

Ernie Fletcher
Governor

LaJuana S. Wilcher, Secretary
Environmental and Public
Protection Cabinet

Christopher L. Lilly
Commissioner
Department of Public Protection

Dudley Bottom, Jr.
Shelby Energy Cooperative, Inc.
620 Old Finchville Road
Shelbyville, KY 40065



Commonwealth of Kentucky
Public Service Commission
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P.O. Box 615
Frankfort, Kentucky 40602-0615
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Mark David Goss
Chairman

Teresa J. Hill
Vice Chairman

Gregory Coker
Commissioner

June 8, 2006

RE: Case No. 2006-00098

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

Sincerely,

A handwritten signature in black ink, appearing to read "Beth O'Donnell".

Beth O'Donnell
Executive Director

BOD/jc
Enclosure

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

SHELBY ENERGY COOPERATIVE)
_____) CASE NO.
) 2006-00098
ALLEGED FAILURE TO COMPLY WITH
KRS 278.042

O R D E R

Shelby Energy Cooperative, Inc. ("Shelby Energy") is a non-profit cooperative corporation organized under the laws of Kentucky. Shelby Energy distributes electricity to the public for compensation for lights, heat, power, and other uses, and is a utility subject to Commission jurisdiction. KRS 278.010, 279.210.

Commission Staff submitted to the Commission an Incident Investigation Report ("Incident Report") dated February 24, 2006, attached hereto as Appendix A, which alleges that on February 8, 2006, Greg Lee Mays was an employee of Dobson Power Line Construction, Inc. ("Dobson"), a contractor hired by Shelby Energy to perform maintenance work on Shelby Energy's electric plant and facilities. Mr. Mays and other employees of Dobson were working near 4505 Peck Pike in Trimble County, Kentucky. Mr. Mays was on a pole preparing to cut a dead end on an old line, which would allow them to pull a new line in while maintaining service to a commercial customer. Another Dobson employee was at the take-off pole where there were two switches: one which fed a transformer; and the other, which fed the primary tap line, which was being worked on by Mr. Mays. The Dobson employee at the take-off pole erroneously opened

the transformer switch, leaving the tap line energized, and then called by two-way phone to a Dobson employee with Mr. Mays to state that the tap line had been de-energized. Mr. Mays then reached out and grabbed the primary tap line, which was still energized. A Dobson employee who was working on the same pole as Mr. Mays then attempted to lower the victim to the ground, but while doing so he slipped out of his belt and fell to the ground. Mr. Mays was then taken to the hospital and he died of his injuries.

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 eight probable violations of KRS 278.042:

1. NESC, Section 42, Rule 420.C.4, by the employees' failure while working in the vicinity of energized lines to consider all the effects of their actions and to take into account their own safety, the safety of other employees, the property of others, and the public in general;

2. NESC, Section 42, Rule 420.D, by the employees' failure to consider electric supply lines to be energized, unless they are positively known to be de-energized, by failing to perform preliminary tests to determine existing conditions, and by failing to know the operating voltages of lines before working on or in the vicinity of energized parts;

3. NESC, Section 42, Rule 420.H, by the employee's failure to use the personal protective equipment, protective devices, and the special tools provided for the work;

4. NESC, Section 42, Rule 422.C.5, by the employees' failure, while 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;

5. NESC, Section 44, Rule 441.A.1, by the employees' failure to maintain the minimum distance to expose parts that operate at the voltages listed in NESC Table 441-1 or Table 441-4, when the line or part is not de-energized and grounded in accordance with NESC, Rule 444.D;

6. NESC, Section 44, Rule 444.D, by the employee's failure to make protective grounds or verify that adequate grounds have been applied on the disconnected lines, and by the failure to place grounds at each side of, or at, the work location;

7. NESC, Section 44, Rule 444.E.1, by the employee proceeding to work on the lines before first de-energizing the lines and placing grounds as required by NESC Rule 444.D; and

8. NESC, Section 44, Rule 445.A.3, by the employee's failure to test for voltage the previously energized parts that are to be grounded, and by the employee's failure to keep every part of the body at the required distance by using insulating handles of proper length or other suitable devices.

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

1. Shelby Energy 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. Shelby Energy shall appear on July 11, 2006, at 9:00 a.m., Eastern Daylight 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 eight alleged violations of KRS 278.042 and NESC Rules 420.C.4, 420.D, 420.H, 422.C.5, 441.A.1, 444.D, 444.E.1, and 445.A.3, and to show cause, if any can, why it should not be subject to the penalties of KRS 278.990 for the eight probable violations of the aforementioned statute.

3. The official record of this proceeding shall be by video, unless otherwise requested by Shelby Energy.

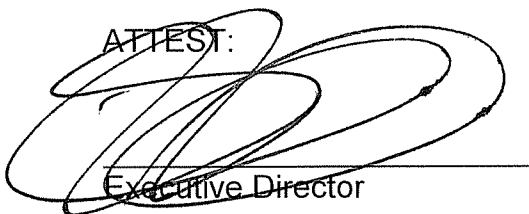
4. The Incident Report dated February 24, 2006 is hereby made a part of the record of this case.

5. Any request by Shelby Energy 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 8th day of June, 2006.

By the Commission

ATTEST:



Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN CASE NO. 2006-00098 DATED June 8, 2006.



INCIDENT INVESTIGATION ~ Staff Report

Report Date ~ February 24, 2006

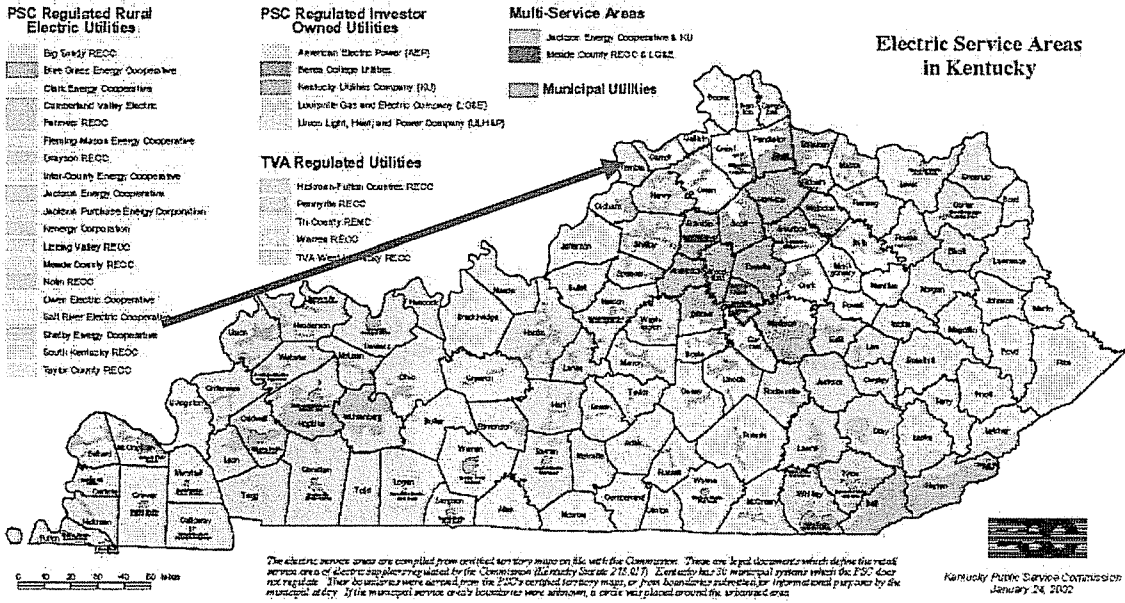
Incident Date ~ February 8, 2006

Serving Utility ~ Shelby Energy

Incident Location ~ Trimble County, Kentucky

Victim ~ Mr. Greg Lee Mays

PSC Lead Investigator ~ Jeff Moore & Steve Kingsolver





Kentucky Public Service Commission

Electric Utility Personal Injury Incident Report

Utility:	SHELBY ENERGY COOPERATIVE, INC. ("SHELBY EC")	
Reported By:	David Martin, VP of Operations, Shelby EC	
Incident Occurred	February 8, 2006	Approximately 9:45 AM
Utility Notified:	February 8, 2006	Approximately 10:35 AM
PSC Notified:	February 8, 2006	Approximately 11:00 AM
PSC Investigated:	February 8, 2006	Approximately 2:15 PM
Report Received:	February 14, 2006	
Incident Location:	4505 Peck Pike (Highway 625) in Trimble County, Kentucky	
Accident Description:	<p>According to witnesses at the accident site and the accident report from Shelby EC. The victim, Greg Lee Mays, an employee with Dobson Power Line Construction Company was working near 4505 Peck Pike in Trimble County, Kentucky. According to the witnesses, Greg Lee Mays and James David Dobson, III, were working on a pole near the address mentioned above. Mr. Mays and Mr. Dobson were preparing to cut a dead end on the old line which would allow them to pull new line in while keeping the Willis Tax Service line energized, while they were waiting on the pole for the tap line to be de-energized. Mr. Henson was at the take off pole and was called by a Nextel two-way phone to open the switch in order to de-energize the tap line. There were two switches on the take off pole. One of these switches fed a transformer and the other fed the primary tap line they were working on. Mr. Henson opened the transformer switch by mistake, leaving the tap line energized. Mr. Henson then called by two-way phone to Mr. Kelvin Thomas, who was standing at the pole where the accident took place, informing Mr. Thomas that the line was de-energized. Mr. Thomas then told Mr. Mays and Mr. Dobson that the line was de-energized. According to the witnesses at the accident site, Mr. Mays then reached out and grabbed the line which was still energized. He grabbed his wrist with his other hand attempting to break free, but was unsuccessful. Mr. Henson then realized his mistake and attempted to radio the workers on the other pole, but was unable to get through on the Nextel service. He then moved his bucket truck into position as quickly as possible and opened the switch to the tap line. By this time, it was too late and Mr. Mays had come in contact with the primary tap line. Once the primary tap line was de-energized, Mr. Dobson who was on the pole with the victim, Mr. Mays, attempted to lower the victim to the ground. While Mr. Dobson was lowering the victim, the victim slipped out of his belt and fell to the ground. According to the witnesses at the accident pole, Mr. Mays had stopped breathing and they could not detect a pulse. Mr. Dobson, Mr. Brad C. Wolf and Mr. Earl Henson began CPR. According to the Shelby EC's report, Mr. Mays had a pulse but was not breathing on his own. EMS then arrived on the scene and took Mr. Mays to the hospital.</p>	



Kentucky Public Service Commission

Electric Utility Personal Injury Incident Report

Victim:	Name		Address	Employer
	Greg Lee Mays		Unknown	Dobson Power Line Construction, Inc.
	Fatality	Age		
	Yes	39		
Witnesses	Name		Address	Employer
	Kelvin Thomas		50 Bagwood Rd. London, KY 40741	Dobson Power Line Construction, Inc.
	James Dobson III		Unknown	Dobson Power Line Construction, Inc.
	Frank Rice		372 Leavell Ridge Rd. Lancaster, KY 40444	Dobson Power Line Construction, Inc.
	Cosby Carroll		Unknown	Dobson Power Line Construction, Inc.
	Josh Wiedemann		Unknown	Dobson Power Line Construction, Inc.
	Sylvester Henson		Unknown	Dobson Power Line Construction, Inc.
	Earl Henson		Unknown	Dobson Power Line Construction, Inc.
	Brad C. Wolf		Unknown	Dobson Power Line Construction, Inc.
Information From:	Name		Address	Employer
	David Martin		Unknown	V P of Operations Shelby EC
	Dudley Bottom		Unknown	Manager Shelby EC
Temp & Weather:	40° & Partly Cloudy, Steady Breeze			



Kentucky Public Service Commission

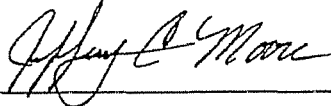
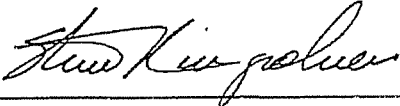
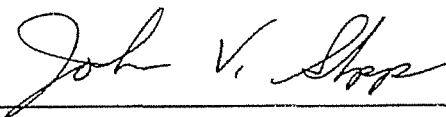
Electric Utility Personal Injury Incident Report

Probable Violations:	<u>KRS 278.042 Service Adequacy and Safety Standards</u>	
	1. NESC: Section 42	420, C-4 Safeguarding Oneself and Others
		420, D Energized or Unknown Conditions
		420, H Tools and Protective Equipment
		422, C-5 Installing and Removing Wires or Cables
	Section 44	441, A-1 Minimum Approach Distance to Live Parts
		444, D De-energized Equipment or Lines to Protect Employees
		444, E-1 Proceeding With Work
		445, A-3 Testing for Voltage



Kentucky Public Service Commission

Electric Utility Personal Injury Incident Report

Investigated By:	Name	Company	
	Jeff Moore	PSC Engineering Staff	
Signed:		Date:	2-24-06
Investigated By:	Name:	Company:	
	Steve Kingsolver	PSC Engineering Staff	
Signed:		Date:	2-24-06
Reviewed By:	Name	Company	
	John Shupp	Manager, Electric Branch Division of Engineering	
Signed:		Date:	2/24/06

Attachments:

- A. Shelby Energy Cooperative 7-Day Accident Report
- B. Information and Photographs from Shelby Energy Cooperative
- C. KPSC Photographs of Accident Site
- D. Copy of Cited Violation from NESC



Kentucky Public Service Commission


Electric Utility Personal Injury Incident Report

Attachment A

Shelby Energy Cooperative 7-Day Accident Report



Shelby Energy Cooperative, Inc.

Your Touchstone Energy® Partner 

INVESTIGATION REPORT

Fatality from Electrocutation

Type of Report

David Martin

Investigator

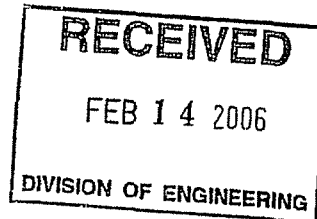
Location: 4505 Peck Pike
Trimble County, Kentucky

Greg Lee Mays

Deceased

February 8, 2006

Date of Incident



Case Summary

On February 8, 2006 I was notified that an employee of Dobson Power Line Construction, Inc. working near Peck Pike in Trimble County, Kentucky had been electrocuted and sustained serious injuries. An investigation found that the employee, Greg Lee Mays (hereinafter "Mays") had been electrocuted and then had subsequently fallen when he slipped out of his belt while being lowered to the ground. Mays was taken to the Kings Daughters Hospital in Madison, Indiana. Then he was flown to a hospital in Cincinnati, Ohio. Shelby Energy Cooperative, Inc. (hereinafter "Shelby Energy") was notified of the incident by a telephone call from the owner of the contracting company, J.D. Dobson, by telephone at 10:35 a.m. The Public Service Commission was notified by Shelby Energy at 11:05 a.m. We subsequently discovered that Mr. Mays had died as a result of his injuries.

Investigation

On February 8, 2006 Mays and James David Dobson, III were working on a pole at 4505 Peck Pike (Highway 625) in Trimble County, Kentucky. These employees were cutting a dead end on the old line in order to pull new wire while still keeping the Willis Tax Service, service line active.

Another Dobson employee, Earl W. Henson, was up on the takeoff pole several spans away. He was called by a Nextel two-way phone and told to open the switch in order to kill the line. There were two switches on Mr. Henson's pole. One fed the transformer and one fed the power line. Mr. Henson opened the transformer switch by mistake, leaving the power line hot. Mr. Henson then called by two-way phone to employee Kelvin Thomas, who was at the base of the Mays pole, and advised him the line was dead. Mr. Thomas told Mays and Dobson the line was dead, when in fact it was still hot. Once advised the line was dead, Mays reached out and grabbed the phase line, which was still hot. He said, "Oh, God" and grabbed his wrist with his other hand attempting to

www.shelbyenergy.com

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Shelby Co. (502) 633-4420 • Trimble Co. (502) 255-3260 • Henry Co. (502) 845-2845

break free, but was unable to do so. He was not wearing rubber gloves a violation of Dobson's safety rules.

Earl Henson realized his mistake quickly and attempted to radio the other pole to warn them, but was unable to get through on the Nextel service. He accordingly moved his bucket into position as soon as possible and opened the switch on the power line, thereby killing the line. Unfortunately, Mays had already contacted the live line.

Once the line was killed, Dobson, who was up on the pole with Mays, attempted to lower Mays to the ground. Mays slipped out of his belt and fell to the ground. It was discovered Mays had stopped breathing and lost his pulse. Dobson, Brad C. Wolf and Earl Henson began giving CPR. It is believed Mays had a pulse but was not breathing on his own. EMS arrived and took Mays to the hospital.

In addition to Dobson, who was up on the pole with Mays, Josh Wiedemann was at the base of the pole where Mays was electrocuted. Kelvin Thomas was also near the pole where the electrocution occurred. Sylvester Henson was at the base of the take-off pole and did not see what happened.

Dudley Bottom, Jr. and I, on behalf of Shelby Energy, investigated the accident on the day of the accident, February 8, 2006. Kentucky Public Service Commission employees Jeff Moore and Steve Kingsolver also investigated that day. OSHA representatives investigated the next day.



David Martin
Vice President of Operations
Shelby Energy Cooperative, Inc.
620 Old Finchville Road
Shelbyville, Kentucky 40065
(502) 633-4420

EMPLOYEES ON THE JOB SITE:

James David Dobson, III:	On the pole with Mays and witnessed the entire accident
Josh Wiedemann:	Under the pole and witnessed the accident
Kelvin Thomas:	Close to the pole when the accident occurred
Earl W. Henson:	Was on the take-off pole and opened the wrong switch
Sylvester Henson:	Did not witness the accident
Brad C. Wolf:	At the base of the take-off pole - Administered CPR
Cosby Carroll:	At base of electrocution pole
Frank Rice:	At base of electrocution pole

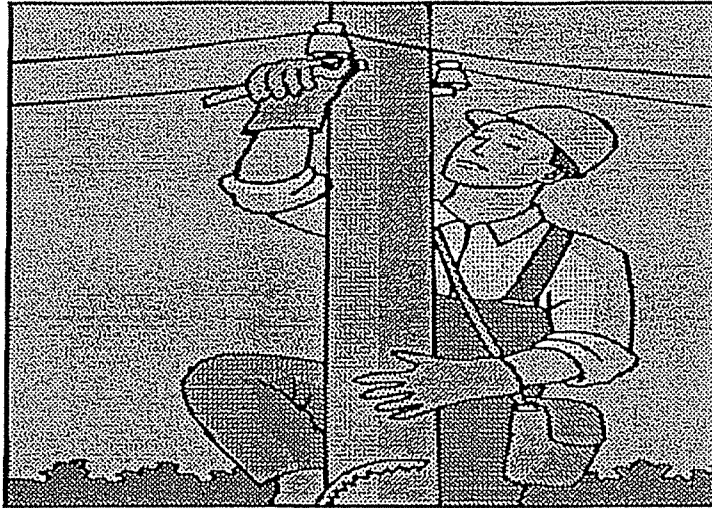


Kentucky Public Service Commission

Electric Utility Personal Injury Incident Report

Attachment B

Information and Photographs from Shelby Energy Cooperative



Dobson Power Line Construction Co., Inc.

SAFETY RULES

SAFETY IS EVERYONE'S RESPONSIBILITY

THE FOLLOWING RULES ARE ONLY A REMINDER AND A SUPPLEMENT TO STANDARD INDUSTRY SAFETY PRACTICES AND MAY NOT OFFER SUFFICIENT SAFETY IN ALL CASES.

ADDITIONAL SAFETY RULES PROVIDED BY EQUIPMENT, TOOL OR PRODUCT MANUFACTURERS SHOULD ALSO BE FOLLOWED.

ALSO, YOU OR YOUR FOREMAN OR SUPERVISOR MAY SEE THE NEED FOR ADDITIONAL SAFETY PRECAUTIONS ON MANY JOBS DEPENDING ON THE JOB LOCATION, WEATHER OR OTHER CIRCUMSTANCES.

SAFETY RULES
Revised 01-01-2002

Responsibilities of the Individual and Supervisor

It shall be the responsibility of each employee to follow these Safety Rules and Regulations and it shall be the responsibility of each supervisor to see that employees working under his direction follow them to the best of his ability.

1. An employee shall not be under the influence of intoxicants while at work or while driving a company vehicle.
2. An employee shall not engage in fighting while on duty.
3. Scuffling and horseplay are prohibited.
4. Rubber gloves with leather protectors shall be worn:
 - a. Working within falling or reaching distance of any conductors.
 - b. Required by supervision.
5. Rubber gloves shall be tested every three (3) months. It is the responsibility of the employee to make sure the gloves are changed according to the schedule.
6. Rubber gloves shall be air tested at least once daily if gloves are being used. It is the responsibility of the employees to make the air test.
7. If it is possible for any part of a vehicle to contact energized equipment or conductors, the body of the vehicle must be grounded to system neutral. If a lineman is not available to apply the ground to the neutral or if the neutral is inaccessible and will create a hazard in trying to ground, the pole ground will be acceptable. The operator of the vehicle at the beginning of the job shall be responsible for the grounding of the vehicle.

8. Vehicles stopped along highways and roads shall be properly protected by Red Flags and or Warning lights. (Kentucky State Law requires amber colored flashing light if used on top of the vehicle.

9. All apparently disconnected conductors shall be treated as energized and checked for back feed before grounding or working near them.

10. All trucks, rated above 3/4 ton, shall carry and use approved wheel chocks when parking on an incline.

11. While vehicle is being fueled, the engine shall be stopped and the radio transmitter shall not be operated.

12. Smoking is not permitted where gasoline or any flammable material is being used.

13. Signs prohibiting smoking and open flames shall be strictly observed.

14. Only UL Listed Safety can be used for storing and transporting small amounts of Gasoline.

15. Materials such as wiping rags and waste must be kept in safe designated containers.

16. Liquids, which are highly volatile and flammable, shall not be stored, transported or left unattended in open containers. Gases or vapors from flammable liquids are combustible and when mixed with air is explosive. Even the small amounts of these liquids in open containers are dangerous, and should be avoided.

17. Fire Extinguishers shall be checked once a month, and tested each year.

18. No person shall ride on or in a vehicle in a position where any portion of their body extends beyond any part of the vehicle.

19. Eye Protection: Full cover goggles and or face shields must be worn by employees when engaged in close work involving but not limited to the following:

- a. Drilling or chipping stone, brick or concrete.
- b. Brush chippings.
- c. Grinding, buffing or wire brushing with power equipment.
- d. Overhead drilling with hand or electric drill.
- e. Cleaning or scaling metal.
- f. While using power saw.
- g. Approved eye protection must be worn by employees when requested by his supervisor.

20. Respirators shall be worn while working in dust areas such as drilling, chipping, and grinding stone.

21. Guide to First Aid: Designated employees shall take a standard course in first aid every three years.

22. Communication Equipment: Open wire telephone lines erected on power line poles must be treated as energized lines, unless they are properly grounded.

23. All other foreign wires shall be treated as energized lines until determined otherwise.

AERIAL LIFT

24. Climbers must not be worn while on an aerial lift.

25. A body belt shall be worn and a lanyard attached to the boom while working from aerial trucks.

26. Belting off to an adjacent pole or structure while working from aerial trucks shall not be permitted.

27. Employee shall always stand on floor of basket. He shall not stand, climb, or sit on edge of basket.

28. Boom and basket load limits specified by manufacturer shall not be exceeded.

29. Aerial trucks shall not be moved with boom elevated.

30. When two men are working from an aerial lift they both must work on the same energized phase. Unless approved live line equipment used allows handling of additional phases.

31. Operations shall be suspended immediately upon indication of a malfunction in the equipment. The person in charge of the project shall make a decision at that time whether to continue or stop the use of the vehicle.

32. Rubber gloves and sleeves will be worn when working on or within reaching distance of energized equipment from an aerial truck.

WORK ON POLES

33. When wood poles are being set or removed in Proximity to live lines conductors, they must not be considered as conductors. Any protection that is needed shall be the decision of the person in charge of the project.

34. Where side guys are used in the setting of poles or structures, they must be attached to firm and substantial objects, or pencil bars driven in the ground. Lines must never be wrapped around the bodies of men while setting poles.

35. Safety belts or lanyards must be used when work is being done above ground level on poles or wood structures, steel towers, large trees, and where required by supervisor.

36. Climber's gaffs less than 1 ¼ inch (or about the width of a half dollar) shall not be used.

37. Climbers must not be worn when performing work on the ground or while traveling to and from the job.
38. Climbers must be used to descend poles. Do not take jump type steps or slide down guys.
39. Warning signs must be used on each side of a work area along a highway, or other public thoroughfare.
40. Setting poles with glass bell insulators attached shall not be permitted.
41. No employee shall walk or stand under poles or other loads being lifted by winch trucks.
42. All poles shall be checked for condition of pole before climbing. Any pole found unsafe shall be reported to supervisor.
43. Rubber gloves shall be worn during inclement weather, when using hot stick, fusing stick, or pogo stick.
44. When stringing or removing conductors' parallel to or crossing over energized circuits or apparatus, install grounds on the new conductors for protection against static or induced voltage and accidental contacts with energized circuits.
45. Each piece of pulling equipment used must be adequately grounded when in use.
46. A workman must not attach conductors to his belt or hold them in his hand while climbing. He shall use a hand line to raise material on a structure after he reaches his work position. Exception: Power saw when not running; can be attached to the body belt after the person reaches work position.
47. All excavations (holes) left unattended shall be covered with suitable materials to provide protection for people and animals.

48. Employees shall not be lowered or raised out of an excavation by mechanized equipment, other than equipment suitable for this purpose.

49. Axes, bush hooks, saws, or other tools must not be thrown into boxes or truck beds, but must be placed in designated areas. The person last using the tools is responsible for placing the tool in its proper place.

50. Carry the saw by the handle bar only. Never on the shoulder.

51. Remove spark plug wire before sharpening or working on power saw, power mower or other gas-powered equipment.

52. Do not fill gasoline tank of any gas-powered equipment while engine is running.

HEAD PROTECTION

53. Approved safety headgear shall be worn by all persons when in areas where falling objects or other hazards may cause a head injury, and in any areas designated by supervisor. Safety headgear or headbands shall not be defaced or altered, except to place name on hardhat for identification of hat.

OPERATION OF POWER MOWERS

54. Fill gasoline tank outdoors.

55. Do not stand in front of self-propelled mower during and after starting.

HIGH VOLTAGE EQUIPMENT

56. Entrance to areas containing high voltage equipment or open bus bars must be kept closed. Only experienced persons in the performance of their duties shall enter cubicle containing electrical equipment.

SHOP PRACTICES

57. Each employee shall help maintain orderly warehouse, pole yards, and trucks.

58. All tools used regardless of ownership shall be approved, shall be maintained in first class condition, and are subject to inspection.

59. No equipment shall be altered from the condition it was purchased.

60. Portable A C Electrical tools shall be equipped with a three-wire cord with the ground wire permanently connected to the tool frame and a means of grounding the other end of the wires, or shall be of the double insulating type.

61. Pneumatic or electric hand tools shall not be used unless equipped with a dead man switch.

62. Tools or materials shall not be thrown from one worker to another, but shall be passed hand-to-hand with a hand line.

63. Sharp edged tools shall have the edge guarded at all times when not in use. Person last using tool is responsible for replacing guard.

64. Files or other tools with pointed tangs shall not be used unless equipped with handles and guards.

65. Mushroom headed chisels, punches, star drills, pencil point bars, or similar tools must not be used.

66. All hook ladders must be laces with rope.

67. Wood ladders must not be painted (cover with a clear shellac or other clear protective coating.)

68. Explosives shall not be transported in the same compartment as the blasting caps.
69. Radio transmitters shall not be operated on vehicles while loading holes to be blasted.
70. Use only wood tamps to tamp explosives in hole.
71. Blasting caps shall not be stored in same container as explosives including prim cord.
72. The employee that loads a hole for blasting shall be responsible for clearing blast area of personnel, trucks, and detonation, of blast. The end of the blasting cord shall be wrapped together after each blast has been made.

HANDLING POLES

73. Before unloading is begun, railway cars must be properly scotched with the brakes set to prevent rolling.
74. Cables shall be placed to retain load while stakes and binding wires are being cut. Binding wires shall not be cut while anyone stands on the load.
75. Poles loaded for transporting shall be securely bound to the vehicle before moving.
76. Poles being transported along streets or highways shall be plainly marked at the rear with red flags by day, and red lights by night. State and local regulations covering the movement of loads shall be observed. "A" frames attached to trucks in the usable or travel position shall be marked in the rear with a red flag.

GROUNDING

77. All electrical circuits and equipment must be treated as energized unless properly grounded.
78. All grounded lines and line equipment shall be tagged unless a qualified person is going to stay with the equipment.

79. Only approved grounding devices shall be used.
80. In all cases the person holding the clearance shall be responsible, for placing and removing grounds and tags.
81. Do not ground supposedly dead circuits without buzzing out with the proper equipment to find out whether the circuit is de-energized.
82. When attaching grounds, fasten the ground end first. The other end must never be attached or removed by hand.
83. When removing grounds, do not break ground connection until after the clamp has been removed from the line or equipment.
84. Grounds shall be placed between work locations and all sources of energy and as close as practicable to the work location, or grounds shall be placed at the work location.
85. When work is being performed in a substation on transformers, or circuit breakers, a ground must be placed on each bushing lead. When it is necessary to test grounds may be removed for duration of the test and then replaced. The person holding the clearance or sub clearance must approve the removal and replacing of grounds.
86. All capacitors stored shall be shunted across by the warehouseman.
87. After de-energizing capacitor banks, wait five minutes before grounding them.
88. In wye connected capacitor banks, the neutral may or may not be floating. In either case, it must be grounded before working in the bank.

89. Where seat belts are provided, they will be used.

90. When work is to be done on or near energized lines or equipment, all energized and grounded conductors, guy wires or equipment within reach of any part of the body shall be covered with protective equipment except the part of the conductor on which the employee is working.

WARNING: Even if you physically disconnect a circuit yourself it could still be energized due to transformers, capacitors, or other equipment down line.

Internal switches in reclosers and sectionalizers can be welded closed due to arcing, leaving the circuit energized even if the switch on the outside is pulled in the open position with a hot stick. Pipes on ground-operated switches may bow or bend, allowing the handle to be placed in the open position and the circuit remaining energized.

Never assume any circuit is disconnected unless it is first checked for voltage then grounded.

Listed below in the order of their importance are 3 things each person should apply to their work as a constant effort:

SAFETY

QUALITY

QUANTITY

SAFETY RULES

Revised - January 2004'

Responsibilities of the Individual and Supervisor

It shall be the responsibility of each employee to follow these Safety Rules and Regulations and it shall be the responsibility of each supervisor to see that employees working under his direction follow them to the best of his ability.

1. An employee shall not be under the influence of intoxicants while at work or while driving a company vehicle.
2. An employee shall not engage in fighting while on duty.
3. Scuffling and horseplay are prohibited.
4. Rubber gloves with leather protectors shall be worn:
 - a. Working within falling or reaching distance of any conductors.
 - b. Required by supervision.
5. Rubber gloves shall be tested every three (3) months. It is the responsibility of the employee to make sure the gloves are changed according to the schedule.
6. Rubber gloves shall be air tested at least once daily if gloves are being used. It is the responsibility of the employees to make the air test.
7. If it is possible for any part of a vehicle to contact energized equipment or conductors, the body of the vehicle must be grounded to system neutral. If a lineman is not available to apply the ground to the neutral or if the neutral is inaccessible and will create a hazard in trying to ground, the pole ground will be acceptable. The operator of the vehicle at the beginning of the job shall be responsible for the grounding of the vehicle.
8. Vehicles stopped along highways and roads shall be properly protected by Red Flags and or Warning lights. (Kentucky State Law requires amber colored flashing light if used on top of the vehicle.
9. All apparently disconnected conductors shall be treated as energized and checked for back feed before grounding or working near them.
10. All trucks, rated above 3/4 ton, shall carry and use approved wheel chocks when parking on an incline.
11. While vehicle is being fueled, the engine shall be stopped and the radio transmitter shall not be operated.

12. Smoking is not permitted where gasoline or any flammable material is being used.

13. Signs prohibiting smoking and open flames shall be strictly observed.

14. Only UL Listed Safety can be used for storing and transporting small amounts of Gasoline.

15. Materials such as wiping rags and waste must be kept in safe designated containers.

16. Liquids, which are highly volatile and flammable, shall not be stored, transported or left unattended in open containers. Gases or vapors from flammable liquids are combustible and when mixed with air is explosive. Even the small amounts of these liquids in open containers are dangerous, and should be avoided.

17. Fire Extinguishers shall be checked once a month, and tested each year.

18. No person shall ride on or in a vehicle in a position where any portion of their body extends beyond any part of the vehicle.

19. Eye Protection: Full cover goggles and or face shields must be worn by employees when engaged in close work involving but not limited to the following:

- a. Drilling or chipping stone, brick or concrete.
- b. Brush chippings.
- c. Grinding, buffing or wire brushing with power equipment.
- d. Overhead drilling with hand or electric drill.
- e. Cleaning or scaling metal.
- f. While using power saw.
- g. Approved eye protection must be worn by employees when requested by his supervisor.

SAFETY GLASSES ARE PROVIDED (please ask your Foreman)

20. Respirators shall be worn while working in dust areas such as drilling, chipping, and grinding stone.

21. Guide to First Aid: Designated employees shall take a standard course in first aid every three years.

22. Communication Equipment: Open wire telephone lines erected on power line poles must be treated as energized lines, unless they are properly grounded.

23. All other foreign wires shall be treated as energized lines until determined otherwise.

AERIAL LIFT

24. Climbers must not be worn while on an aerial lift.
25. A body belt shall be worn and a lanyard attached to the boom while working from aerial trucks.
26. Belting off to an adjacent pole or structure while working from aerial trucks shall not be permitted.
27. Employee shall always stand on floor of basket. He shall not stand, climb, or sit on edge of basket.
28. Boom and basket load limits specified by manufacturer shall not be exceeded.
29. Aerial trucks shall not be moved with boom elevated.
30. When two men are working from an aerial lift they both must work on the same energized phase. Unless approved live line equipment used allows handling of additional phases
31. Operations shall be suspended immediately upon indication of a malfunction in the equipment. The person in charge of the project shall make a decision at that time whether to continue or stop the use of the vehicle.
32. Rubber gloves and sleeves will be worn when working on or within reaching distance of energized equipment from an aerial truck.

WORK ON POLES

33. When wood poles are being set or removed in Proximity to live lines conductors, they must not be considered as conductors. Any protection that is needed shall be the decision of the person in charge of the project.
34. Where side guys are used in the setting of poles or structures, they must be attached to firm and substantial objects, or pencil bars driven in the ground. Lines must never be wrapped around the bodies of men while setting poles.
35. Safety belts or lanyards must be used when work is being done above ground level on poles or wood structures, steel towers, large trees, and where required by supervisor.
36. Climber's gaffs less than 1 ¼ inch (or about the width of a half dollar) shall not be used.
37. Climbers must not be worn when performing work on the ground or while traveling to and from the job.

38. Climbers must be used to descend poles. Do not take jump type steps or slide down guys.
39. Warning signs must be used on each side of a work area along a highway, or other public thoroughfare.
40. Setting poles with glass bell insulators attached shall not be permitted.
41. No employee shall walk or stand under poles or other loads being lifted by winch trucks.
42. All poles shall be checked for condition of pole before climbing. Any pole found unsafe shall be reported to supervisor.
43. Rubber gloves shall be worn during inclement weather, when using hot stick, fusing stick, or pogo stick.
44. When stringing or removing conductors' parallel to or crossing over energized circuits or apparatus, install grounds on the new conductors for protection against static or induced voltage and accidental contacts with energized circuits.
45. Each piece of pulling equipment used must be adequately grounded when in use.
46. A workman must not attach conductors to his belt or hold them in his hand while climbing. He shall use a hand line to raise material on a structure after he reaches his work position. Exception: Power saw when not running; can be attached to the body belt after the person reaches work position.
47. All excavations (holes) left unattended shall be covered with suitable materials to provide protection for people and animals.
48. Employees shall not be lowered or raised out of an excavation by mechanized equipment, other than equipment suitable for this purpose.
49. Axes, bush hooks, saws, or other tools must not be thrown into boxes or truck beds, but must be placed in designated areas. The person last using the tools is responsible for placing the tool in its proper place.
50. Carry the saw by the handle bar only. Never on the shoulder.
51. Remove spark plug wire before sharpening or working on power saw, power mower or other gas-powered equipment.
52. Do not fill gasoline tank of any gas-powered equipment while engine is running.

HEAD PROTECTION

53. Approved safety headgear shall be worn by all persons when in areas where falling objects or other hazards may cause a head injury, and in any areas designated by supervisor. Safety headgear or headbands shall not be defaced or altered, except to place name on hardhat for identification of hat.

IF YOU DO NOT HAVE A HARD HAT PLEASE ASK AND WE WILL GET YOU ONE.

OPERATION OF POWER MOWERS

54. Fill gasoline tank outdoors.

55. Do not stand in front of self-propelled mower during and after starting.

HIGH VOLTAGE EQUIPMENT

56. Entrance to areas containing high voltage equipment or open bus bars must be kept closed. Only experienced persons in the performance of their duties shall enter cubicle containing electrical equipment.

SHOP PRACTICES

57. Each employee shall help maintain orderly warehouse, pole yards, and trucks.

58. All tools used regardless of ownership shall be approved, shall be maintained in first class condition, and are subject to inspection.

59. No equipment shall be altered from the condition it was purchased.

60. Portable AC Electrical tools shall be equipped with a three-wire cord with the ground wire permanently connected to the tool frame and a means of grounding the other end of the wires, or shall be of the double insulating type.

61. Pneumatic or electric hand tools shall not be used unless equipped with a dead man switch.

62. Tools or materials shall not be thrown from one worker to another, but shall be passed hand-to-hand with a hand line.

63. Sharp edged tools shall have the edge guarded at all times when not in use. Person last using tool is responsible for replacing guard.

64. Files or other tools with pointed tangs shall not be used unless equipped with handles and guards.

65. Mushroom headed chisels, punches; star drills, pencil point bars, or similar tools must not be used.

66. All hook ladders must be laced with rope.

67. Wood ladders must not be painted (cover with a clear shellac or other clear protective coating.)
68. Explosives shall not be transported in the same compartment as the blasting caps.
69. Radio transmitters shall not be operated on vehicles while loading holes to be blasted.
70. Use only wood tamps to tamp explosives in hole.
71. Blasting caps shall not be stored in same container as explosives including prim cord.
72. The employee that loads a hole for blasting shall be responsible for clearing blast area of personnel, trucks, and detonation, of blast. The end of the blasting cord shall be wrapped together after each blast has been made.

HANDLING POLES

73. Before unloading is begun, railway cars must be properly scotched with the brakes set to prevent rolling.
74. Cables shall be placed to retain load while stakes and binding wires are being cut. Binding wires shall not be cut while anyone stands on the load.
75. Poles loaded for transporting shall be securely bound to the vehicle before moving.
76. Poles being transported along streets or highways shall be plainly marked at the rear with red flags by day, and red lights by night. State and local regulations covering the movement of loads shall be observed. "A" frames attached to trucks in the usable or travel position shall be marked in the rear with a red flag.

GROUNDS

77. All electrical circuits and equipment must be treated as energized unless properly grounded.
78. All grounded lines and line equipment shall be tagged unless a qualified person is going to stay with the equipment.
79. Only approved grounding devices shall be used.
80. In all cases the person holding the clearance shall be responsible, for placing and removing grounds and tags.
81. Do not ground supposedly dead circuits without buzzing out with the proper equipment to find out whether the circuit is de-energized.

82. When attaching grounds, fasten the ground end first. The other end must never be attached or removed by hand.
83. When removing grounds, do not break ground connection until after the clamp has been removed from the line or equipment.
84. Grounds shall be placed between work locations and all sources of energy and as close as practicable to the work location, or grounds shall be placed at the work location.
85. When work is being performed in a substation on transformers, or circuit breakers, a ground must be placed on each bushing lead. When it is necessary to test grounds may be removed for duration of the test and then replaced. The person holding the clearance or sub clearance must approve the removal and replacing of grounds.
86. All capacitors stored shall be shunted across by the warehouseman.
87. After de-energizing capacitor banks, wait five minutes before grounding them.
88. In wye connected capacitor banks, the neutral may or may not be floating. In either case, it must be grounded before working in the bank.
89. Where seat belts are provided, they will be used.
90. When work is to be done on or near energized lines or equipment, all energized and grounded conductors, guy wires or equipment within reach of any part of the body shall be covered with protective equipment except the part of the conductor on which the employee is working.

Apparel

91. Linemen are urged not to wear watches, necklaces or other jewelry that may be suspended around the neck.
92. Maintain a neat appearance with appropriate clothing, including a shirt that does not present a safety hazard. Use 100% cotton as required by OSHA.
93. Keep long hair and/or a beard adequately secured when working near machinery, energized circuits or at any time when the beard or long hair could create a safety hazard.

WARNING: Even if you physically disconnect a circuit yourself it could still be energized due to transformers, capacitors, or other equipment down line.

Internal switches in reclosers and sectionalizers can be welded closed due to arcing; leaving the circuit energized even if the switch on the outside is pulled in the open position with a hot stick. Pipes on ground-operated switches may bow or bend, allowing the handle to be placed in the open position and the circuit remaining energized.

Never assume any circuit is disconnected unless it is first checked for voltage then grounded.

Listed below in the order of their importance are 3 things each person should apply to their work as a constant effort:

S A F E T Y

Q U A L I T Y

Q U A N T I T Y

U.S. Department of Agriculture
Rural Utilities Service

ELECTRIC SYSTEM CONSTRUCTION CONTRACT
NON-SITE SPECIFIC CONSTRUCTION

NOTICE AND INSTRUCTIONS TO BIDDERS

1. Sealed proposals for the construction, including the supply of necessary labor, materials and equipment, of a rural electric project of Pole Changes & New Line Extension RUS designation Shelby Energy, (hereinafter called the "Owner") will be received by the Owner on or before 10:00 o'clock A, M, November 16, 2005, at its office at 620 Old Finchville Rd., Shelbyville KY at which time and place the proposals will be publicly opened and read. Any proposals received subsequent to the time specified will be promptly returned to the Bidder unopened.
2. Owner Furnished Materials. The unit prices in the Contractor's Proposal are to include provisions for Owner Furnished Materials since as stated in Article I, Section 3 of the Contractor's Proposal, the value of the Owner Furnished Materials, if any, will be deducted from payments to the Bidder for completed Construction Units.
3. Obtaining Documents. The Plans, Specifications and Construction Drawings, together with all necessary forms and other documents for bidders may be obtained from the Owner, or from the Engineer N/A at the latter's office at N/A upon the payment of \$ N/A, which payment will not be subject to refund. The Plans, Specifications, and Construction Drawings may be examined at the office of the Owner or at the office of the Engineer.
4. Manner of Submitting Proposals. Proposals and all supporting instruments must be submitted on the forms furnished by the Owner and must be delivered in a sealed envelope addressed to the Owner. The name and address of the Bidder, its license number if a license is required by the State, and the date and hour of the opening of bids must appear on the envelope in which the Proposal is submitted. Proposals must be completed in ink or typewritten. No alterations or interlineations will be permitted, unless made before submission, and initialed and dated. The successful Bidder will be required to execute two additional counterparts of the Proposal.
5. Due Diligence. Prior to the submission of the Proposal, the Bidder shall make and shall be deemed to have made a careful examination of the site of the project and of the Plans, Specifications, Construction Drawings, and forms of Contractor's Proposal and Contractor's Bond, and shall review the location and nature of the proposed construction, the transportation facilities, the kind and character of soil and terrain to be encountered, the kind of facilities required before and during the construction of the project, general local conditions, environmental and historic preservation considerations, and all other matters that may affect the cost and time of completion of the project. Bidder will be required to comply with all federal, state, and local laws, rules, and regulations applicable to its performance, including those pertaining to the licensing of contractors, and the Anti Kick-Back Act of 1986 (41 U.S.C. 51 et seq).
6. Proposals will be accepted only from those prequalified bidders invited by the Owner to submit a proposal.

7. *The Time for Completion of Construction of the project is of the essence of the Contract and shall be as specified by the Engineer in the Proposal*
8. *Bid Bond. Each Proposal must be accompanied by a Bid Bond in the form attached hereto or a certified check on a bank that is a member of the Federal Deposit Insurance Corporation, payable to the order of the Owner, in an amount equal to ten percent (10%) of the maximum bid price. Each Bidder agrees, provided its Proposal is one of the three low Proposals, that, by filing its Proposal together with such Bid Bond or check in consideration of the Owner's receiving and considering such Proposals, said Proposal shall be firm and binding upon each such Bidder and such Bid Bond or check shall be held by the Owner until a Proposal is accepted and a satisfactory Contractor's Bond is furnished (where required) by the successful Bidder or for a period not to exceed sixty (60) days from the date hereinbefore set for the opening of Proposals, whichever period shall be the shorter. If such Proposal is not one of the three low Proposals, the Bid Bond or check will be returned in each instance within a period of ten (10) days to the Bidder furnishing same.*
9. *Contractor's Bond. If the estimated cost of the construction of a Section shall exceed \$100,000, the Bidder agrees to furnish a Contractor's Bond in triplicate in the form attached hereto with sureties listed by the United States Treasury Department as Acceptable Sureties, in a penal sum not less than the estimated cost of such Section.*
10. *Failure to Furnish Contractor's Bond. Should the successful Bidder fail or refuse to execute such counterparts or to furnish a Contractor's Bond (where required) within ten (10) days after written notification of the acceptance of the Proposal by the Owner, the Bidder will be considered to have abandoned the Proposal. In such event, the Owner shall be entitled (a) to enforce the Bid Bond in accordance with its terms, or (b) if a certified check has been delivered with the Proposal, to retain from the proceeds of the certified check, the difference (not exceeding the amount of the certified check) between the amount of the Proposal and such larger amount for which the Owner may in good faith contract with another party to construct the project. The term "Successful Bidder" shall be deemed to include any Bidder whose Proposal is accepted after another Bidder has previously refused or has been unable to execute the counterparts or to furnish a satisfactory Contractor's Bond (where required).*
11. *Debarment Certification. The Bidder must provide to the Owner a suspension and debarment certificate in the form attached hereto.*
12. *Contract is Entire Agreement. The Contract to be effected by the acceptance of the Proposal shall be deemed to include the entire agreement between the parties thereto, and the Bidder shall not claim any modifications thereof resulting from any representation or promise made at any time by any officer, agent or employee of the Owner or by any other person.*
13. *Minor Irregularities. The Owner reserves the right to waive minor irregularities or minor errors in any Proposal, if it appears to the Owner that such irregularities or errors were made through inadvertence. Any such irregularities or errors so waived must be corrected on the Proposal in which they occur prior to the acceptance thereof by the Owner.*
14. *Bid Rejection. The Owner reserves the right to reject any or all Proposals.*
15. *Discrepancy in Unit Prices. Where the unit prices in the Contractor's Proposal are separated into three columns designated as "Labor," "Materials," and "Labor and Materials," and where a discrepancy appears between the sum shown in the "Labor and Materials" column and the correct addition of the sums appearing in the "Labor" column and the "Materials" column, the correct addition of the sums appearing in the "Labor" column and the "Materials" column shall control. Similarly, the quantities appearing in the "No of Units" column multiplied by the correct addition of the sums in the "Labor" column and the "Materials" shall control the amounts appearing in the "Extended Price - Labor & Materials" column. Likewise, the correct extensions shall control the amounts appearing in the "Total, Part ___" line for each respective part.*
16. *Definition of Terms. The terms "Administrator," "Engineer," "Completion of Construction," and "Completion of the Project" as used throughout this Contract shall be as defined in Article VI, Section I, of the Proposal.*

17. The Owner Represents:

- a. *If by provisions of the Proposal the Owner shall have undertaken to furnish any materials for the construction of the project, such materials are on hand at locations specified or if such materials are not on hand they will be made available by the Owner to the successful Bidder at the locations specified before the time such materials are required for construction.*
- b. *All titles, easements and rights-of-way, except as shown on maps included in the Plans and Specifications, have been obtained from the owners of the properties on which the project is to be constructed (including tenants who may reasonably be expected to object to such construction) The remaining easements and rights-of-way, if any, will be obtained as required to avoid delay in construction*
- c. *All staking, except as shown on the maps included in the Plans and Specifications, has been completed and sufficient staking crews will be available to maintain stakes at all times in advance of construction*
- d. *Where underground distribution construction is required, permission has been obtained from state and local highway and road authorities to install underground distribution power facilities and set pedestals, if any, on the highway and road right-of-way in the project area. Notwithstanding such permission granted to the Owner, each Bidder is responsible for ascertaining that the equipment, methods of construction, and repair proposed to be used on the project will meet all requirements of public authorities having jurisdiction over highway and road right-of-way. The successful Bidder will be required to furnish proof satisfactory to the Owner of compliance with this requirement. If required by highway or road authorities, the successful Bidder will furnish to such authorities a bond or meet other guaranty requirements to assure the prompt repair of all damages to highways and roads and their associated rights-of-way caused by the Bidder during construction of the project. This requirement is in addition to and independent of the Contractor's Bond required under this Contract. The acceptance of a bid from any Bidder is not to be construed as approval of the Bidder's equipment or proposed construction methods by or on behalf of the highway and road authorities. Bidders may obtain information concerning the requirements of highway and road authorities by communicating with the following:*

N/A

- e. *All funds necessary for prompt payment for the construction of the project will be available*

If the Owner shall fail to comply with any of the undertakings contained in the foregoing representation or if any of such representations shall be incorrect, the Bidder will be entitled to an extension of time of completion for a period equal to the delay, if any, caused by the failure of the Owner to comply with such undertakings or by any such incorrect representation; provided the Bidder shall have promptly notified the Owner in writing of its desire to extend the time of completion in accordance with the foregoing, provided, however, that such extension, if any, of the time of completion shall be the sole remedy of the Bidder for the Owner's failure, because of conditions beyond the control and without the fault of the Owner, to furnish materials in accordance with subparagraph a above.

Owner

By _____

Title

Date

. 20

PROPOSAL

TO:

Shelby Energy Cooperative

(hereinafter called the "Owner")

ARTICLE I - GENERAL

Section 1. Offer to Construct. *The undersigned (hereinafter called the "Bidder") hereby proposes to receive and install such materials and equipment as may hereinafter be specified to be furnished by the Owner, and to furnish all other materials and equipment, all machinery, tools, labor, transportation and other means required to construct the project in strict accordance with the Plans, Specifications and Construction Drawings for the prices hereinafter stated. The Bidder understands and agrees that the Project will consist of line extensions and additions and line changes or similar work usually associated with overhead or underground distribution system improvement or extension work all located within the area served or ultimately to be served by the Owner and that the exact location and scope of individual sections of the Project (hereinafter called "Sections") will be made known to the Bidder from time to time as provided in Article II, Section 1 hereof.*

The total length of the project lines shall be determined by taking the sum of all straight horizontal span distances between pole stakes or from center to center of poles, or centerline of structures, carrying conductors, plus the length of service drops, if any, measured horizontally from center of last pole to the point of attachment to the consumer's building.

Section 2. Materials and Equipment. *The Bidder agrees to furnish and use in the construction of the project under this Proposal, in the event the Proposal is accepted, only such "fully accepted," "conditionally accepted," and "technically accepted" materials and equipment which have been accepted by RUS as indicated in the current RUS Informational Publication 202-1, "List of Materials Acceptable for Use on Systems of RUS Electrification Borrowers," including revisions adopted prior to the Bid Opening. The use of "conditionally accepted" or "technically accepted" materials and equipment requires prior consent by the Owner or Engineer.*

The Bidder agrees that the prices for wood poles, wood crossarms, and other timber products set forth herein shall include the cost of preservative treatment and inspection, insured warranty, or quality assurance. The Bidder further agrees to obtain from the supplier inspection and treatment reports or insured warranties, for checking against the delivered timber, and to submit such reports or warranties to the Owner as one of the prerequisites to monthly and final payments.

The Bidder will purchase all materials and equipment (other than Owner Furnished Materials) outright and not subject to any conditional sales agreements, bailment, lease or other agreement reserving unto the seller any right, title or interest therein. All such materials and equipment shall be new and shall become the property of the Owner when erected in place.

Section 3. Owner Furnished Materials. *The Bidder understands and agrees that, if this Proposal is accepted, the Owner will furnish to the Bidder the material set forth in the attached "List of Owner Furnished Materials." For those items not yet delivered, the Bidder will, on behalf of the Owner, accept delivery of such of the materials as may be subsequently delivered and will promptly forward to the Owner for payment the supplier's invoice. The Bidder will acknowledge in writing the receipt of all materials received as indicated on the List. The materials referred to are on hand at, or will be delivered to, the locations specified in the List and the Bidder will use such materials in constructing the project.*

The value of the completed Construction Units certified by the Bidder each month pursuant to Article III, Section 1, a of the Proposal shall be reduced by an amount equal to the value of the materials installed by the Bidder during the preceding month which have been furnished by the Owner.

or the delivery of which has been accepted by the Bidder on behalf of the Owner. Only ninety percent (90%) of the remainder shall be paid prior to the Completion of the project. The value of such materials shall be computed on the basis of the unit prices stated in the Lists. Materials, if any, not required for the project, which have been furnished to the Bidder by the Owner or delivery of which has been accepted by the Bidder on behalf of the Owner, shall be returned to the Owner by the Bidder upon completion of construction of the project. The value of all materials not installed in the project nor returned to the Owner shall be deducted from the final payment to the Bidder.

The Owner shall not be obligated to furnish materials in excess of the quantities, size, kind and type set forth in the attached Lists. If the Owner furnishes, and the Bidder accepts, materials in excess thereof the values of such excess materials shall be their actual cost as stated by the Owner.

Information on the shipping schedules of materials on the "List of Owner Furnished Materials" will be furnished to the Bidder as necessary during progress of the work.

Upon delivery, the Bidder shall promptly receive, unload, transport and handle all materials and equipment on the "List of Owner Furnished Materials" at its expense and shall be responsible for demurrage, if any.

Section 4. Proposal on Unit Basis. The Bidder understands and agrees that the various Construction Units on which bids are made are defined by symbols and descriptions in this Proposal, that all said bids are on a unit basis, and that the Owner may specify any number or combination of Construction Units that the Owner may deem necessary for the construction of the project. Separate Construction Units are designated for each different arrangement which may be used in the construction of the project. This Proposal is based on a consideration of each unit in place and includes only the materials listed on the corresponding Construction Drawings or description of unit where no drawing exists.

Section 5. Description of contract. The Notice and Instructions to Bidders, Plans, Specifications, and Construction Drawings, which by this reference are incorporated herein, together with the Proposal and Acceptance constitute the Contract. The Plans, Specifications, and Construction Drawings, including maps, special drawings, and approved modifications in standard specifications are attached hereto and identified as follows:

Pole Change & New Line Extension

Section 6. Due Diligence. The Bidder has made a careful examination of the site of the project to be constructed and of the Plans, Specifications, Construction Drawings, and form of Contractor's Bond attached hereto, and has become informed as to the location and nature of the proposed construction, the transportation facilities, the kind and character of soil and terrain to be encountered, and the kind of facilities required before and during the construction of the project, and has become acquainted with the labor conditions, federal, state, and local laws, rules, and regulations applicable to its performance.

Section 7. License. The Bidder warrants that a Contractor's License is _____, is not X required, and if required,

it possesses Contractor's License No _____ for the State of _____

in which the project is located and said license expires on _____, 20____.

Section 8. Warranty of Good Faith. *The Bidder warrants that this Proposal is made in good faith and without collusion or connection with any person or persons bidding for the same work*

Section 9. Financial Resources.

- a *The Bidder warrants that it has or will obtain the financial resources necessary to ensure completion of the project*
- b *The Bidder agrees that in the event this Proposal is accepted and a Contractor's Bond is required, it will furnish a Contractor's Bond in the form attached hereto, in a penal sum not less than the maximum Contract price, with a surety or sureties listed by the United States Department of Treasury as Acceptable Sureties*

Section 10. Taxes. *The unit prices for Construction Units in this Proposal include provisions for the payment of all monies which will be payable by the Bidder or the Owner in connection with the construction of the Project on account of taxes imposed by any taxing authority upon the sale, purchase or use of materials, supplies and equipment, or services or labor of installation thereof to be incorporated in the project as part of such Construction Units. The Bidder agrees to pay all such taxes, except taxes upon the sale, purchase or use of Owner Furnished Materials and it is understood that, as to Owner Furnished Materials, the values stated in the attached "List of Owner Furnished Materials" include taxes upon the sale, purchase or use of Owner Furnished Materials, if applicable. The Bidder will furnish to the appropriate taxing authorities all required information and reports pertaining to the project, except as to the Owner Furnished Materials.*

Section 11. Changes in Quantities. *The Bidder understands and agrees that the quantities called for in this Proposal are approximate, and that the total number of units upon which payment shall be made shall be as set forth in the inventory. If the Owner changes the quantity of any unit or units specified in this Proposal by more than fifteen percent (15%) and the materials cost to the Bidder is increased thereby to an extent which would not be adequately compensated by application of the unit prices in this Proposal to the revised quantity of such unit or units, such change, to the extent of the quantities of such units in excess of such fifteen percent (15%) shall be regarded as a change in the construction with in the meaning of Article II, Section 1(d) of this proposal.*

ARTICLE II-CONSTRUCTION

Section 1. Time and Manner of Construction.

- a *The Bidder agrees to commence construction of the project on a date (hereinafter called the "Commencement Date") which shall be determined by the Engineer after notice to the bidder in writing of acceptance of the proposal by the Owner and notice in writing from the Bidder that the Bidder has sufficient materials to warrant commencement and continuation of construction, but in no event will the Commencement Date be later than Ten (10) calendar days after acceptance of the proposal by the Owner. The Bidder further agrees to prosecute diligently and to complete construction in strict accordance with the Plans, Specifications and Construction Drawings within N/A calendar days after Commencement Date. Provided, however, that the Bidder will not be required to dig holes, set poles, install anchors, install underground conduit, perform any plowing for the installation of underground cable, or dig trenches if there are more than six (6) inches of frost on the ground nor to perform any construction on such days when in the judgment of the Engineer snow, rain, or wind, or the results of snow, rain, or frost make it impracticable to perform any operation of construction, provided further that the Bidder will not be required to perform any plowing for the installation of underground cable on public roads or highways if there are more than two (2) inches of frost in the ground. To the extent of the time lost due to the conditions described herein and approved in writing by the Engineer, the time of completion set out above will be extended if*

the Bidder makes a written request therefore to the Owner as provided in subsection b of this Section 1

- b The time for Completion of Construction shall be extended for the period of any reasonable delay which is due exclusively to causes beyond the control and without the fault of the Bidder, including Acts of God, fires, floods, inability to obtain materials and acts or omissions of the Owner with respect to matters for which the Owner is solely responsible. Provided, however that no such extension of time for completion shall be granted the Bidder unless within ten (10) days after the happening of any event relied upon by the Bidder for such an extension of time the Bidder shall have made a request therefore in writing to the Owner, and provided further that no delay in such time of completion or in the progress of the work which results from any of the above causes except acts or omissions of the Owner, shall result in any liability on the part of the Owner
- c The sequence of construction shall be as set forth below, the number or names being the designations of extensions or areas (hereinafter called the "Sections") corresponding to the numbers or names shown on the maps attached hereto, or if no Sections are set forth below, the sequence of construction shall be as determined by the Bidder, subject to the approval of the Engineer

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- d The Owner, acting through the Engineer, may from time to time during the progress of the construction of the project make such changes, additions or subtractions from the Plans, Specifications, Construction Drawings, List of Materials and sequence of construction provided for in the previous paragraph which are part of the Contractor's Proposal as conditions may warrant. Provided, however, that if any change in the construction to be done shall require an extension of time, a reasonable extension will be granted if the Bidder shall make a written request therefore to the Owner within (10) days after any such change is made. And provided further, that if the cost to the Bidder of construction of the project shall be materially increased by any such change or addition, the Owner shall pay the Bidder for the reasonable cost thereof in accordance with a Construction Contract Amendment signed by the Owner and the Bidder, but no claim for additional compensation for any such change or addition will be considered unless the Bidder shall have made a written request therefore to the Owner prior to the commencement of work in connection with such change or addition
- e It is understood and agreed that, notwithstanding any other provisions of this Contract, the Bidder will not be required to commence any construction after the expiration of 1 year(s)¹ following acceptance of this Proposal by the Owner

Section 2. Environmental Protection. The Bidder shall perform the work in compliance with all applicable Federal, State, and local Environmental Laws. For purposes of this Agreement, the term "Environmental Laws" shall mean all Federal, state, and local laws including statutes, regulations, ordinances, codes, rules, and other governmental restriction and requirements relating to the environment or solid waste, hazardous substances, hazardous waste, toxic or hazardous material, pollutants or contaminants including, but not limited to the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9601, et seq., the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§ 1251, et seq., and the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901, et seq., now or at any time hereafter in effect

Section 3. Tools, Equipment, and Qualified Personnel. The Bidder agrees that in the event this Proposal is accepted it will make available for use in connection with the proposed construction all necessary tools and equipment and qualified supervisors and workers

¹ Owner to insert a number from 1 to 4.

Section 4. Changes in Construction. *The Bidder agrees to make such changes in construction previously installed in the project by the Bidder as required by the Owner for prices arrived at as follows*

- a. *For substations and other units where only a portion of the complete unit is affected by the change, the compensation for such change shall be as agreed upon in writing by the Bidder and the Owner prior to the commencement of work in connection with such change.*
- b. *For all other units, the compensation for such change shall be the reasonable cost thereof as agreed upon by the Bidder and the Owner, but in no event shall it exceed two (2) times the labor price quoted in the Proposal for the installation of the unit to be changed. Such compensation shall be in lieu of any other payment for the installation and removal of the original unit. (If a new or replacing unit is installed, payment for such new or replacing unit shall be made as shown in the final inventory)*

No payment shall be made to the Bidder for materials or labor involved in correcting errors or omissions on the part of the Bidder which result in construction not in accordance with the Plans and Specifications

Section 5. Construction Not in Proposal. *The Bidder also agrees that when it is necessary to construct units not shown in the Proposal, in absence of other mutual agreement, it will construct such units for a price arrived at as follows:*

- a. *The cost of materials shall be determined by the invoices*
- b. *The cost of labor shall be the reasonable cost thereof but in no event shall it exceed an amount determined by calculating the ratio of the total labor costs to the total material costs in the section of the Proposal involved, and multiplying the cost of materials for the unit in question by this ratio.*

Section 6. Supervision and Inspection.

- a. *The Bidder shall give sufficient supervision to the work, using its best skill and attention. The Bidder will carefully study and compare all drawings, specifications and other instructions and will at once report to the Owner any error, inconsistency or omission which it may discover. The Bidder shall cause the construction work on the project to receive constant supervision by a competent superintendent (hereinafter called the "Superintendent") who shall be present at all times during working hours where construction is being carried on. The Bidder shall also employ, in connection with the construction of the project, capable, experienced and reliable supervisors and such skilled workers as may be required for the various classes of work to be performed. The Bidder shall be solely responsible for the means and methods of construction and for the supervision of the Bidder's employees*
- b. *The Owner reserves the right to require the removal from the project of any employee of the Bidder if in the judgment of the Owner such removal shall be necessary in order to protect the interest of the Owner. The Owner shall have the right to require the Bidder to increase the number of its employees and to increase or change the amount or kind of tools and equipment if at any time the progress of the work shall be unsatisfactory to the Owner, but the failure of the Owner to give any such directions shall not relieve the Bidder of its obligations to complete the work within the time and in the manner specified in this Proposal.*
- c. *The construction of the project and all materials and equipment used therein, shall be subject to the inspection, tests, and acceptance by the Owner and the Administrator and the Bidder shall furnish all information required by the Owner or by the Administrator concerning the nature or source of any materials incorporated or to be incorporated in the project. All Bidder procedures and records pertaining to the work shall be made available to the Owner and the Administrator for review prior to such inspections and tests. The Bidder shall provide all reasonable facilities necessary for such inspection and tests and shall maintain an office at the site of the project, with telephone service where obtainable and at least one office employee to whom communications*

from the Owner may be delivered. Delivery of such communications in writing to the employee of the Bidder at such office shall constitute delivery to the Bidder. The Bidder shall have an authorized agent accompany the Engineer when final inspection is made and, if requested by the Owner, when any other inspection is made. The performance of such inspections or tests by the Owner or the Administrator shall not relieve the Bidder of its obligations to perform the work in accordance with the requirements of this Contract.

- d. In the event that the Owner, or the Administrator, shall determine that the construction contains or may contain numerous defects, it shall be the duty of the Bidder and the Bidder's Surety or Sureties, if any, to have an inspection made by an engineer approved by the Owner and the Administrator, if approval by the Administrator is required, for the purpose of determining the exact nature, extent and location of such defects.
- e. The Engineer may recommend to the Owner that the Bidder suspend the work wholly or in part for such period or periods as the Engineer may deem necessary due to unsuitable weather or such other conditions as are considered unfavorable for satisfactory prosecution of the work or because of the failure of the Bidder to comply with any of the provisions of the Contract. Provided, however, that the Bidder shall not suspend work pursuant to this provision without written authority from the Owner so to do. The time of completion hereinabove set forth shall be increased by the number of days of any such suspension, except when such suspension is due to the failure of the Bidder to comply with any of the provisions of this Contract. In the event that work is suspended by the Bidder with the consent of the Owner, the Bidder before resuming work shall give the Owner at least twenty-four (24) hours notice thereof in writing.

Section 7. Defective Materials and Workmanship.

- a. The acceptance of any materials, equipment (except Owner Furnished Materials) or any workmanship by the Owner or the Engineer shall not preclude the subsequent rejection thereof if such materials, equipment, or workmanship shall be found to be defective after delivery or installation, and any such materials, equipment or workmanship found defective before final acceptance of the construction shall be replaced or remedied, as the case may be, by and at the expense of the Bidder. Any such condemned material or equipment shall be immediately removed from the site of the project by the Bidder at the Bidder's expense. The Bidder shall not be entitled to any payment hereunder so long as any defective materials, equipment or workmanship in respect to the project, of which the Bidder shall have had notice, shall not have been replaced or remedied, as the case may be.
- b. Notwithstanding any certificate which may have been given by the Owner or the Engineer, if any materials, equipment (except Owner Furnished Materials) or any workmanship which does not comply with the requirements of this Contract shall be discovered within one (1) year after Completion of Construction of the project, the Bidder shall replace such defective materials or equipment or remedy any such defective workmanship within thirty (30) days after notice in writing of the existence thereof shall have been given by the Owner. If any such defective materials, equipment, or workmanship so replaced or repaired is found to be defective within one year after the completion of the replacement or repair, the Bidder shall replace or remedy such defective materials, equipment, or workmanship. If the Bidder shall be called upon to replace any defective materials or equipment or to remedy defective workmanship as herein provided, the Owner, if so requested by the Bidder shall deenergize that section of the project involved in such work. In the event of failure by the Bidder so to do, the Owner may replace such defective materials or equipment or remedy such defective workmanship, as the case may be, and in such event the Bidder shall pay to the Owner the cost and expense thereof.

ARTICLE III—PAYMENTS AND RELEASE OF LIENS

Section 1. Payments to Bidder.

- a On or before the fifth (5) day of each calendar month, the Bidder will make application for payment, and the Owner, on or before the fifteenth (15) day of such month, shall make partial payment to the Bidder for construction accomplished during the preceding calendar month on the basis of completed Construction Units furnished and certified to by the Bidder, recommended by the Engineer and approved by the Owner solely for the purposes of payment. Provided, however, that such approval shall not be deemed approval of the workmanship or materials. Only ninety percent (90%) of each such estimate approved during the construction of the project shall be paid by the Owner to the Bidder prior to Completion of a Section. Upon completion by the Bidder of the construction of a Section, the Engineer will prepare an inventory of the project showing the total number and character of Construction Units and, after checking such inventory with the Bidder, will certify it to the Owner. Upon the approval by the Owner of a Certificate of Completion in the form attached hereto, showing the total cost of the construction performed, the Owner shall make payment to the Bidder of all amounts to which the Bidder shall be entitled thereunder which shall not have been paid. Provided, however, that such final payment shall be made not later than ninety (90) days after the date of Completion of Construction of the project, as specified in the Certificate Of Completion, unless withheld because of the fault of the Bidder.
- b The Bidder shall be paid on the basis of the number of Construction Units actually installed at the direction of the Owner shown by the inventory based on the staking sheets or structure lists; Provided, however, that the total cost shall not exceed the maximum Contract price for the construction of the Project, unless such excess shall have been approved in writing by the Owner.

It is understood and agreed that this maximum Contract price is _____

_____ dollars (\$ _____) It is also agreed that the Bidder shall not be entitled to any claim for damages on account of any reasonable additions to or subtractions from the Project, or of any delay occasioned thereby, or of any changes in the routing of the lines.

- c Interest at the rate of _____ percent (_____ %) per annum shall be paid by the Owner to the Bidder on all unpaid balances due on monthly estimates, commencing fifteen (15) days after the due date; provided the delay in payment beyond the due date is not caused by any condition within the control of the Bidder. The due date for purposes of such monthly payment or interest on all unpaid balances shall be the fifteenth (15) day of each calendar month provided (1) the Bidder on or before the fifth (5) day of such month shall have submitted its certification of Construction Units completed during the preceding month and (2) the Owner on or before the fifteenth (15) day of such month shall have approved such certification. If for reasons not due to the Bidder's fault, such approval shall not have been given on or before the fifteenth (15) day of such month, the due date for purposes of this subsection c shall be the fifteenth (15) day of such month notwithstanding the absence of the approval of the certification.
- d Interest at the rate of _____ percent (_____ %) per annum shall be paid by the Owner to the Bidder on the final payment for the project or any completed Section thereof commencing fifteen (15) days after the due date. The due date for purposes of such final payment or interest on all unpaid balances shall be the date of approval by the Owner of all of the documents requiring such approval, as a condition precedent to the making of final payment, or ninety (90) days after the date of Completion of Construction of the project, as specified in the Certificate of Completion, whichever date is earlier.

² The Owner shall insert a rate equal to the lowest "Prime Rate" listed in the "Money Rates" section of the Wall Street Journal on the date such invitation to bid is issued.

³ See Footnote 2.

- e. No payment shall be due while the Bidder is in default in respect of any of the provisions of this Contract and the Owner may withhold from the Bidder the amount of any claim by a third party against either the Bidder or the Owner based upon an alleged failure of the Bidder to perform the work hereunder in accordance with the provisions of this Contract.
- f. The Owner and the Administrator shall have the right to inspect all payrolls, invoices of materials, and other data and records of the Bidder and of any subcontractor, relevant to the construction of the project.

Section 2. Release of Liens and Certificate of Contractor. Upon the completion by the Bidder of the construction of the project (or any Section thereof if the Bidder shall elect to receive payment in full for any Section when completed as provided above) but prior to final payment to the Bidder, the Bidder shall deliver to the Owner, in duplicate, releases of all liens and of rights to claim any lien, in the form attached hereto from all manufacturers, material suppliers, and subcontractors furnishing services or materials for the project or such Section and a certificate in the form attached hereto to the effect that all labor used on or for the project or such Section has been paid and that all such releases have been submitted to the Owner.

Section 3. Payments to Material Suppliers and Subcontractors. The Bidder shall pay each material supplier, if any, within five (5) days after receipt of any payment from the Owner, the amount thereof allowed the Bidder for and on account of materials furnished or construction performed by each material supplier or each subcontractor.

ARTICLE IV—PARTICULAR UNDERTAKINGS OF THE BIDDER

Section 1. Protection to Persons and Property. The Bidder shall at all times take all reasonable precautions for the safety of employees on the work and of the public, and shall comply with all applicable provisions of federal, state, and local laws, rules, and regulations and building and construction codes, in addition to the safety rules and procedures of the Owner.

The following provisions shall not limit the generality of the above requirements:

- a. The Bidder shall at no time and under no circumstances cause or permit any employee of the Bidder to perform any work upon energized lines, or upon poles carrying energized lines, unless otherwise specified in the Notice and Instructions to Bidders.
- b. The Bidder shall transport and store all material in facilities and vehicles which are designed to protect the material from damage. The Bidder shall ensure that all vehicles, trailers, and other equipment used comply with all applicable licensing, traffic, and highway requirements.
- c. The Bidder shall so conduct the construction of the project as to cause the least possible obstruction of public highways.
- d. The Bidder shall provide and maintain all such guard lights and other protection for the public as may be required by applicable statutes, ordinances and regulations or by local conditions.
- e. The Bidder shall do all things necessary or expedient to properly protect any and all parallel, converging and intersecting lines, joint line poles, highways and any and all property of others from damage, and in the event that any such parallel, converging and intersecting lines, joint line poles, highways or other property are damaged in the course of the construction of the project the Bidder shall at its own expense restore any or all of such damaged property immediately to as good a state as before such damage occurred.
- f. Where the right-of-way of the project traverses cultivated or grazing lands, the Bidder shall limit the movement of its crews and equipment so as to cause as little damage as possible to crops, orchards or property and shall endeavor to avoid marring the lands. All fences which are necessarily opened or moved during the construction of the project shall be replaced in as good

condition as they were found and precautions shall be taken to prevent the escape of livestock. Except as otherwise provided in the descriptions of underground plowing and trenching assembly units, the Bidder shall not be responsible for loss of or damage to crops, orchards or property (other than livestock) on the right-of-way necessarily incident to the construction of the project and not caused by negligence or inefficient operation of the Bidder. The Bidder shall be responsible for all other loss of or damage to crops, orchards, or property, whether on or off the right-of-way, and for all loss of or damage to livestock caused by the construction of the project.

The right-of-way for purposes of this said section shall consist of an area extending _____ feet on both sides of the center line of the poles along the route of the project lines, plus such area reasonably required by the Bidder for access to the route of the project lines from Public roads to carry on construction activities.

- g. The project, from the commencement of work to completion, or to such earlier date or dates when the Owner may take possession and control in whole or in part as hereinafter provided shall be under the charge and control of the Bidder and during such period of control by the Bidder all risks in connection with the construction of the project and the materials to be used therein shall be borne by the Bidder. The Bidder shall make good and fully repair all injuries and damages to the project or any portion thereof under the control of the Bidder by reason of any act of God or other casualty or cause whether or not the same shall have occurred by reason of the Bidder's negligence
- (i) To the maximum extent permitted by law, Bidder shall defend, indemnify, and hold harmless Owner and Owner's directors, officers, and employees from all claims, causes of action, losses, liabilities, and expenses (including reasonable attorney's fees) for personal loss, injury, or death to persons (including but not limited to Bidder's employees) and loss, damage to or destruction of Owner's property or the property of any other person or entity (including but not limited to Bidder's property) in any manner arising out of or connected with the Contract, or the materials or equipment supplied or services performed by Bidder, its subcontractors and suppliers of any tier. But nothing herein shall be construed as making Bidder liable for any injury, death, loss, damage, or destruction caused by the sole negligence of Owner
- (ii) To the maximum extent permitted by law, Bidder shall defend, indemnify, and hold harmless Owner and Owner's directors, officers, and employees from all liens and claims filed or asserted against Owner, its directors, officers, and employees, or Owner's property or facilities, for services performed or materials or equipment furnished by Bidder, its subcontractors and suppliers of any tier, and from all losses, demands, and causes of action arising out of any such lien or claim. Bidder shall promptly discharge or remove any such lien or claim by bonding, payment, or otherwise and shall notify Owner promptly when it has done so. If Bidder does not cause such lien or claim to be discharged or released by payment, bonding, or otherwise, Owner shall have the right (but shall not be obligated) to pay all sums necessary to obtain any such discharge or release and to deduct all amounts so paid from the amount due Bidder
- (iii) Bidder shall provide to Owner's satisfaction evidence of Bidder's ability to comply with the indemnification provisions of subparagraphs i and ii above, which evidence may include but may not be limited to a bond or liability insurance policy obtained for this purpose through a licensed surety or insurance company.
- h. Any and all excess earth, rock, debris, underbrush and other useless materials shall be removed by the Bidder from the site of the project as rapidly as practicable as the work progresses.
- i. Upon violation by the Bidder of any of the provisions of this section, after written notice of such violation given to the Bidder by the Engineer or the Owner, the Bidder shall immediately correct such violation. Upon failure of the Bidder so to do the Owner may correct such violation at the Bidder's expense. Provided, however, that the Owner may, if it deems it necessary or advisable, correct such violation at the Bidder's expense without such prior notice to the Bidder

- j. *The Bidder shall submit to the Owner monthly reports in duplicate of all accidents, giving such data as may be prescribed by the Owner,*
- k. *The Bidder shall not proceed with the cutting of trees or clearing of right-of-way without written notification from the Owner that proper authorization has been received from the owner of the property. and the Bidder shall promptly notify the Owner whenever any landowner objects to the trimming or felling of any trees or the performance of any other work on its land in connection with the project and shall obtain the consent in writing of the Owner before proceeding in any such case*
- l. *The Bidder will furnish, prior to the commencement of underground distribution construction, proof satisfactory to the Owner, of compliance with requirements of highway and road authorities having jurisdiction, including without limitation, the furnishing of a bond or other guaranty, and approval by such authorities of the equipment and methods of construction and repair to be used by the Bidder.*

Section 2. Insurance. *The Bidder shall takeout and maintain throughout the period of this Agreement the following types and minimum amounts of insurance.*

- a. *Workers' compensation and employers' liability insurance, as required by law, covering all its employees who perform any of the obligations of the Bidder under the contract. If any employer or employee is not subject to the workers' compensation laws of the governing state, then insurance shall be obtained voluntarily to extend to the employer and employee coverage to the same extent as though the employer or employee were subject to the workers' compensation laws.*
- b. *Public liability insurance covering all operations under the contract shall have limits for bodily injury or death of not less than \$1 million each occurrence. limits for property damage of not less than \$1 million each occurrence. and \$1 million aggregate for accidents during the policy period. A single limit of \$1 million of bodily injury and property damage is acceptable. This required insurance may be in a policy or policies of insurance, primary and excess including the umbrella or catastrophe form*
- c. *Automobile liability insurance on all motor vehicles used in connection with the contract, whether owned, nonowned, or hired, shall have limits for bodily injury or death of not less than \$1 million per person and \$1 million each occurrence, and property damage limits of \$1 million for each occurrence. A single limit of \$1 million of bodily injury and property damage is acceptable. This required insurance may be in a policy or policies of insurance, primary and excess including the umbrella or catastrophe form*

The Owner shall have the right at any time to require public liability insurance and property damage liability insurance greater than those required in subsection "b" and "c" of this Section. In any such event, the additional premium or premiums payable solely as the result of such additional insurance shall be added to the Contract price

The Owner shall be named as Additional Insured on all policies of insurance required in subsections "b" and "c" of this Section

The policies of insurance shall be in such form and issued by such insurer as shall be satisfactory to the Owner. The Bidder shall furnish the Owner a certificate evidencing compliance with the foregoing requirements which shall provide not less than (30) days prior written notice to the Owner of any cancellation or material change in the insurance

Section 3. Delivery of Possession and Control to Owner.

- a. *Upon written request of the Owner the Bidder shall deliver to the Owner full possession and control of any portion of the project provided the Bidder shall have been paid at least ninety percent (90%) of the cost of construction of such portion. Upon such delivery of the possession and control of any portion of the project to the Owner, the risk and obligations of the Bidder as*

set forth in Article IV, Section 1 g hereof with respect to such portion of the project so delivered to the Owner shall be terminated; Provided, however, that nothing herein contained shall relieve the Bidder of any liability with respect to defective materials and workmanship as contained in Article II, Section 7 hereof

- b Where the construction of a Section as herein before defined in Article II, Section 1 c shall have been completed by the Bidder, the Owner agrees, after receipt of a written request from the Bidder, to accept delivery of possession and control of such Section upon the issuance by the Engineer of a written statement that the Section has been inspected and found acceptable by the Engineer. Upon such delivery of the possession and control of any such Section to the Owner, the risk and obligations of the Bidder as set forth in Article IV Section 1 g hereof with respect to such Section so delivered to the Owner shall be terminated. Provided, however, that nothing herein contained shall relieve the Bidder of any liability with respect to defective materials or workmanship as contained in Article II, Section 7 hereof.

Section 4. Energizing the Project.

- a Prior to Completion of the project the Owner, upon written notice to the Bidder, may test the construction thereof by temporarily energizing any portion or portions thereof. During the period of such test the portion or portions of the project so energized shall be considered as within the possession and control of the Owner and governed by the provisions of Section 3 of this Article. Upon written notice to the Bidder by the Owner of the completion of such test and upon deenergizing the lines involved therein said portion or portions of the project shall be considered as returned to the possession and control of the Bidder unless the Owner shall elect to continue possession and control in the manner provided in Section 3 of this Article.
- b The Owner shall have the right to energize permanently any portion or portions of the project delivered to its possession and control pursuant to the provisions of Section 3 of this Article.

Section 5. Assignment of Guarantees. All guarantees of materials and workmanship running in favor of the Bidder shall be transferred and assigned to the Owner prior to the time the Bidder receives final payment.

ARTICLE V--REMEDIES

Section 1. Completion on Bidder's Default. If default shall be made by the Bidder or by any subcontractor in the performance of any of the terms of this Proposal, the Owner, without in any manner limiting its legal and equitable remedies in the circumstances, may serve upon the Bidder and the Surety or Sureties, if any, upon the Contractor's Bond or Bonds a written notice requiring the Bidder to cause such default to be corrected forthwith. Unless within twenty (20) days after the service of such notice upon the Bidder such default shall be corrected or arrangements for the correction thereof satisfactory to both the Owner and the Administrator shall be made by the Bidder or its Surety or Sureties, if any, the Owner may take over the construction of the project and prosecute the same to completion by Contract or otherwise for the account and at the expense of the Bidder, and the Bidder and its Surety or Sureties, if any, shall be liable to the Owner for any cost or expense in excess of the Contract price occasioned thereby. In such event the Owner may take possession of and utilize, in completing the construction of the project, any materials, tools, supplies, equipment, appliances, and plant belonging to the Bidder or any of its subcontractors, which may be situated at the site of the project. The Owner in such contingency may exercise any rights, claims or demands which the Bidder may have against third persons in connection with this Contract and for such purpose the Bidder does hereby assign, transfer and set over unto the Owner all such rights, claims and demands.

Section 2. Cumulative Remedies. Every right or remedy herein conferred upon or reserved to the Owner or the Government or the Administrator shall be cumulative, shall be in addition to every right and remedy now or hereafter existing at law or in equity or by statute and the pursuit of any right or remedy shall not be construed as an election.

ARTICLE VI-MISCELLANEOUS

Section 1. Definitions.

- a. *The term "Administrator" shall mean the Administrator of the Rural Utilities Service of the United States of America and his or her duly authorized representative or any other person in whom or authority in which may be vested the duties and functions which the Administrator is now authorized by law to perform*
- b. *The term "Engineer" shall mean the Engineer employed by the Owner, to provide engineering services for the project and said Engineer's duly authorized assistants and representatives*
- c. *The term "Completion of Construction" shall mean full performance by the Bidder of the Bidder's obligations under the Contract and all amendments and revisions thereof except the Bidder's obligations in respect of (1) Releases of Liens and Certificate of Contractor under Article III, Section 2 hereof, (2) the inventory referred to in Article III, Section 1 hereof, and (3) other final documents. The term "Completion of the Project" shall mean full performance by the Bidder of the Bidder's obligations under the Contract and all amendments and revisions thereof. The Certificate of Completion, signed by the Engineer and approved in writing by the Owner shall be the sole and conclusive evidence as to the date of Completion of Construction and as to the fact of Completion of the Project*

Section 2. Materials and Supplies. *In the performance of this contract there shall be furnished only such unmanufactured articles, materials, and supplies as have been mined or produced in the United States or in any eligible country, and only such manufactured articles, materials, and supplies as have been manufactured in the United States or in any eligible country substantially all from articles, materials, or supplies mined, produced or manufactured, as the case may be, in the United States or in any eligible country; provided that other articles, materials, or supplies may be used in the event and to the extent that the Administrator shall expressly in writing authorize such use pursuant to the provisions of the Rural Electrification Act of 1938, being Title IV of Public Resolution No. 122, 75th Congress, approved June 21, 1938. For the purposes of this section, an "eligible country" is any country that applies with respect to the United States an agreement ensuring reciprocal access for United States products and services and suppliers to the markets of that country, as determined by the United States Trade Representative. The Bidder agrees to submit to the Owner such certificates with respect to compliance with the foregoing provision as the Administrator from time to time may require.*

Section 3. Patent Infringement. *The Bidder shall hold harmless and indemnify the Owner from any and all claims, suits and proceedings for the infringement of any patent or patents covering any materials or equipment used in construction of the project.*

Section 4. Permits for Explosives. *All permits necessary for the handling or use of dynamite or other explosives in connection with the construction of the project shall be obtained by and at the expense of the Bidder.*

Section 5. Compliance with Laws. *The Bidder shall comply with all federal, state, and local laws, rules, and regulations applicable to its performance under the contract and the construction of the project. The Bidder acknowledges that it is familiar with the Rural Electrification Act of 1936, as amended, the Anti Kick-Back Act of 1986 (41 U.S.C. 51 et seq), and 18 U.S.C. §§ 286, 287, 641, 661, 874, 1001, and 1366, as amended*

The Bidder represents that to the extent required by Executive Orders 12549 (3 CFR, 1985-1988 Comp. p 189) and 12689 (3 CFR, 1989 Comp., p 235), Debarment and Suspension, and 7 CFR part 3017, it has submitted to the Owner a duly executed certification in the form prescribed in 7 CFR part 3017.

The Bidder represents that, to the extent required, it has complied with the requirements of Pub. L. 101-121, Section 319, 103 Stat. 701, 750-765 (31 U.S.C. 1352), entitled "Limitation on use of

appropriated funds to influence certain Federal contracting and financial transactions," and any rules and regulations issued pursuant thereto

Section 6. Equal Opportunity Provisions.

a. Bidder's Represents

The Bidder represents that:

It has ___ , does not have , 100 or more employees, and if it has, that it has ___ , has not , furnished the Equal Employment Opportunity-Employers Information Report EEO-1, Standard Form 100, required of employers with 100 or more employees pursuant to Executive Order 11246 of September 24, 1965, and Title VII of the Civil Rights Act of 1964

The Bidder agrees that it will obtain, prior to the award of any subcontract for more than \$10,000 hereunder to a subcontractor with 100 or more employees, a statement, signed by the proposed subcontractor, that the proposed subcontractor has filed a current report on Standard Form 100

The Bidder agrees that if it has 100 or more employees and has not submitted a report on Standard Form 100 for the current reporting year and that if this Contract will amount to more than \$10,000, the Bidder will file such report, as required by law, and notify the owner in writing of such filing prior to the Owner's acceptance of this Proposal

b. Equal Opportunity Clause During the performance of this Contract, the Bidder agrees as follows:

- (1) The Bidder will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The Bidder will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotions or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection of training, including apprenticeship. The Bidder agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this Equal Opportunity Clause*
- (2) The Bidder will, in all solicitations or advertisements for employees placed by or on behalf of the Bidder, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin*
- (3) The Bidder will send to each labor union or representative of workers, with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Bidder's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment*
- (4) The Bidder will comply with all provisions of Executive Order 11246 of September 24, 1965, and the rules, regulations and relevant orders of the Secretary of Labor*
- (5) The Bidder will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.*

- (6) *In the event of the Bidder's noncompliance with the Equal Opportunity Clause of this Contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part, and the Bidder may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as provided by law*
- (7) *The Bidder will include this Equal Opportunity Clause in every subcontractor purchase order unless exempted by the rules, regulations, or order of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Bidder will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event Bidder becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Bidder may request the United States to enter into such litigation to protect the interests of the United States*
- c. *Certificate of Nonsegregated Facilities. The Bidder certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Bidder certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Bidder agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this Contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The Bidder agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that it will retain such certifications in its files*

Section 7. Franchises and Rights-of-Way. *The Bidder shall be under no obligation to obtain or assist in obtaining. Any franchises, authorizations, permits or approvals required to be obtained by the Owner from Federal, State, County, Municipal or other authorities, any rights-of-way over private lands, or any agreements between the Owner and third parties with respect to the joint use of poles, crossings, or other matter incident to the construction and operation of the project.*

Section 8. Nonassignment of Contract. *The Bidder shall perform directly and without subcontracting not less than twenty-five percent (25%) of the construction of the project, to be calculated on the basis of the total Contract price. The Bidder shall not assign the Contract effected by an acceptance of this Proposal or any interest in any funds that may be due or become due hereunder or enter into any contract with any person, firm or corporation for the performance of the Bidder's obligations hereunder or any part thereof without the approval in writing of the Owner and of the Surety or Sureties, if any, on any bond furnished by the Bidder for the faithful performance of the Bidder's obligations hereunder. If the Bidder, with the consent of the Owner and any Surety or Sureties on the Contractor's Bond or Bonds, shall enter into a subcontract with any subcontractor for the performance of any part of this Contract, the Bidder shall be as fully responsible to the Owner and the Government for the acts and omissions of such subcontractor and of persons employed by such subcontractor as the Bidder would be for its own acts and omissions and those of persons directly employed by it.*

Section 9. Successors and Assigns. Each and all of the covenants and agreements herein contained shall extend to and be binding upon the successors and assigns of the parties hereto. The Owner and Bidder acknowledge that this Contract is assigned to the Government, acting through the Administrator, for security purposes under the Owner's mortgage and security instrument.

Section 10. Independent Contractor. The Bidder shall perform the work as an independent contractor, not as a subcontractor, agent, or employee of the Owner. Upon acceptance of this Proposal, the successful Bidder shall be the Contractor and all references in the Proposal to the Bidder shall apply to the Contractor.

Section 11. Acceptance by the Owner: The acceptance of a Proposal for a contract shall become effective the date of acceptance by the Owner.

ATTEST:

Merit J. Seel
Secretary

Dated 11/16/05

Dobson Power Line Construction Co., Inc.

Bidder

James D. Dobson
President

7696 Harrodsburg Road
Nicholasville, Ky 40356
Address

The Proposal must be signed with the full name of the Bidder. If the Bidder is a partnership, the Proposal must be signed in the partnership name by a partner. If the Bidder is a corporation, the Proposal must be signed in the corporate name by a duly authorized officer and the corporate seal affixed and attested by the Secretary of the Corporation.

ACCEPTANCE

The Owner hereby accepts the foregoing Proposal of the Bidder, DOBSON POWER
LINE CONSTRUCTION CO., INC., for the construction of the following:
2006 POLE CHANGE AND NEW LINE EXTENSION

Reginald J. Taylor, Jr.
Secretary

SHELBY ENERGY COOPERATIVE

By George N. Bussey
Owner
President

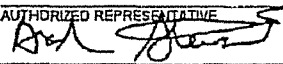
29th Nov. 2005
Date of Contract

ACORD CERTIFICATE OF LIABILITY INSURANCE		OP ID LE DOBSO-1	DATE (MM/DD/YYYY) 01/19/06
PRODUCER Insuramax, Inc. P O Box 20829 Louisville KY 40250-0829 Phone: 502-459-7500 Fax: 502-459-2615		THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
INSURED Dobson Power Line Const. Co. Inc Attn: J.D. Dobson 7696 Harrodsburg Road Nicholasville KY 40356		INSURERS AFFORDING COVERAGE INSURER A: Secura Insurance INSURER B: A G C INSURER C: INSURER D: INSURER E:	NAIC # 22543

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INVS LTR	ADDL INSR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A		GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Stop Gap Liability GENL AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	20-CP-3040877-4	05/16/05	05/16/06	EACH OCCURRENCE: \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence): \$100,000 MED EXP (Any one person): \$5,000 PERSONAL & ADV INJURY: \$1,000,000 GENERAL AGGREGATE: \$1,000,000 PRODUCTS - COMP/OP AGG: \$1,000,000
A		AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	20-A-3040878-4	05/16/05	05/16/06	COMBINED SINGLE LIMIT (Ea accident): \$1,000,000 BODILY INJURY (Per person): \$ BODILY INJURY (Per accident): \$ PROPERTY DAMAGE (Per accident): \$
		GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT: \$ OTHER THAN AUTO ONLY: EA ACC: \$ AGG: \$
		EXCESS/UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$				EACH OCCURRENCE: \$ AGGREGATE: \$ \$ \$
B		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below OTHER	7589	01/01/06	12/31/06	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT: \$3,000,000 E.L. DISEASE - EA EMPLOYEE: \$3,000,000 E.L. DISEASE - POLICY LIMIT: \$3,000,000
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS						

CERTIFICATE HOLDER SHELB-1 Shelby Energy Corporative P O Box 309 Shelbyville KY 40066-0309	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL <u>30</u> DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT. BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES. AUTHORIZED REPRESENTATIVE 
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WORK PLAN REFERENCE
NEW CONSTRUCTION
SYSTEM IMPROVEMENT
REPLACEMENT
RETIREMENT-NO REPLACEMENT
NO OF SERVICES

Form 13899 (REV. 6-85) UNIVERSITY MICROFILMS INTL

STAKING SHEET

SI

WORK ORDER NO. 3363

COOPERATIVE Shelby

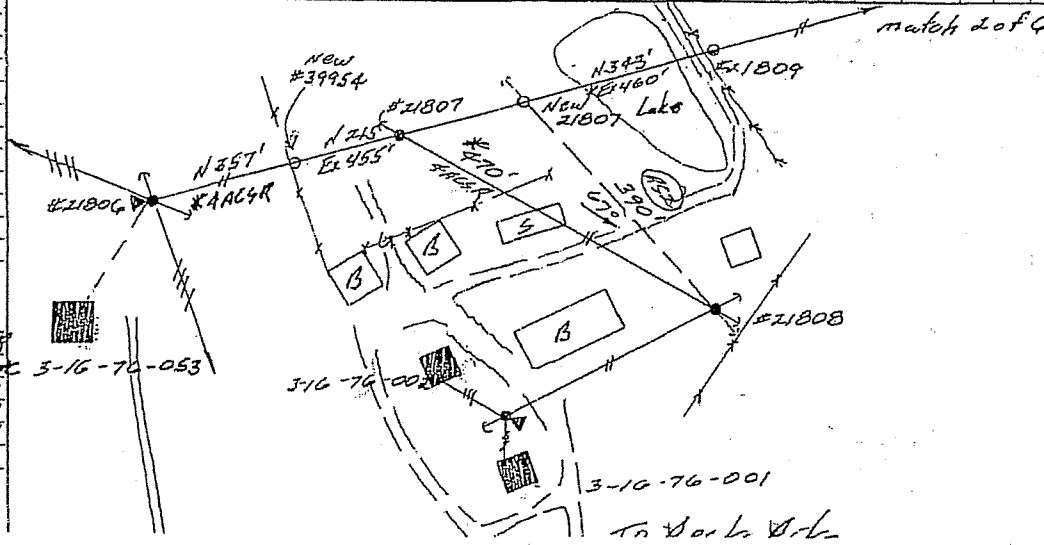
SYSTEM DESIGNATION Ky30

SHEET NO. 1 OF 6

LINE _____ LEAD _____

Staked by ATE Date 9/1/05
 Ch'k'd by KCT Date 11-15-05
 Released by MD Date 12-14-05
 Energized by _____ Date _____
 Location Tremble
 Map Reference 3-16-76-053
 Ext. No. _____
 Ext. Name _____
 Pri. Wire Size 2
 Neu Wire Size "
 Conductor Type ACSR
 Phase Ø
 Ruling Span Staked 400' 3/4" 4/2"
 Actual R Span 520' 1/2" 1/2" 1/2" 1/2"
 to Sag SUMMARY 300'
 Units Quantity Units Quantity

POLE NO.	PRI. (BACK) SPAN	POLES H & C		PRI. UNIT MISC.	R-W CLEARING	LINE ANGLE	TRANS. GR.	GUY			ANCHOR	SECONDARY			SERVICE			SEC OR SER. WIRE SIZE	METER		MISC. & REMARKS		
		MISC.	MISC.					NO.	UNIT "E"	LEAD		UNIT	SPAN	UNIT	UNIT	SPAN	NO.		K	LOOP		SIZE METER	
21806	Ex	50-3	VC3P	VC3P			2.2V	1.39	11	4	1-3	Ø						1	Ø	Ø		Add Pole & Change Out Poles & Change Out Conductor to Age.	
39954	357	40-5	A1	A1					12														
21807	*455	*35-5	*A5-1	*A5-1					*11	1	1-3	Ex	1-2										
ADD	215	40-5	VAS-1P	VAS-1P					11	1	1-3	20	1-3T										Permit for Relocating Line OK/0000
21808	*470	*35-5	*VAA	*VAA					11	1	1-3		1-4										
ADD	470		VAA	VAA					1	1	1-3		1-4										
21809	*400	*35-5	*A9	*A9					*12														
	343	40-5	A1	A1					12														



Span Feet	No. Wires				W.P. Sec.	Wire Size
	Pri.	Sec.	Sec. Unbid.	Sec.		
737.2	2				Ø	Ø
106.7	1				Ø	Ø
80				Ø	Ø	Ø
ADD 844.1	2			Ø	Ø	Ø

No of Members _____
 Indicate retired units with *
 Replaced units with ○

ADD

ROS

ADD

STAKING SHEET

SE

WORK ORDER NO. _____

COOPERATIVE *Shelby*

SYSTEM DESIGNATION *K430*

SHEET NO. *2* OF *40*

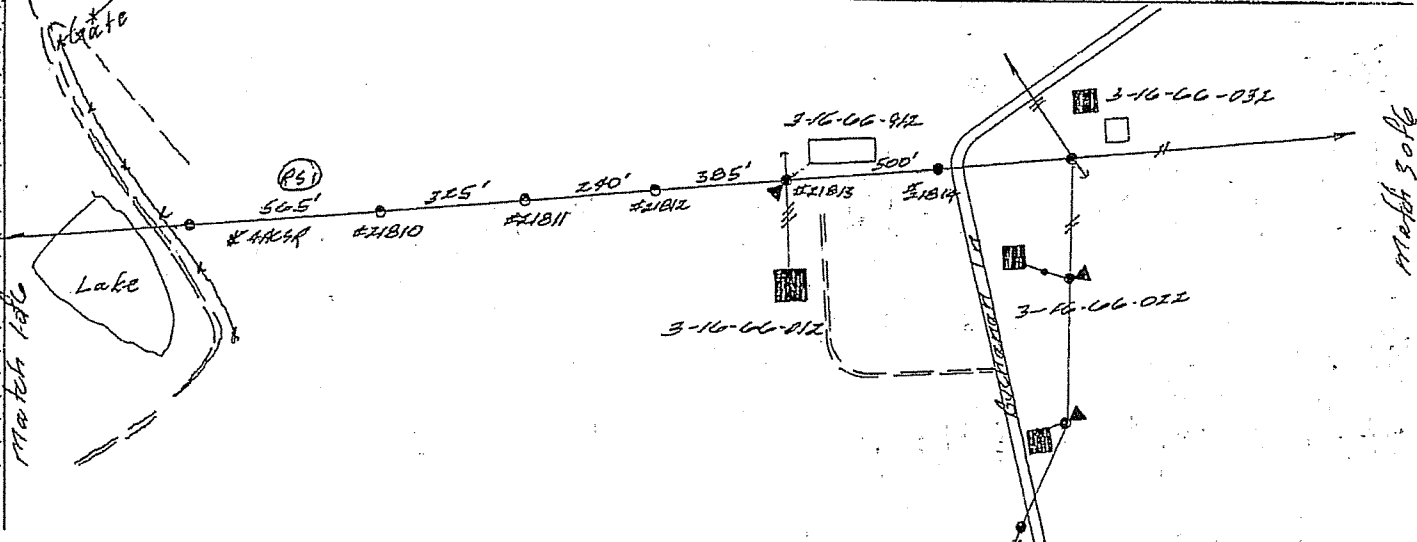
LINE _____ LEAD _____

WORK PLAN REFERENCE	
NEW CONSTRUCTION	
SYSTEM IMPROVEMENT	
REPLACEMENT	
RETIREMENT-NO REPLACEMENT	
NO OF SERVICES	

Slaked by *ATE* Date *8/1/05*
 Ch'k'd by _____ Date _____
 Released by _____ Date _____
 Energized by _____ Date _____
 Location _____
 Map Reference _____
 Ext. No. _____
 Ext Name _____
 Pri. Wire Size _____
 Neu Wire Size _____
 Conductor Type _____
 Phase _____
 Ruling Span Staked _____
 Actual R Span _____

SUMMARY			
Units	Quantity	Units	Quantity

POLE NO.	PRI. (BACK) SPAN	POLES H & C		PRI. UNIT	R-W CLEARING	LINE ANGLE	TRANS C'	DR. H2'	GUY			ANCHOR	SECONDARY		SERVICE		SEC OR SER. WIRE SIZE	METER		MISC. & REMARKS
		MISC	MISC						UNIT NO.	UNIT 'E'	LEAD 'F'		UNDER-BUILD	SEC. ONLY	NO. J O R K	SPAN NO.		UNIT K	LOOP	
21810	*565	*35-6	*VA1					*12												
	565	40-5	A1					12												
21811	*325	*35-5	*VA1					*12												
	325	40-5	A1					12												
21812	*240	*35-5	*VA1					*12												
	240	40-5	A1					12												
21813	*385	*40-5	*VA1		99		7.2kv	10.5	11	1	3	Ex 1-99								
	385		M 30-5																	
21814	*500	*40-5	*VA1		86				11											
	500																			



Span Feet	No. Wires					Wire Size
	Pri	Sec.	Sec. Unbid.	Ser.	W.P. Sec.	

No of Members _____
 Indicate retired units with *.
 Replaced units with ○.

WORK PLAN REFERENCE	
NEW CONSTRUCTION	
SYSTEM IMPROVEMENT	
REPLACEMENT	
RETIREMENT-NO REPLACEMENT	
NO. OF SERVICES	1

Form 13000 (REV. 6-85) UNIVERSITY MICROFILMS INTL. SERIALS ACQUISITION DEPT.

STAKING SHEET

SI

WORK ORDER NO _____

COOPERATIVE Shelby

SYSTEM DESIGNATION Ky 30

SHEET NO 3 OF 6

LINE _____ LEAD _____

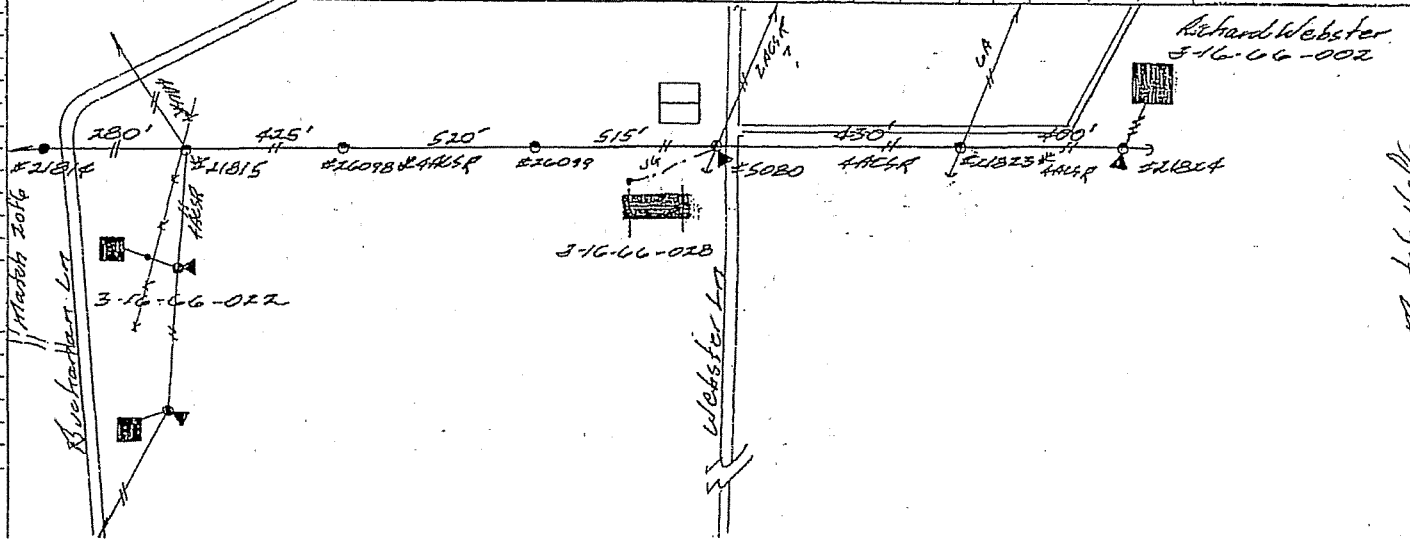
Staked by ME Date 9/1/05
 Ch'k'd by _____ Date _____
 Released by _____ Date _____
 Energized by _____ Date _____
 Location _____
 Map Reference _____
 Ext. No. _____
 Ext. Name _____
 Pri. Wire Size _____
 Neu. Wire Size _____
 Conductor Type _____
 Phase _____
 Ruling Span Staked _____
 Actual R Span _____

POLE NO	PRI. (BACK) SPAN	POLES H & C MISC	PRI. UNIT MISC	R-W CLEARING	LINE ANGLE	TRANS "G"	GR. "M2"	GUY			SECONDARY			SERVICE			SEC OR SER. WIRE SIZE	METER LOOP	METER SIZE	MISC. & REMARKS
								NO	UNIT "E"	LEAD "F"	ANCHOR	UNDER-BUILD	SEC. ONLY	NO. JOCK	SPAN	NO				
21015	280'	40-5	A1				11	1	1-3	3.70	EA 1-4T									
26098	425'	35-6	A1				12													
26099	520'	35-6	A1				12													
5080	515'	35-4	A1			105	11	1	1-3	3.70	EA 1-4T								1 UMS-B	
	515'	40-5	A1			65	11	1	1-3	3.70	EA 1-3T								1 UMS-B	
21023	430'	35-5	A1				11	1	1-3	3.70	EA 1-4T									
	430'	40-5	A1				11	1	1-3	3.70	EA 1-3T									

SUMMARY			
Units	Quantity	Units	Quantity

Span Feet	No. Wires					Wire Size
	Pri	Sec	Sec. Unbid.	Ser.	W.P. Sec.	

No. of Members _____
 Indicate retired units with *
 Replaced units with ○
 Reset meters and transformers with □



WORK PLAN REFERENCE	
NEW CONSTRUCTION	
SYSTEM IMPROVEMENT	
REPLACEMENT	
RETIREMENT-NO REPLACEMENT	
NO OF SERVICES	

Form 10088 (REV. 6-85) PREPARED PUBLISHED BY THE NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION

STAKING SHEET

SI

WORK ORDER NO. _____
 SHEET NO. 4 OF 6
 LINE _____ LEAD _____

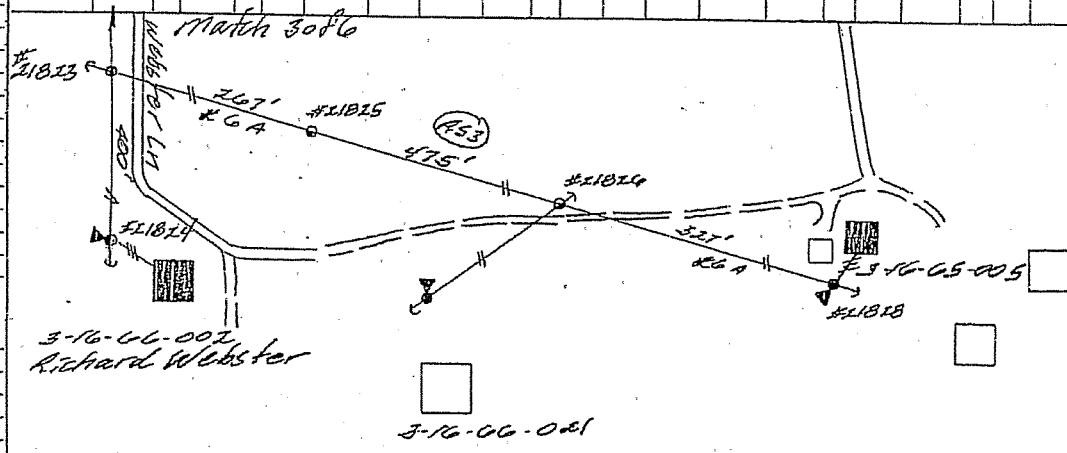
COOPERATIVE Shelby SYSTEM DESIGNATION KY30

Sunked by DL Date 9/1/05
 Ch'k'd by _____ Date _____
 Released by _____ Date _____
 Energized by _____ Date _____
 Location _____
 Map Reference _____
 Ext. No. _____
 Ext. Name _____
 Pri. Wire Size _____
 Neu. Wire Size _____
 Conductor Type _____
 Phase _____
 Ruling Span Staked _____
 Actual R Span _____

POLE NO.	PRI. (BACK) SPAN	POLES H & C		PRI. UNIT MISC.	R-W CLEARING	LINE ANGLE	TRANS. GRADE	GR	GUY			SECONDARY		SERVICE		SEC. OR SER. WIRE SIZE	METER		MISC. & REMARKS
		MISC.	MISC.						UNIT NO.	LEAD	ANCHO	SPAN	UNIT NO. JORK	SPAN	NO. K		LOOP	SIZE METER	
21824	400'	#35-6	#45				7.20		#11	#1-3	EX 1-2T					#14			
	400'	#40-5	VASR				15		#11	#1-3	EX 1-3T					#14			
21825	267'	#35-6	#A1						#12										
	267'	#40-5	A1						#12										
21826	475'	#40-5	#A1-1						#11	#1-3	EX 1-4T								
	475'	#40-5	VASR						#11	#1-3	EX 1-3T								
21828	327'	#40-5	VASR				10.6		#11	#1-3	EX 1-3T					#14			
	327'						16		#11	#1-3	EX 1-3T								

SUMMARY

Units	Quantity	Units	Quantity



Span Feet	No. Wires				Wire Size
	Pri	Sec.	Sec. Unbid.	W.P. Sec.	

No of Members _____
 Indicate retired units with *
 Replaced units with ○
 Reset meters and transformers with □

WORK PLAN REFERENCE
 NEW CONSTRUCTION
 SYSTEM IMPROVEMENT
 REPLACEMENT
 RETIREMENT-NO REPLACEMENT
 NO. OF SERVICES

Form 13899 (REV. 6-85) SPECIAL PERMITS UNIT

STAKING SHEET

WORK ORDER NO. _____
 SHEET NO. 5 OF 6
 LINE _____ LEAD _____

COOPERATIVE Shelby

SYSTEM DESIGNATION Ky30

Staked by ME Date 9/1/05
 Ch'k'd by _____ Date _____
 Released by _____ Date _____
 Energized by _____ Date _____
 Location Y Tremble
 Map Reference 3-16-CC-000
 Ext. No. _____
 Ext. Name _____
 Pri. Wire Size _____
 Neu. Wire Size _____
 Conductor Type _____
 Phase _____
 Ruling Span Staked _____
 Actual R Span _____

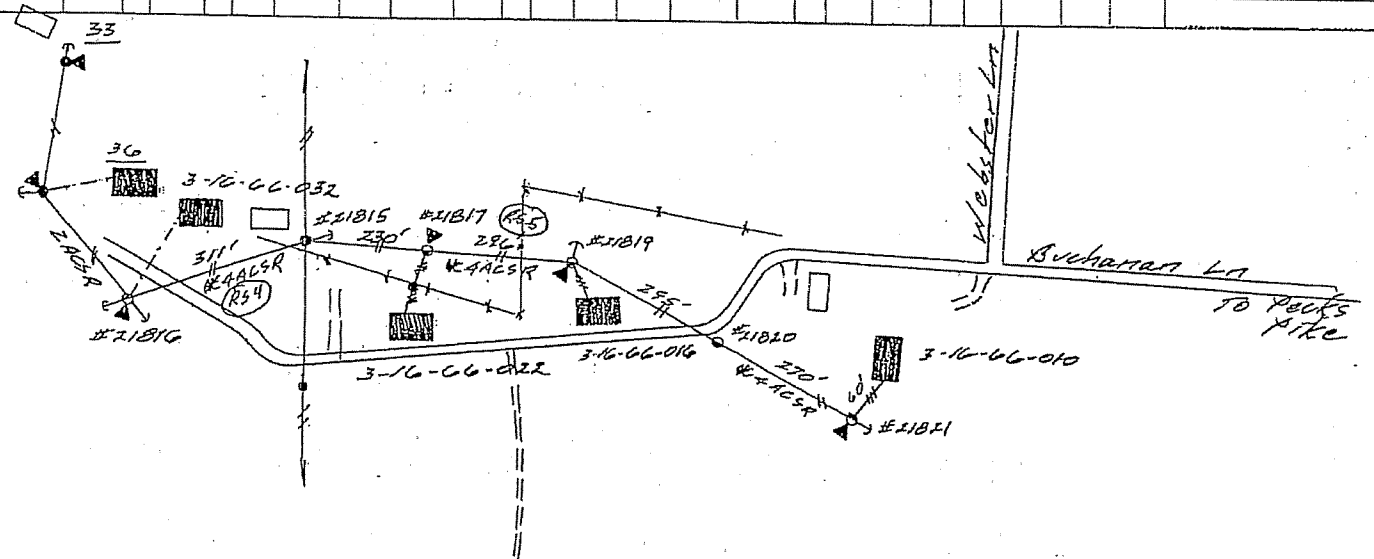
POLE NO	PRI. (BACK) SPAN	POLES H & C		PRI. UNIT MISC	R-W CLEARING	LINE ANGLE	TRANS. °	GR. M2	GUY		ANCHOR	SECONDARY			SERVICE			METER		MISC. & REMARKS	
		MISC	MISC						UNIT NO	LEAD F		SPAN	UNIT	NO. JORK	SPAN	NO. K	SEC. OR SER. WIRE SIZE	LOOP	SIZE METER		
21815	Ex 40-5		#1	2/1250				11	1-3		Ex 1-4T										
21816	311' 35-5	#1	#1					11	1-3		Ex 1-4T				#	1 UM5-B					
	311' 40-5			#1				11	1-3		Ex 1-3T				#	1 UM5-B					
21817	230' 35-5	#1	#1					11	1-3						#	1 K14					
	230' 40-5			#1				11	1-3						#	1 K14					
21819	296' 35-5	#1	#1					11	1-3		Ex 1-4T				#	1 K14					
	296' 40-5			#1				11	1-3		Ex 1-3T				#	1 K14					
21820	295' 35-5	#1	#1					12	1-3												
	295' 40-5			#1				12	1-3												

SUMMARY

Units	Quantity	Units	Quantity

Span Feet	No Wires				Wire Size
	Pri	Sec.	Sec. Unbid.	W.P. Sec.	

No. of Members _____
 Indicate retired units with *.
 Replaced units with ○.
 Reset meters and transformers with ▭



WORK PLAN REFERENCE
 NEW CONSTRUCTION
 SYSTEM IMPROVEMENT
 REPLACEMENT
 RETIREMENT-NO REPLACEMENT
 NO. OF SERVICES

Form 13899 (REV. 6-85) UNIVERSITY MICROFILMS INTERNATIONAL

STAKING SHEET

SI

WORK ORDER NO. _____
 SHEET NO. 6 OF 6
 LINE _____ LEAD _____

COOPERATIVE Shelby

SYSTEM DESIGNATION K130

Staked by ACE Date 9/1/05
 Ch'ld by _____ Date _____
 Released by _____ Date _____
 Energized by _____ Date _____
 Location Trumble
 Map Reference 3-16-166-08
 Ext. No. _____
 Ext. Name _____
 Pri. Wire Size _____
 Neu. Wire Size _____
 Conductor Type _____
 Phase _____
 Ruling Span Staked _____
 Actual R Span _____

POLE NO.	PRI. (BACK) SPAN	POLES H & C		PRI. UNIT	R-W CLEARING	LINE ANGLE	TRANS. D. IN.	GR. M2	GUY			SECONDARY			SERVICE			SEC. OR SER. WIRE SIZE	METER		MISC. & REMARKS	
		MISC.	MISC.						UNIT "E"	LEAD	ANCHOR "F"	UNDER-BUILD	SEC. ONLY	NO. JOCK	SPAN	NO.	K		LOOP	SIZE METER		
21821	* 270	* 35.5	* 45				100	11	1	3.0	EX 1-25						60	3	10	OWP		
270	40-5	VASPA					100	H	1	3.0	EX 1-35						60	1	14	ETA		

SUMMARY
 Units Quantity Units Quantity

Span Feet	No Wires					Wire Size
	Pri	Sec	Sec. Unbid.	Ser.	W.P. Sec.	

No. of Members _____
 Indicate retired units with *.
 Replaced units with ○.
 Reset meters and transformers with □

"See sheet 5 of 6"

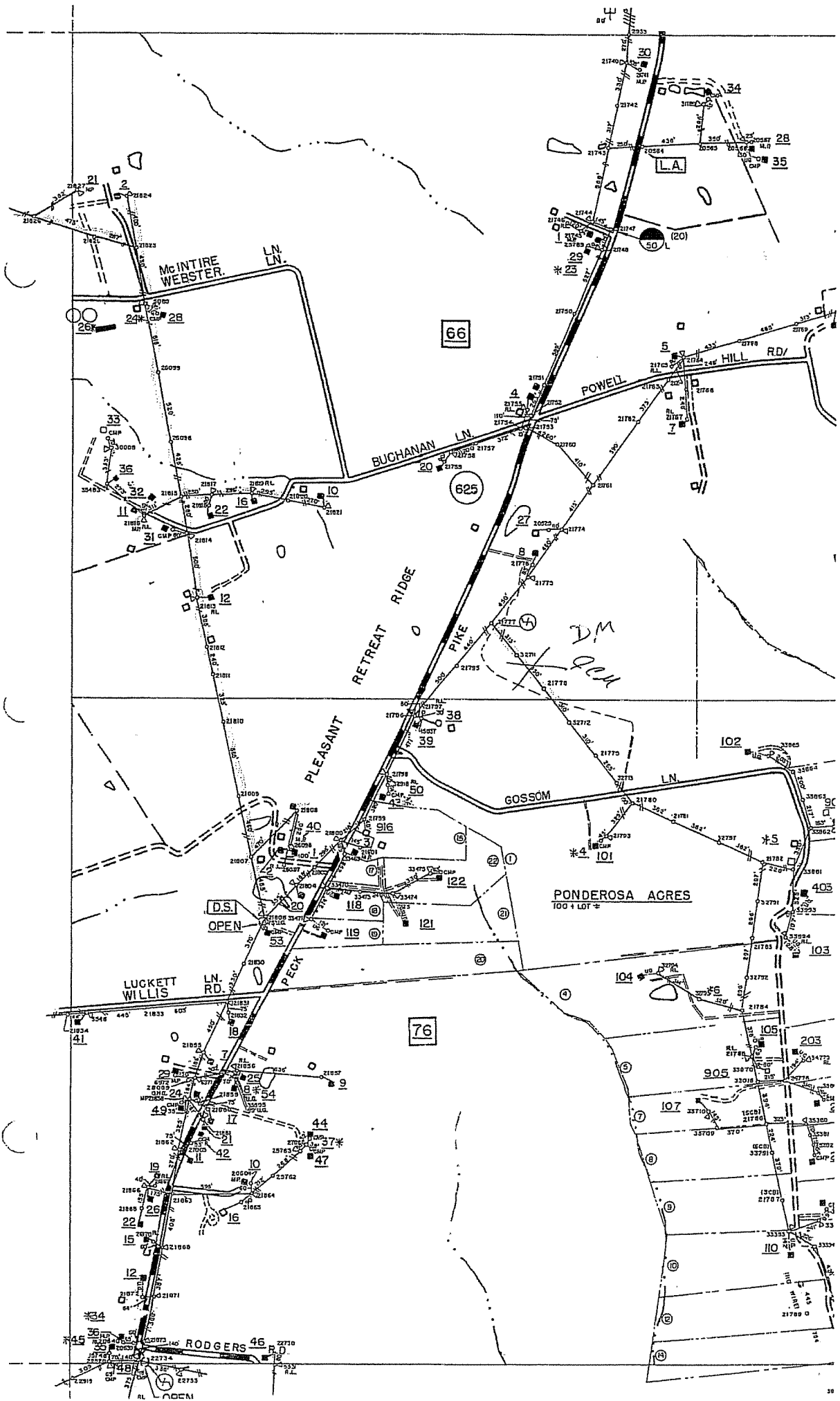
SHELBY ENERGY COOPERATIVE

Shelbyville, Kentucky

PLANNED LINE INSPECTION AND PATROLLING AND UNIT RECORD

Substation No. 7 Feeder No. 3 Date: 12-15-05 Inspector: Rick Jackie Date Completed: 12-15-05

Pole Number	Pole Condition	Pole Height & Class (Date Treated)	Primary Units	Secondary Units	Service Units	Crossarms	Ground - M2	Guy "E" Units	Transformer Co. No.	Meter Company No. (House or Pole)	OCR or Switches Co. No.	Sag & Clearances	Conductor & Size	Right-Of-Way Condition	Guy Guards Used	Bonding Clamps Used	Work To Be Done	Work Done	Remarks
33475	✓	40-5	VAS	2/TTP	-	-	✓	✓	10	25156	-	✓	2ACSR	✓	-	-	-	-	OK
33471	✓	40-5	VAS	2/1000	-	-	✓	✓	25	1611	-	✓	"	✓	-	-	-	-	OK
21802	✓	40-5	CI	-	-	✓	✓	-	-	-	-	✓	1/0	✓	-	-	-	-	OK
21804	✓	45-3	CI-3	2TP	-	✓	✓	-	15	25158	-	✓	1/0	✓	-	-	-	-	OK
21806	✓	45-3	VC3	4/006	-	-	✓	✓	15	21218	-	✓	1/0	✓	-	-	-	-	OK
21807	✓	40-5	A5-1 A1	-	-	-	✓	✓	-	-	-	✓	4ACSR	✓	-	-	-	-	OK
21808	✓	35-6	VA4	-	-	-	✓	✓	-	-	-	✓	"	✓	✓	✓	-	-	OK
21809	✓	40-5	A1	-	-	✓	✓	-	-	-	-	✓	"	✓	-	-	-	-	OK
21810	✓	40-5	A1	-	-	-	✓	-	-	-	-	✓	"	✓	-	-	-	-	OK



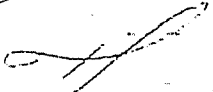
Enx David martin

502-633-2387

859-885-1394

On Wednesday 2-8-06 we were working at Willis Tax Service and we were going to shut off their electric for 15 minutes. I was carrying material over to the pole and Greg was going up the pole. I went to get more material and James was going up the pole, we were getting everything ready before we shut the electric off. I heard Earl yell that the line was dead then Kelvin yelled the line was dead and Greg touched the line and it was not dead. I ran back to the truck to get my belt and hooks so I could help Greg down. Before I got back he was already on the ground. I helped roll him over onto his back and James started CPR and then Earl got there and was helping James give Greg CPR until the ambulance got there. I'm deeply sorry for Ms. Mays' loss.

Frank Rice
372 Leavelle Ridge Rd
Lancaster Ky 40444
859-548-5343

Frank Rice


I was close to pole ~~was~~ Greg was on when

I said Earl is going to Kill Line. He (Earl)

then two-wayed me on nextel and told me

the line was dead. I then told Greg and James

the line was dead but the line was still hot.

I then screamed at ~~the~~ Earl to Kill Line

but it was too late. woman at tax office

came out and said she called 911.

2-9-06

Kelvin Thomas

ACCIDENT ON Hq 625 2-8-06

I WAS AT THE TAKE OFF POLE,
GREG. WAS ON THE POLE AT THE
NEUTRAL. THEY CALLED AND SAID
GO AHEAD AND OPEN UP. I CALLED
AND TOLD THEM IT WAS OPEN. THEN
I REALIZED IT WAS THE WRONG SWITCH.
I TRYED TO CONTACT THEM BUT IT
WAS TOO LATE. I OPENED THE OTHER
SWITCH, BUT GREG HAD ALREADY GOT
INTO THE LINE. I WENT TO THE POLE
WHERE GREG WAS AND WE TRYED CPR.

Earl W. Harrison

I was on the outside of the fence
where the pond was I saw (S. man)
Greg Reach for the Jumper His Hand
lock he (Left) Reached with Right to
Pull his Hand away at this point
I thought ~~he~~ He Looks Froze
Then His shoes started Smoking
I looked over the Hill and saw the
Trans. open & Phase Closed I started
Screaming open the phase! I saw
a Exendo stick wiggling around center
Phase I was Screaming Oh God Oh God
I was Running to get to the Pole
The mud was thick and hard to walk
I was about 200' away I Look Back
And saw the Bucket Booming up
By the time I got 50' from Pole
Greg Fell Backwards Upside down
Fell out of his close As I got closer
He Fell on his Head Me & Josh Rollo
him over He was Conscious looking
at me trying to talk Eral Graded
him and said "I'm sorry S oh God"
James was helping Holding Greg
Eral took off His Coat & put under
Greg's Head James called 911 they
said take off His Boots we did
His toes were Burt off on Both

Feet He try to talk then rolled
his eyes then Eral + James took
turns Breathing I gave Chest Compressions
till the EMS showed up

2/14/06 BRADLEY CUBIF

Down the ~~SEA~~ ROAD AT TAKE OF POLE
DID ~~NOT~~ NOT GO FOR ~~WHAT~~ HAPPEND.
S. J. W. S. M. S. M.

I was under the pole it happened
on I saw Greg go up the pole and
wait for the man at the take off pole
to kill the line and when he said it
was dead Greg went up and touched the
spring jumper it was still live because the
man at the take off opened the wires cut
out and we told him to kill the line
and he killed it and Greg fell back and
we tied a line to him and was gonna let
him down and he slipped out of his clothes and
came down and we rolled him over and
started doing CPR on him until the ambulance
came.

John Wier
02-09-2006

JOSEPH WIERDMANN

I was on the other side of the
building beside the truck and I didn't
see anything happen

2-14-06

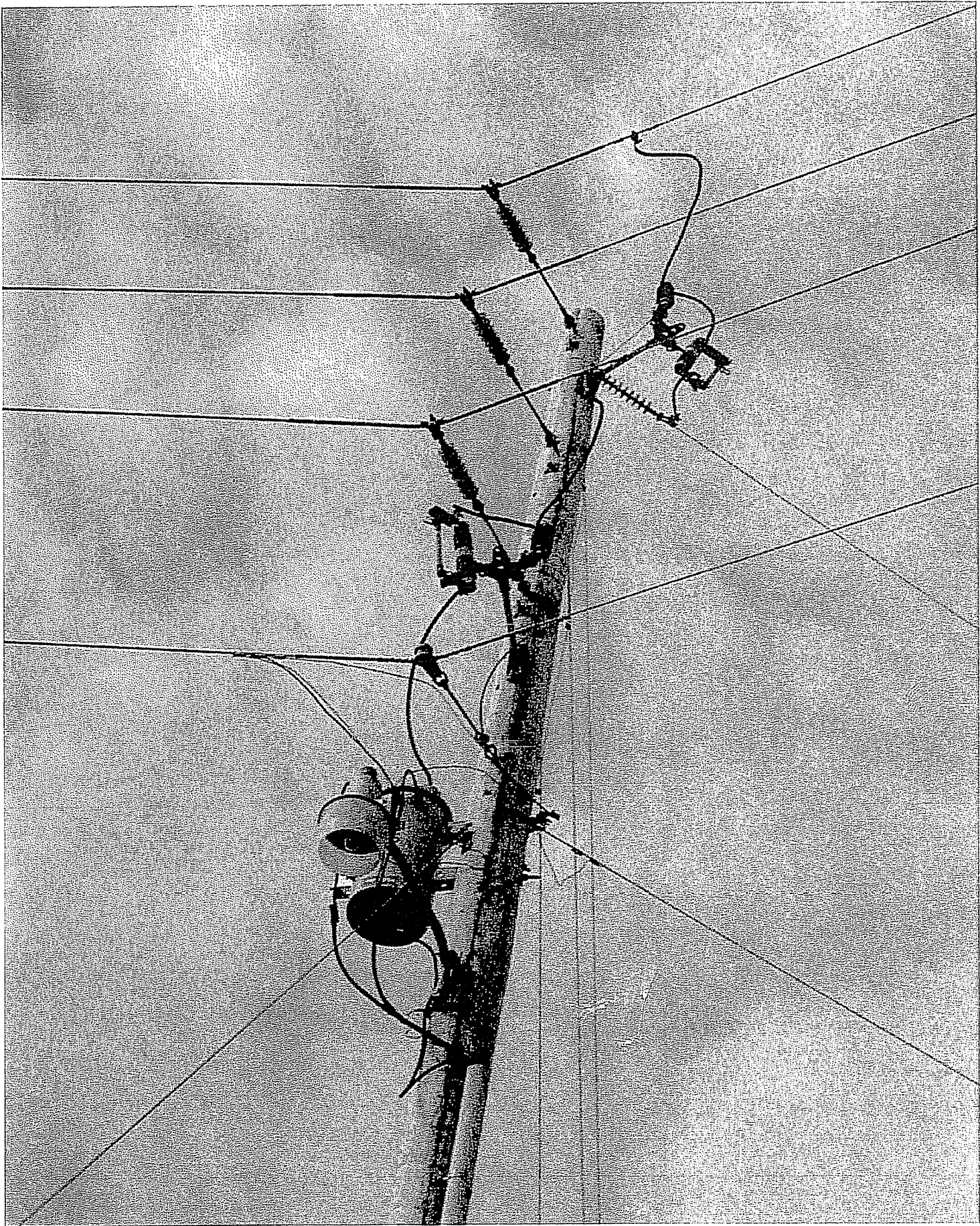
Cost Carroll

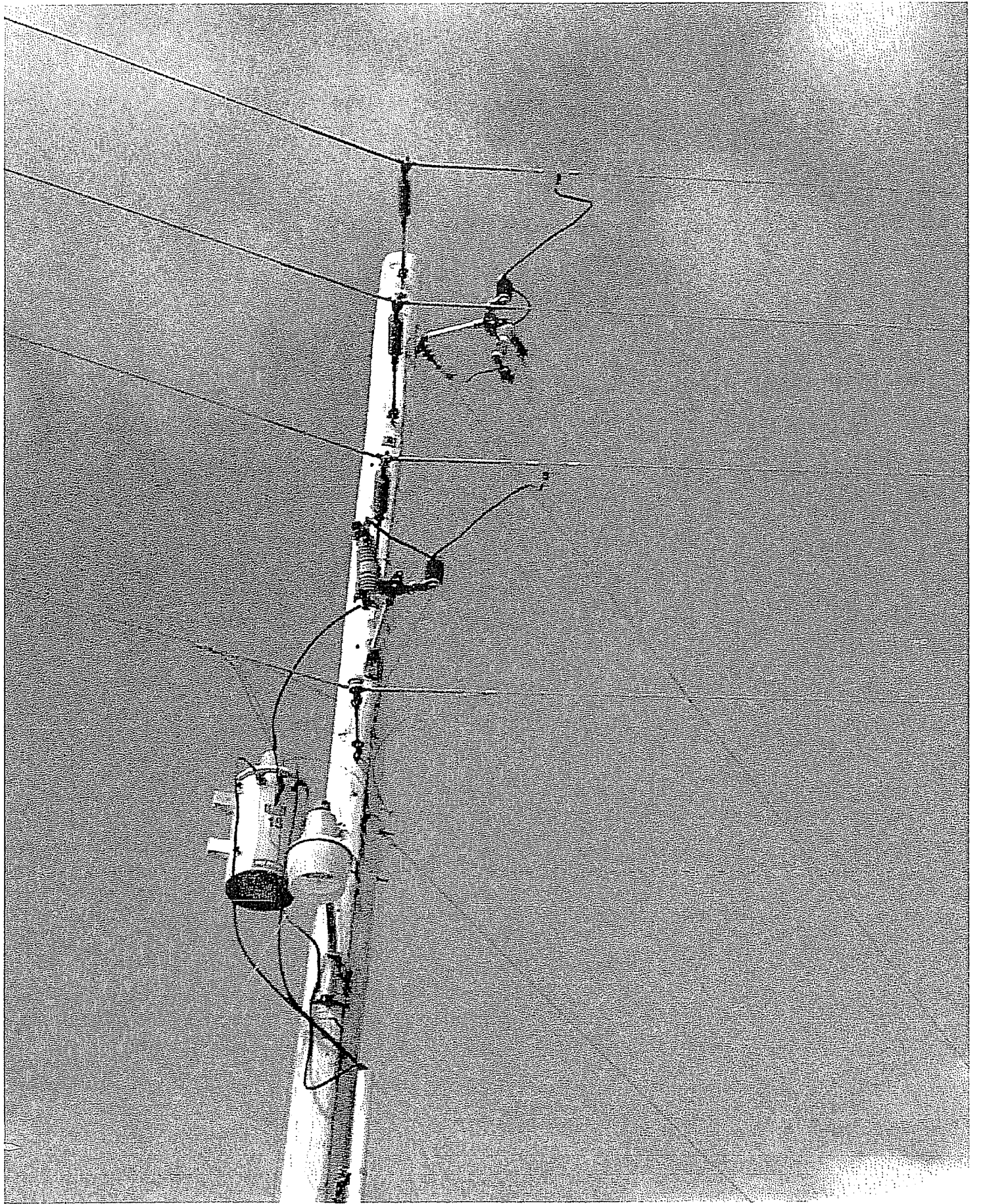
2-9-06

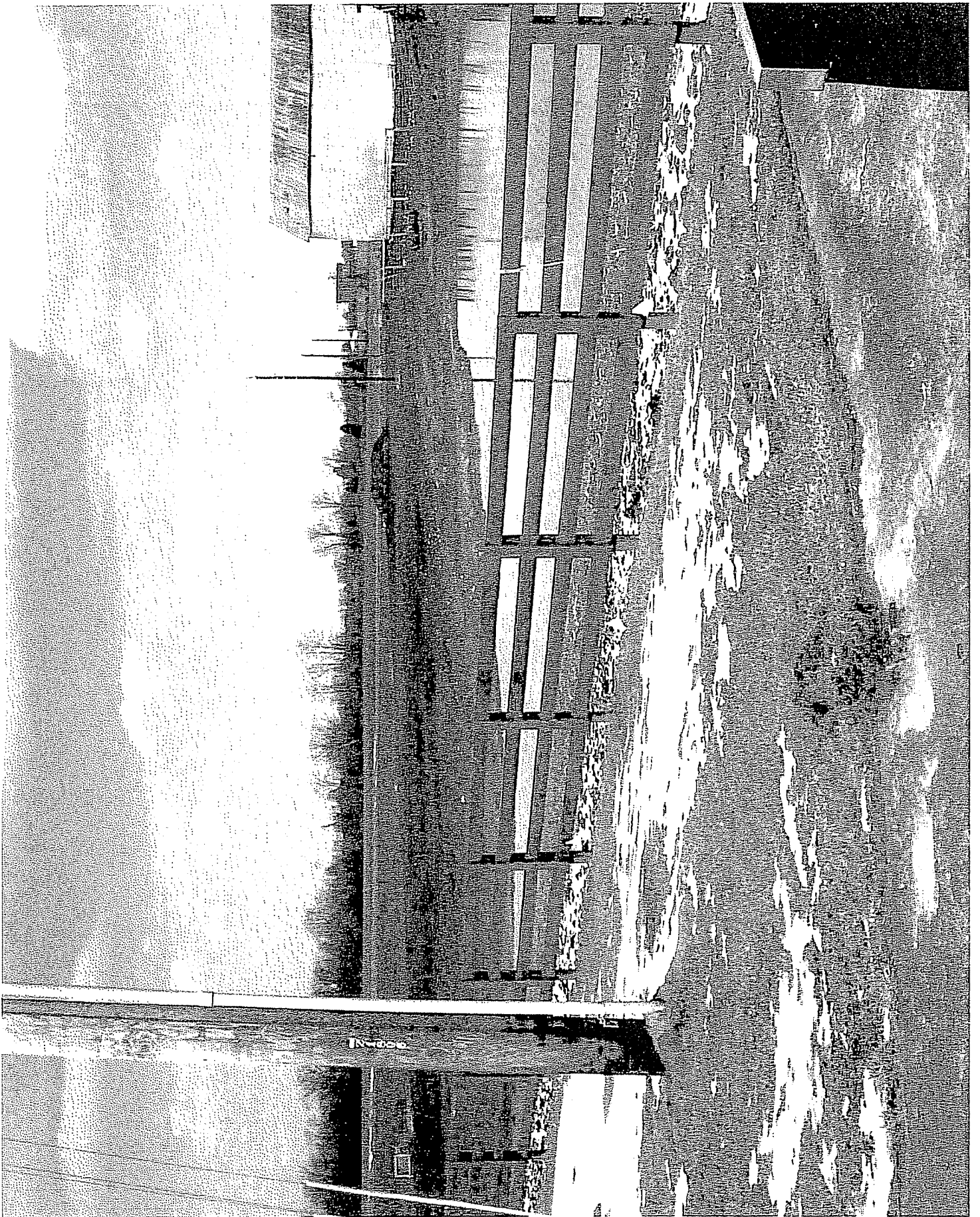
My name is James David Dobson III & I was on the pole with Greg Lee Mayson 2-8-06. We sat on the ground & got our things together. Greg went up first & wated at the nutral for me. When I got up there we wated for the word that it was dead. They said the line had been killed so we moved on to the phase. We helped each other safety off & Greg asked again if it was dead. They said yes & he reached & Grabed the phase. He said "Oh God!" He grabbed his wrist with his other hand to try to break free. I ~~reached~~ leaned to the right & hollered. When I leaned Right I was on a Guy wire. It was eating me up so I leaned to the left that put my foot on his & It started to get me again. There was nowhere to go. ~~The~~ ~~moment~~ I could feel the current in my legs & the longer it went on the stronger it got. When they finally got the line dead I dropped down below Greg & hooked the hand line on his D Ring. CW & Josh were on the ground holding the hand line & I said "Hold him boys his coming down!" I cut his safety with my pocket ~~knife~~ knife. As soon as we started to let him down he slipped out of his belt & fell to the ground. After I got to the ground he ~~kept~~ ~~was~~ ~~stayed~~ stopped breathing & lost his pulse. Mc Earl & Brad started CPR. Brad on chest compression & Mc & Earl took turns breathing for him. When the EMS got there they took over.

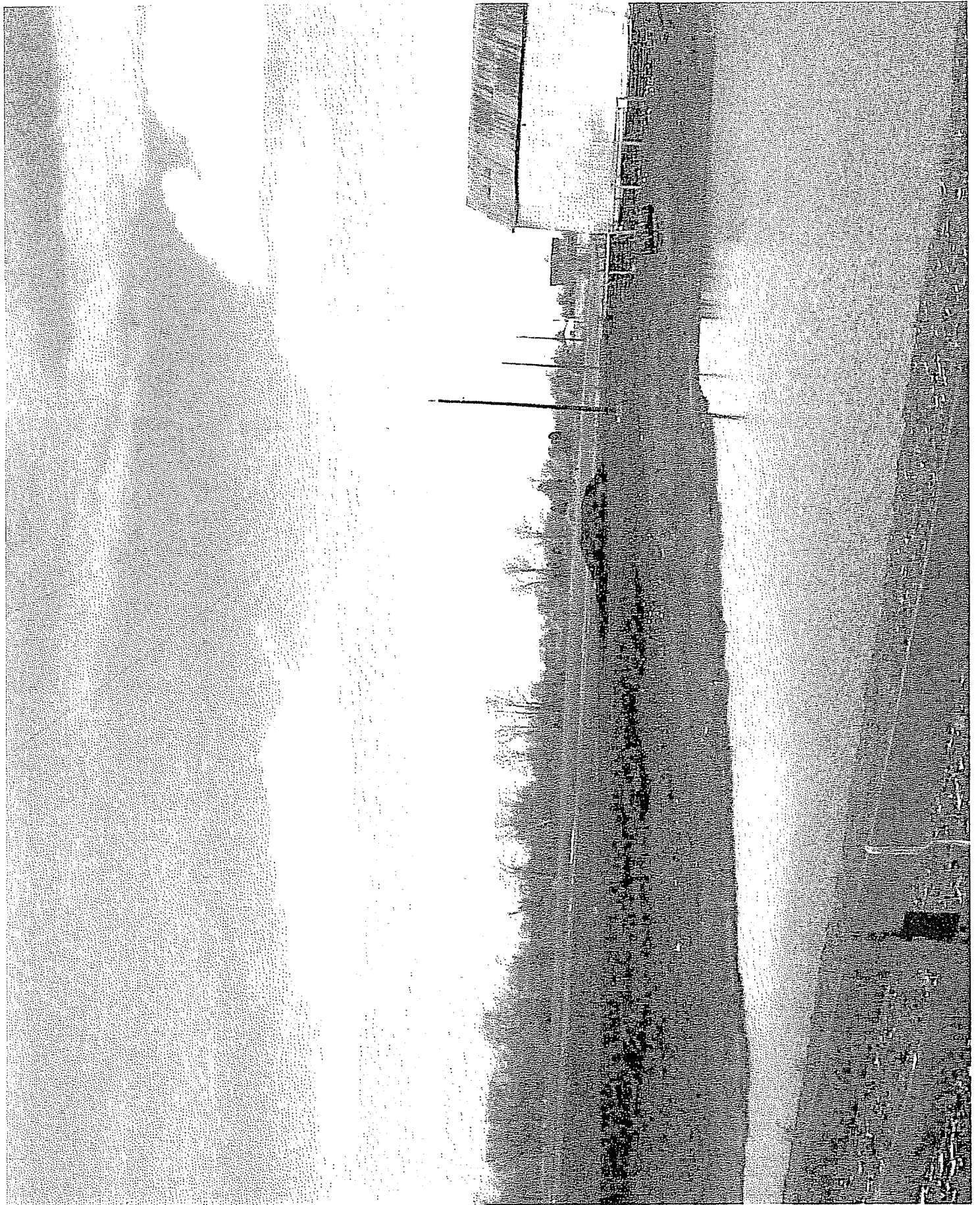
James David Dobson III (James David Dobson III)

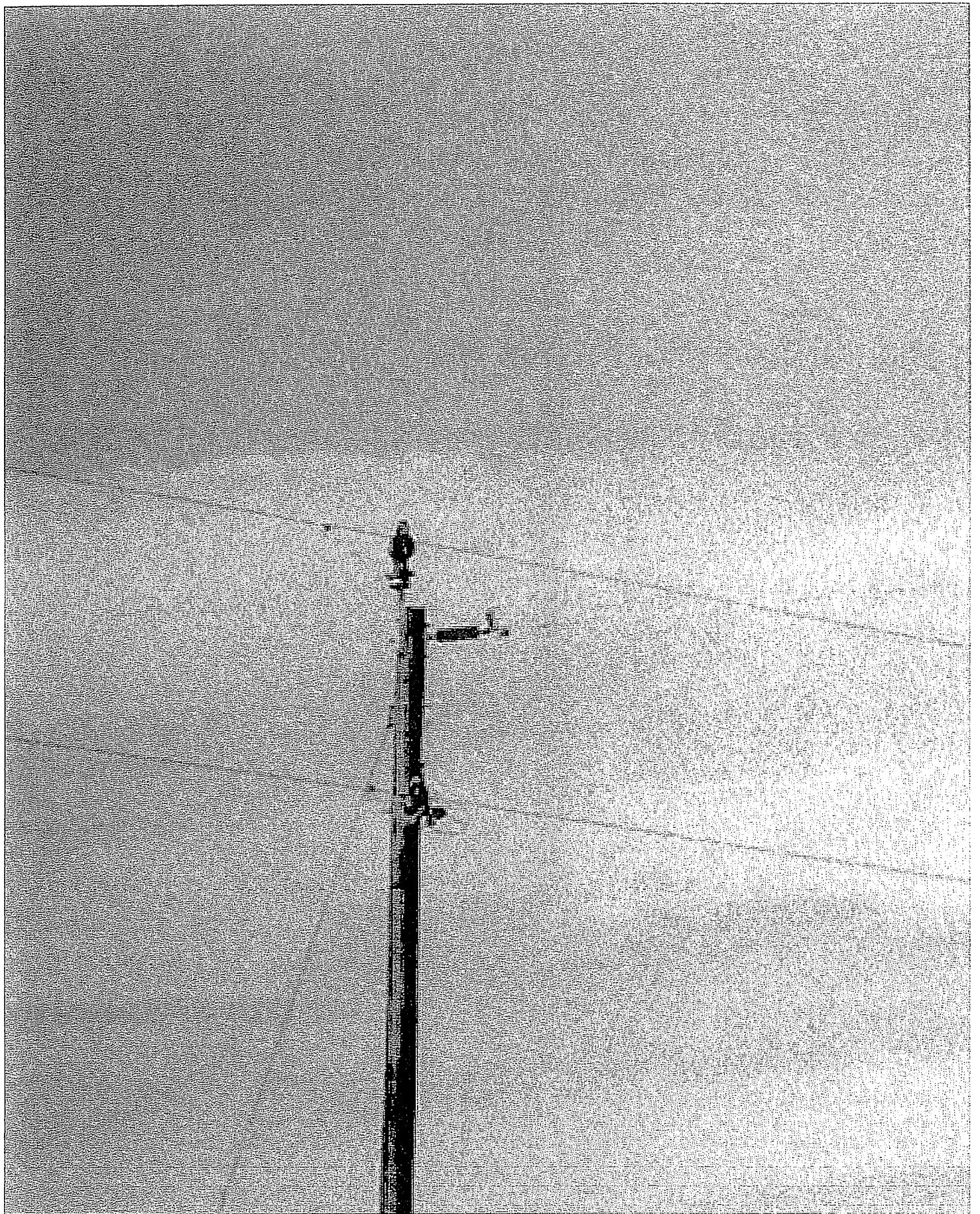
I was on the outside of the fence
where the pond was I saw (S man)
Greg Reach for the Jumper His Hand
lock he (Left) Reached with Right to
Pull his Hand away at this point
I thought ~~he~~ He Looks Froze
Then His shoes started Smoking
I looked over the Hill and saw the
Trans. open & Phase Closed I started
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a Exendo stick wiggling around center
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him and said "I'm sorry S oh God"
James was helping Holding Greg
Eral took off His Coat & put under
Greg's Head James Called 911 they
said take off His Boots wedid
His toes were Burt off on Both

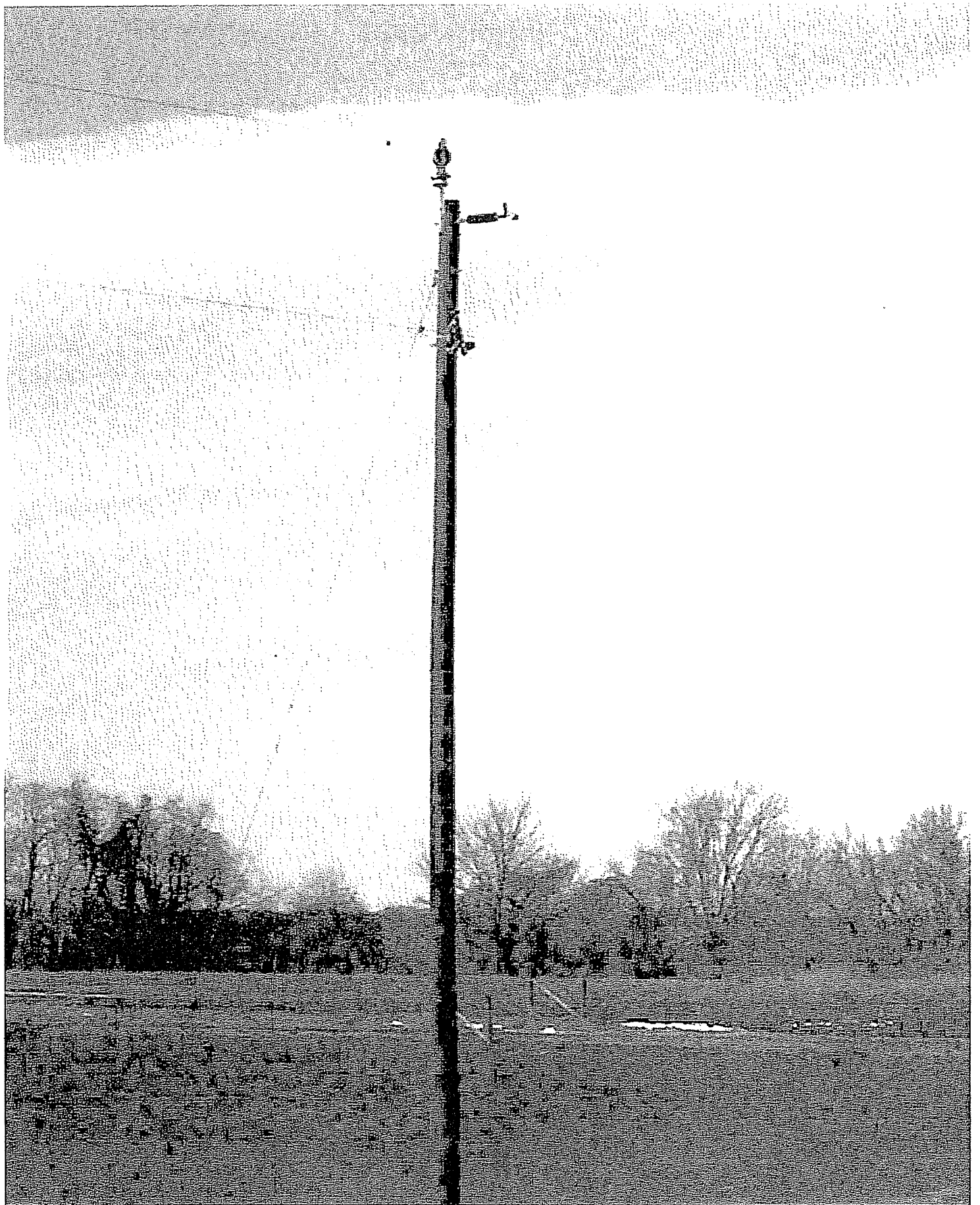


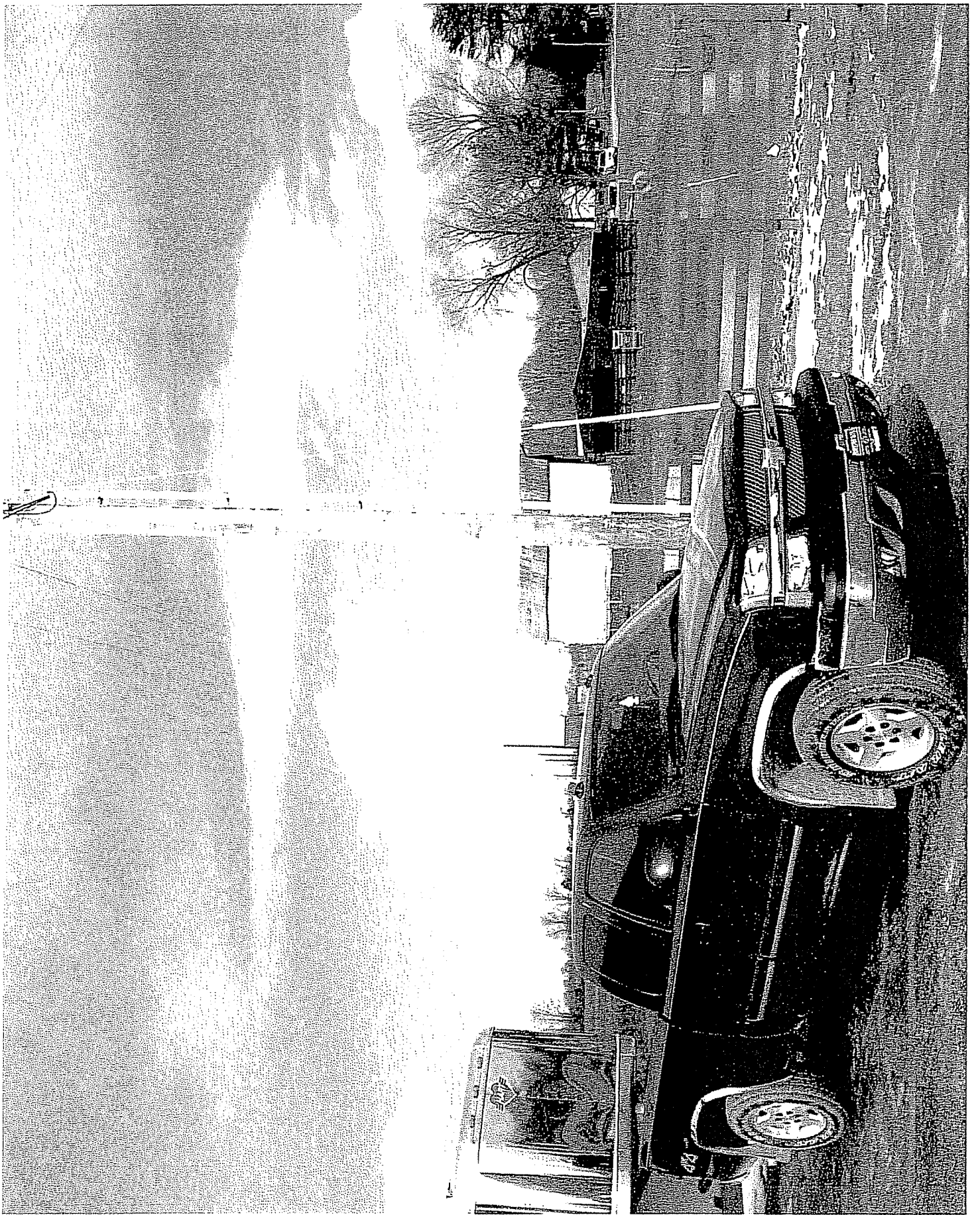


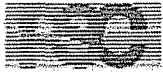












Kentucky Public Service Commission

Electric Utility Personal Injury Incident Report

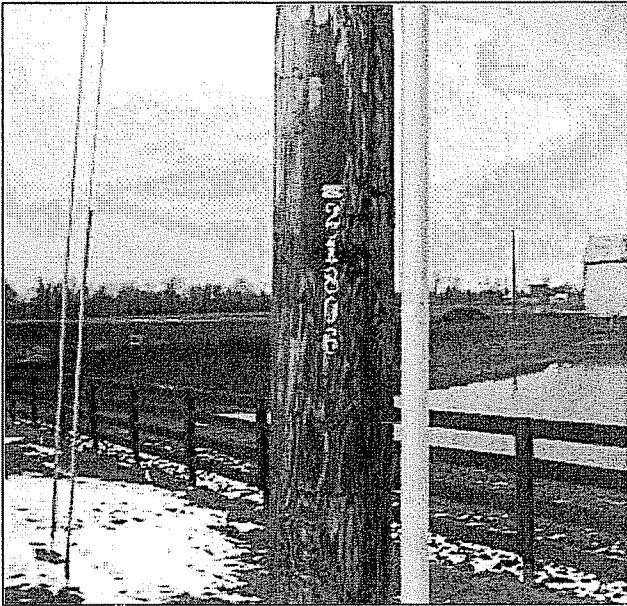
Attachment C

KPSC Photographs of Accident Site

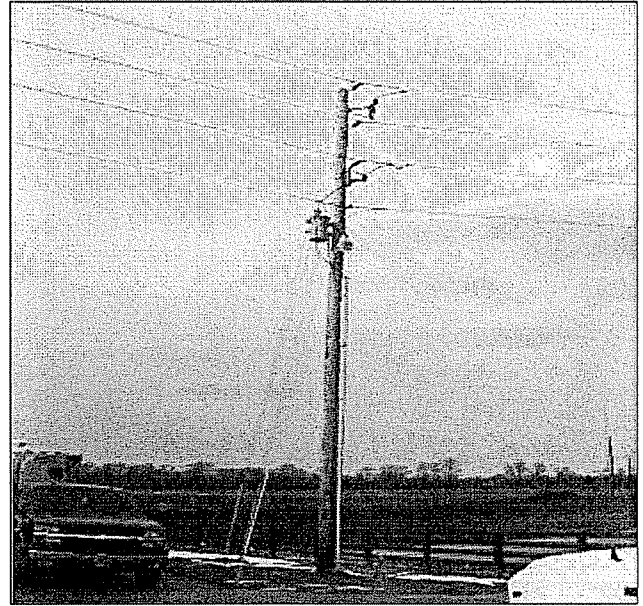


Kentucky Public Service Commission

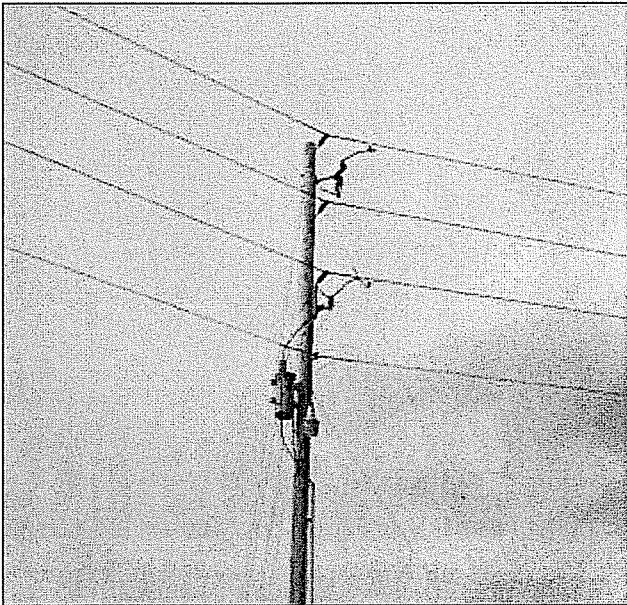
Electric Utility Personal Injury Incident Report



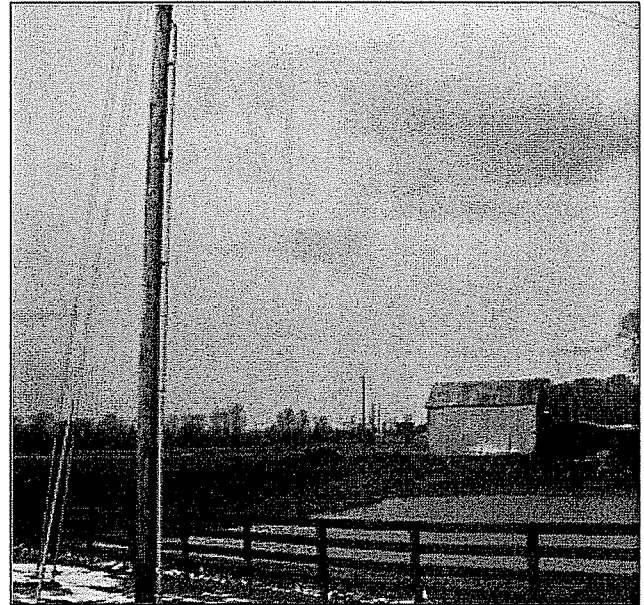
TAKE OFF POLE OF SINGLE PHASE TAP LINE



**POLE SHOWING TRANSFORMER FUSE AND
TAP LINE FUSE**



**POLE SHOWING TAP LINE FUSE AND
TRANSFORMER FUSE**

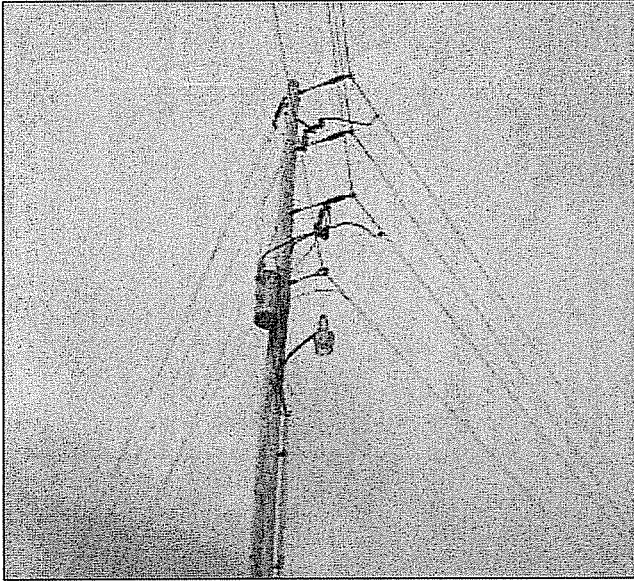


**TAP LINE THE CREW WAS WORKING ON AT
THE TIME OF THE ACCIDENT**

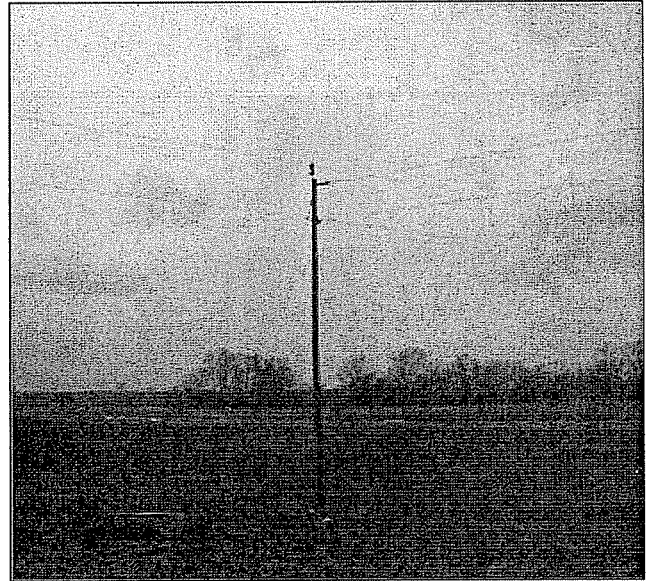


Kentucky Public Service Commission

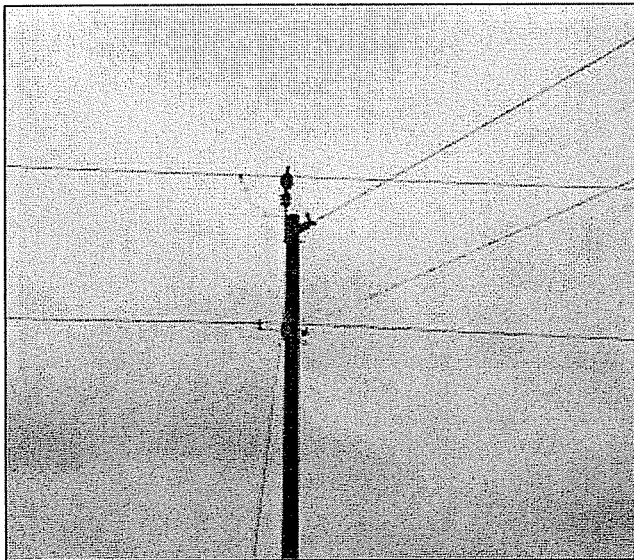
Electric Utility Personal Injury Incident Report



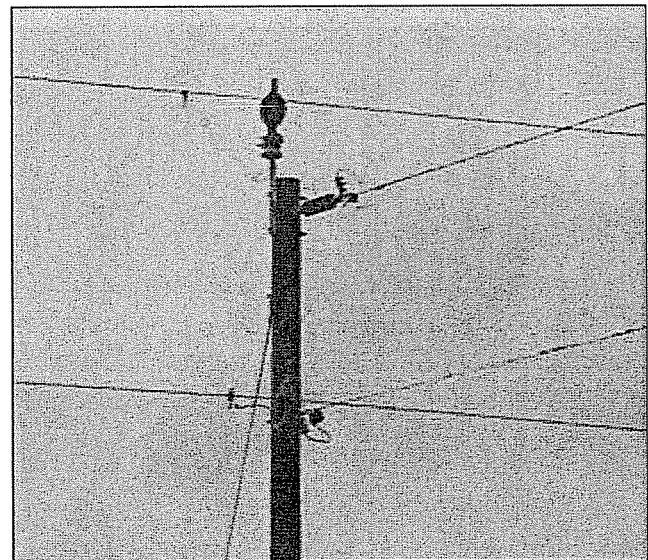
**POLE SHOWING THE TAP LINE FUSE AND
TRANSFORMER FUSE**



POLE VICTIM WAS WORKING ON



POLE VICTIM WAS WORKING ON

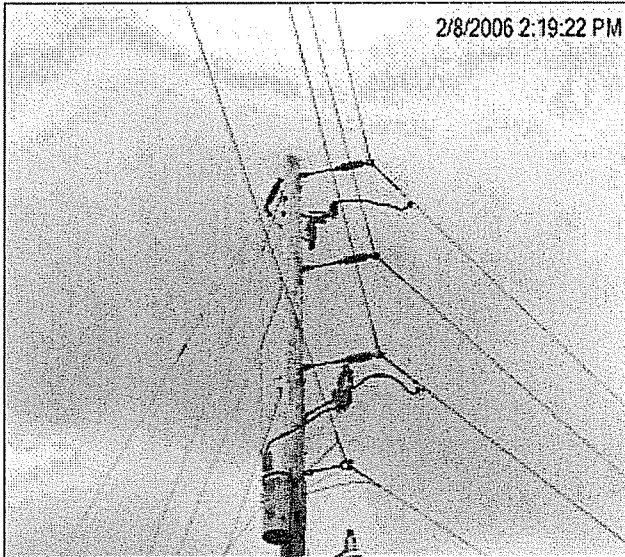


JUMPER VICTIM GRABBED WITH HIS HAND

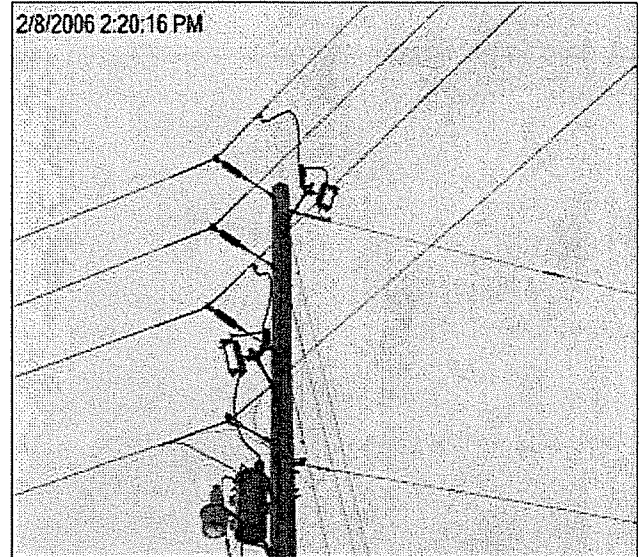


Kentucky Public Service Commission

Electric Utility Personal Injury Incident Report



**POLE SHOWING THE TAP LINE FUSE AND
TRANSFORMER FUSE**



SINGLE PHASE TAP LINE FUSE



**POLE SHOWING THE TAP LINE FUSE AND THE
TRANSFORMER FUSE**



**TAP LINE VICTIM WAS WORKING ON AT THE
TIME OF THE ACCIDENT**



Kentucky Public Service Commission

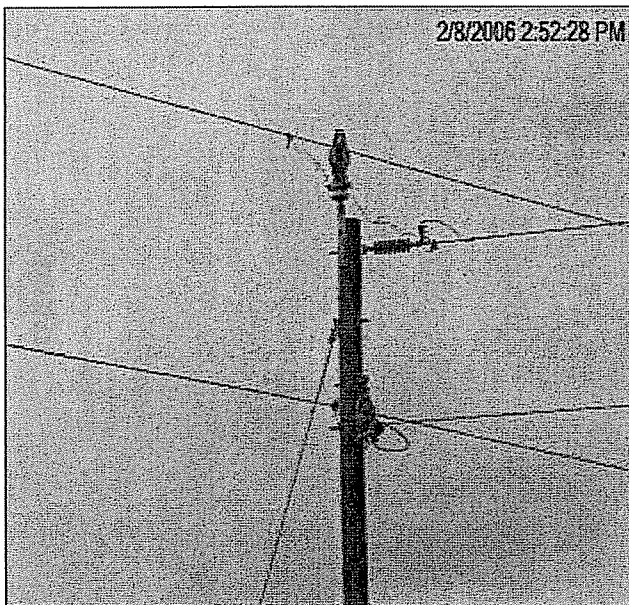
Electric Utility Personal Injury Incident Report



POLE VICTIM WAS WORKING AT THE TIME OF THE ACCIDENT



ACCIDENT POLE



POLE VICTIM WAS WORKING AT THE TIME OF THE ACCIDENT



LOOKING BACK AT THE TAKE OFF POLE NEAR THE ACCIDENT SITE



Kentucky Public Service Commission

Electric Utility Personal Injury Incident Report



BASE OF THE POLE THE VICTIM WAS WORKING ON



Kentucky Public Service Commission

Electric Utility Personal Injury Incident Report

Attachment D

Copy of Cited Violation from NESC

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

1. 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.
5. 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.

F. Arcing Conditions

Employees should keep all parts of their bodies as far away as practical from switches, brushes, commutators, circuit breakers, or other parts at which arcing may occur during operation or handling.

G. Liquid-Cell Batteries

1. Employees shall ascertain that battery areas are adequately ventilated before performing work.
2. Employees should avoid smoking, using open flames, or using tools that may produce sparks in the vicinity of liquid-cell batteries.
3. Employees shall use eye and skin protection when handling an electrolyte.
4. Employees shall not handle energized parts of batteries unless necessary precautions are taken to avoid short circuits and electrical shocks.

H. Tools and Protective Equipment

Employees shall use the personal protective equipment, the protective devices, and the special tools provided for their work. Before starting work, these devices and tools shall be carefully inspected to make sure that they are in good condition.

I. Clothing

1. Employees shall wear clothing suitable for the assigned task and the work environment. See Rule 410A2.
2. When working in the vicinity of energized lines or equipment, employees should avoid wearing exposed metal articles.

J. Ladders and Supports

1. Employees shall not support themselves, or any material or equipment, on any portion of a tree, pole structure, scaffold, ladder, walkway, or other elevated structure or aerial device, etc., without it first being determined, to the extent practical, that such support is adequately strong, in good condition, and properly secured in place.
2. Portable wood ladders intended for general use shall not be painted except with a clear nonconductive coating, nor shall they be longitudinally reinforced with metal.
3. Portable metal ladders intended for general use shall not be used when working on or in the vicinity of energized parts.
4. If portable ladders are made partially or entirely conductive for specialized work, necessary precautions shall be taken to ensure that their use will be restricted to the work for which they are intended.

K. Fall Protection

1. At elevated locations above 3 m (10 ft), climbers shall be attached to equipment or structures by a fall protection system while at the worksite, at a rest site, in aerial devices, helicopters, cable carts, and a boatswain's chair.
2. Qualified climbers may be permitted to be unattached to equipment or structures while climbing, transferring, or transitioning across obstacles on structures. Unqualified climbers shall be attached while performing these activities.
3. Fall protection equipment shall be inspected before use by the employee to ensure that the equipment is in safe working condition.
4. Fall arrest equipment shall be attached to a suitable anchorage.
5. The employee shall determine that all components of the fall protection system are properly engaged and that the employee is secure in the line-worker's body belt, harness, or any other fall protection system.

NOTE: Climbers need to be aware of accidental disengagement of fall protection components. Accidental disengagement is the sudden, unexpected release of a positioning strap snaphook from the D-ring of the line-worker's body belt without the user directly manipulating the latch of the snaphook. In general, there are two primary reasons for this occurrence.

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**
1. 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.
 2. 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**
1. 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**
1. 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.
 2. Sag of wire or cables being installed or removed shall be controlled to prevent danger to pedestrian and vehicular traffic.
 3. 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.
 4. 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.
 2. 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.
 4. 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 44. Additional Rules for Supply Employees

440. General

Supply employees shall observe the following rules in addition to the rules contained in Section 42.

441. Energized Conductors or Parts

Employees shall not approach, or knowingly permit others to approach, any exposed ungrounded part normally energized except as permitted by this rule.

A. Minimum Approach Distance to Live Parts

1. General

Employees shall not approach or bring any conductive object within the distances to exposed parts that operate at the voltages listed in Table 441-1 or Table 441-4 unless one of the following is met:

- a. The line or part is de-energized and grounded per Rule 444D.
- b. The employee is insulated from the energized line or part. Electrical protective equipment insulated for the voltage involved, such as tools, gloves, rubber gloves, or rubber gloves with sleeves, shall be considered effective insulation for the employee from the energized part being worked on.
- c. The energized line or part is insulated from the employee and from any other line or part at a different potential.

2. Precautions for Approach— Voltages from 51 V to 300 V

Employees shall not contact exposed energized parts operating at 51 V to 300 V, unless the provisions of Rule 441A1 are met.

3. Precautions for Approach— Voltages from 301 V to 72.5 kV

At voltages from 301 V to 72.5 kV, employees shall be protected from phase-to-phase and phase-to-ground differences in electric potential.

- a. When exposed grounded lines, conductors, or parts are in the work area, they shall be guarded or insulated.
- b. When the Rubber Glove Work Method is employed, rubber insulating gloves, insulated for the maximum use voltage as listed in Table 441-6, shall be worn whenever employees are in the vicinity of energized conductors or parts, supplemented by one of the following two protective methods:
 - (1) The employee shall wear rubber insulating sleeves, insulated for the maximum use voltage as listed in Table 441-6, in addition to the rubber insulating gloves.
EXCEPTION: When work is performed on electric supply equipment energized at 750 V or less, rubber sleeves are not required if only the live parts being worked on are exposed.
 - (2) All exposed energized lines or parts, other than those temporarily exposed to perform work and maintained under positive control, located within maximum reach of the employee's work position, shall be covered with insulating protective equipment.
EXCEPTION: When work is being performed on parts energized between 300 V and 750 V within enclosed spaces, (e.g., control panels and relay cabinets), insulating or guarding of all exposed grounded lines, conductors, or parts in the work area is not required provided that employees use insulated tools and/or gloves and that exposed grounded lines, conductors, or parts are covered to the extent feasible.
- c. When the Rubber Glove Work Method is employed at voltages above 15 kV phase-to-phase, supplementary insulation (e.g., insulated aerial device or structure-mounted insulating work platform), tested for the voltage involved shall be used to support the worker.
- d. Cover-up rated for the voltage involved, when used, shall be applied to the exposed facilities

nection, the name of the employee who requested the disconnection, and the name or title or both, of the designated person.

D. Employee's Protective Grounds

When all the switches and disconnectors designated have been operated, rendered inoperable where practical, and tagged in accordance with Rule 444C, and the employee has been given permission to work by the designated person, the employee in charge should immediately proceed to make the employee's own protective grounds or verify that adequate grounds have been applied (see Rule 445) on the disconnected lines or equipment. During the testing for potential and/or application of grounds, distances not less than those shown in Tables 441-1 to 441-3, as applicable, shall be maintained.

Grounds shall be placed at each side of the work location and as close as practical to the work location, or a single point ground shall be placed at the work location. If work is to be performed at more than one location on a line section, the line section shall be grounded and short-circuited at one location in the line section and the conductor to be worked on shall be grounded at each work location.

The distance in Tables 441-1, 441-2, or 441-3, as applicable, shall be maintained from ungrounded conductors at the work location. Where the making of a ground is impractical, or the conditions resulting therefrom are more hazardous than working on the lines or equipment without grounding, the ground may be omitted by special permission of the designated person.

E. Proceeding With Work

1. After the equipment or lines have been de-energized and grounded per Rule 444D, the employee in charge, and those under the direction of the employee in charge, may proceed with work on the de-energized parts.

Equipment may be re-energized for testing purposes only under the supervision of the employee in charge and subject to authorization by the designated person.

2. Each additional employee in charge desiring the same equipment or lines to be de-energized and grounded per Rule 444D for the protection of that person, or the persons under direction, shall follow these procedures to secure similar protection.

F. Reporting Clear—Transferring Responsibility

1. The employee in charge, upon completion of the work and after ensuring that all persons assigned to this employee in charge are in the clear, shall remove protective grounds and shall report to the designated person that all tags protecting that person may be removed.

2. The employee in charge who received the permission to work may, if specifically permitted by the designated person, transfer the permission to work and the responsibility for persons by personally informing the affected persons of the transfer.

G. Removal of Tags

1. The designated person shall then direct the removal of tags and the removal shall be reported back to the designated person by the persons removing them. Upon the removal of any tag, there shall be added to the record containing the name of the designated person or title or both, and the person who requested the tag, the name of the person requesting removal, the time of removal, and the name of the person removing the tag.

2. The name of the person requesting removal shall be the same as the name of the person requesting placement, unless responsibility has been transferred according to Rule 444F.

H. Sequence of Re-energizing

Only after all protective grounds have been removed from the circuit or equipment and after protective tags have been removed in accordance with Rule 444G at a specific location, may the designated person direct the operation of switches and disconnectors at that location.

445. Protective Grounds

A. Installing Grounds

When placing protective grounds on a previously energized part, the following sequence and precautionary measures shall be observed.

EXCEPTION: In certain situations, such as when grounding conductors are supported on some high-voltage towers, it may be appropriate to perform the voltage test before bringing the grounding device into the work area.

1. Current-Carrying Capacity of Grounds

The grounding device shall be of such size as to carry the induced current and anticipated fault current that could flow at the point of grounding for the time necessary to clear the line.

2. Initial Connections

Before grounding any previously energized part, the employee shall first securely connect one end of the grounding device to an effective ground. Grounding switches may be employed to connect the equipment or lines being grounded to the actual ground connections.

3. Test for Voltage

The previously energized parts that are to be grounded shall be tested for voltage except where previously installed grounds are clearly in evidence. The employee shall keep every part of the body at the required distance by using insulating handles of proper length or other suitable devices.

4. Completing Grounds

- a. If the part shows no voltage, the grounding may be completed.
- b. If voltage is present, the source shall be determined to ensure that presence of this voltage does not prohibit completion of the grounding.
- c. After the initial connections are made to ground, the grounding device shall next be brought into contact with the previously energized part using insulating handles or other suitable devices and securely clamped or otherwise secured thereto. Where bundled conductor lines are being grounded, grounding of each subconductor should be made. Only then may the employee come within the distances from the previously energized parts specified in Rule 441A or proceed to work upon the parts as upon a grounded part.

B. Removing Grounds

The employee shall first remove the grounding devices from the de-energized parts using insulating handles or other suitable devices.

Extreme caution shall be exercised that the proper sequence of installing or removing grounds is followed. The connection to the effective ground shall not be removed first. If done, electric shock and injury may result.

446. Live Work

All employees using live work practices shall observe the following rules in addition to applicable rules contained elsewhere in Sections 42 and 44.

The distances specified in Tables 441-1, 441-2, 441-3, or 441-4 shall be maintained from all grounded objects and from other conductors, lines, and equipment having a potential different from that to which conductive equipment and devices are bonded in order to maintain the equipotentially energized work environment in an isolated state.

A. Training

Employees shall be trained in live work practices, which include rubber glove, hot stick, or bare-hand method, before being permitted to use these techniques on energized lines.