST
 APRIL 1957



VIEW LOOKING SOUTH-WEST EAST
 MAY 1957

1-1500 KW D.E. ROTARY PSC. IN Bldg.
 ON HIGHW. 220 SUPERVISOR CONTROL
 ON ACCELERATION CIRCUIT.
 HAS PS. C. TRANSMISSION OUT. 5000.
 DATE Nov. 1956

CAROL AVE. SUB STATION (LARGE FORMER)

PE CO # 35

NSL # 35

VIEW LOOKING EAST May 1934



VIEW LOOKING NORTH-EAST

May 1934

DATE — Spring 1936

1 - 1000 KW GE MULTIPLE TANK
MERCURY ARC RECTIFIER

FIRST AMERICAN MADE MERCURY ARC RECTIFIER

LIBERTY LAKE SUBSTATION (LIBERTY LAKE)
PSC # 36



VIEW LOOKING SOUTH EAST
MAY 1954



VIEW LOOKING SOUTH
MAY 1954

CAUFEL AVE SUB STATION



VIEW LOOKING NORTH ^{May 1934}

ON HIGHWATER SUPERVISORY WORK
ON ACCELERATION CIRCUIT

have much trouble from vacuum
leaks right from the start.

around 1944 water pipe leaked
and the casing caught fire
for a month

LIBERTY LAKE SUBSTATION (LIBERTY LAKE)
PS 68 # 36



VIEW LOOKING SOUTH EAST
MAY 1954



VIEW LOOKING SOUTH
MAY 1954

LIBERTY LAKE SUBSTATION
PJ CA #34



VIEW LOOKING NORTH-EAST
ORIGINAL DATE March 1927
ORIGINALLY - 1-1000KW @ ROTARY
WENT TO BRIARCLIFF # 33 WILCO
IN 1953

@ ¹⁰PIESING - 1500KW @ ROTARY WHICH CAME FROM
BRIARCLIFF IN 1953

THIS CHANGE WAS MADE TO HELP IMPROVE
POWER CONDITIONS IN LIBERTYVILLE
BRANCH.

THIS STATION IS ON HIGHWAY SUPERVISORY
CENTRE
HAS @ HIGH SPEED LSR. WHICH WAS VERY THOROUGH
WHICH CA DISCLOSED ATTORNEYS AICR, COM, etc.

the day before the convention
(W) men came to G. I. to check
this Bkr. - ~~the~~ then gave papers on the
Bkr @ Denver Co. & refuted his claims
+ told G. I. G. I. was practical
Result. Westinghouse put much time
on lib lake high speed Bkr.

CENTRAL ST. SUB STATION (WILMOT)
PS & M 22



VIEW LOOKING NORTH WEST
May 1954



VIEW LOOKING SOUTH WEST
May 1954

FIRST 2000 KW GE ROTARY IN 1912
SECOND 2000 KW ROTARY ADDED LATER
WHEN BUILDING WAS EXPANDED ~~AND~~
ON C.T.A. SUPERVISORY CENTER SOUTH

CENTRAL ST SUB STATION



VIEW LOOKING EAST May 1954



VIEW LOOKING EAST May 1954

FIRST UNIT INSTALLED UNDER SUPER-
VISION OF D. L. SMITH

THIS SUB STATION SERVES BOTH MSL
& CTA PORTIONS OF SHORE LINE RTE

WINNETKA SUB STATION
PS Co # 38

VIEW LOOKING EAST May 1959



VIEW LOOKING EAST MAY 1959

1-1500FW OF ROTARY ^{OCT 1957}
ALSO PS Co TRANSMISSION BREAKERS

WINNETKA SUB STATION



VIEW OF YARD LOOKING WEST
May 1968



VIEW OF WIRE^{LINE} FOR
HIGH VOLTAGE CABLE ENTRANCE
LOOKING SOUTH

note cables have been disconnected from
substation yard.

RAVINA SUBSTATION
PS 674 ~~39~~ 39

VIEW LOOKING SOUTH EAST ~~1934~~ 1934



VIEW LOOKING NORTH-EAST ~~1934~~ 1934

1-1000 KW GE ROTARY IN 1921

2-1000 KW GE " " 1934 FROM LARSON

ONE MACHINE SENT TO BASE PD IN 1934

CONTROL " " WARE " " "

FIRST ~~1934~~ LOW SUB STATION ON N.S.L.

~~1934~~

PORT SHEPARD SUB STATION
PS CO # 48



VIEW LOOKING SOUTH - MAY 1954



VIEW LOOKING WEST MAY 1954

1 - 1500 KW G-E ROTARY ^{Sept} 1927
ON HIGHWOOD SUPERVISORY CONTROL
HAG SEPARATE FEEDER FOR HIGHWOOD
YARDS.
4x PS CO Transmission Cables

FORT SHERIDAN SUBSTATION



VIEW LOOKING SOUTH-WEST

May 1954

LAKE BLUFF SUBSTATION

Commonwealth



VIEW LOOKING NORTHEAST



VIEW LOOKING SOUTHEAST

1-1400KW BROWN-BOVERY MERCURY ARC RECT-
 IFR - 1930 - INSTALLED BY P.S.C. ME.
 GEORGE CO. TRANSMISSIONS AND CABLE CO.
 RECTIFIER FEEDS LIBERTYVILLE BRANCH &
 SHORE LINE ROUTE 4 SHORE VALLEY ROUTE.



VIEW LOOKING NORTH EAST
Aug 1934

VIEW LOOKING SOUTH-WEST
Aug 1934

1 - 1000 KW ROTARY FEB. 16, 1917 25KV
REMOVED TOBACH IN 1922.
1 - 1000 KW LOW ROTARY IN 1922 REMOVED
TO RAVINIA IN 1930 & THIS STATION WAS
THEN ABANDONED BECAUSE OF THE AGGRAVATION
OF THE LAKE BLUFF DISTRICT IN 1930

Lake Bluff Substation



VIEW LOOKING SOUTH-EAST

THE 1900 KW 1500 Vmmering ordered for this station ~~was~~ was delivered to L.B. but sent to north Chicago sub-stn # 42 instead, due to a burn out in the 5000 vmmmering @ North Chicago. In the meantime the portable set was used to take the load until a second machine was ordered in 1917.

10000 KW

While the first sub was in Lake Bluff the windings for a thermocouple system C.A. redesigned it & it was rebuilt by (W) at Harrison St sub-stn.

BROADWAY AVE. SUBSTATION
(NORTH CHICAGO)
P.S. CO. A-24



VIEW LOOKING SOUTH EAST ^{May 1942}



VIEW LOOKING SOUTH WEST ^{May 1942}

1-1500 KW (W) ROTARY 1942 (1st building)
INSTALLED BY P.S. CO. A-24
ALSO P.S. CO. TRANSMISSION SWITCHING BUILDING

NORTH CHICAGO SUBSTATION
P.S. CO. #42



New Look SOUTH WEST ~~1947~~ 1948



New Look SOUTHEAST ~~1947~~ 1948



VIEW LOOKING SOUTH EAST May 1954

ONE OF ORIGINAL MSL SUBSTATIONS

- 1 - 300KW 25KV manual GE motor
- 1 - 300KW 25KV manual G.E. motor
- 1 - 1000KW 72KV manual G.E. motor - replaced by 1000KW motor

IN 1919 THE 500 KW machine burned out.
C.A. ordered the City of San Antonio to build a new one.
1947

IN 1949 500KW + 300KW machine failed
+ AS CO took 1000 KW machine.
X power for 1000 KW machine destroyed and the
back fed in 1954 for 60 KV Commission of back.
The 1000 KW machine provided one being
damaged, but was repaired.

THIS STATION RECEIVED 25KV 13,200V power
from SUBSTATION fed above line 25KV station.
It also contained 2-300KW 13,200V to 33,000 V.
step up transformer to feed the Wisconsin 25KV
transmission line.

Major Anthony Supervisor, Control, when we moved to
the new in 1947 - the station 25KV line station, (1947)

1000 ft. deep and 100
ft. wide



1000 ft. deep. 100 ft. wide. 100 ft. long.
line to county station on N. B. line
of the Washington & Annapolis R.R. on
roadway to St. Line.

PUMP ST. SUBSTATION (WATTS) (WATTS)

PS 6-100-43



VIEW LOOKING SOUTH EAST May 1959



VIEW LOOKING NORTH EAST May 1959
N.E. Schenck & Son

1-1400W BROWN BOVEN MERCURY ARE RECORD
INSTALLED IN 1930 BY PS OF MI
Rear PS co. Distribution CO.

PINE ST. SUBSTATION



VIEW LOOKING WEST

THIS SUBSTATION SERVES THE GUY MILW
MAIN LINE & THROUGH A SEPARATE
FEEDER, THE ^{WASH} ST CAR SYSTEM NORTH
OF COUNTY & CLAYTON STS.

PS or sub site #41 (not a substation)
(not a substation)



view looking to E



view looking S E

1 - 3000 KVA vertical freq converter 3000 KVA
1 - 2400 KVA transformer
6 - 1400 KVA
also contained 1 - 1000 KVA rotating motor
Rear Apr 1954

PS Co. area photo # 41



view looking S E showing line
leaving for N.E.L. 25 V



view looking S E showing place for
transformer for N.E.L. 22.5 kv line 18 inch gap
2 inch gap Δ
each transformer 2000 kVA 9000 V input
13,200 V output until 1949 then 33000 V
output

BENCH ROAD SUBSTATION



VIEW LOOKING EAST June 1954



VIEW LOOKING SOUTH June 1954

1 - 500 KVA 250 AMP ~~GENERATOR~~ ^{GENERATOR}
(2-340) SENT TO OMAHA AVE. HILL
IN FALL 1949 WHEN LEN OF ROTARY INSTALLED
FROM LAMP BLUFF

THIS IS THE FIRST WEL AUTOMATIC ^{sub} STATION

AFTER 1949 IT BECAME THE VETERANS POINT
FOR 250 KVA 250 AMP ~~GENERATOR~~ ^{GENERATOR} ~~FROM LAMP BLUFF~~

BEACH ROAD SUBSTATION



VIEW LOOKING EAST June 1944



VIEW LOOKING SOUTH June 1944

(2-300) 500 KW 12N AUTO SUBSTATION - 6.6 KV 12N
POINT TO OCEAN AVE 11/22
IN ALL 1-1000W 12N OR ROTARY INSTALLED
FROM LAKE BLUFF

THIS IS THE FIRST NGL AUTOMATIC ^{SW} STATION
AFTER 1949 IT BECAME THE METERING POINT
FOR 620 3300V ~~line~~ ^{line} with line, ~~from~~ ^{and} not for local

Blair Road Substation



VIEW LOOKING SOUTH-EAST June 1959



View looking north - East June 1959
from sub-sta 41. before 1949 it was
from sub-sta 42 (North Chicago).

BEACHES, SUBSTATION



VIEW OF Chamberlaine Substa
C.R.P.
60 W 14TH W Rotary Cond. from
Chamberlaine 1957

WINTHROP

HARBOR SUBSTA.



view looking N.W.



view looking S.W.

1-1200KW GE ROTARY

1926

Laid out for a machine with 1500 volt
operation in mind.

WINTHROP HARBOR SUB STA



view looking S E

MC KEOWN RD. SUBSTATION



view looking SOUTH-EAST. May 1955



view looking EAST 1959

view of Original N.E. Substation

Originally 2 - 500KVA 25N manual Rotaries

around 1913. 1st Machine made Rotaries

in 1914 being replaced by 1 new off 25N

the machine that had failed.

Station had been kept broken in 1941

Station in 1941 replaced with 2 machines, 1 new

in 1944 outside Supervisors, Pilot Lamp etc.

Vina Haven Rd. Substation

view looking south

IN ~~1954~~, MAY 1954 CONVERTED TO COAL
1-1500 KW Rotary & Equipment purchased
from Overhead & Council Bluffs Co.
& installed between DEC 1953 & June 1954
being open 600 21,000 V. 60000
line connecting with Kansas Sub
station



Knappa sub station



view looking north May 1954



View looking north East May 1954
1-300 KW 15KV Rotary bank 4-15-18
Changed to 1000KW 60KV ROTARY about 1940
4th from PSC N. I. Power with about 33KV
60KV Transformer line from windrop North side
etc. Jan 1951 Power source changed from
HCL to WPP to 25,000V Transformer center

Kenosha ~~Substation~~ Substation



view looking back east May 1934

At this time the transformer Kenosha
could not be changed from 33KV to 26.4KV
& were therefore sent to Racine replacing
Racine transformers that could be changed
to 26.4KV. These X-formers were then
changed to 26.4KV & installed at Kenosha
sub. sta.

Station equipped with outside emergency
light in 1947

Kenosha ~~Substation~~ Substation



view looking back east May 1954

At this time the transformer Kenosha
could not be changed from 33KV to 26.4KV
& were therefore sent to Racine replacing
Racine transformers that could be changed
to 26.4KV. These 3 phases were then
changed to 26.4KV & installed at Kenosha
sub. sta.

Station equipped with outside emergency
light in 1957

Base Rd. Seal Station



view looking north 1948 53



view looking east 1948 53

1-1000 ft. 54 gate installed
again. Camp from portable rest room
control camp from from wilderness
of center, especially designed.

original record by fighting June 19, 1954
blacks converted to 10.4 field 1954
reconstruction from various 1954 to 1955
also Thompson from 1954 through 1955
has records including 1954 installed 1955
only

now kept the station with relay
Ch + Morrison + Ch. Jones
were taken on a tower by Billy Brown (C)
+ C. A. Bester (C) and taken to the
to Sheffield Rd. ; A message from
+ Cincinnati, Ohio to the post (C) in the
to Sheffield Rd. the Polarity came up again
+ after 2 so. of. hearing. It could not move.

In 1900, when the station was still
the contacts were were welded in the
operating position with weak blades,
because the blades had become out.

Plummet, which had been broken was
used through [redacted] (C) Controller was
made for 5000 machine only.

Roanoke Substation



view looking South East Aug 1954



view looking North

One of Original N.E. Substation lot —

2-5000w original N.E. Substation

Station for N.E. Substation, Virginia

~~Station~~ The Substation point in N.E. Substation
line, the Station Substation, located from
South East, the South East Substation
point.

Power Plant



Photograph taken at the power plant, showing the large building and the tall smokestack.

The power plant is located in the center of the city, and it is the main source of electricity for the city. The plant is a large, dark building with a flat roof, and it has several tall smokestacks. The smokestacks are emitting a plume of smoke, which is visible in the sky. The plant is situated on a flat, open area, and it is surrounded by other industrial buildings and infrastructure.

July 1st 1888



July 1st 1888



July 1st 1888

July 1st 1888

4 mile Rd. Inst station



view looking East



view looking South

10 500kW Rotary at 15% into installed roof, 1978

DECK WITH RE Insulation



view looking East



view looking North East

1-1500W AUTO RE TRANSMITTER SPECIFIED
IN 2 UNITS @ 750 W each. -

installed 1947

Operates directly from WTTC 26,000V line
transmission line through three Russian line

nearby Rd. Excavation



view looking South East



view looking west
across along C & N R.R. from 1 mile S.

CARROLLVILLE SUBSTATION

view looking East



view looking East

One of original V.S.E. Substations

2 - 500 kw. manual G.E. starters 2M

both make Auto

under Supervisory Control

Station kept running Carrollville Office
Under Supervisory Control

Carrollville Substation

view looking South.

Concrete floor grade 8' 11" in lower
part.



College Ave. Substation



view looking south May 1950



view looking south East May 1950

1-500 KV⁵⁰ auto relay from bus
ad 1924

on Milwaukee Supervisory Control
very inexpensive control system - 1924

College Ave. Substation



view looking west.

Harrison St (intermediate) station



view looking east



view looking S.E. Harrison St stops at 1/2 way
one of original N.S. & N. station
2-1000 W. G. E. Roberts manual 25 W
and control for induction of Louisville College
camp. N. system added
free. Change added 1953
station for 1500 W stop up Camp, 13.2 W 15.3 W

Warehouse, 1st Street, looking south, 1904



Warehouse, looking east, 1st Street, 1904



Warehouse, looking south, 1st Street, 1904. The warehouse is a large, single-story building with a dark roof. It is situated on a dirt lot with utility poles and wires visible in the background. The photo is mounted on a page with a white border.