

FILE

PUCO EXHIBIT FILING

Date of Hearing: August 9, 2017Case No. 16-2281-EL-CSSPUCO Case Caption: In the Matter of the Complaint
of Daniel Birrel, Complainant

v.

Ohio Power Company, Respondent

List of exhibits being filed:

AEP 2 and 3Complainant 1, 2, 3, 4, 5

I, the undersigned, certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business.
 Technician MA Date Processed AUG 23, 2017

Reporter's Signature: Carolyn M. BurkeDate Submitted: 8/23/2017

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

- - -

In the Matter of the	:	
Complaint of	:	
Daniel Birrell,	:	
	:	
Complainant,	:	
	:	Case No. 16-2281-EL-CSS
v.	:	
	:	
Ohio Power Company,	:	
	:	
Respondent.	:	

- - -

PROCEEDINGS

before Mr. Kerry Sheets, Attorney Examiner, at the Public Utilities Commission of Ohio, 180 East Broad Street, Room 11-D, Columbus, Ohio, called at 10:35 a.m. on Wednesday, August 9, 2017.

- - -

ARMSTRONG & OKEY, INC.
222 East Town Street, 2nd Floor
Columbus, Ohio 43215-5201
(614) 224-9481 - (800) 223-9481

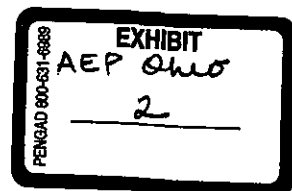
- - -

**BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Complaint of	:	
Daniel R. Birrell,	:	
	:	
Complainant,	:	Case No.: 16-2281-EL-CSS
	:	
v.	:	
	:	
Ohio Power Company d/b/a AEP Ohio,	:	
	:	
Respondent.	:	

**EXHIBIT WAS - 6
SUPPLEMENTAL TESTIMONY OF WALTER A. SHERRY
IN RELATION TO THE SITE INSPECTION
THAT OCCURRED ON AUGUST 7, 2017**

Presented at Trial on August 9, 2017



1 **Q. DESCRIBE THE PURPOSE OF THIS EXHIBIT, WAS – 6.**

2 A. The purpose of this exhibit is to supplement my testimony filed on the docket in this case
3 on June 14, 2017. The material covered in this exhibit focuses on the site inspection that
4 occurred on August 7, 2017.

5 **Q. PLEASE DESCRIBE WHERE THE SITE INSPECTION TOOK PLACE.**

6 A. The site inspection took place at the location in question where the healthy maple tree out
7 of right-of-way fell.

8 **Q. WHO WAS PRESENT AT THIS SITE INSPECTION?**

9 A. On location were four people from AEP: myself, Paula Igo, Ryan Aguiar and Mike
10 Benza. Mr. Birrell was present. And two individuals from the PUCO were present.

11 **Q. WHERE IS THE TREE LOCATED?**

12 A. It is best described by tracing our steps. To get there, we met at Mr. Birrell's house
13 addressed 22000 Emerson Street, West Lafayette, Ohio 43845. From there, we traveled by car
14 about 0.5 miles to a road with no outlet. We then entered the woods into an uncleared area. The
15 woods were congested with trees and rocks and mud. There were inclines and declines in
16 elevation that made the hike strenuous. Next to these woods is the circuit in question, which, as
17 explained, has a 34.5 kV transmission line at the top and a 12 kV distribution line below the
18 transmission line. In the space where the circuit sits, the ground is relatively flat and any
19 vegetation that grew into the clearance area was removed to a safe distance from the line
20 pursuant to our vegetation management practice. Though the woods is congested, the area
21 surrounding the circuit is not to the extent it is in the right-of-way and to the extent it needed
22 clearing in order to provide safe and reliable electric. Under the lines is underbrush which is
23 difficult to walk through but which is not a threat to the line. We do not "box cut" or completely

1 remove all vegetation in the corridor. Those present approached the location of the fallen tree in
2 question from the woods and the underbrush. The base of the tree still exists and is visible. The
3 tree is located about 4 spans, or about 0.2 miles, from the beginning of the woods. It took about
4 45 minutes to reach the tree after entering the woods. Mr. Birrell was not sure of its exact
5 location.

6 **Q. DESCRIBE THE VEGETATION MANAGEMENT THAT YOU OBSERVED.**

7 The vegetation management created a visible contrast from the woods we travelled
8 through. There was clear evidence that the distribution underbuild and the transmission line had
9 been maintained as I explained in my filed testimony. There was no growth in the distribution
10 area that would be considered a threat for the next 18 months. There were also signs of "hot
11 spotting" (annual reviews by transmission crews to remove danger trees) where crews had
12 dropped trees to clear the right-of-way for the transmission lines. Additionally, I saw that trees
13 had been cut and dropped uphill near the circuit, indicating clearing operations had occurred in the
14 recent past, approximately the last four to five years. There were no observable danger trees or
15 "grow-ins" where a tree grows into a conductor.

16 **Q. WHAT ELSE DID YOU OBSERVE?**

17 A. I also observed evidence that when the tree in question fell, it fell through the lines. This
18 was evidenced by burn marks on the transmission line and the distribution line. It was readily
19 visible that the lines broke because of splicing. Also, back 4 spans from the location, there was
20 evidence that the crew had cut the line to reduce the tension so the tree could be removed.
21 Additionally, one of the transmission insulators was bent indicating there was a lot of tension on
22 the transmission line at one point, which is likely attributable to the tree falling through the line.
23 The evidence corroborates the conclusions of my investigation and supplements my discussions

1 with our personnel; specifically, a discussion I was aware of that discussed how to safely remove
2 the tree from the line on the day in question. The main point of the discussion was to gain
3 approval to remove the tree off the remaining conductors. Approval was needed since the
4 conductors were pinned down by the weight of the tree which creates a stored energy threat to
5 the crews.

6 **Q. WHAT DID YOU OBSERVE IN RELATION TO THE LOCATION OF THE**
7 **TREE AND WHETHER OR NOT THE TREE WAS IN THE RIGHT-OF-WAY?**

8 A. It was confirmed that the tree in question was a tree outside of the right-of-way. As stated
9 in my filed testimony, the tree stood 26 feet outside the right-of-way and 46 feet from centerline.
10 Additionally, as I explained, because we perform annual helicopter reviews for danger trees, if
11 this tree was inside the right-of-way or a danger tree, we would have noticed it, and we would
12 have especially noticed a grow-in. It was further confirmed, through observation, that the tree in
13 question was a healthy green maple and that there was no reasonable way to tell that this tree
14 could have fallen.

15 **Q. WAS THERE ANYTHING ELSE OF NOTE THAT OCCURRED AT THE SITE**
16 **INSPECTION?**

17 A. Yes, Mr. Birrell mentioned a few things that I would like to address. First, Mr. Birrell
18 mentioned an encroachment brochure that I believe has confused the issue for him. The brochure
19 indicates that for 34.5 kV transmission lines, AEP would like to obtain a 50 foot right-of-way
20 from centerline in rural areas and 25 feet from centerline in urban areas. First, the line in
21 question can be considered urban due to homes in the near vicinity, which correlates with the
22 existing right-of-way being approximately 20 feet in width from right-of-way centerline. This is
23 a width we try to accomplish for new acquisitions and rebuilds; however, it is not the width

necessary to ensure safe and reliable electric delivery and it is not a standard to determine whether safe and reliable electric can be delivered. The transmission guidelines we observe are viewable from the snippet below. It was excerpted on August 8, 2017 from the *AEP Forestry: Vegetation Management Goals, Procedures & Guidelines for Distribution and Transmission Line Clearance Operations*. This table was created by AEP to assist foresters and engineers in the field.

Table 2: Transmission Line Clearance Guidelines

Column A	Column B	Column C	Column D	Column E
Nominal Voltage (kV phase to phase)	AEP Clearance 1 (no restrictions) Desired Clearance Between Conductor and Vegetation	AEP Clearance 1 (with restrictions) Desired Clearance between Conductor and Vegetation	ANSI ⁶ Clearance between Conductor and Vegetation	AEP Clearance 2 between Conductor and Vegetation
765kV	45'	35'00"	27'04"	14'00"
500kV	45'	26'08"	19'00"	10'00"
345kV	30'	20'05"	13'02"	7'06"
230kV	30'	16'05"	7'11"	5'02"
161kV	25'	14'00"	6'00"	3'05"
138kV	25'	13'02"	5'02"	2'11"
115kV	25'	12'04"	4'06"	2'06"
88kV	25'	12'04"	4'06"	2'06"
69kV	25'	10'09"	4'02"	2'06"
46kV	20'	10'00"	3'04"	2'06"
34.5 kV	20'	10'00"	3'04"	2'06"
23 kV	20'	10'00"	3'00"	2'06"

As you can see from the chart, AEP desires a clearance of 20 feet between the conductor and vegetation for transmission lines carrying 34.5 kV. This is a *guideline* for normal conditions, not a mandate. It is reasonable to deviate from the desired clearances when we are limited by circumstances such as layout, structures, or property rights. Here, as I mentioned in my filed testimony, we observed the desired clearances (20 feet) for normal conditions. The tree at issue was 26 feet outside of the property rights we have, which is the before-mentioned 20 foot right-of-way. For clarity, it is important to note that special training or equipment may be needed to

1 get within a certain distance of the line as indicated by columns C, D and E; this is for safety
2 purposes.

3 **Q. WHAT ELSE WOULD YOU LIKE TO ADDRESS?**

4 A. The other issue I wanted to address was something Mr. Birrell mentioned in relation to
5 protective equipment that he owns on his side of the meter. He stated that he owns transient
6 protective equipment and that the issue here was one of overvoltage; that is why his protective
7 equipment did not stop the alleged damages from occurring. In my expert opinion, I respectfully
8 disagree with his assertion. There is sustained overvoltage and there is transient overvoltage that
9 is momentary in nature. The evidence strongly suggests that the power fluctuation at issue here
10 was transient overvoltage, or momentary in nature. First, the breakers operated due the fault
11 current caused by the tree making contact with the transmission and distribution conductors.
12 Typical breakers operate within 3-4 cycles, which is 3-4 seconds. Second, the lightening arrestor
13 was damaged, as designed. Lightening arrestors are designed to absorb a rush of voltage from
14 transient occurrences. It should also be noted that no distribution transformers in the affected
15 area were reported damaged which would have indicated a sustained overvoltage had occurred.
16 The evidence dictates, therefore, that a transient power fluctuation occurred, not sustained
17 overvoltage. Furthermore, the evidence indicates that our equipment functioned as designed, so
18 our equipment did everything within reason to protect the customer.

19 **Q. GENERALLY SPEAKING, HOW DOES THIS CIRCUIT PERFORM?**

20 A. This is a normal performing circuit. Besides the outage at issue here, as of that day, there
21 had been no recorded outages that were vegetation related. As I stated in my filed testimony,
22 relevant records are viewable back to 2005. There have been outages due to other, non-
23 vegetation issues.

1 **Q. WHAT ARE YOUR CONCLUSIONS?**

2 As I have said, this was a healthy green maple tree 26 feet out of the right-of-way and 46
3 feet from the centerline. There was no reasonable way to know that this tree was going to fall.
4 AEP followed its guidelines, conducted clearing operations, removed all possible danger trees,
5 and performed annual inspections of the line. AEP's equipment operated as designed and we did
6 everything within reason to protect the customer and enhance reliability.

7 **Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL TESTIMONY IN**
8 **RELATION THE SITE INSPECTION THAT OCCURRED ON AUGUST 7, 2017?**

9 **A. Yes.**

Ryan Aguiar

From: Allan J Woodard
Sent: Wednesday, February 01, 2017 1:26 PM
To: Erin C Miller
Subject: FW: North Coshocton - Newcomerstown 34.5 sub transmission circuit // breaker operations
Attachments: IMG_0194.JPG; IMG_0195.JPG; IMG_0196.JPG; IMG_0197.JPG

From: Allan J Woodard
Sent: Tuesday, September 20, 2016 9:46 AM
To: James R King
Cc: Craig A Griffith
Subject: FW: North Coshocton - Newcomerstown 34.5 sub transmission circuit // breaker operations

Jim,

This circuit locked out Saturday, 09/17/2016. Very calm morning, no wind, tree from just outside the right of way was the cause. Interrupted two AEP stations and multiple Frontier Power Stations. There are three fairly long spaces within this circuit where it travels through heavily wooded areas. If the circuit is not planned to be trimmed soon, it needs hot spotted in these wooded areas. It will not stand another growing season. Please pass on to transmission forestry. We would like to be notified with your forestry plans. Attached are a few photos from our restoration area this past weekend.

Thanks, Allan

From: Allan J Woodard
Sent: Monday, August 22, 2016 9:47 AM
To: James R King
Subject: Re: North Coshocton - Newcomerstown 34.5 sub transmission circuit // breaker operations

Will do, thanks for your help!

Sent from my iPhone

On Aug 22, 2016, at 8:50 AM, James R King <jrking@aep.com> wrote:

Allan, We didn't observe anything outstanding that may be causing this to operate. Please keep me informed if the circuit operates again

Thanks Jim

From: Allan J Woodard
Sent: Tuesday, August 16, 2016 7:18 AM
To: James R King
Subject: Re: North Coshocton - Newcomerstown 34.5 sub transmission circuit // breaker operations



Sounds good, thanks!

Sent from my iPhone

On Aug 16, 2016, at 7:02 AM, James R King <jrking@aep.com> wrote:

Allan, This circuit was flown just recently for our yearly air patrol. I will be getting with the observer to see if anything stood out that could be causing this circuit to operate. I will keep you informed.

Thanks Jim

From: Allan J Woodard
Sent: Monday, August 15, 2016 10:46 AM
To: James R King
Cc: Robert R Murphy III; Craig A Griffith; Scott E Welker; Scott T Robinson; David K Burkholder; Donald E Cottrell; Jesse J Cochran; Joshua D McPeek
Subject: RE: North Coshocton - Newcomerstown 34.5 sub transmission circuit // breaker operations

Jim,

The breakers on this sub-transmission circuit operated once again Saturday, August 13 around 21:30PM. Was wondering if this circuit has been patrolled since the last note that I sent?

Thanks, Allan

South

Saturday, August 13, 2016

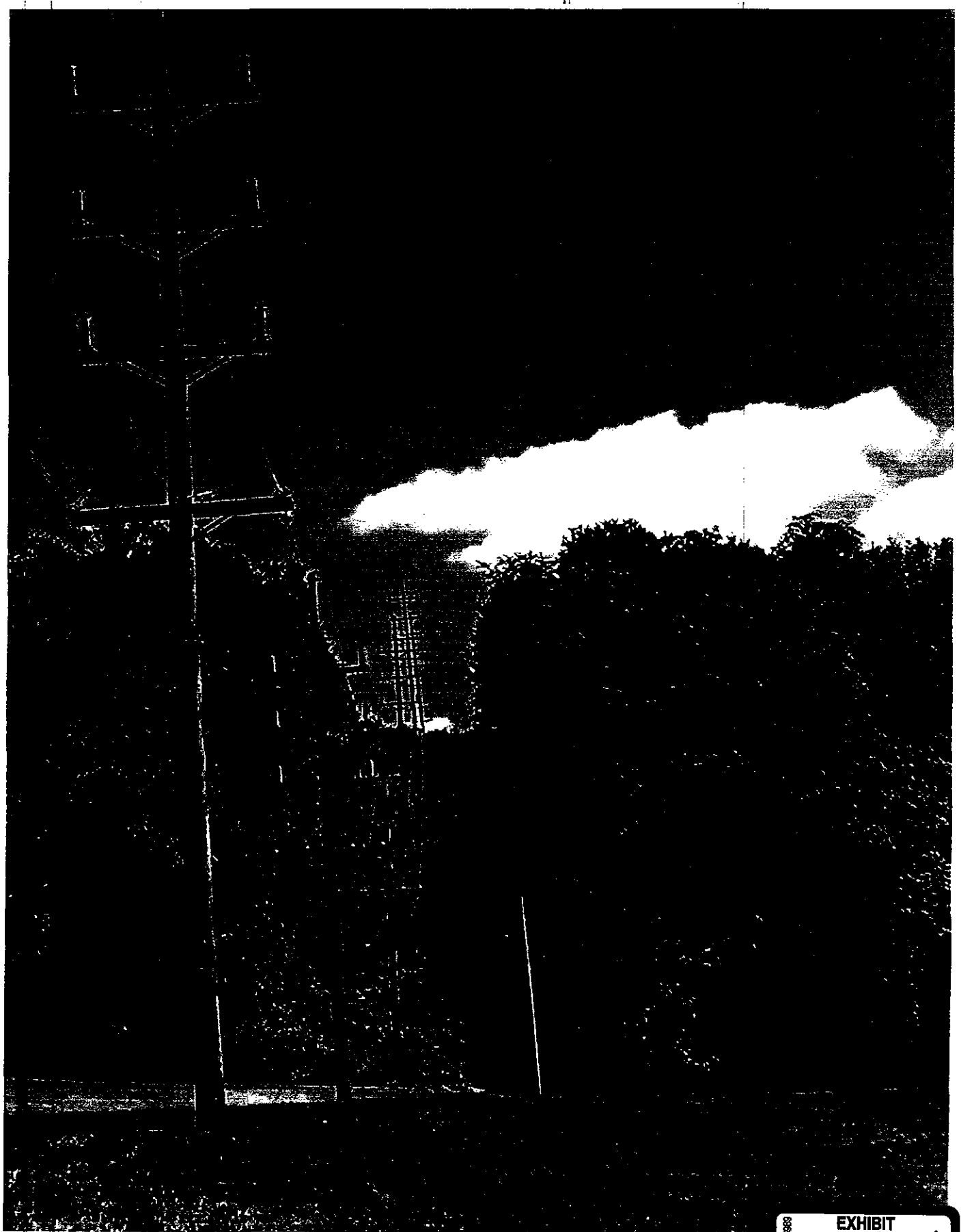
District	Station	Circuit	kV	CB	Time	#OP's	Targets
NWK	Newcomerstown	North Coshocton	34	J	2132	1	
NWK	North Coshocton	Newcomerstown	34	E	2132	1	

From: Allan J Woodard
Sent: Tuesday, June 07, 2016 6:54 AM
To: James R King
Cc: Robert R Murphy III; Craig A Griffith; Scott E Welker; Scott T Robinson; David K Burkholder; Donald E Cottrell; Jesse J Cochran; Joshua D McPeek
Subject: North Coshocton - Newcomerstown 34.5 sub transmission circuit // breaker operations

Jim,

Over the past few weeks the breakers have been operating on the North Coshocton - Newcomerstown 34.5 sub-transmission circuit. We have been receiving complaints from our customers. This is a very rural, long circuit that is difficult to patrol during this time of the year due to the farmers having their crops/fields planted. Is it possible to patrol the circuit by helicopter to see if we can find the cause?

Thanks, Allan



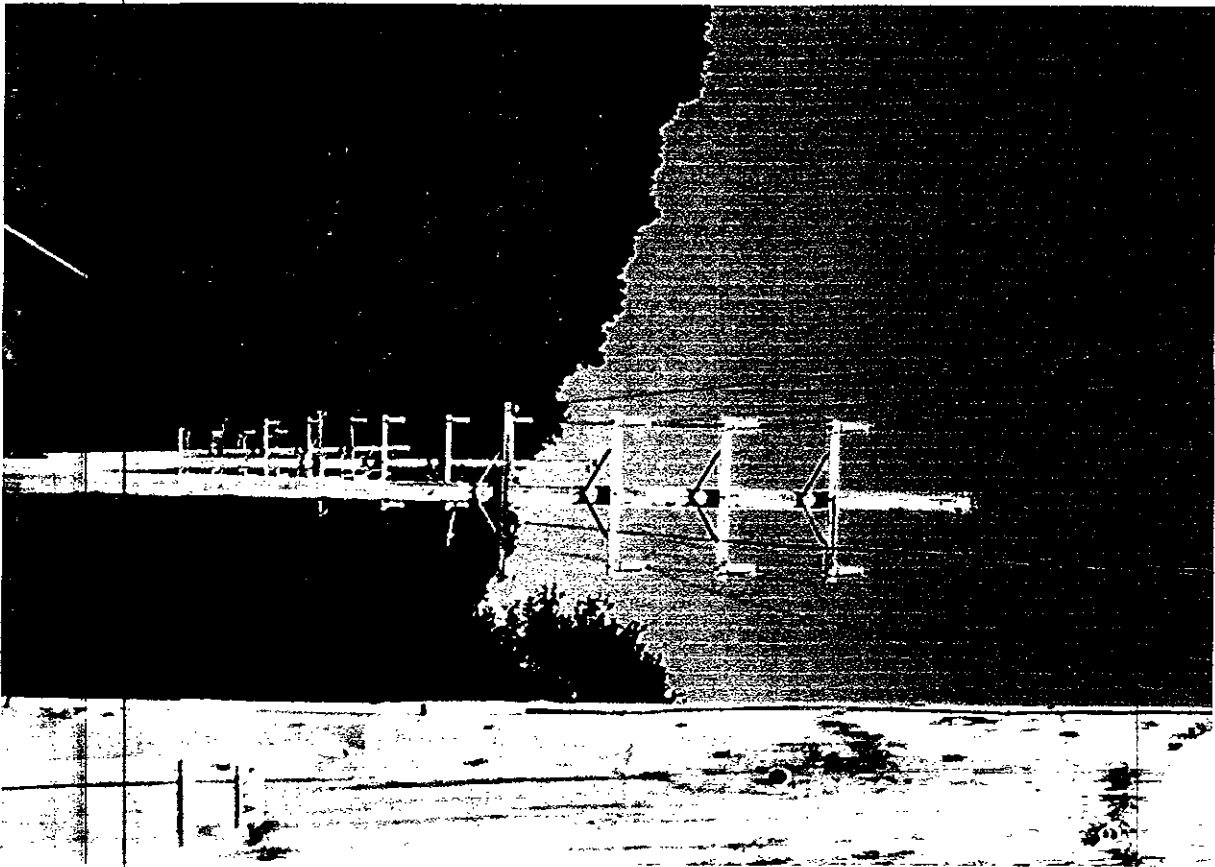
TRIMMED 2014

Compl. Ex 2-1

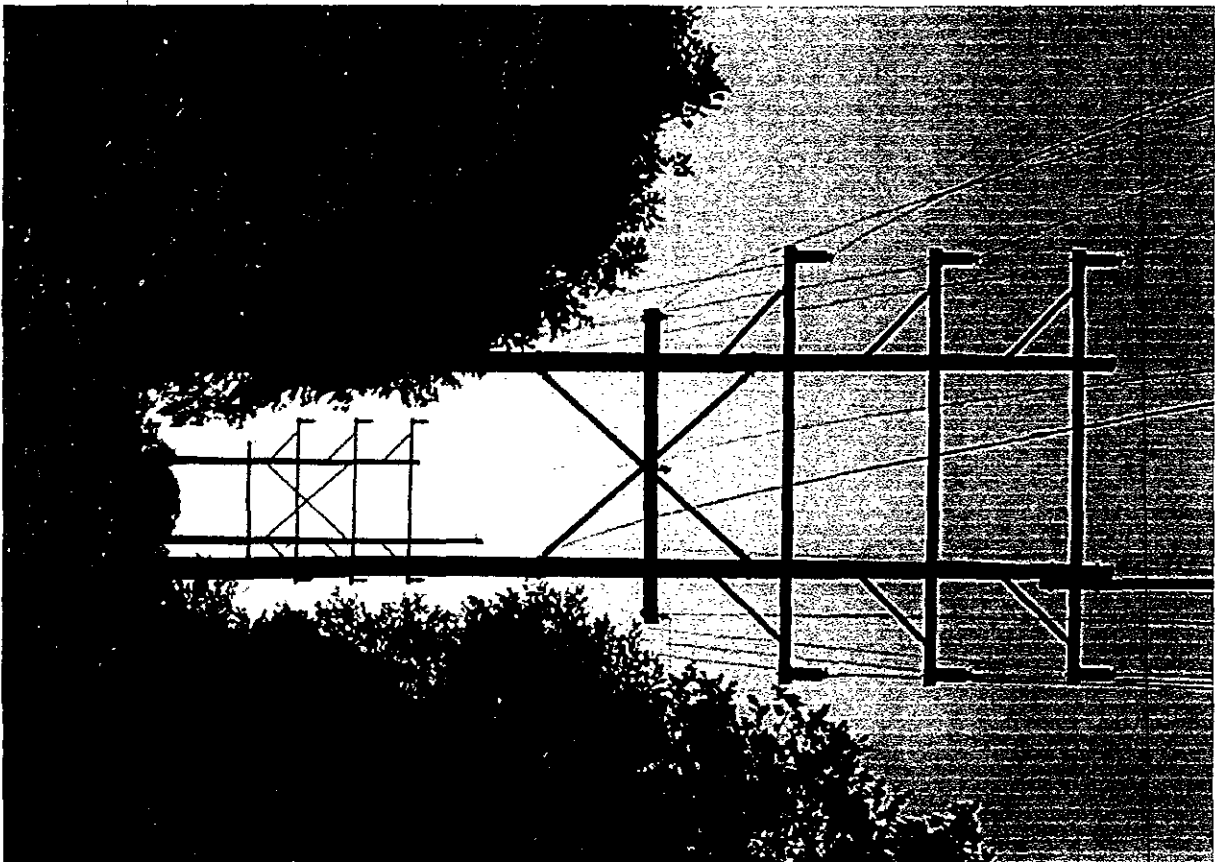


Compl. Ex. 2-2

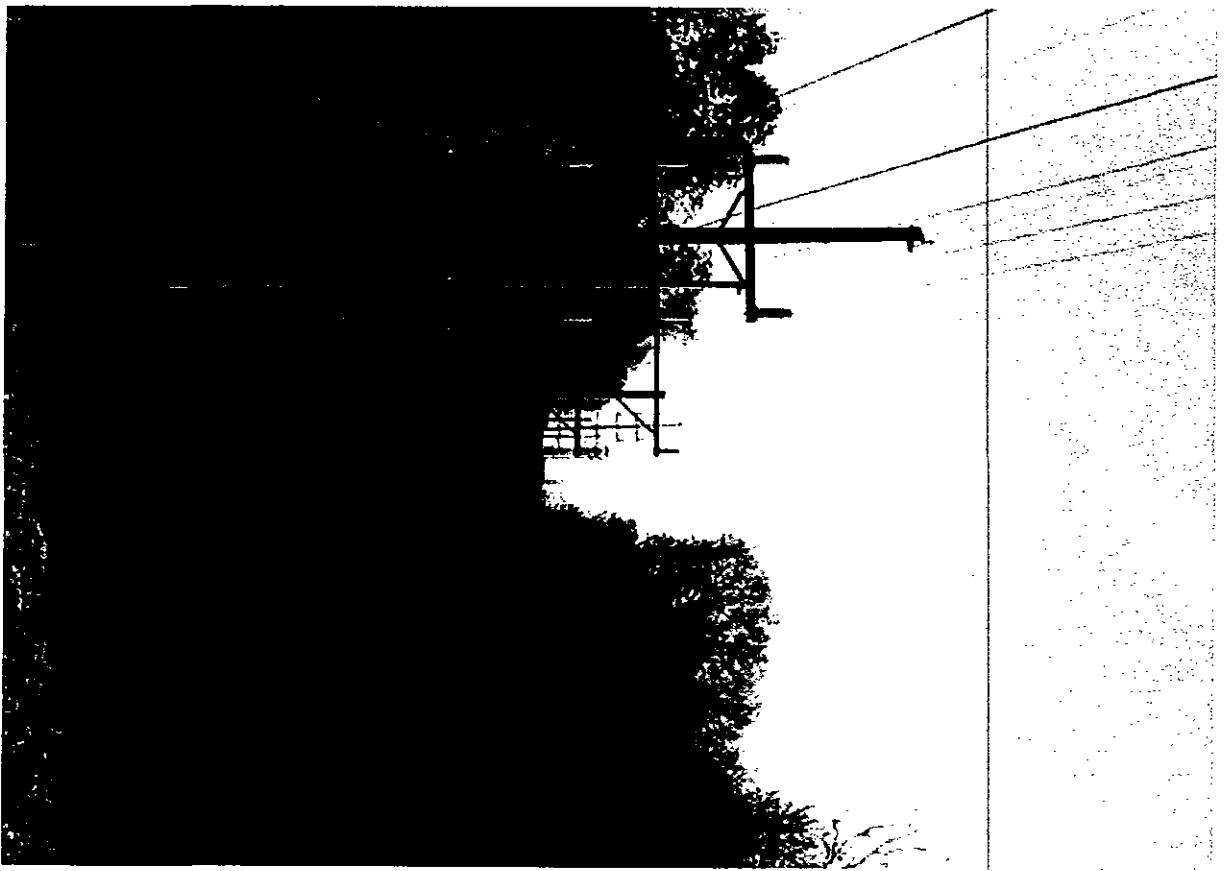
NOT TRIMMED 2014



Compl. Ex. 2-2



NOT TRIMMED 2014



Comp. Ex. 2-4

Comp. Ex. 2-5

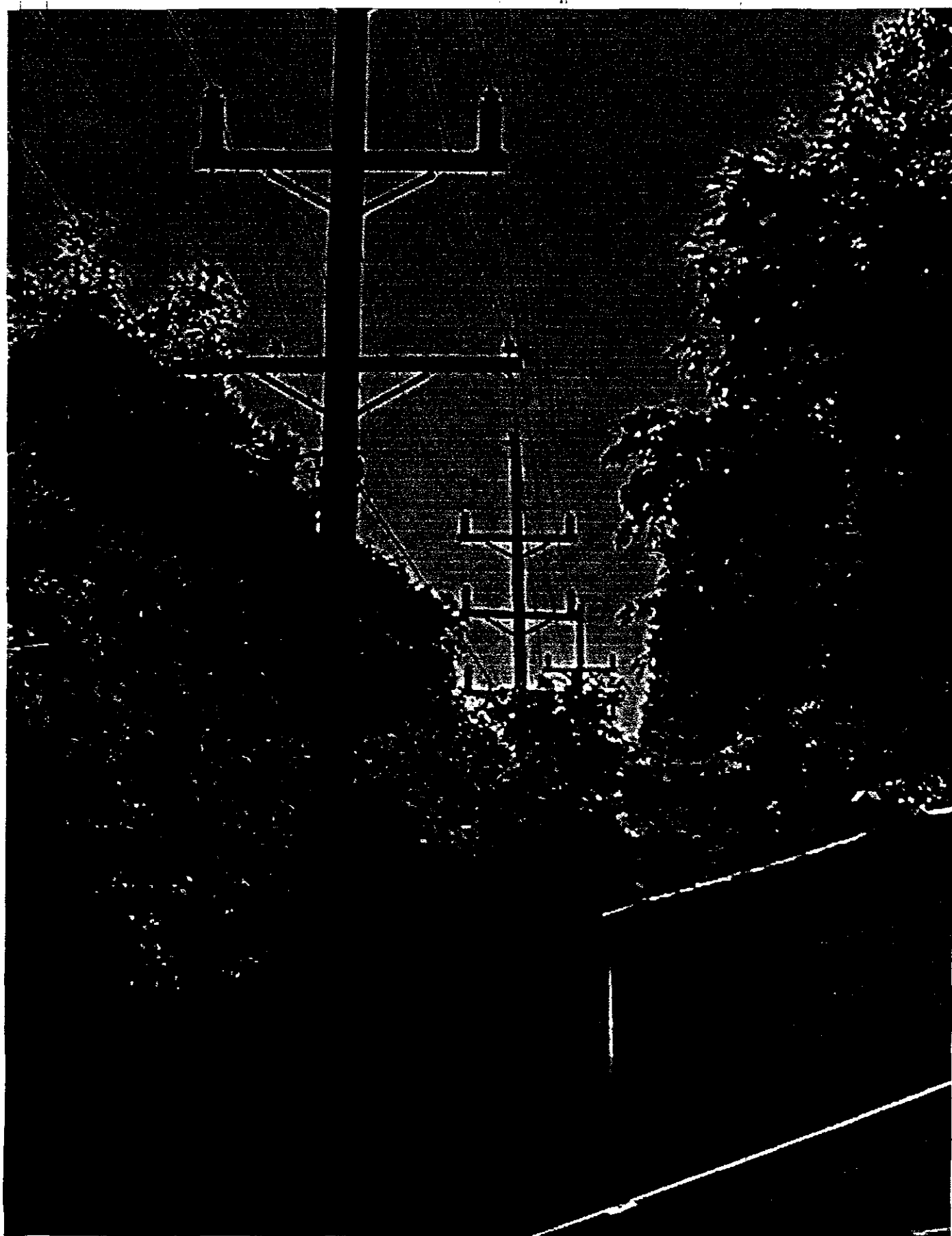




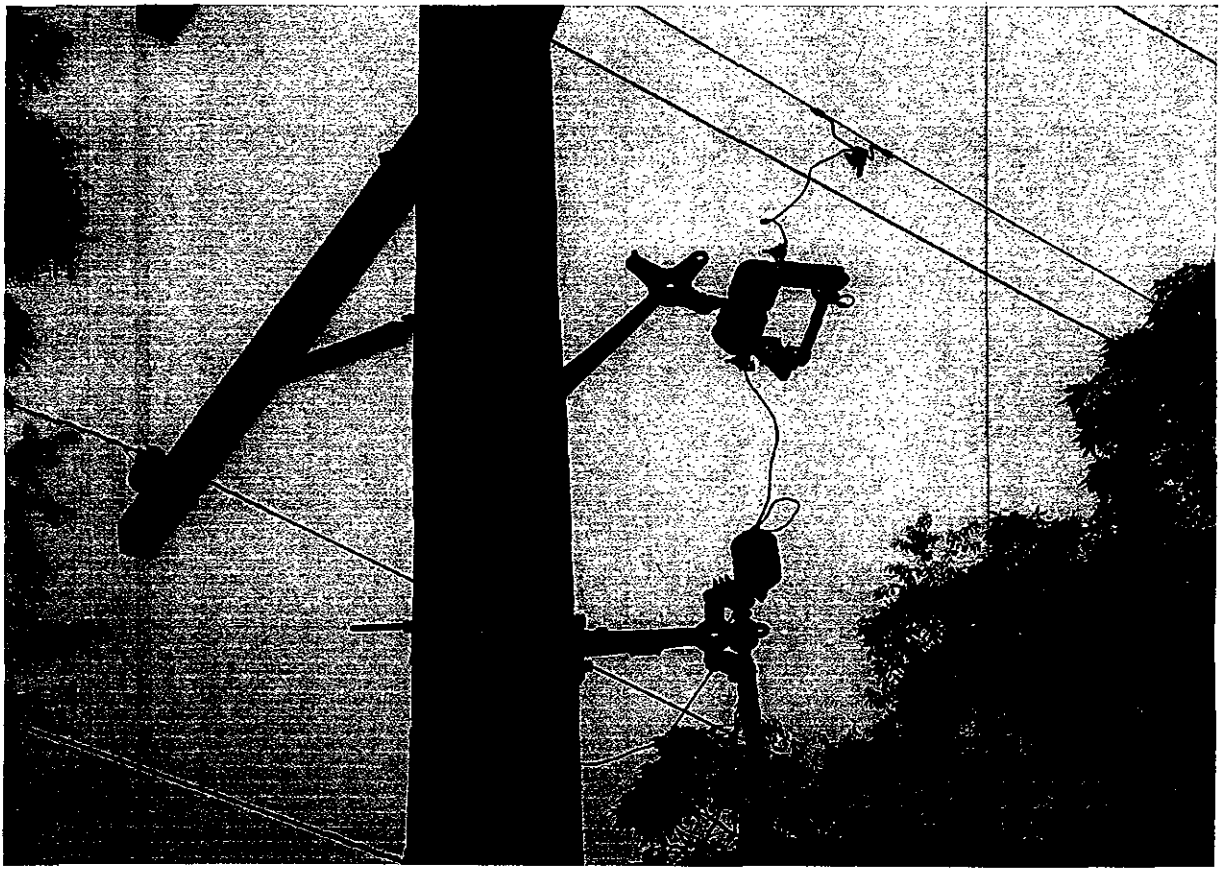
Engr. Ex. 2-6

Compl. Ex 2-7





Compl. Ex 2-8



Comp. 5.2-9

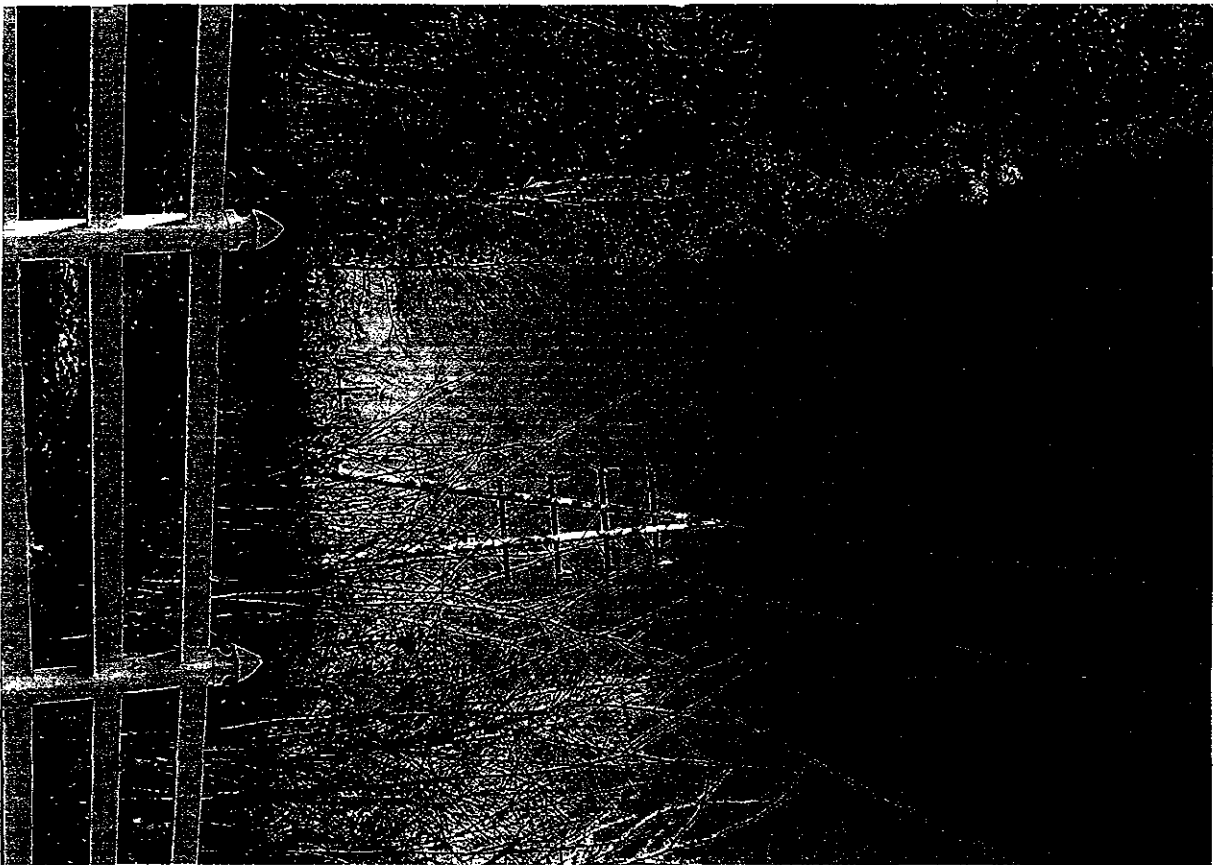


Compl. Ex 2 - 10



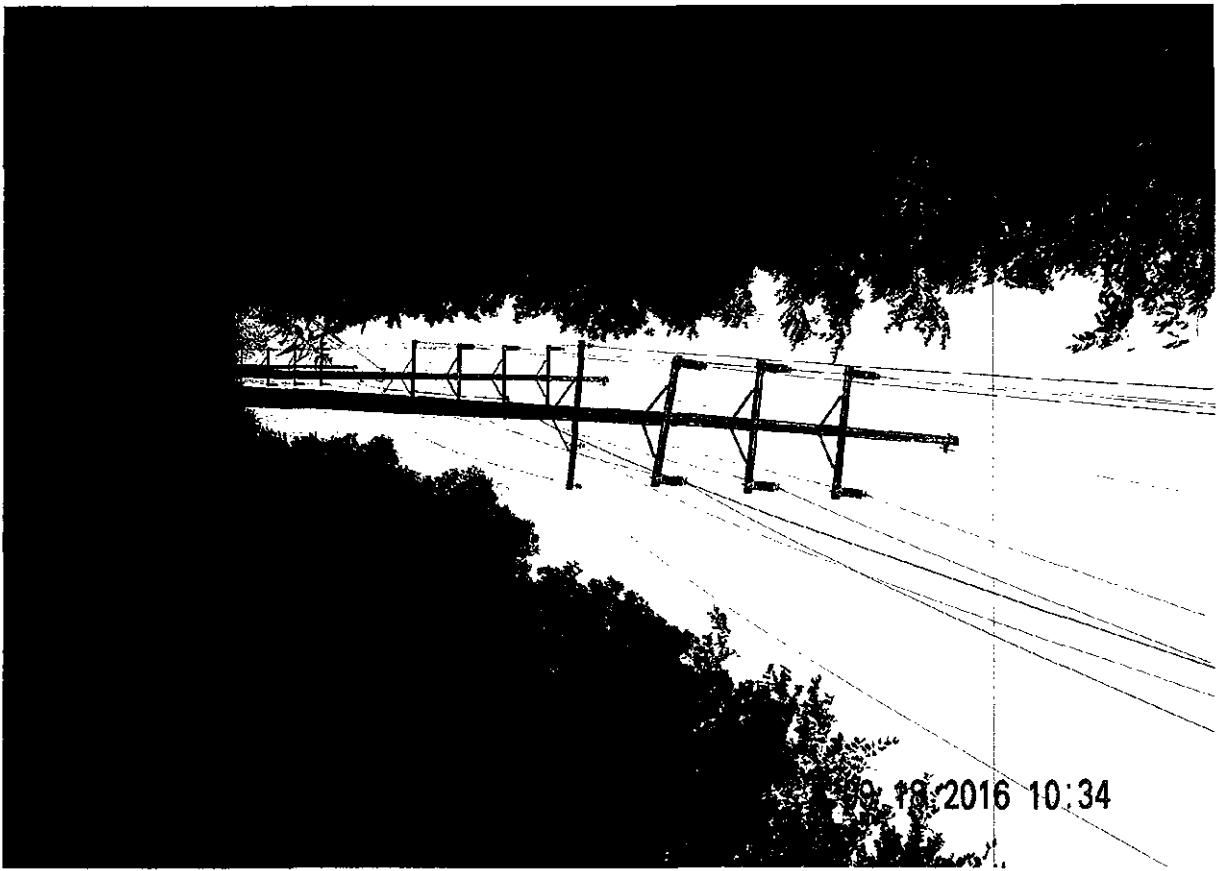
Compl. Ex. 2-11

CONPL. EX. 2-12



TRIMMED 2014

not trimmed 2014



Copy 1542-13

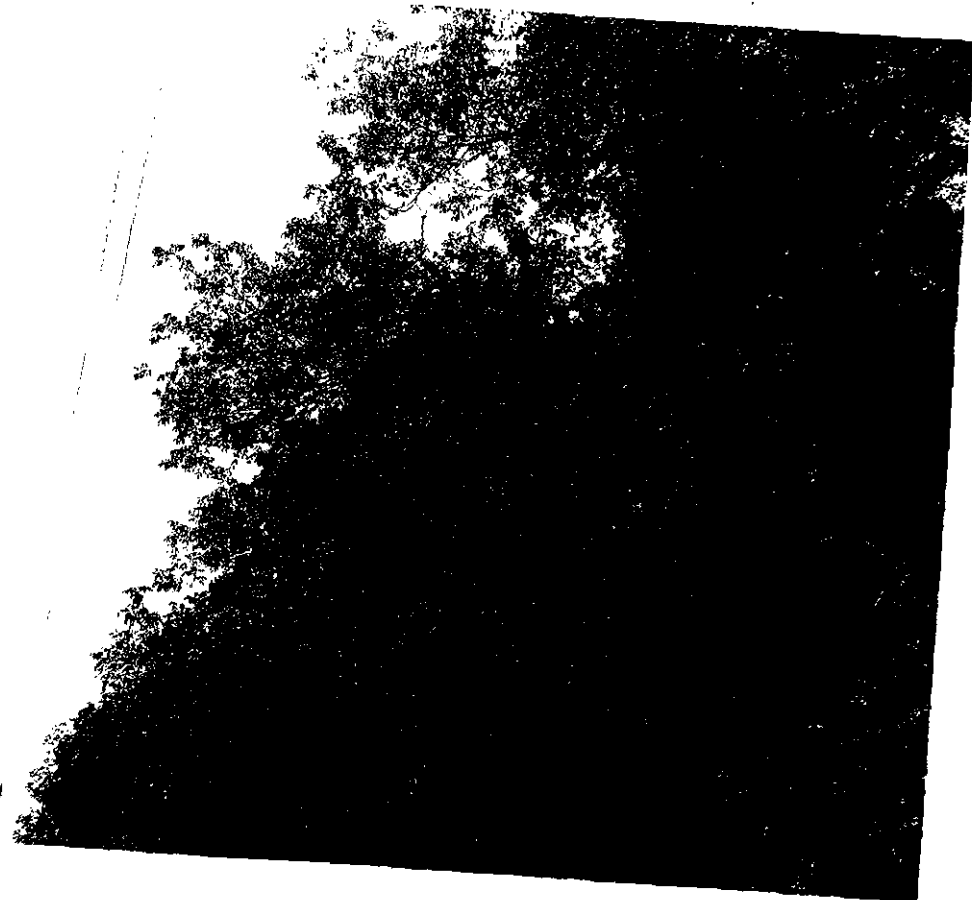
Cont. Ex. 2-14



tree's leaning

Comp Ex. 2-15

LL





Comp Ex. 2-16



CD. pl. Ex. 2-17

AFP Ops Ex.3

DATE:

06/09/2017

Contract Administration Management Payment Summary

TIME:

07:41:49

CIRCUIT SUMMARY

Timesheet Weekend Date - From: 1/1/2014

To 12/31/2017

Contractor / Contract:

Operating Company / State:

Department:

Work Area:

Authorization Type:

Work Types:

Work Type Category:

Tracking Code:

Brush Unit Type:

Duty Code:

UNITS

WORK AREA	CIRCUIT	DESCRIPTION	TREES TRIMMED			TREES REMOVED			BRUSH CUT			BRUSH SPRAYED			LINE MILES	
			TREES	HOURS	HO/TREE	TREES	HOURS	HO/TR	UNITS	HOURS	BRUNITS	UNITS	HOURS	TS	MILES	CFT.
10279H	710402	Wm Lapeyre School	1248	2546.0	1.43	468	1243.0	2.67	2798.0	1.28	3138.0	280.0	0.09	50.4	50.4	100.00%
		10279H Total:	1248	2546.0	1.43	468	1243.0	2.67	2798.0	1.28	3138.0	280.0	0.09	50.4	50.4	100.00%
		Grand Total:	1248	2546.0	1.43	468	1243.0	2.67	2798.0	1.28	3138.0	280.0	0.09	50.4	50.4	100.00%



Timesheet Weekend Date - From: 1/1/2014 To: 12/31/2017

Contractor / Contract: - / -
Operating Company / State: /
Department Group: Forestry
Work Area:
Authorization Type:
Work Type:
Work Type Category:
Tracking Code:
Brush Link Type:
Duty Code:

WORK AREA	CIRCUIT	DESCRIPTION	HOURS	TREES TRIMMED		TREES REMOVED		BRUSH CUT		BRUSH SPRAYED		LINE MILES		TOTAL \$
				\$/HOUR	\$	\$/HOUR	\$	\$/HOUR	\$	\$/HOUR	\$	HR-MIN	\$/HR	
107181	710452	WALL LAMP/WH	1.43	\$62.32	\$0.00	2.87	\$118.75	\$0.00						\$391,026.39
		Grand Total:	1.43	\$62.32	\$0.00	2.87	\$118.75	\$0.00						\$391,026.39
		Grand Total:	1.43	\$62.32	\$0.00	2.87	\$118.75	\$0.00						\$391,026.39

Compl. Ex 3-1

#4442

Lucretia Loos et al., to Ohio Power Co., \$1.00

Name and Address

xxx Lucretia Loos
R. #1 W. Lafayette, Ohio
Eas. No. 38-A
Map No. 284
Drg. No. H-1163-D
Ref. No. L.O. 9000
JB RL Dec. 20 '38

This Indenture, made this 28th day of November 1938

by and between

Lucretia Loos (widow) Wayne Loos and Betty Loos

his wife, (separated) of the County of Coshoc ton, in the State of Ohio, parties of the first part, and THE OHIO POWER COMPANY, a corporation organized and existing under the laws of the State of Ohio, party of the second part.

Witnesseth: That for One Dollar (\$1.00) in hand paid to the parties of the first part by the party of the second part, the receipt of which is hereby acknowledged, and the contemplated plan of furnishing service in the vicinity, said parties of the first part hereby grant, bargain, sell, convey, and warrant, to the party of the second part, its successors and assigns forever, a right of way and easement with the right, privilege and authority to said party of the second part, its successors, assigns, lessees, and tenants to construct, erect, operate and maintain a line of poles and wires for the purpose of transmitting electric or other power, including telegraph or telephone wires in, on, along, over, through or across and also along any highway as now or hereafter laid out or widened, abutting the following described lands situated in Lafayette Township, in the County of Coshoc ton in the State of OHIO, and part of Section No. 5-W and Township No. 5-N and Range No. 5-W and bounded.

On the North by lands of J. I. Shumaker
On the East by lands of Clarence Reed
On the South by lands of Alfred Loos Heirs
On the West by lands of John W. Fye

TOGETHER with the right to said party of the second part, its successors and assigns, to place, erect, maintain, inspect, add to the number of, and relocate at will, poles, crossarms or fixtures, and string wires and cables, adding thereto from time to time, across, through or over the above described premises, to cut and, at its option, remove from said premises or the premises of the parties of the first part adjoining the same on either side, any trees, overhanging branches or other obstructions which may endanger the safety or interfere with the use of said poles or fixtures or wires attached thereto or any structure on said premises, and the right of ingress and egress to and over said above described premises, and any of the adjoining lands of the parties of the first part, at any and all times, for the purpose of patrolling the line, of repairing, renewing or adding to the number of said poles, structures, fixtures and wires, and for doing anything necessary or useful or convenient for the enjoyment of the easement herein granted, also the privilege of removing at any time any or all of said improvements erected upon, over, or on said land, together with the rights, easements, privileges and appurtenances in or to said lands which may be required for the full enjoyment of the rights herein granted. Grantee will immediately repair or replace all fences, gates, drains and ditches injured or destroyed by it on said premises or pay Grantor all damages done to the fences, drains, ditches, crops and stock on the premises herein described, caused by the construction, operation and maintenance of said lines. All claims for damages caused in the operation and maintenance of said lines, shall be made at the office of the Grantee at 21 South First Street, Newark, Ohio, or mailed to P. O. Box 911, Newark, Ohio, within thirty days after such damages accrue. If Grantor and Grantee cannot agree on the amount of damages, the same shall be arbitrated. Any trees cut will be paid for by Board Measure, using Scribner's Lumber Rules, at the market price in vicinity, and this indenture contains all agreements, expressed or implied, between the parties hereto.

On Have and to Hold the same unto said party of the second part, its successors and assigns.

In Witness Whereof, the parties of the first part have hereunto set their hand the day and year first above written.

Signed and Acknowledged in the presence of:
C. F. Meitzler,
N. F. Watson

Lucretia Loos
Wayne Loos
Betty Loos

THE STATE OF OHIO,
Coshoc ton County ss.

Before me, a Notary Public
in and for said County, personally appeared the above named
Lucretia Loos, Wayne Loos, and Betty Loos,
who acknowledged that they did sign the within instrument and that the same is their free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on this 28 day of November, A. D. 1938. C. F. Meitzler, Meitzler,
My commission expires Oct 4 1939, Notary Public.

THE STATE OF OHIO,
County ss.

Before me, a
in and for said County, personally appeared the above named
who acknowledged that they did sign the within instrument and that the same is free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on this day of A. D. 193. Notary Public.

THE STATE OF OHIO,
County ss.

Before me, a
in and for said County, personally appeared the above named
who acknowledged that they did sign the within instrument and that the same is free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on this day of A. D. 193. Notary

Received for Record 9:30 A M Jan 7 1939
Recorded Jan 9 1939

EXHIBIT
Complainant
3
PENGAD 800-331-6983

Recorder

VOL 169 PAGE 584

VOL 160 PAGE 579

DEED OF EASEMENT. Name and Address
Form No. 6—Ohio Mr. Clearance Dickerson
Route #4 Coshocton, Ohio
Eas. No. 23D Map No. 978
Drawing No. 9-15808 O. No. 9001-96
JHS Dec. 1, 36

THIS INDENTURE, made this 5th day of November 1936
by and between Clearance Dickerson and Clara Dickerson
his wife (or married) of the County of Coshocton

in the State of Ohio, part. 1st. of the first part and THE OHIO POWER COMPANY a corporation organized and existing under the laws of the State of Ohio, party of the second part.

WITNESSETH: That for One Dollar (\$1.00) in hand paid to the part. 1st. of the first part by the party of the second part, the receipt of which is hereby acknowledged, and the contemplated plan of furnishing service in the vicinity, said part. 1st. of the first part hereby grant, bargain, sell, convey, and warrant to the party of the second part, its successors and assigns forever, a right of way and easement with the right, privilege and authority to said party of the second part, its successors, assigns, lessees, and tenants to construct, erect, operate and maintain line of poles and wires for the purpose of transmitting electric or other power, including telegraph or telephone wires in, on, along, over, through or across and also along any high-

way abutting the following described lands situated in Lafayette Township, in the County of Coshocton in the State of Ohio, and part of Section No. U.S.M. Lands Township No. 5n and Range No. 5w and bounded:
On the North by the lands of Maggie Watson
On the East by the lands of Maggie Watson, Peoples Bank & Trust Co.
On the South by the lands of Peoples Bank & Trust Co., Herbert Watson
On the West by the lands of Herbert Watson & Maggie Watson

TOGETHER with the right to said party of the second part, its successors and assigns, to place, erect, maintain, inspect, add to the number of, and relocate at will, poles, crossarms or fixtures, and string wires and cables, adding thereto from time to time, across, through or over the described premises, to cut and, at its option, remove from said premises or the premises of the parties of the first part adjoining the same on either side any trees, overhanging branches, or other obstructions which may endanger the safety or interfere with the use of said poles or fixtures or wires attached thereto or any structure on said premises, and the right of ingress and egress to and over said above described premises, and any of the adjoining lands of the parties of the first part, at any and all times, for the purpose of patrolling the line, of repairing, renewing or adding to the number of said poles, structures, fixtures and wires, and for doing anything necessary or useful or convenient for the enjoyment of the easement herein granted, also the privilege of removing at any time any or all of said improvements erected upon, over, or on said land, together with the rights easements privileges and appurtenances in or to said land which may be required for the full enjoyment of the rights herein granted. Grantee will immediately repair or replace all fences, gates, drains and ditches injured or destroyed by it on said premises or pay Grantor all damages done to the fences, drains, ditches, crops and stock on the premises herein described, caused by the construction, operation and maintenance of said lines. All claims for damages caused in the operation and maintenance of said lines, shall be made at the office of the Grantee at 21 South First Street, Newark, Ohio, or mailed to P. O. Box 911, Newark, Ohio, within thirty days after such damages occur. If Grantor and Grantee cannot agree on the amount of damages, the same shall be arbitrated. Any trees cut will be paid for by Board Measure, using Scribner's Lumber Rules, at the market price in vicinity, and this indenture contains all agreements, expressed or implied, between the parties hereto.

TO HAVE AND TO HOLD the same unto said party of the second part, its successors and assigns.
IN WITNESS WHEREOF, the part. 1st. of the first part ha. 72. hereunto set their hand the day and year first above written.

Clearance Dickerson
Clara Dickerson
Signed and Acknowledged in the presence of:
A. F. Watson
Blanche Abbott

THE STATE OF OHIO, } ss.
Coshocton County

Before me, a Notary Public
in and for said County, personally appeared the above named Clearance Dickerson and Clara Dickerson
who acknowledged that they did sign the within instrument and that the same is their free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on this 5th day of Nov., A. D. 1936.
My commission expires Jan. 24, 1938. Blanche Abbott Notary Public

Received for record the 15 day of Dec. A. D. 1936, at 2:30 P. M.
Recorded the 16 day of Dec. A. D. 1936.
Recorder

Compt. Ex 3-3 527

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DEED OF EASEMENT.

Form No. 6—Ohio

Name and Address

Mr. _____

Eas. No. 119 Map No. 294

Drawing No. H98308 G. O. No. JHS

RELO9319

THIS INDENTURE, made this 4th day of April 1936

by and between Silva Babcock and Hazel Babcock

his wife (or unmarried) of the County of Coshocton

in the State of Ohio, part. 1st of the first part and THE OHIO POWER COMPANY a corporation organized and existing under the laws of the State of Ohio, party of the second part.

WITNESSETH: That for One Dollar (\$1.00) in hand paid to the part. 1st of the first part by the party of the second part, the receipt of which is hereby acknowledged, and the contemplated plan of furnishing service in the vicinity, said part. 1st of the first part hereby grant, bargain, sell, convey, and warrant to the party of the second part, its successors and assigns forever, a right of way and easement with the right, privilege and authority to said party of the second part, its successors, assigns, lessees, and tenants to construct, erect, operate and maintain a line of poles and wires for the purpose of transmitting electric or other power, including telegraph or telephone wires in, on, along, over, through or across and also along any highway, as now or hereafter laid out, abutting the following described lands situated in Lafayette

Township, in the County of Coshocton in the State of Ohio, and part of Section No. 1, U.S.M. land.

Township No. 5n and Range No. 5W and bounded:

On the North by the lands of Olinger Brothers, L. Holderbaum

On the East by the lands of H. McCleary, Henry Fros

On the South by the lands of Henry Fros, B. Handles

On the West by the lands of T. McCarrick

TOGETHER with the right to said party of the second part, its successors and assigns, to place, erect, maintain, inspect, add to the number of, and relocate at will, poles, crossarms or fixtures, and string wires and cables, adding thereto from time to time, across, through or over the described premises, to cut and, at its option, remove from said premises or the premises of the parties of the first part adjoining the same on either side any trees, overhanging branches, or other obstructions which may endanger the safety or interfere with the use of said poles or fixtures or wires attached thereto or any structure on said premises, and the right of ingress and egress to and over said above described premises, and any of the adjoining lands of the parties of the first part, at any and all times, for the purpose of patrolling the line, of repairing, renewing or adding to the number of said poles, structures, fixtures and wires, and for doing anything necessary or useful or convenient for the enjoyment of the easement herein granted, also the privilege of removing at any time any or all of said improvements erected upon, over, or on said land, together with the rights easements privileges and appurtenances in or to said land which may be required for the full enjoyment of the rights herein granted. Grantee will immediately repair or replace all fences, gates, drains and ditches injured or destroyed by it on said premises or pay Grantor all damages done to the fences, drains, ditches, crops and stock on the premises herein described, caused by the construction, operation and maintenance of said lines. All claims for damages caused in the operation and maintenance of said lines, shall be made at the office of the Grantee at 21 South First Street, Newark, Ohio, or mailed to P. O. Box 911, Newark, Ohio, within thirty days after such damages occur. If Grantor and Grantee cannot agree on the amount of damages, the same shall be arbitrated. Any trees cut will be paid for by Board Measure, using Scribner's Lumber Rules, at the market price in vicinity, and this indenture contains all agreements, expressed or implied, between the parties hereto.

TO HAVE AND TO HOLD the same unto said party of the second part, its successors and assigns.

IN WITNESS WHEREOF, the part. 1st of the first part have hereunto set their hand the day and year first above written.

Silva Babcock

Hazel Babcock

Signed and Acknowledged in the presence of:

Robert J. McClure

Bert Jones

THE STATE OF OHIO, }
Coshocton County } ss.

Before me, a Notary Public

in and for said County, personally appeared the above named Silva Babcock, and Hazel Babcock

who acknowledged that they did sign the within instrument and that the same is their free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on this 4th day of April, A. D. 1936.

My commission expires March 4, 1937. Robert J. McClure Notary Public

Received for record the 20 day of June, A. D. 1936, at 9:45 A.M.

Recorded the 22nd day of June, A. D. 1936. Recorder

AEP OHIO®

A unit of American Electric Power

Encroachments on Transmission Rights of Way



Comp'l. Ex. 4

PENAD 800-631-6989	EXHIBIT
	Complainant
	<u>4</u>

Encroachments on Electric Transmission Rights of Way

The purpose of this brochure is to inform property owners about "dos and don'ts" in and around electric line easements. Easements (also called rights of way) enable the operating units of American Electric Power (AEP) to use another person's property to construct and maintain electric power transmission facilities, mainly lines and towers. AEP also needs access to its facilities to perform maintenance.

Landowners generally can continue to use their property in the right of way if the use is compatible with the purpose of the easement, in AEP Ohio's case, the transmission of electricity.

Incompatible uses in a right of way constitute encroachments – the subject of this publication.

AEP Ohio is very concerned about safety around its electric lines and urges landowners and others to exercise caution when under or near any overhead electric lines.

Restrictions on how landowners can use their property within rights of way are designed to protect landowners from injury and electrical facilities from damage. Encroachments may be unsafe to the landowner and may impair the safe operation of AEP Ohio's electric transmission lines. That's why AEP Ohio patrols its rights of way and inspects its lines. AEP Ohio can require a landowner to remove an encroachment at the landowner's expense if the use is not compatible with AEP Ohio's easement.

Most easements do not expire; they are perpetual in duration. As such, when property is sold and conveyed to another, the easements remain in effect and are binding on the new owner.

Please read on to learn more about the issue of encroachment and about permitted and prohibited uses in easements.

Buyer beware

Buyers should inspect property before buying to determine whether an electric transmission line easement affects the property. While an easement can have a significant impact on the buyer's plans to use the property, in many cases an easement allows compatible uses.

Easements

Simply put, a landowner grants certain rights to use property to another person or entity through an easement. Webster's dictionary defines an easement as "a legal interest in real property that grants the right to use in some specified manner the property of another."

Many landowners prefer to grant an easement, covering surface rights only, rather than an outright sale of land for right of way. With an easement the landowner may reserve the right to use the property for planting crops or pasturing animals in rural areas, for example. But the use must not be incompatible with the rights granted in the easement.

Most utility line easements today specify the location and width of the right of way. Some older easements were frequently "blanket easements" allowing a utility to cross property wherever it needed. Due to the many versions of easements over the years, it is important for landowners or prospective purchasers of land to review the

terms of an easement. This review should provide guidance about permitted uses within the boundaries of a right of way easement.

The National Electric Safety Code (NESC) specifies minimum horizontal and vertical clearance requirements for overhead lines. These clearance requirements must be complied with. Specific easement agreements may require more clearance.

The following chart lists typical right of way widths for various electric line voltages and locations.

Voltage	Urban	Typical Width (feet)	Rural
34 kilovolts (KV)	50-100		100
46 KV	50-100		100
69 KV	50-100		100
115 KV	70-100		100
138 KV	70-100		100
161 KV	100-120		120
230 KV	120-150		150
345 KV	150		150
765 KV	200		200

Prior to closing the purchase of property, the buyer should determine whether an easement exists on the property. The buyer should inspect the property and ask the closing attorney or the seller about the presence of an easement. Sometimes, property title searches for lending institutions may go back only 30 to 40 years. The law in most states puts a buyer on notice if the electric transmission line can be seen during an inspection. Easements remain valid even if they are not shown in a title report. AEP maintains a database of recorded easements granted to its operating companies.

Encroachments

Buildings, building extensions and additions (homes, businesses, garages, barns), swimming pools, above ground fuel tanks, tall signs or billboards, tall trees, obstructions and mounding of soil in the right of way are encroachments that are prohibited. Any road construction involving raising the natural grade and any topographic changes require AEP Ohio's review and approval in writing in advance.

If any such encroachment is found to be under construction, AEP Ohio will request immediate stoppage and removal of the encroachment. If installed, AEP Ohio will request removal of the encroachment. Most easements identify objects that are not allowed in the easement. Other easements state that objects that interfere with safe operation of a line are not permitted. Should a landowner refuse to cooperate, AEP Ohio will seek legal recourse to have the object removed.

Variances

When a variance or consent to encroach is requested, AEP Ohio will review the pertinent easement as well as operational and code compliance requirements. AEP Ohio will respond to the landowner and present its findings in writing.

Right of way maintenance

Once an electric power line is installed on an easement, AEP Ohio must keep the line free from outages and interruptions due to contact from vegetation, trees or objects. Vegetation management methods include clear cutting or total removal of trees and vegetation, trimming and herbicide spraying, generally in rural areas. It is important to note that most easements enable AEP Ohio to cut trees and limbs outside the easement where trees or limbs may endanger AEP Ohio's lines.

Uses in Rights of Way

Landowners should be aware of the following guidelines and issues.

- AEP Ohio must review and approve in writing changes in ground elevation in a right of way. Placement of fill dirt in the right of way reduces conductor-to-ground clearance. This is not allowed without prior AEP Ohio approval. (See contact information below.) An unapproved fill could require AEP Ohio to raise its electric lines at the landowner's expense.
- Roads or lanes generally are permitted to cross rights of way. While such crossing should be located close to a transmission structure, the actual location must be reviewed and approved by AEP Ohio. Proximity to a tower provides maximum vertical clearance between energized conductors and vehicles.
- No dirt or spoil shall be stored or deposited – even temporarily – on a right of way for any reason.
- Any excavation in the right of way must have a minimum 40-foot-radius buffer of undisturbed soil around all transmission structures, including guy wires and anchors, for 345 kV and above lines. A 30-foot-radius buffer is required for 34 -161 kV lines. AEP Ohio must approve any excavation that affects its access to a transmission structure.
- AEP Ohio must approve all electric, gas, telephone, cable TV, water, sewer and other lines in the right of way. These lines must be placed at least 40 feet from all structures, and overhead clearances must be maintained.
- No pond, lake or other water detention area is allowed to cover the entire width of an electric transmission line right of way. A minimum corridor width of 30 feet must be available for large utility vehicles to drive the length of the right of way without restriction for maintenance purposes.
- Light standards or poles in the right of way must be approved in advance by AEP Ohio to maintain proper clearance.
- Erosion problems from landowner actions are the landowner's responsibility. If a problem threatens the integrity of AEP Ohio's power lines, the landowner should notify AEP Ohio immediately and take corrective action.
- No temporary or permanent structures, buildings, in-ground or above ground pools, playground equipment or other fixed improvements should be erected in the right of way.
- Ingress and egress (right of passage in and out of property) to AEP Ohio lines are critical. Therefore, any fences along the entire width of a right of way should have a 14-foot-wide gate with an AEP Ohio lock in the locking chain.
- All fences with metal components should be grounded to prevent nuisance shocks.
- Row crops – corn, wheat, cotton, soybeans, for example – are permitted in rural rights of way, but not tree farms. Keep in mind that line trucks traveling along a right of way can damage crops. Compensation terms for crop damage from maintenance work are covered in the easement.
- In urban areas, many easements are used for lawns, gardens and recreational areas. These are acceptable as long as they do not endanger the safe operation of the line. Parking lots are usually acceptable under lines up to 161 kV. Higher voltage lines could produce induced voltage shocks that may be uncomfortable to some users. Landowners should contact AEP Ohio regarding parking vehicles under or near 230 kV to 765 kV lines. Planting trees, especially taller-growing and/or nut-bearing varieties, is not permitted in an easement. Low-growing fruit trees or shrubs are generally acceptable. Contact AEP at one of the numbers listed below with questions. AEP reserves the right to trim or remove trees at its discretion.

Contacting AEP Ohio

E-mail: Visit www.AEPOhio.com, contact us

To contact AEP Right of Way agents or foresters in your area, please use the number listed below:

AEP Customer Solutions Centers

AEP Ohio

CSP: 1-800-277-2177

Wheeling, W.Va.: 1-800-852-6942

OPCo: 1-800-672-2231

Appalachian Power

Tennessee: 1-800-967-4237

Virginia: 1-800-956-4237

West Virginia: 1-800-982-4237

Kentucky Power:

1-800-572-1113

Indiana Michigan Power

Indiana: 1-800-311-4634

Michigan: 1-800-311-6424

Public Service Company of Oklahoma:

1-888-216-3523

Southwestern Electric Power Company

East Texas, Louisiana, Arkansas: 1-888-216-3523

North Texas Panhandle: 1-800-723-7430

AEP Texas:

1-877-373-4858

Electric fields and nuisance shocks

An electric field or e-field contains invisible lines of force produced by electric voltage. An e-field surrounds any wire or conductor that has voltage placed upon it. When energized, power lines, electrical wiring, appliances, TV sets, hair dryers, computers and other electrical devices produce e-fields.

An e-field is a natural force that cannot be eliminated or confined. Its strength varies with distance from the conductor. E-field strength is stronger near its source and decreases with distance from the conductor.

E-fields cause induced-voltage nuisance shocks when a person touches an ungrounded metal object or other conductor, such as a vehicle parked on or slightly off the right of way. A nuisance shock will not harm the recipient but could be startling.

The prospect of such shocks is influenced by many factors. These include:

- line voltage
- conductor ground clearance (vertical distance) and horizontal distance
- type of material (conducting or non-conducting)
- type of soil (resistance to electrical charge)
- location and size of vehicle or object
- atmospheric conditions and personal physiology
- insulating capability of one's shoes

Location matters

The location of a vehicle or object within a right of way is the primary factor in nuisance shocks. Typically, nuisance shocks occur with vehicles parked in or next to the right of way of a 345 kV (or larger) line. Larger conductive objects (tall or long trucks, for example) are more likely to build up a greater charge. Thus, they may deliver a potentially annoying shock when a person's body provides a path to ground for electric current. In some cases backyard metallic objects such as swings, portable grills and parked lawnmowers can deliver shocks if located in or close to an extra high voltage line's right of way. Contact with an ungrounded metal fence can also deliver a shock. Someone cleaning gutters on a structure near the edge of a high voltage line can get a shock.

Predicting the likelihood of nuisance shocks is impossible. As mentioned, e-field strength is determined by distance from the source. Institute of Electrical and Electronics Engineers (IEEE) guidelines and calculated e-field magnitudes were used to create the table below – Likelihood of Shock Occurring with Vehicles Parked in the Right of Way. This table contains general information and is intended for general public education about e-fields and the potential for nuisance shocks. It was prepared to show the types transmission lines with vehicles parked in the right of way that could produce nuisance shocks.

Likelihood of Shock Occurring

Voltage (kV)	Structure Type	Vehicle Description ID						
		1	2	3	4	5	6	7
34-46	All	N	N	N	N	N	N	N
69	H-Frame	N	N	N	N	N	N	N
69	Single Pole Horizontal Post Insulator	N	N	N	N	N	N	N
138	H-Frame	P	P	N	P	N	N	N
138	Single Pole Horizontal Post Insulator	N	N	N	N	N	N	N
138	Single Pole Davit Arm Suspension	N	N	N	N	N	N	N
345	Single Circuit Lattice Tower	Y	Y	N	Y	Y	P	P
345	Single Pole Structure	Y	Y	N	Y	Y	N	N
345	Double Circuit Lattice	Y	Y	N	Y	N	N	N
765	Guyed V Tower (Existing)	Y	Y	P	Y	Y	Y	Y
765	Guyed V Tower (New)	Y	Y	Y	Y	Y	Y	Y
765	Lattice Tower	Y	Y	Y	Y	Y	Y	Y
ID	Vehicle Description							
1	Large Tractor Trailer (52' long)							
2	Large School Bus (34' long)							
3	Small Farm Tractor							
4	John Deere Combine							
5	Full-Size Van (20' long)							
6	Pickup Truck							
7	Automobile							

N - Not Likely P - Possibly Y - Yes, Most Likely

Note: Above designations are based on the average field strength across the right of way. Shocks may occur in areas denoted as "No" depending on the strength at a given location on the right of way.

Compl. Ex. 5



A unit of American Electric Power

September 28, 2016

Mr. Daniel Birrell
22000 Emerson St
West Lafayette, OH 43845-9628

RE: AEP Claim #: C20168270620
Date of Loss: September 17, 2016

Dear Mr. Birrell:

We are responding to your recent claim for damages.

American Electric Power's policy has always been that we will honor any claim for damages suffered by our customers for which we are responsible.

We cannot, however, be responsible for damages that result, either directly or indirectly, from causes beyond our control. Some examples of these are windstorms, vandalism, vehicles striking our equipment, failure of equipment due to conditions that could not be anticipated, animals, lightning, snow and ice, and so forth.

Our investigation shows that this incident was caused by a tree outside of AEP's right-of-way. This is an incident was beyond our control.

Attached for your review is a copy of the applicable portion of the Terms and Conditions of Service for the Ohio Power Company, which are on file with and approved by the Public Utility Commission of Ohio.

We will therefore be unable to honor your claim.

Sincerely,

A handwritten signature in cursive script that reads "Patty Morris".

Patty Morris
AEP Risk & Insurance Management
1 Riverside Plaza fl 27
Columbus, OH 43215
Phone: 614-716-2537
Fax: 866-293-7886

Please be advised that American Electric Power adjusts its own claims on its own behalf outside of the insurance policies issued by a member of the American Electric Power Company, Inc. or its subsidiaries.

