Ernie Fletcher Governor

LaJuana S. Wilcher, Secretary Environmental and Public Protection Cabinet

Christopher L. Lilly Commissioner Department of Public Protection

Robert M. Marshall Owen Electric Cooperative, Inc. 8205 Highway 127 North P. O. Box 400 Owenton, KY 40359



Commonwealth of Kentucky
Public Service Commission

211 Sower Blvd. P.O. Box 615 Frankfort, Kentucky 40602-0615 Telephone: (502) 564-3940 Fax: (502) 564-3460 psc.ky.gov

September 28, 2006

Mark David Goss Chairman

> Teresa J. Hill Vice Chairman

RE: Case No. 2006-00361

We enclose one attested copy of the Commission's Order in the above case.

Sincerely,

Beth O'Donnell Executive Director

BOD/sh Enclosure



COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the	Ma	tter	of:
--------	----	------	-----

OWEN ELECTRIC COOPERATIVE, INC.)	CASE NO. 2006-00361
	- <i>)</i>	CAGE 140. 2000-00001
ALLEGED FAILURE TO COMPLY)	
WITH KRS 278.042 AND WITH)	
807 KAR 5:006, SECTION 24)	

ORDER

Owen Electric Cooperative ("Owen Electric") is a Kentucky corporation engaged in the generation, transmission, and distribution of electricity to the public for compensation for lights, heat, power, and other uses and is a utility subject to Commission jurisdiction.\(^1\) Commission Staff submitted to the Commission an Incident Investigation Report ("Incident Report") dated July 17, 2006, attached hereto as Appendix A, which alleges that on June 16, 2006, Rex Stafford, an Owen Electric employee, was replacing a damaged lightning arrestor on a pole at 8344 Pleasant Valley Road in Florence, Kentucky. Mr. Stafford opened the cutout and removed the primary jumper from the transformer, but he was unaware that there was a parallel connected transformer one pole away that was backfeeding energy through the secondary conductors. An electric arc occurred and Mr. Stafford sustained burns to both hands and right arm. He was treated for those injuries at University of Cincinnati Hospital.

¹ KRS 278.010.

KRS 278.042 requires that an electric utility construct and maintain its plant and facilities in accordance with the most recent edition of the National Electrical Safety Code, which is the 2002 Edition ("NESC"). The Staff's Incident Report notes three probable violations of KRS 278.042, which are as follows:

- (a) NESC Section 42, Rule 420.C.4, which requires employees who work on or in the vicinity of energized lines to consider all of the effects of their actions, taking into account their own safety as well as the safety of other employees on the job site, or on some other part of the affected electric system, the property of others, and the public in general.
- (b) NESC Section 42, Rule 420.D, which requires employees to consider electric supply equipment and lines to be energized, unless they are positively known to be deenergized, and before starting work, employees are required to perform preliminary inspections or tests to determine existing conditions, and operating voltages of equipment and lines should be known before working on or in the vicinity of energized parts.
- (c) NESC Section 42, Rule 422.C.5, which requires employees working on or in the vicinity of equipment or lines exposed to voltages higher than those guarded against by the safety appliances provided to take steps to be assured that the equipment or lines on which the employees are working are free from dangerous leakage or induction or have been effectively grounded.

In addition, KRS 278.280(2) directs the Commission to prescribe rules and regulations for the performance of service by utilities and, pursuant thereto, the Commission promulgated 807 KAR 5:006, Section 24, which requires a utility to adopt and execute a safety program, including the establishment of a safety manual with written guidelines for safe working practices and procedures to be followed by utility employees. The Staff's Incident Report also notes one probable violation of Owen Electric's Safety Manual, which is as follows:

(a) Sections 601(b), which requires at least two employees to be present when the work to be performed includes any of the following: the installation, repair, or removal of de-energized lines if an employee is exposed to contact with other parts energized at more than 600 volts; the installation, repair, or removal of lines energized at more than 600 volts; or the installation, repair, or removal of equipment such as transformers, capacitors, and regulators, if an employee is exposed to contact with parts energized at more than 600 volts.

The Commission, on its own motion, HEREBY ORDERS that:

- 1. Owen Electric shall submit to the Commission, within 20 days of the date of this Order, a written response to the allegations contained in the Incident Report.
- 2. Owen Electric shall appear on November 17, 2006 at 9:30 a.m., Eastern Standard Time, in Hearing Room 1 of the Commission's offices at 211 Sower Boulevard, Frankfort, Kentucky to present evidence concerning the incident which is the subject of the Incident Report, specifically the three alleged violations of KRS 278.042, which are NESC Rules 420.C.4, 420.D, and 422.C.5, and the one alleged violation of 807 KAR 5:006, Section 24, which is Owen Electric's Safety Manual Sections 601(b), and to show cause, if any it can, why it should not be subject to the penalties of KRS 278.990 for those probable violations.
- 3. The official record of this proceeding shall be by video, unless otherwise requested by Owen.
- 4. The Incident Report dated July 17, 2006 is hereby made a part of the record in this case.
- 5. Any request by Owen Electric for an informal conference with the Commission Staff shall be set forth in writing and filed with the Commission within 20 days of the date of this Order.

Done at Frankfort, Kentucky, this 28th day of September, 2006.

By the Commission

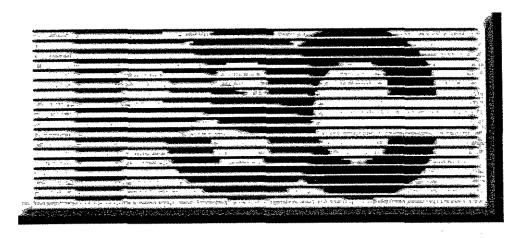
ATTEST

Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2006-00361 DATED September 28, 2006.

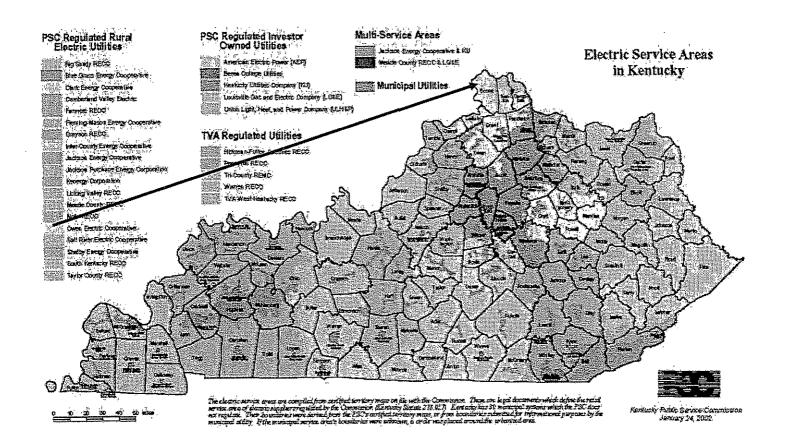
Electric Utility Personal Injury Accident Report



INCIDENT INVESTIGATION ~ Staff Report

Incident Location ~ Boone County, Kentucky

Report Date ~ July 17, 2006
Incident Date ~ June 16, 2006
PSC Investigator ~ Jeff Moore
Utility ~ Owen Electric Cooperative
Injured ~ Rex Stafford





Electric Utility Personal Injury Accident Report

UTILITY:	OWEN ELECTRIC COOPERATIVE				
Reported By:	Tony Dempsey, Safety				
Accident Occurred:	June 16, 2006	Approximately: 1:45 PM			
Utility Notified:	June 16, 2006	Approximately: 1:50 PM			
PSC Notified:	June 16, 2006	Approximately: 4:00 PM			
PSC Investigated:	June 19, 2006	Approximately: 10:30 AM			
Report Received:	June 29, 2006				
Accident Location:	8344 Pleasant Valley Rd. Florence,	Kentucky, 41024			
Accident Description:	possible primary contact with an employ University of Cincinnati Hospital for treanother call from the utility that the exprimary voltage. Mr. Stafford's injuried caused flash burns to his right arm and I met with Owen Electric employees. They explained to me that Mr. Stafford arrester. Mr. Stafford had opened the from the transformer. While removing new arrester, an electrical arc occur another transformer one pole down conductors. With the other transformer was created through the secondary transformers together. The second train a tag on the pole indicating that this train. Stafford was working were connected on July 7, 2006 I met with Tony Dempt the gloves and sleeves Mr. Stafford hinspecting the personal protective equals to the pole indicating that the personal protective equals the personal protection and the personal protection the persona	at the accident site on June 19, 2006, ord was removing a damaged lightning cutout and removed the primary jumper the old arrester and replacing it with a red. Mr. Stafford did not realize that was connected through the secondary er still energized, a back feed situation conductors, which connected the two insformer, which was still energized, had ansformer, and the transformer on which			



Electric Utility Personal Injury Accident Report

	NAME		ADDRESS	EMPLOYER		
	Rex Stafford		305 Southern Ct.			
	Fatality	Age	Apt. 2 Crittenden, KY	Owen Electric Cooperative		
VICTIM(S):	No 37		41030			
	Burns to his right hand and arm, and to his left hand.					
	Name		Address	Employer		
Witness(es):	None		N/A	N/A		
	Name		Address	Employer		
Information From:	Tony Dempsey		Safety	Owen Electric Cooperative		



Electric Utility Personal Injury Accident Report

Temp & Weather:	85° Calm Sunny					
	KRS 278.042 Service Adequacy a	nd Safety Sta	<u>andards</u>			
	NESC Section 42: 1. (420-C-4) Safeguarding Oneself and Others Note: Probable violation of rule (601-c) of the APPA safety manual					
Duckella Väelekome	2. (420-D) Energized or Unknown Conditions Note: Probable violation of rule (607-a) of the APPA safety manual.					
Probable Violations:	3. (422-C-5) In	stalling and R	Removing W	ires or Cables		
	807 KAR 5:006 Section 24, Safety Program					
A PARTICIPATION OF THE PARTICI	APPA Safety Manual: 1. (601-b) Working On or Near Energized Lines and Equipment ss (1), (2) and (3)					
Investigated By:	Name	Company				
investigated by.	Jeff Moore	Kentucky Public Service Commission				
Signed:	ed: Juffing Moore		Date 7-20			
Reviewed By:	Name	Company				
	John Shupp	Mgr., PSC Engineering Staff				
Signed:	Joh Vi Sh		Date	7/26/06		

Attachments:

- A. Utility Accident Report
- B. Utility Photographs of Accident Site
- C. PSC Photographs of Accident Site
- D. Copy of Cited Violation(s)



Electric Utility Personal Injury Accident Report

Attachment A

Utility Accident Report

June 23, 2006

Commonwealth of Kentucky Public Service Commission 211 Sower Blvd. P.O. Box 615 Frankfort, Ky 40602

Re: June 16, 2006 Employee Accident

Dear Mr. Moore,

In regard to the employee accident that occurred on June 16, 2006, we are submitting the following report.

Report

On June 16, 2006 at approximately 1:45 PM a call came into our System Operator from Rex Stafford, an Owen Electric employee, indicating that he had been involved in a serious injury accident. At 1:50 PM I received a call from the Owen Electric System Operator stating that Rex Stafford had been involved in an accident behind a residence at 8344 Pleasant Valley Rd., Florence KY, 41024. I contacted Jeff Moore, PSC Investigator, at 4:00 PM.

Mr. Stafford was there to replace a blown lightning arrester. He was working from a bucket truck on a single phase, 7200V structure. During the process of replacing the arrester, an electric arc occurred.

Mr. Stafford was transported to University Hospital Cincinnati where he suffered from burns to his right hand and arm, and to his left hand.



Mr. Stafford is a 37 year old Service Tech and has been with Owen Electric for over 18 years. He lives at 305 Southern Ct. Apt. 2, Crittenden Ky 41030.

See attachments: Attachment #1- Facility Inspections

Attachment #2- Facility Map

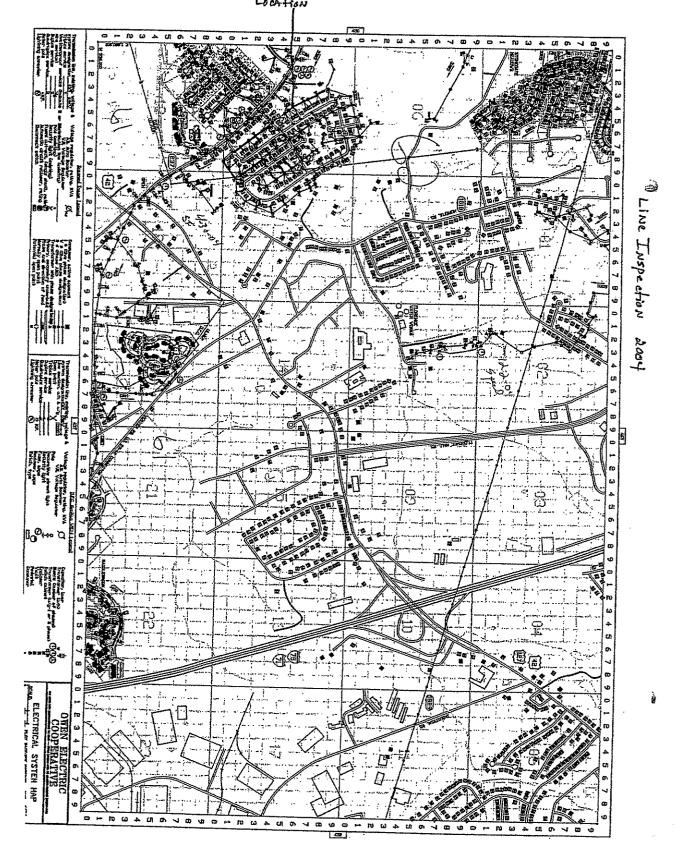
Attachment #3- Accident Site Pictures

Attachment #4- Outage Ticket

Regards.

Tony Dempsey
Manager of Safety

Owen Electric Cooperative



LINE INSPECTION 1 2 3. 4 5 6 7. BO ক STEINEGATI MEAUGYS THE REPORT OF E E E P E E 2 4 盲 E Accident Lacation B 5 6 7 8 9 0 1 6 7 8 9 3 4 5 Sconned Inone Legend Consumer, active account

1 # (Give phase designation)

V # (Give phase designation)

3 # Chase ABD

Transformer with phase designatedpa

Privary, secondary underbuild

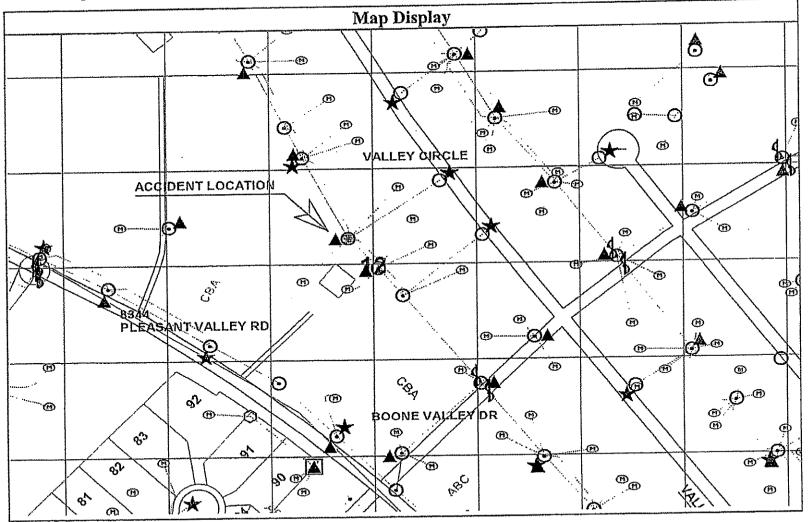
Phase and direction of feed
Normally open point

C) Voltage regulator, rating, KVA
AB, Auto Booster
VR. Voltage Regulator

30istr-Button line (existing)
Pole (existing)
Security light (existing)
Fused cut-out, (single shot), rating
Autonatic circuit recioser, rating
Bisconnect switch Transmission the, existing, voltage & system designation—FRT 69XX.
Triplex service Transmission of the control Ø ne

GOLJA!

Alfachmen # 2





A Touchstone Energy Cooperative

SYSTEM OPERATOR'S SHIFT LOG SHEET

SHIFT 6:30 TO 18:30

DATE Friday, June 16, 2006

Temperature High- 82.0

SYSTEM OPERATOR-

MATT LOGAN

....

WEATHER CONDITIONS-

SUNNY/WARM

Low- 57.0

Time Call Received	Nature of Complaint Outage # Voltage Comp. Reconnect Service Order Other	# CONSUMERS AFFECTED	Location # or Meter #	Consumer Name	Remarks: Subdivision(s) Affected Sub - Circuit - Feeder Roads / Streets Job Order # Comments	OEC Employee or Contractor	Time Called	Time in Truck or at S.C.	Time Arrived at Job	Time Service On	Time Job Complete	Time Home or back at S.C.
8:25	J.O. #103999		PUT BREAKER	BREAKERS O N HWY 22 IN S.S. TO C/O POLE WILL CALL WHEN COMP.		CHEESMAN	8:25	8:25	8:25 NORMA		15:11	N/A
10:02	TEMP, D/C	1	72425034646	SHERI MILLER	10378 LYNCHBURG	LARRY	10:15	10:15			11:00	N/A
10:19	SO#502485/R/C	1	21202011036	RANKIN JEFFREY	345 FERN WOOD	RICKEY H.	10:20	10:20	13:26	14:00	14:00	N/A
9:00	S.O. #502548	1	12100093531 COOK ANN		1645 HWY 22 E	TIM W.	10:40	10:40	CONS.	PROB.	11:10	N/A
10:45			AT	BIG BONE SUB WOKING	ON COMM. LINES	INES JIM P.			10:45		15:28	N/A
12:15	TEMP D/C	1	41314228047	CAUDILL VIRGINIA	110 HIGHLANDER CT.	10 HIGHLANDER CT. BRUCE COBB 1		12:35	13:15		14:20	N/A
15:51	SMOOT SUB			WORKING ON CO	WORKING ON COMM. LINES		15:51	15:51		16:48	16:54	N/A
REG	R/C		12138037277	MARILYN BROWNING	18465 EAGLE LANE	JOHN TUGGLE		16:25		17:15	17:15	N/A
REG	R/C		12138027244	MARILYN BROWNING	MOCKINGBIRD LANE	JOHN TUGGLE	16:25	16:25		17:20	17:20	N/A
REG	R/C		41272118863	CARL LACEY	2403 HWY 455	JOHN TUGGLE	16:25	16:25		18:38	18:38	N/A
REG	R/C		41252058618	SHEILA STARKS	55 MARKSBERRY LN	JOHN TUGGLE	REG	REG		18:29	18:29	N/A
16:58	COLL. 218.74	1	91170139349	MEFFORD DANNY	739 GOOSE CREEK	JOHN TUGGLE	17:00	17:00		17:56	17:56	N/A
17:45	R/C COLL. \$155.00		41343167646	RICHARD ELLIS	2150 HWY 1992	JOHN TUGGLE	17:54	17:54		19:09	19:09	19:23
17:47	OTG 1570	1	22219091249	DEWIGHT HUNT	· 265 MEEKS RD	RICKEY H. 18:09 18:3		18:30		19:08	19:08	19:10
13:40	OTG 1739	3	62451124438	SCHRIBER TOM	8344 PLEASANT VALLEY	Y SPEED 13:48 13:48			15:30	15:45	N/A	
13:40	OTG 1742	3	62451124438	SCHRIBER TOM	8344 PLEASANT VALLEY	SPEED	13:48	13:48		15:30	15:45	N/A
												<u></u>
										-		

Outage Report

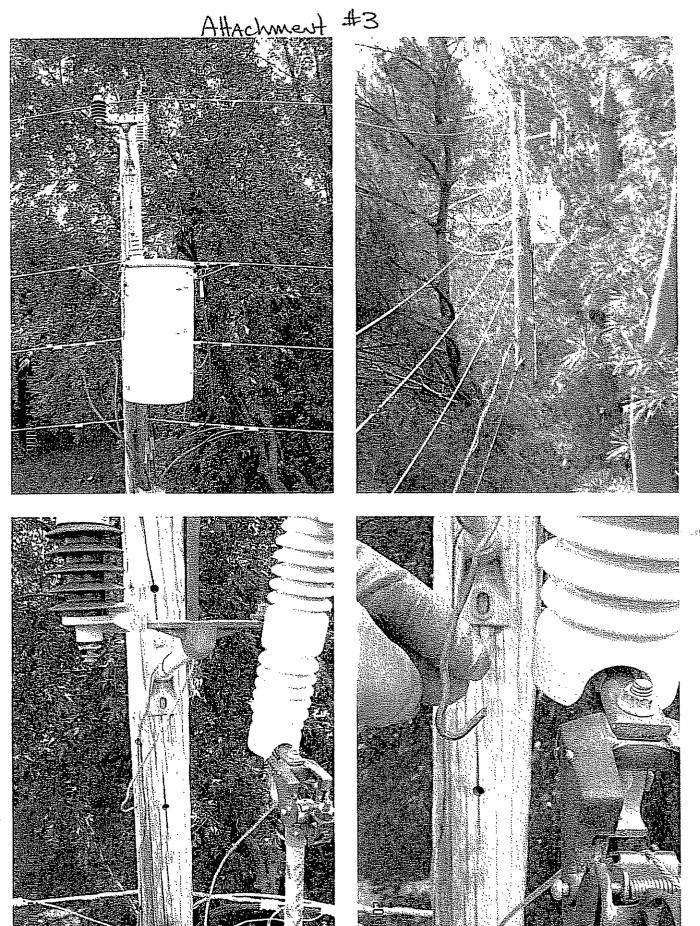
06/16/2006 06:30:00 - 06/16/2006 18:30:00

Outage Name	Start Time	Duration	SubStation	Trouble Element	Phase Cu	etOut	Cause/Equipment Failure/What Is Out/Outage Type
2006-06-16-1570	6/16/2006 17:47:50	01:20	WILLIAMSTOWN	TR6447	C	1.	Small Animal/Bird/None/Fuse.
Transformer/Birds	/Animals						
2006-06-21-1739	6/16/2006 13:40:01	01:50	SMOOT II	TR19109	C	3	Maintenance/None/Fuse,
Transformer/Equip	ment/Installation						
2006-06-21-1742	6/16/2006 13:40:00	01:50	SMOOT II	TR19104	C	3	Maintenance/None/Fuse,
Transformer/Equip	ment/Installation						
_							
Total 3		05:00				7	
2006-06-21-1739 Transformer/Equip 2006-06-21-1742	6/16/2006 13:40:01 ment/Installation 6/16/2006 13:40:00					3 3 7	Maintenance/None/Fuse, Maintenance/None/Fuse,



Electric Utility Personal Injury Accident Report

Attachment B
Utility Photographs of Accident Site

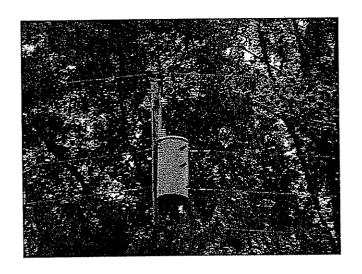




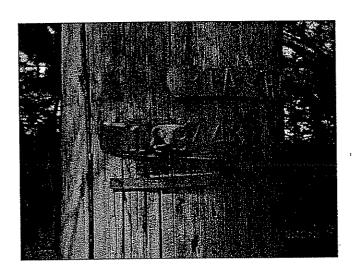
Electric Utility Personal Injury Accident Report

Attachment C

PSC Photographs of Accident Site





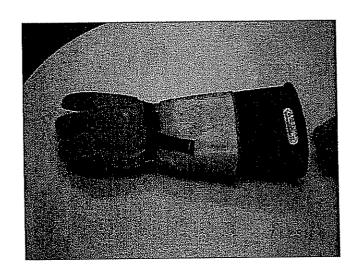


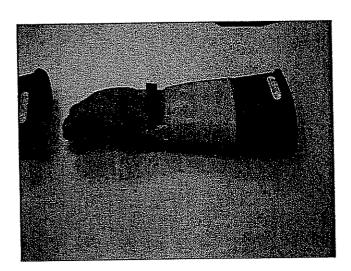




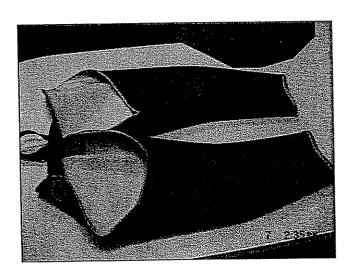


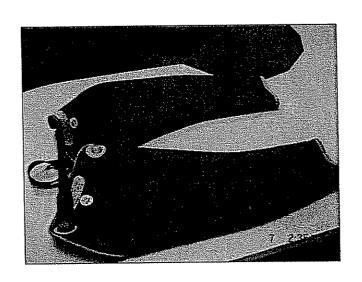














Electric Utility Personal Injury Accident Report

Attachment D

Copy of Cited Violation(s)

Section 42. General Rules for Employees

420. Personal General Precautions

- A. Rules and Emergency Methods
 - 1. Employees shall carefully read and study the safety rules, and may be called upon at any time to show their knowledge of the rules.
 - 2. Employees shall familiarize themselves with approved methods of first aid, rescue techniques, and fire extinguishment.

B. Qualifications of Employees

- Employees whose duties require working on or in the vicinity of energized equipment or lines shall perform only those tasks for which they are trained, equipped, authorized, and so directed. Inexperienced employees shall: (a) work under the direction of an experienced and qualified person at the site, and (b) perform only directed tasks.
- 2. If an employee is in doubt as to the safe performance of any assigned work, the employee shall request instructions from the employee's supervisor or person in charge.
- 3. Employees who do not normally work on or in the vicinity of electric supply lines and equipment but whose work brings them into these areas for certain tasks shall proceed with this work only when authorized by a qualified person.

C. Safeguarding Oneself and Others

- 1. Employees shall heed safety signs and signals and warn others who are in danger or in the vicinity of energized equipment or lines.
- 2. Employees shall report promptly to the proper authority any of the following:
 - a. Line or equipment defects such as abnormally sagging wires, broken insulators, broken poles, or lamp supports
 - b Accidentally energized objects such as conduits, light fixtures, or guys
 - c. Other defects that may cause a dangerous condition
- 3. Employees whose duties do not require them to approach or handle electric equipment and lines shall keep away from such equipment or lines and should avoid working in areas where objects and materials may be dropped by persons working overhead.
- 4. Employees who work on or in the vicinity of energized lines shall consider all of the effects of their actions, taking into account their own safety as well as the safety of other employees on the job site, or on some other part of the affected electric system, the property of others, and the public in general.
- No employee shall approach or bring any conductive object, without a suitable insulating handle, closer to any exposed energized part than allowed by Rule 431 (communication) or Rule 441 (supply), as applicable.
- 6. Employees should exercise care when extending metal ropes, tapes, or wires parallel to and in the proximity of energized high-voltage lines because of induced voltages. When it is necessary to measure clearances from energized objects, only devices approved for the purpose shall be used.

D. Energized or Unknown Conditions

Employees shall consider electric supply equipment and lines to be energized, unless they are positively known to be de-energized. Before starting work, employees shall perform preliminary inspections or tests to determine existing conditions. Operating voltages of equipment and lines should be known before working on or in the vicinity of energized parts.

E. Ungrounded Metal Parts

Employees shall consider all ungrounded metal parts of equipment or devices such as transformer cases and circuit breaker housings, to be energized at the highest voltage to which they are exposed, unless these parts are known by test to be free from such voltage.





422. Overhead Line Operating Procedures

Employees working on or with overhead lines shall observe the following rules in addition to applicable rules contained elsewhere in Sections 43 and 44.

- A. Setting, Moving, or Removing Poles In or Near Energized Electric Supply Lines
 - When setting, moving, or removing poles in or in the vicinity of energized lines, precautions shall
 be taken to avoid direct contact of the pole with the energized conductors. Employees shall wear
 suitable insulating gloves or use other suitable means where voltages may exceed rating of gloves
 in handling poles where conductors energized at potentials above 750 V can be contacted. Employees performing such work shall not contact the pole with uninsulated parts of their bodies.
 - Contact with trucks, or other equipment that is not bonded to an effective ground being used to
 set, move, or remove poles in or in the vicinity of energized lines shall be avoided by employees
 standing on the ground or in contact with grounded objects unless employees are wearing suitable
 protective equipment.

B. Checking Structures Before Climbing

- Before climbing poles, ladders, scaffolds, or other elevated structures, employees shall determine, to the extent practical, that the structures are capable of sustaining the additional or unbalanced stresses to which they will be subjected.
- 2. Where there are indications that poles and structures may be unsafe for climbing, they shall not be climbed until made safe by guying, bracing, or other means

C. Installing and Removing Wires or Cables

- Precautions shall be taken to prevent wires or cables that are being installed or removed from contacting energized wires or equipment. Wires or cables that are not bonded to an effective ground and which are being installed or removed in the vicinity of energized conductors shall be considered as being energized.
- Sag of wire or cables being installed or removed shall be controlled to prevent danger to pedestrian and vehicular traffic
- Before installing or removing wires or cables, the strains to which poles and structures will be subjected shall be considered and necessary action taken to prevent failure of supporting structures.
- Employees should avoid contact with moving winch lines, especially in the vicinity of sheaves, blocks, and take-up drums.
- 5. Employees working on or in the vicinity of equipment or lines exposed to voltages higher than those guarded against by the safety appliances provided shall take steps to be assured that the equipment or lines on which the employees are working are free from dangerous leakage or induction or have been effectively grounded.

423. Underground Line Operating Procedures

Employees working on or with underground lines shall observe the following rules in addition to applicable rules contained elsewhere in Sections 43 and 44.

A. Guarding Manhole and Street Openings

When covers of manholes, handholes, or vaults are removed, the opening shall be promptly protected with a barrier, temporary cover, or other suitable guard.

B. Testing for Gas in Manholes and Unventilated Vaults

- 1. The atmosphere shall be tested for combustible or flammable gas(es) before entry.
- Where combustible or flammable gas(es) are detected, the work area shall be ventilated and made safe before entry.
- 3. Unless forced continuous ventilation is provided, a test shall also be made for oxygen deficiency.
- Provision shall be made for an adequate continuous supply of air.
 NOTE: The term adequate includes evaluation of both the quantity and quality of the air.



Section 6 OVERHEAD DISTRIBUTION AND TRANSMISSION

601 Working On or Near Exposed Energized Lines and Equipment

- a) Only qualified employees and trainees working under their direct supervision may work on or with exposed energized lines or parts of equipment. Only qualified employees and trainees working under their direct supervision may work in areas containing unguarded, uninsulated energized lines or parts of equipment operating at 50 volts or more. When employees are performing work on or associated with exposed lines or equipment energized at 50 volts or more, persons trained in first aid and cardiopulmonary resuscitation (CPR) shall be available as follows:
 - (1) For field work involving two or more employees at a work location, at least two trained persons shall be available. Only one trained person needs to be available if all new employees are trained in first aid and CPR within 3 months of their hiring dates.
 - (2) For fixed work locations such as generating stations, the number of trained persons available shall be sufficient to ensure that each employee exposed to electric shock can be reached in 4 minutes by a trained person. Where the existing number of employees is not sufficient to meet this requirement (at a remote substation, for example), all employees at the work location shall be trained.
- b) At least two employees will be present while the following types of work are being performed (except as noted in (c) below):
 - (1) Installation, repair or removal of de-energized lines if an employee is exposed to contact with other parts energized at more than 600 volts.
 - (2) Installation, repair or removal of lines energized at more than 600 volts.
 - (3) Installation, repair or removal of equipment such as transformers, capacitors and regulators, if an employee is



exposed to contact with parts energized at more than 600 volts.

- (4) Work involving the use of mechanical equipment, other than insulated aerial lifts, near parts energized at more than 600 volts.
- (5) Any other work that exposes an employee to electrical hazards greater than or equal to those listed above.
- c) Two employees do not need to be present in the following operations:
 - (1) Routine switching of circuits (if it can be done safely).
 - (2) Work performed with live-line tools if the employee is positioned so that they are not within reach of or otherwise exposed to energized parts.
 - (3) Emergency repairs necessary to safeguard the general public.
- d) Only qualified employees may work on or with exposed energized lines or parts of equipment. Only qualified employees may work in areas containing unguarded, uninsulated energized lines or parts of equipment operating at 50 volts or more. When two or more employees are working on the same line section, they shall only work on or contact the same conductor at one time.

Note: An employee undergoing on-the-job training who has demonstrated the ability to perform duties safely at his level of training and who is under the direct supervision of a qualified person is considered to be a qualified person for the performance of those duties.

e) No employee may approach or take any conductive object without an insulating handle closer to exposed energized parts than the minimum approach distances set forth in Tables 6.1 through 6.5 unless the employee is insulated from the energized part or the energized part is insulated from the employee and any other conductive object at a different potential, or the employee is insulated from any other conductive object, as during live-line bare-hand work. Refer to Paragraphs 602, 606, 609, and 906 for related information. Refer to OSHA Standard 29 CFR 1910.137.