

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

INTER-COUNTY COOPERATIVE)	
CORPORATION)	
_____)	
ALLEGED FAILURE TO COMPLY)	CASE NO. 2017-00065
WITH KRS 278.042)	

ORDER

Inter-County Cooperative Corporation (“Inter-County”) is a corporation organized under KRS Chapter 279 and engaged in the distribution of electricity for compensation for lights, heat, power, and other uses. It is subject to the jurisdiction of the Commission under KRS 279.210(1) and KRS 278.010(3)(a) and (10). Pursuant to KRS 278.042, the Commission shall prescribe the service adequacy and safety standards for electric utilities, as stated in the Commission’s administrative regulations and orders, and in the most recent edition of the National Electrical Safety Code (“NESC”). Under 807 KAR 5:041, Section 3(1), the Commission requires utilities to construct and maintain plants and facilities in accordance with engineering practices set forth in the NESC.

Commission Staff submitted to the Commission an Accident Investigation Staff Report (“Staff Report”) dated December 9, 2015, attached hereto as an Appendix. The Report alleges that in the early morning of November 23, 2015, Colby Grider, a maintenance technician with Inter-County, sustained injuries as a result of either directly or indirectly coming into contact with an energized primary conductor. At the time of the incident, Mr. Grider was responding to an outage on Betsy Riffe Ridge Road just off of

KY 127 north of Liberty, Kentucky, in Casey County. Mr. Grider was by himself and was in the process of evaluating the outage situation in a cornfield on the south side of Patsy Riffe Ridge Road. Mr. Grider contacted another Inter-County employee, Bo McGuffey, to assist with the outage. As Mr. McGuffey was en route to the outage site, Mr. Grider contacted Mr. McGuffey informing him that he had made contact with a primary conductor (7,200 volts) while walking in the cornfield. It appears that Mr. Grider walked into an energized primary conductor that was either lying on the ground or suspended in the cornstalks. The primary conductor was in the first span behind a single-phase recloser that did not lock out when the conductor failed, which caused the conductor to remain energized. After Mr. McGuffey arrived at the accident scene, he was able to locate Mr. Grider and called emergency services. Mr. Grider sustained numerous burns over his body, including a significant burn injury to his right hand. Mr. Grider was eventually transported to Ephraim McDowell Regional Medical Center in Danville, Kentucky.

The Staff Report alleges that the energized conductor did not meet the vertical clearance requirements for above-ground energized conductors. The Staff Report also indicates that Mr. Grider was in violation of the minimum approach distance requirement to an energized conductor and that he failed to be equipped with personal protective equipment. As noted in the Staff Report, Inter-County provides all employees that work in the vicinity of energized conductors or equipment with a personal voltage detector. Mr. Grider did not have this device with him at the time of the incident, which could have alerted him of the existence of the energized conductor.

Based on its review of the Staff Report and being otherwise sufficiently advised, the Commission finds that *prima facie* evidence exists that Inter-County has failed to comply with KRS 278.042, the 2012 edition of the National Electrical Safety Code (“NESC”), and the Inter-County Safety Manual. Specifically, the Commission finds that Inter-County has violated the following provisions of the 2012 NESC and the Inter-County Safety Manual:

1. NESC Part 4, Section 42, Rule 420.C.4 – Work Rules for the Operation of Electric Supply and Communications Lines and Equipment – General Rules for Employees – Safeguarding Oneself and Others: 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.

2. NESC Part 4, Section 42, Rule 420.H – Work Rules for the Operation of Electric Supply and Communications Lines and Equipment – General Rules for Employees – 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.

3. NESC Part 4, Section 44, Rule 441.A.1 – Work Rules – Additional Rules for Supply Employees – Energized Conductors and Parts – Minimum Approach Distance to Energized Lines or Parts: Employees shall not approach or bring conductive objects within the minimum approach distance listed in Table 441-1 or Table 441-4...

Table 441-1 AC Live Work Minimum Approach Distance

7.2 kV-(Working Voltage)
0.750 Volts to 15 kV – Phase to Ground: 2’2”

4. NESC Part 2, Section 23, Table 232-1 – Safety Rules for the Installation and Maintenance of Overhead Electric and Communication Lines – Clearances – Vertical Clearance of Wires, Conductors, Cables, and Equipment Above Ground, Roadways, Rail, or Water Surfaces: Open supply conductors, over 750 Volts to 22 KV: 18.5’.

5. Inter-County Safety Manual Section 1.102.b – General Rules – Employees Responsibility for Safety: Before starting a job, employees shall thoroughly understand the work to be done, their part in the work, and the safety rules that apply.

6. Inter-County Safety Manual Section 5.507.1(f) – Electric Utility Operations – Overhead Distribution and Transmission – Working on or Near Exposed Energized Lines and Equipment: No employee may approach or take any conductive objective without an insulating handle closer to exposed energized parts (sic) than the minimum approach distances set forth in Table 6.1 through 6.5 unless the employee is insulated from the energized part or the energized part is insulated from the employee and any other conductive object at a different potential, or the employee is insulated from any other conductive object, as during live-line bare-hand work.

Table 5.2 AC Live-Line Work Minimum Approach Distance

7.2kV-(Working Voltage)
0.750 Volts to 15 kV – Phase to Ground: 2’2”

The Commission further finds that a formal investigation into the incident that is the subject matter of the Staff Report should be conducted and that this investigation should also examine the adequacy, safety, and reasonableness of Inter-County’s practices related to the construction, installation, and repair of electric facilities.

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

1. Inter-County shall submit to the Commission a written response to the allegations contained in the Staff Report within 20 days of the date of this Order.

2. Inter-County shall appear on June 6, 2017, at 9 a.m., Eastern Daylight Time, in Hearing Room 1 of the Commission's offices at 211 Sower Boulevard in Frankfort, Kentucky, for the purpose of presenting evidence concerning the alleged violations of KRS 278.042, the 2012 edition of the NESC, and the Inter-County Safety Manual, and showing cause why it should not be subject to the penalties prescribed in KRS 278.990(1) for these alleged violations.

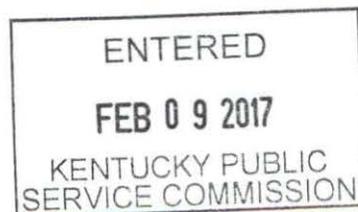
3. The June 6, 2017 hearing shall be recorded by videotape only.

4. The Staff Report in the Appendix to this Order is made a part of the record in this case.

5. At the scheduled hearing in this matter, Inter-County shall also present evidence on the adequacy, safety, and reasonableness of its practices related to the construction, installation, and repair of electric facilities as they relate to the facts of this case and whether such practices require revision as related to this incident.

6. Any requests for an informal conference with Commission Staff shall be set forth in writing and filed with the Commission within 20 days of the date of this Order.

By the Commission



ATTEST:


Executive Director

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN CASE NO. 2017-00065 DATED **FEB 09 2017**



Steven L. Beshear
Governor

David L. Armstrong
Chairman

Leonard K. Peters
Secretary
Energy and Environment Cabinet

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

James W. Gardner
Vice Chairman

Linda Breathitt
Commissioner

ACCIDENT INVESTIGATION STAFF REPORT

Report Date: December 9, 2015

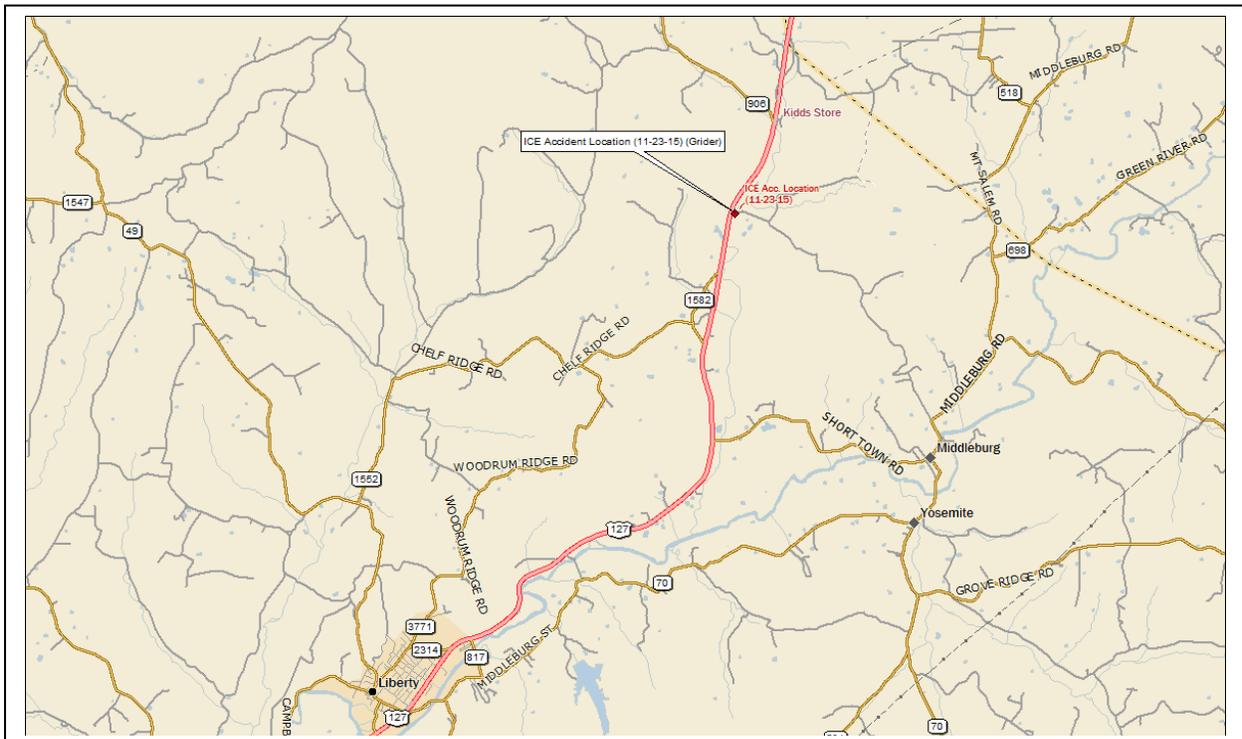
Accident Date: November 23, 2015

Serving Utility: Inter-County Energy Corporation

Accident Location: Riffe Ridge Road, Casey County

Accident Victim: Colby Grider

PSC Investigator: Steve Kingsolver





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Daniel E. Logsdon Jr.
Vice Chairman

Electric Utility Employee Injury Accident Report

Utility: Inter-County Energy Corporation (ICE)

Reported By: Charlie Lewis
Safety/Loss Control Coordinator, ICE

Incident Occurred: Approximately 12:03 AM, November 23, 2015

Utility Discovered: Approximately 12:03 AM, November 23, 2015

PSC Notified: Approximately 1:44 AM (ET), November 23, 2015
(Voice Message to Jeff Moore's Cell Phone)

Summary Report Received: November 24, 2015 (See Attachment A)

PSC On-Site Investigation: Approximately 12:00, November 24, 2015

Incident Description:

On Monday, November 23, 2015 I received a call from Charlie Lewis, Safety and Loss Control Coordinator, with Inter-County Energy (ICE). He wanted to discuss the accident that took place on their system at approximately 12:03 AM on Monday, November 23, 2015 involving an employee, Colby Grider, a lineman for ICE. The victim, Colby Grider, is approximately 30 years old with approximately 8 years' service with ICE. The victim was responding to an outage on Betsy Riffe Ridge Road just off of Ky. 127 north of Liberty, Kentucky in Casey County. At the time of this accident, the victim was in the process of evaluating the outage situation in a corn field on the south side of Patsy Riffe Ridge Road. At the time of this accident the victim was working alone. The situation that the victim walked into was an energized primary conductor either laying on the ground or suspended in the corn. The conductor (Copper 6-A) was in the first span behind a single phase recloser that did not lock out when the conductor failed. The

victim made contact with either the energized conductor or a corn stalk that had been energized by the failed conductor. The victim had numerous burns on his body but the major burn was on his right hand. Before the accident, the victim had contacted another ICE employee, Bo McGuffey, to assist with the outage. McGuffey was on his way to the outage location when the victim called and told him that he had made contact with primary voltage (7200 volts) while walking on the ground. McGuffey got to the accident location and located the victim. McGuffey called 911 and the victim was transported by ambulance to Ephraim McDowell Medical Center in Danville, Kentucky. At the time of this accident the failed energized copper conductor did not meet the requirement of the National Electrical Safety Code (NESC) for vertical clearance of energized conductors above ground. The victim did not meet the requirement of the NESC and ICE Safety Manual concerning minimum approach distance (MAD) to an energized conductor without proper personal protection equipment (PPE). ICE provides all employees that work in the vicinity of energized conductors or equipment with a personal voltage detector. These devices will alert employees when approaching something that that is energized. The victim did not have his personal voltage detector with him at the time of this accident. This is a perfect example of where the personal voltage detector would be useful and could have warned the victim of the primary voltage that he was approaching. At the time of this accident the victim was working alone, in the dark with a light on his hard hat and in a cornfield with corn over his head.

Victim:	Name:	Position:	Employer:
	Colby Grider	Apprentice Lineman	ICE

Witnesses:	Name:	Position	Employer:
	None		

NOTE: Employee statements from the first two ICE employees on the site of the accident and the victim are part of the additional information from ICE. (See Attachment B)

Information From:	Name:	Position:	Employer:
	Charlie Lewis	Safety/Loss Control Coordinator	ICE
	David Phelps	VP of Engineering and Operations	ICE
	Clayton Watts	Maintenance Supervisor	ICE
	David Turner	Crew Leader	ICE
	Bo McGuffey	Lineman, Maintenance Tech	ICE
	Clarence Greene	Safety Coordinator	KAEC
		(Kentucky Association of Electric Cooperatives)	

Temp & Weather: Clear and Cold, Approximately 23°

FINDINGS:

It is the investigator's opinion that the ICE employee involved in this accident did not meet the following requirements set forth in the National Electrical Safety Code (NESC), ICE's Safety Manual. The ICE facilities involved in this accident did not meet the requirements of the NESC.

RELEVANT CODES, STATUTES, REGULATIONS, OR SAFETY MANUAL ISSUES THAT ARE PERTINENT TO THE INVESTIGATION

278.042 Service adequacy and safety standards for electric utilities
National Electrical Safety Code

- (1) For the purposes of this section, "NESC" means the National Electrical Safety Code as published by the Institute of Electrical and Electronics Engineers, Inc.
- (2) Except as otherwise provided by law, the commission shall, in enforcing service adequacy and safety standards for electric utilities, ensure that each electric utility constructs and maintains its plant and facilities in accordance with accepted engineering practices as set forth in the commission's administrative regulations and orders and in the most recent edition of the NESC.

Effective: June 24, 2003

History: Created 2003 Ky. Acts Ch. 84, sec. 1, Effective June 24, 2003.

2012 National Electric Safety Code:
See 2012 NESC Code to view each rule in its entirety.

#1: National Electrical Safety Code (P-269)

Part 4: Work Rules for the Operation of Electric Supply and Communications
Lines and Equipment

Section 42: General rules for employees

420: General

C. Safeguarding Oneself and Others

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.

#2:

National Electrical Safety Code (P-270)

Part 4: Work Rules for the Operation of Electric Supply and Communications Lines and Equipment

Section 42: General rules for employees

420: General

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.

#3:

National Electrical Safety Code (P-280)

Part4: Work Rules

Section 44: Additional rules for supply employees

441: Energized conductors and parts

A: Minimum approach distance to energized lines or parts

1: General

Employees shall not approach or bring conductive objects within the minimum approach distance listed in Table 441-1 or Table 441-4 or distances as determined by an engineering analysis to exposed parts unless one of the following is met:
(P-280 for complete rule)

Table 441-1 AC live work minimum approach distance

7.2kV-(Working Voltage)

0.750 Volts to 15 kV – Phase to Ground: 2' 2"

(See the NESC for Table 441-1 in its entirety.) (P-284)

#4:

National Electrical Safety Code (P-91)

Part 2: Safety Rules for the Installation and Maintenance of Overhead Electric and Communication Lines

Section 23: Clearances

#232: Vertical clearance of wires, conductors, cables, and equipment above ground, roadways, rail, or water surfaces

Table 232-1: Vertical clearance of wires, conductors, and cables above ground, roadways, rail, or water surfaces

Section 4: Other areas traversed by vehicles, such as cultivated, grazing, forest, and orchard lands, industrial sites, commercial sites, etc.

Section: Open supply conductors, over 750V to 22kV: - 18.5'

(See the NESC for Table 232-1 in its entirety.) (P-98)

807 KAR 5:006. General rules.

RELATES TO: KRS 65.810, 74, 96.934, 220.510, 278, 49 C.F.R. Part 192, 49 U.S.C. 60105

STATUTORY AUTHORITY: KRS 278.230, 278.280(2), 49 C.F.R. 192

NECESSITY, FUNCTION, AND CONFORMITY: KRS 278.230(3) requires every utility to file with the commission reports, schedules, and other information that the commission requires. KRS 278.280(2) requires the commission to promulgate an administrative regulation for the performance of a service or the furnishing of a commodity by a utility. This administrative regulation establishes requirements that apply to electric, gas, water, sewage, and telephone utilities.

807 KAR 5:006 General Rules**Section 25: Safety Program**

Section 25: Safety Program: Each utility shall adopt and execute a safety program, appropriate to the size and type of its operations. At a minimum, the safety program shall:

- (1) Establish a safety manual with written guidelines for safe working practices and procedures to be followed by utility employees.
- (2) Instruct employees in safe methods of performing their work. For electric utilities, this is to include the standards established in 807 KAR 5:041, Section 3.
- (3) Instruct employees who, in the course of their work, are subject to the hazard of electrical shock, asphyxiation or drowning, in accepted methods of artificial respiration.

ICE Safety Manual: (APPA Safety Manual, 14th Edition with addendums)

(November 23, 2015 Accident) (Victim: Grider)

(See ICE Safety Manual to view each rule in its entirety.)

#1: ICE Safety Manual: (P-24)

Section 1: General Rules

102: Employees Responsibility for Safety

102 b: Before starting a job, employees shall thoroughly understand the work to be done, their part in the work, and the safety rules that apply.

#2: ICE Safety Manual: (P-137)

Section 5: Electric Utility Operations

507: Overhead Distribution and Transmission

507.1: Working On or Near Exposed Energized Lines and Equipment

f) No employee may approach or take any conductive object without an insulating handle closer to exposed energized parts than the minimum approach distances set forth in Table 6.1 through 6.5 unless the employee is insulated from the energized part or the energized part is insulated from the employee and any other conductive object at

a different potential, or the employee is insulated from any other conductive object, as during live-line bare-hand work.

Table 5.2 AC Live-Line Work Minimum Approach Distance

7.2kV-(Working Voltage)

0.750 Volts to 15 kV – Phase to Ground: 2' 2"

(See the ICE Safety Manual for Table 5.2 in its entirety.) (P-138)

Investigated By:	Name:	Company:
	Steve Kingsolver	KPSC

Signed:



Date:

12-9-15

Attachments:

- A. ICE Summary Report
- B. ICE Additional Information
- C. KPSC Photographs of Accident Site
- D. KPSC Map of Accident Site
- E. Accident Notification Information

Attachment A

ICE Summary Report

RSK
RECEIVED 11-24-15
AT INVESTIGATION.



November 23, 2015

Mr. Steve Kingsolver
Commonwealth of Kentucky
Kentucky Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602-0615

RE: EMPLOYEE COLBY GRIDER INJURY ACCIDENT 11/23/15

Dear Mr. Kingsolver,

Please allow this document to serve as the 7-day summary report as required by 807 KAR 5:006 26-2.

SUMMARY OF THE ACCIDENT

Shortly before 12:15 AM on Monday, November 23, 2015, Colby Grider (Maintenance Technician) was reporting to an outage on Patsy Riffe Ridge Road in Casey County. On his way to the outage, he called Bo McGuffey (Maintenance Technician) to come assist. Upon arriving at the scene, Colby parked his truck and began walking into an uncut corn field to walk to the pole where the OCR was located to check to see if it was open or closed. While walking through the field, he made contact with primary voltage. It is not known if the burn was from the primary phase conductor or corn stalks that were energized due to the line being down laying in the corn.

He suffered numerous burns on his body. The primary burn location is located on his right hand between the thumb and index finger. He suffered smaller burns on his left shoulder, left forearm, left hand, chin and both knees.

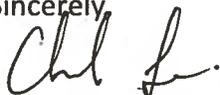
He contacted Bo McGuffey while Bo was on his way to the scene to inform him that he had been burned. Bo called 911 and assisted Colby upon arriving at the scene. Colby was transported by ambulance and admitted to Ephraim McDowell Regional Medical Center in Danville.

Included in this letter is the following:

- Memory Stick containing pictures of the accident scene at night, during the day and of the injuries.
- Copy of the accident report.

If you have any questions concerning this matter, please give me a call on my cell phone at (859) 319-5559 or directly to my desk at (859) 936-7858.

Sincerely,

A handwritten signature in black ink, appearing to read "Chl Lewis".

Charlie Lewis

Safety/Loss Control Coordinator

KSK
RECEIVED
11-24-15
AT INVESTIGATION

Inter-County Energy

Document # _____

Initial employee injury/illness report form

Date of Accident 11/23/15 Time of Day 12:15 AM PM
 Date Injury Reported 11/23/15 OSHA Recordable Yes No
 Injury Illness Property Damage Yes No Vehicle involved

Employee Information

Male Female _____ Age 30 Social Security # N/A
 Employee address 1100 Old Liberty Loop #5
Hustanville, KY 40437
 Date of birth 10/3/85 Employee phone # (859) 583-9514

Employment Category - Length of employment - Time in occupation

<input checked="" type="checkbox"/> Regular	<input type="checkbox"/> 6 Months	<input checked="" type="checkbox"/> 5-10 Yr.. (8 years)	<input type="checkbox"/> 6 Months	<input type="checkbox"/> 5-10 Yr..
<input type="checkbox"/> Part time	<input type="checkbox"/> 6 M-1Yr.	<input type="checkbox"/> 10-20 Yr..	<input type="checkbox"/> 6 M-1Yr.	<input type="checkbox"/> 10-20 Yr..
<input type="checkbox"/> Temporary	<input type="checkbox"/> 1-3 Yr.	<input type="checkbox"/> 20 Yr..	<input checked="" type="checkbox"/> 1-3 Yr..	<input type="checkbox"/> 20-Yrs.
<input type="checkbox"/> Non-employee	<input type="checkbox"/> 3-5 Yr..		<input type="checkbox"/> 3-5 Yr..	

Accident address Patsy Riffe Ridge Road - Casey County

County Casey Map # _____

Description of location
Field on right side of road just after turning onto Patsy Riffe Ridge
Road from Hwy 127 South. OCR is located just after going across bridge
on right. Field full of uncut corn. OCR sits on pole in corn field.
Pole is a 35 foot class 5 A-6.

Describe accident
Colby Grider was responding to a call that we had customers out
at Patsy Riffe Ridge. On his way to the call, he called Bo McGulley
to come help him. As Bo was on his way down to the location -
he had gone to the office to pick up his truck - he got a call
from Colby and he was very disoriented. He wasn't aware of his location.

Bo stated that he told Colby he didn't sound well - and Colby informed him that he had been burned. Colby stated that when he arrived - he noticed low wires from an A-1 which may indicate that wire was down on the other side and it had run through the tie on the insulator. Colby was walking through the corn towards the OCR to see if it was still closed in. While walking towards the wire, he walked into the phase hanging down energized. He had his LED light on his hard hat. He didn't know if he lost consciousness or not.

Bo stayed on phone with Colby until he could locate him in the field. He called 911 and the Casey County EMS transported him to Ephraim McDowell.

Describe Injury/Illness

Colby suffered a large entry burn to his right hand, between his thumb and index finger. He had multiple other burns on his body that were much smaller. Two on his left hand, one on his left forearm, one on his left shoulder, multiple small burns on both knees.

The only "significant" burn was located on his right hand.

Severity of Injury/Illness

- First Aid
- Medical care
- Lost time - Restricted
- Lost time
- Total number of days lost _____
- Date 1st day off _____
- Date returned _____
- Fatality date _____

Accident occurred during

- Normal work activities
- Meal period
- Entering / Leaving work place
- Chronic exposure

Immediate supervisor name

Clayton Wells

Witness name # 1

none - help on the way - Bo McGintley

Witness name # 2

Witness name # 3

Witness was working

- Alone
- With crew
- Other
- Crew size _____
- Comment: _____

Supervision

- Directly supervised
- Indirectly supervised
- Not supervised
- Supervision not feasible

Hospital Information

Name of hospital Ephraim McDowell Regional Medical Center
Hospital address 217 South 3rd St.
Danville, KY 40422
Hospital phone # (859) 239-1000

Notes:

- * 12 feet from pole to burn mark on the ground furthest from pole.
- * 38 ft from pole to sleeve in phase - measured after wire put up the next morning.
- * Pole is a 35-class 5 A-6 (double dead end)
- * Clearances of conductor after wire put back up:
 - 24 ft 10.5 inches to primary neutral
 - 28 ft 9 inches to primary phase
- * OCR counter 287 - was 280 when hung on May 19, 2014.
50 "H" type recloser



















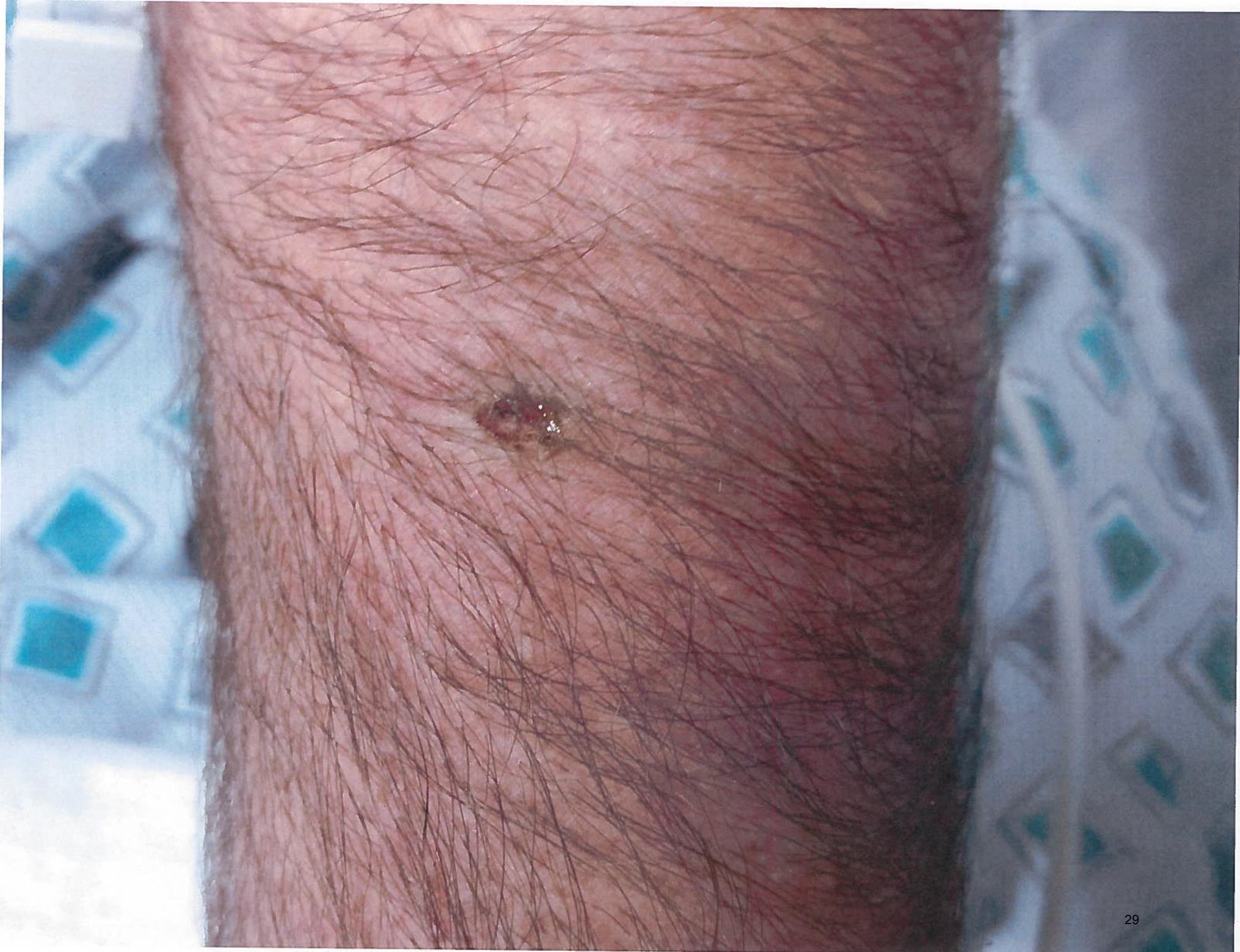






























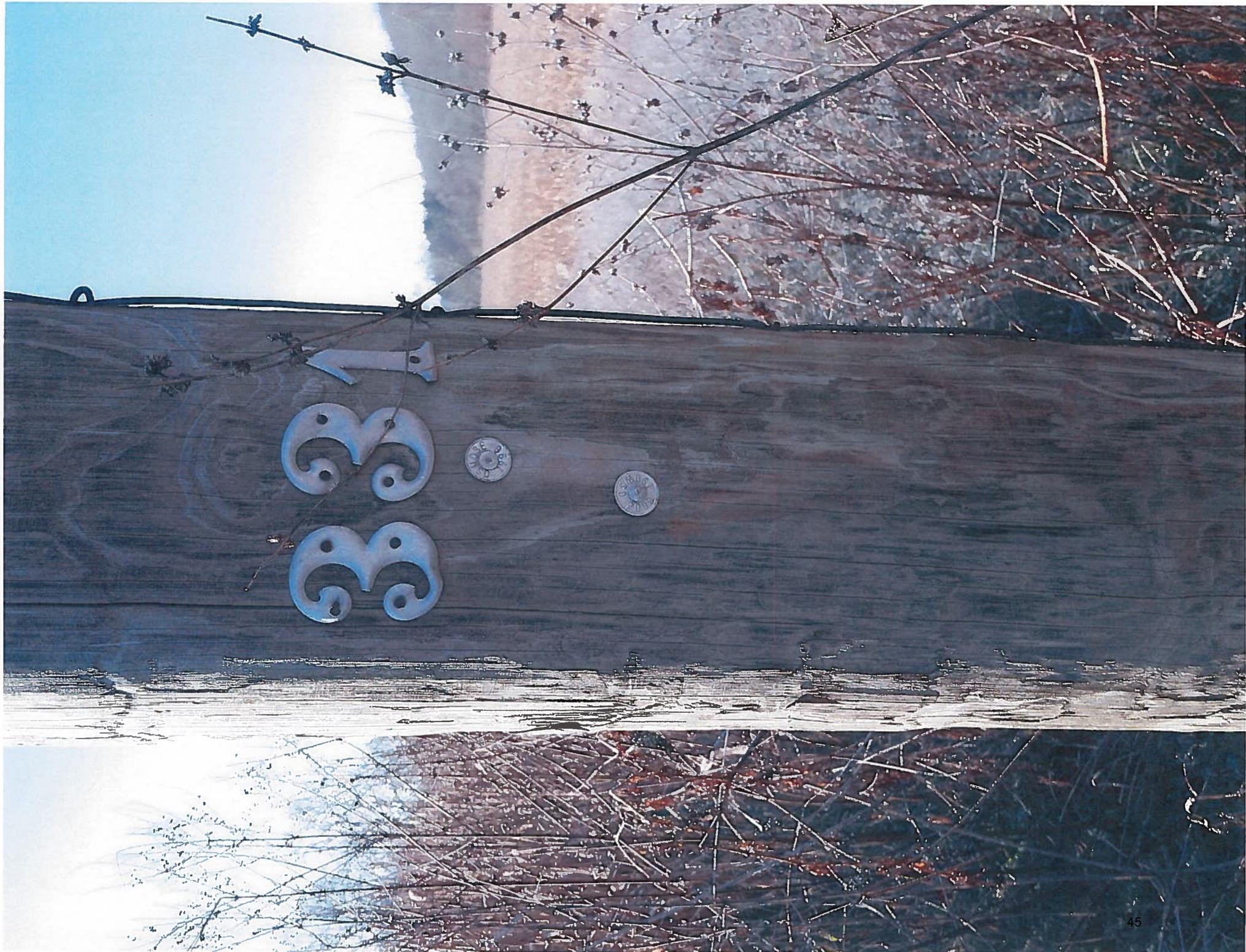














IC

Tropics
Block



















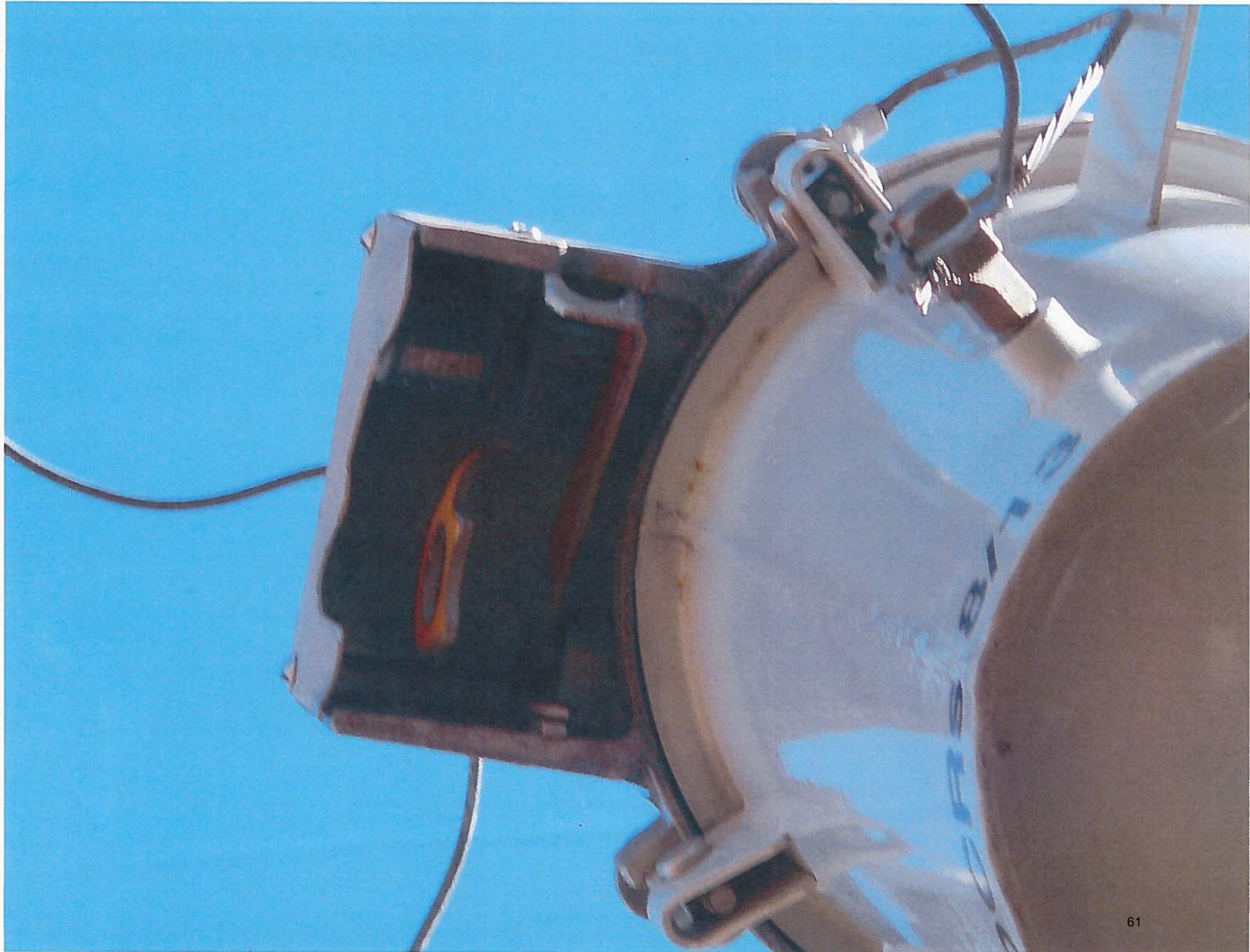


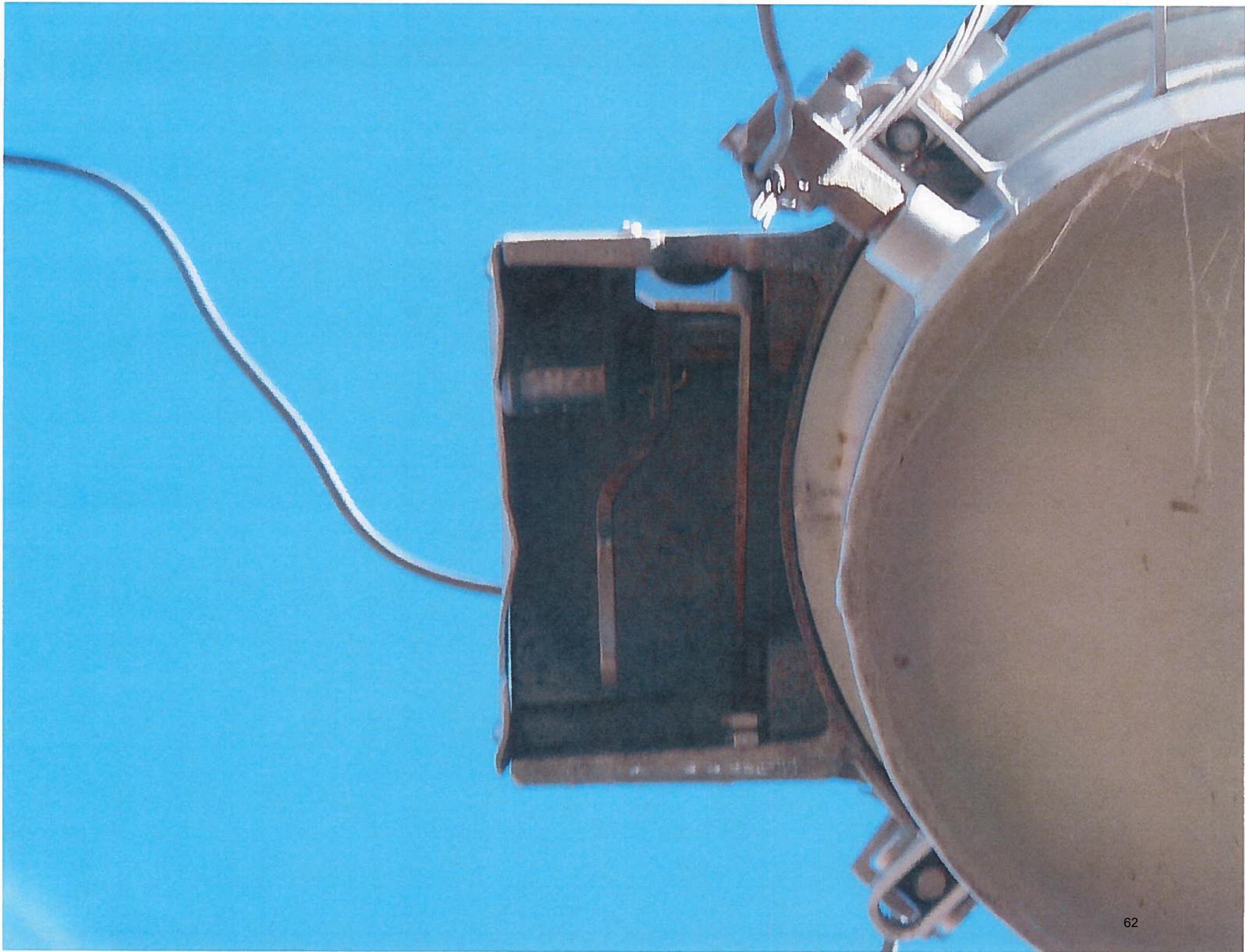


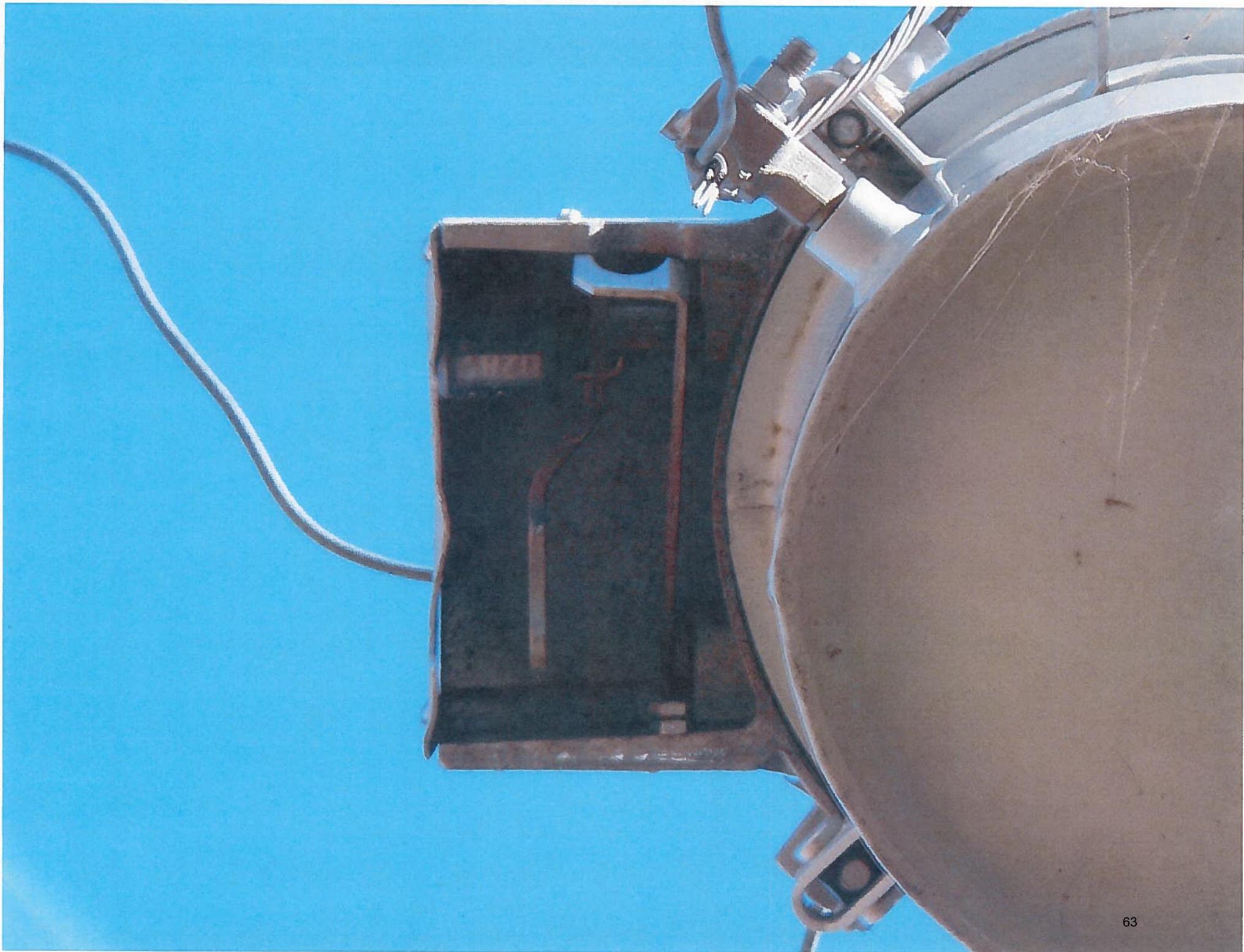


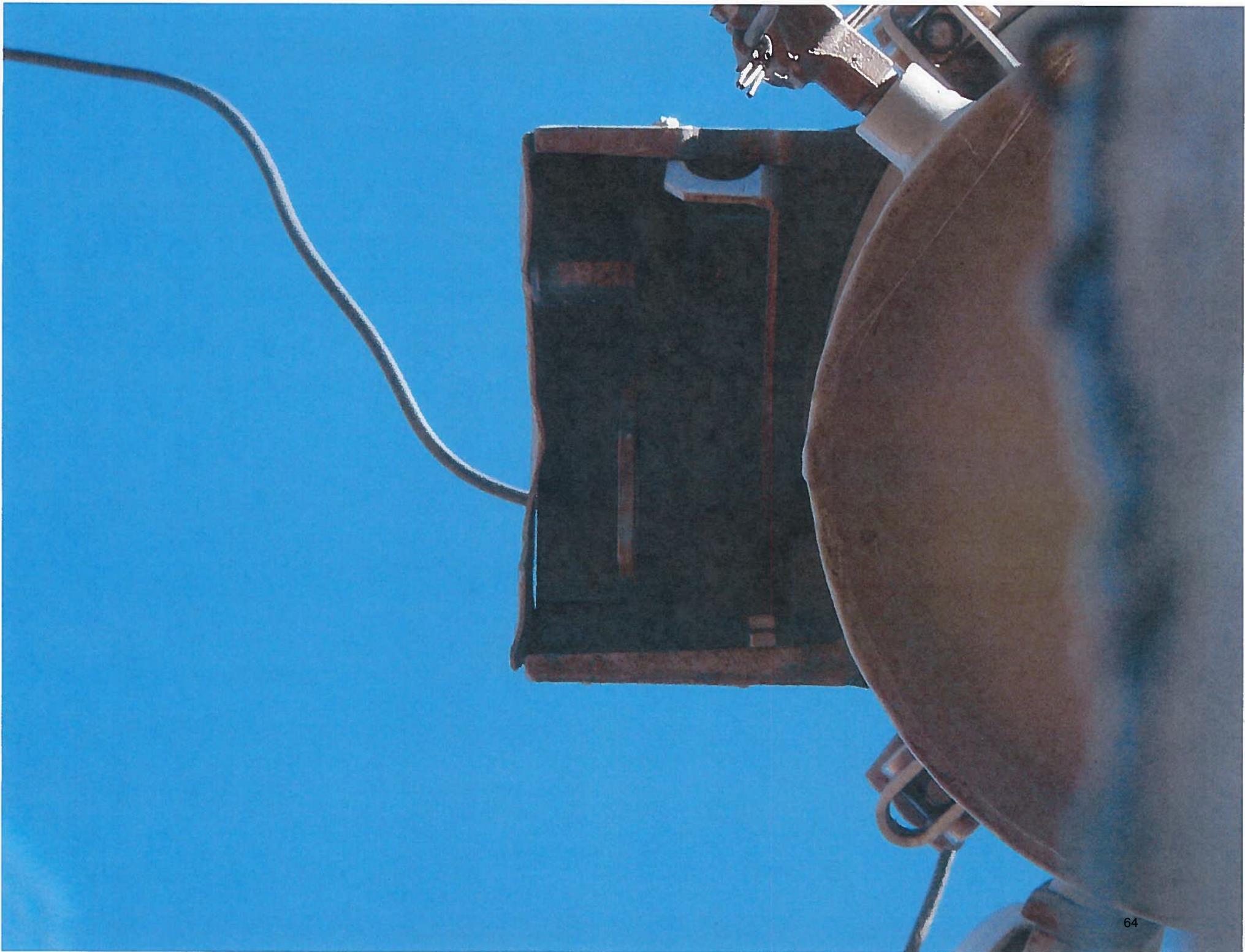


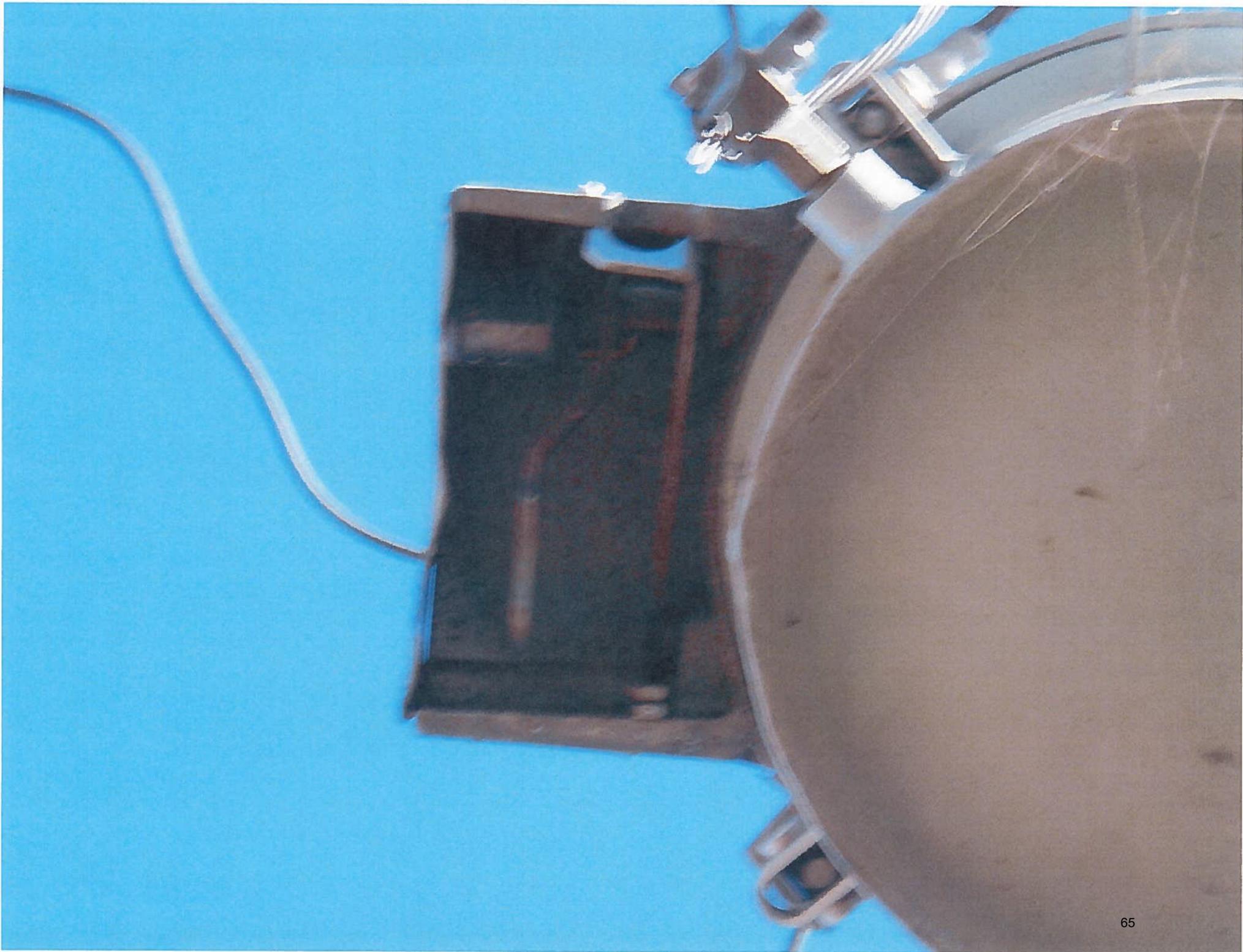










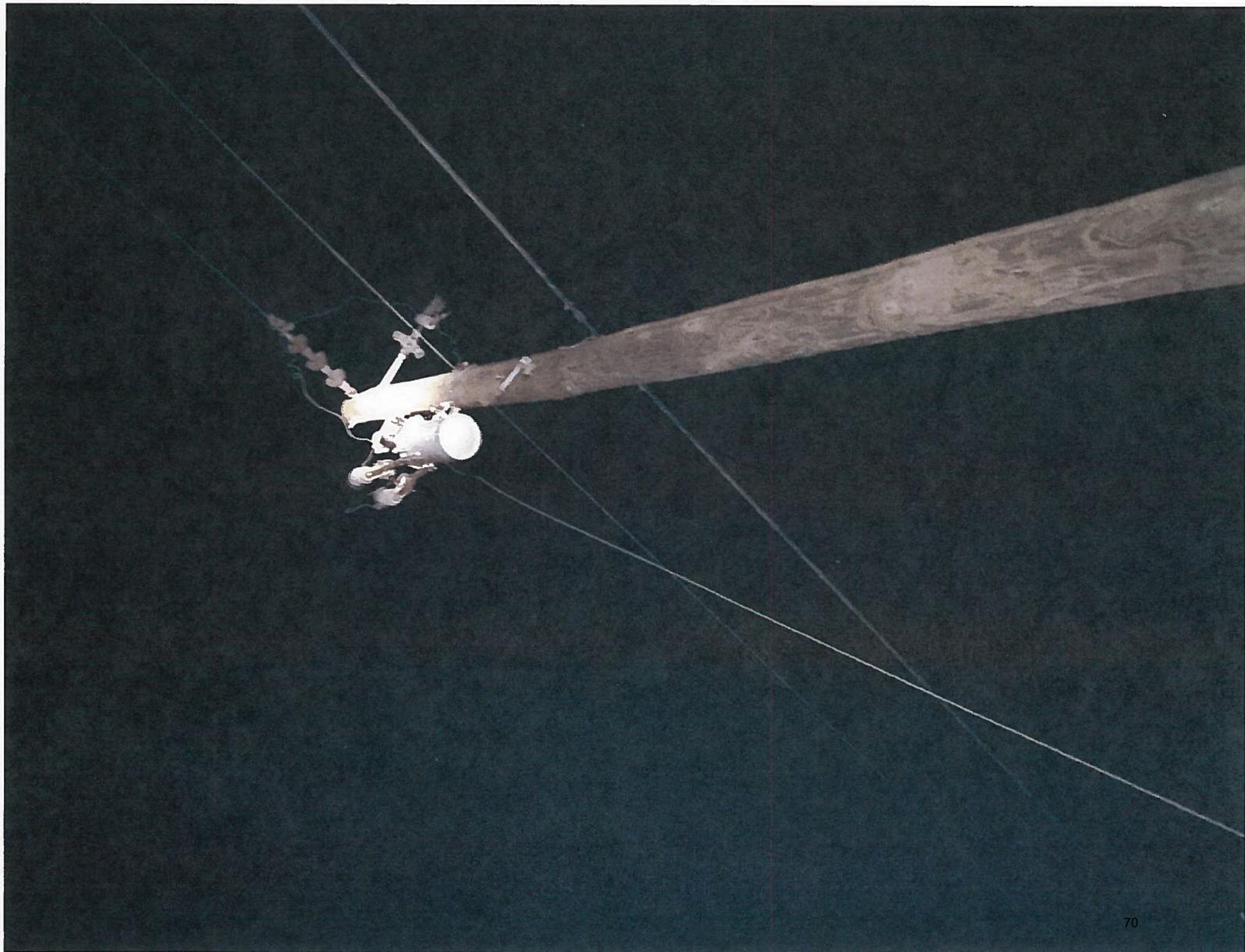


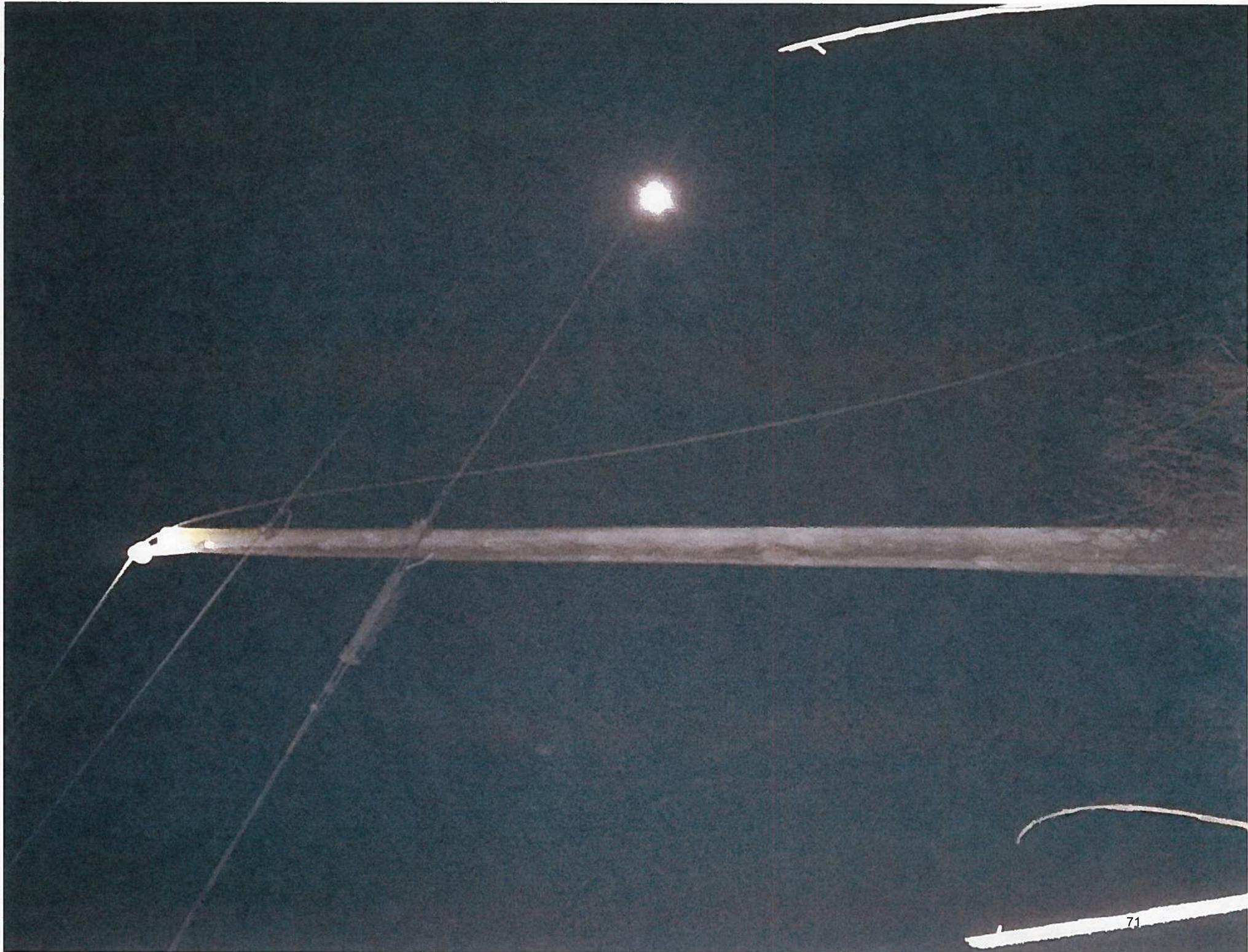
























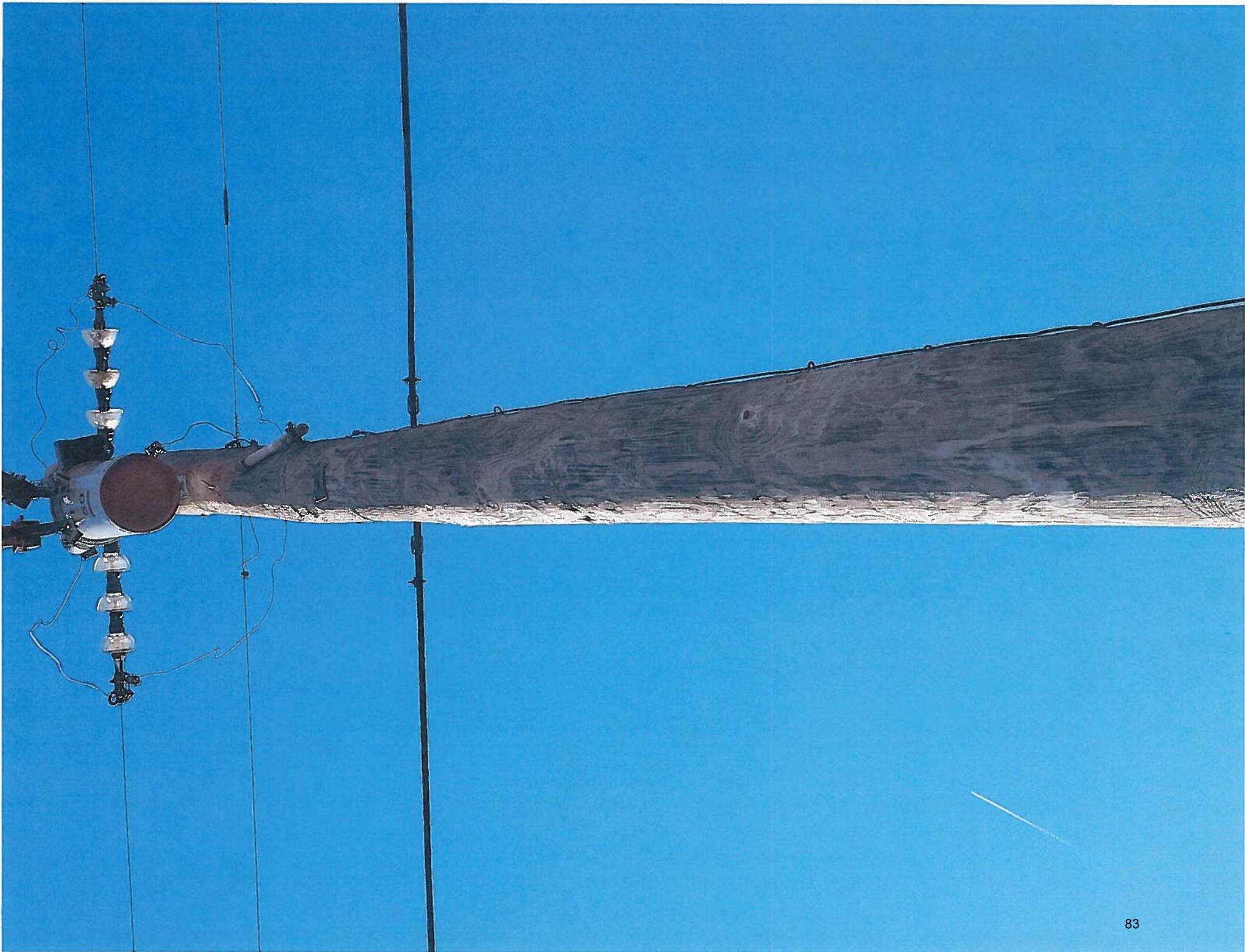












Attachment B

ICE Additional Information

The requested information shall be made part of the 7-day summary report as required by 807 KAR 5:006 Section 26-2. This document is a request for the information listed below.

ACCIDENT DATE: 11-23-15

ACCIDENT LOCATION: CASEY COUNTY

ACCIDENT VICTIM(S): COLBY CRIDER

REQUESTED INFORMATION:

Attachment #

- 7-DAY SUMMARY REPORT UTILTY ACCIDENT REPORT. - given to Steve on 11/24
- UTILITY PHOTOGRAPHS OF ACCIDENT SITE. - given to Steve on 11/24
- LAST SYSTEM INSPECTION ON FACILITIES INVOLVED.
- COPY OF POLICE REPORT (IF INVOLVED)
- #1 FACILITY MAP OF AREA INVOLVED.
- ANY RECENT WORK PREFORMED ON FACILITIES INVOLVED.
- MAINTENANCE RECORDS ON FAILED OR AFFECTED EQUIPMENT.
- ANY RECENT CUSTOMER CONTACT AT LOCATION BEFORE ACCIDENT.
- #2 COPY OF OUTAGE REPORTS ON FACILITIES INVOLVED.
- COPY OF JOB BREIFING BEFORE WORK BEGAN AT THE ACCIDENT.
- #3 SYSTEM PROTECTIVE DEVICES: RATINGS AND IF OPERATED
- CONSTRUCTION DATES OF INVOLVED FACILITIES
- #4 2 Yr SYSTEM Insp. Documents MOST RECENT.
- #5 Policy # 315 Safety and Occupational Health
- #6 Witness Statements
- #7 14th Edition of APPA Safety Manual

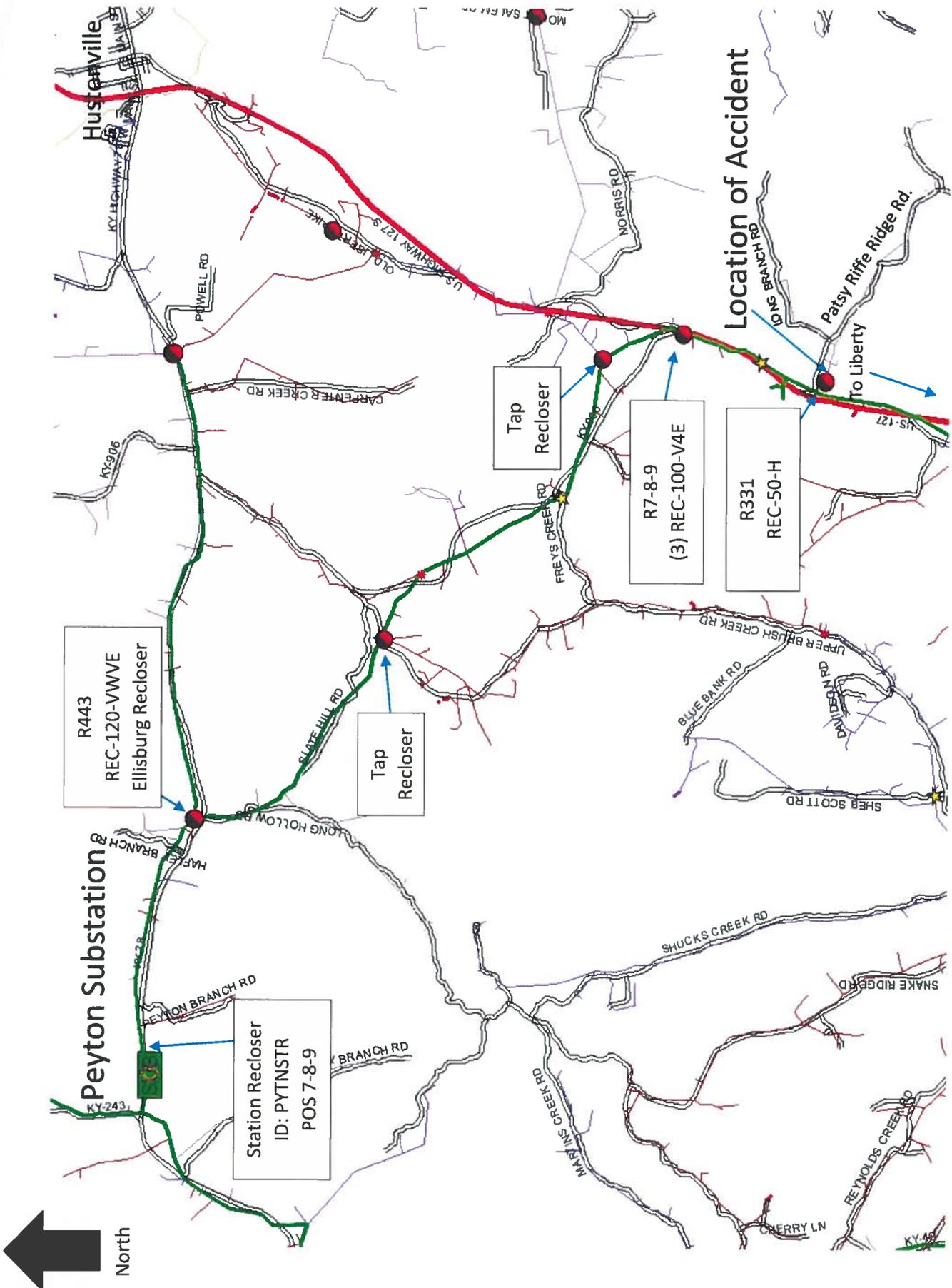
PSC ACCIDENT INVESTIGATOR: S. Kingsolver

SIGNATURE: S. Kingsolver DATE: 11-24-15

UTILITY COMPANY INVESTIGATOR: _____

SIGNATURE: Chad E. [Signature] DATE: 11/24/15

Attachment # 1
Facilities Map



INTER COUNTY
ENERGY COOPERATIVE
DANVILLE, KY
OUTAGE REPORT

DATE: 11/22/15

H: Employee Signature *[Signature]*

COPY

CONSUMER NAME James Maynard
ADDRESS 2119 Patsy Riffe Rd
F: ACCOUNT NO 226-82-007

A: OUTAGE REPORTED 10:40 ~~AM~~ PM
B: ARRIVED AT SITE 11:15 AM
C: SERVICE RESTORED 4:00 AM

FIELD DATA Meter # 113400

LINE DE-ENERGIZED AT

POLE#	SECTIONALIZING DEVICE# <u>OCR 331</u>	TRANSFORMER# <u>225-28-16</u>	MEMBER SEP# <u>79932-001</u>	OTHER - INDICATE UNDER REMARKS
-------	--	----------------------------------	---------------------------------	--------------------------------

TYPE OF FAULT-Check one of the following

N 1: Transmission	2: Substation	3: Primary Line <input checked="" type="checkbox"/>	4: Dist. Xfmer	5: Secondary/Service	6: Consumer Equip.				
-------------------	---------------	---	----------------	----------------------	--------------------	--	--	--	--

FAULT ISOLATED BY-Check one of the following

O 1: Transmission Equip.	2: Substation Fuse	3: Substation Breaker	4: Primary Line Fuse	5: Primary Line Recloser
6: Primary Line Sectionalizer	7: Transformer Fuse	8: Transformer Breaker	9: Conductor Break <input checked="" type="checkbox"/>	10: Loose Connection or Unknown

CAUSE OF OUTAGE-check one in each line where applicable

P WEATHER	1: Weather Related <input checked="" type="checkbox"/>	2: NOT Weather Related							
Q WEATHER CAUSE	1: Lightning	2: High Wind/Tornado	3: Rain/Flood	4: Ice/Snow Loading	5: Freezing Temps <input checked="" type="checkbox"/>	6: OTHER			
R PLANNED FOR	1: Transformer Replacement	2: Pole Replacement	3: Line Conversions	4: Substation Maintenance	5: Line Equip. Maintenance	6: Line Test & Metering	7: OTHER		
S VEGETATION	1: Trees/ Natural Causes	2: Vines	3: OTHER						
U CAUSED BY ANIMALS	1: Cattle	2: Birds/Squirrels	3: Horses	4: Other Wildlife	5: OTHER				
V EQUIPMENT	1: Equip. Failure	2: Deteriorated Installation	3: Insulation Broke	4: Equipment Overload					
W PUBLIC	1: Trees Cut into Line	2: Cars/ Tractors	3: Antenna in Line	4: Sabotage					
X Inter-Co PRACTICES	1: Faulty Construction	2: Operating Error ICE Employee	3: Operating Error ICE Contractor	4: Faulting Line Design	5: OTHER				
Y UNKNOWN	1: Unknown								

EQUIPMENT FAILURE-check one in each line where applicable

Y TYPE EQUIP.	1: Substation Equip.	2: Conductor	3: Line Clamps	4: Pole	5: Transformer	6: Recloser	7: Sectionalizer	8: Insulator	
Z CAUSE OF FAILURE	1: Faulty Equip. Design	2: Deprecation	3: Faulty Installation	4: Damage by Others	5: Overload	6: Weather	7: Loose Connection	8: Insufficient Maintenance	

OFFICE DATA

District	Substation Name <u>Pepton Store</u>	Circuit Name <u>Hustonsville/Liberty</u>	Line Section # where Line De-Energized
# Consumers Interrupted <u>26</u>	Duration Outage Minutes	Consumer Hours	KVA-Interrupted

REMARKS Two spans of wire down, OCR # 331

Jennifer Turner

Colby Gridler

From: Davonne Elliott
Sent: Monday, November 23, 2015 4:47 PM
To: Jennifer Turner
Subject: FW: CRC Summary Outage Message -

Note: Pages 2 thru 17 are not relevant to the accident and were therefore omitted.

-----Original Message-----

From: mailbox@CRC.COOP [mailto:mailbox@CRC.COOP]
Sent: Monday, November 23, 2015 8:31 AM
To: Patricia Forster <patricia@intercountyenergy.net>; Jennifer Turner <jennifer@intercountyenergy.net>; Davonne Elliott <davonne@intercountyenergy.net>
Subject: CRC Summary Outage Message -

Summary- Inter County Energy-TN (6155) History
Time Zone: Eastern

11/23/15 7:30 AM Page -1 of 1

NAME: TUCKER MAURICE W LINE_SEC: 3650 Off Time: 11/20/15 10:13 AM
ACCOUNT: 39219001 PHONE: 6063657387 Call Time: 11/20/15 10:14 AM
SVC_ADDR: KY HIGHWAY 1770 4535 METER: 127116 Summary Time: 11/20/15 10:14 AM
LOCATION: 22735013

Disp Crew: CHASE GANDER Disp Time: 11/20/15 10:24 AM
Comment: Cause: SQUIRREL/REFUSED CUT OUT Power On Time: 11/20/15 11:20 AM
Addl Remarks: Outage Hrs: 1.12

NAME: TUCKER MAURICE W LINE_SEC: 3650 Off Time: 11/20/15 10:21 AM
ACCOUNT: 39219001 PHONE: 6063657387 Call Time: 11/20/15 10:22 AM
SVC_ADDR: KY HIGHWAY 1770 4535 METER: 127116 Summary Time: 11/20/15 10:22 AM
LOCATION: 22735013

Disp Crew: CHASE GANDER Disp Time: 11/20/15 10:24 AM
Comment: HE ALREADY CALLED BUT WANTED TO Cause: SQUIRREL/REFUSED CUT OUT Power On Time: 11/20/15 11:20 AM
MENTION SHE IS ON OXYGEN Addl Remarks: Outage Hrs: 0.98

NAME: DOOLIN LEONARD LEN LINE_SEC: 8058 Off Time: 11/20/15 5:52 PM
ACCOUNT: 109280001 PHONE: 8593390349 Call Time: 11/20/15 5:54 PM
SVC_ADDR: GAFFNEY RD 1238 CAMPER METER: 104740 Summary Time: 11/20/15 5:54 PM
LOCATION: 22242025

SVC_ADDR: MANSE RD BARN
LOCATION: 22224023

METER: 126134

Summary Time: 11/22/15 9:31 PM

Disp Crew: JOHN LAND

Disp Time:11/22/15 9:32 PM

Comment: MANSE RD 178--ALL OUT 20 MINS
10:40 PM

Cause: CUT OUT DOOR THAT WAS BURNT

Power On Time:11/22/15

UP= PUT FUSE BACK

Outage Hrs: 1.17

Addl Remarks:

Summary- Inter County Energy-TN (6155) History
Time Zone: Eastern

11/23/15 7:30 AM

Page -1 of 1

NAME: CHADWELL LARRY
ACCOUNT: 22924005
SVC_ADDR: MANSE RD 178
LOCATION: 22224028

LINE_SEC:
PHONE: 8599254221
METER: 108127

Off Time: 11/22/15 9:30 PM
Call Time: 11/22/15 9:31 PM
Summary Time: 11/22/15 9:31 PM

Disp Crew: JOHN LAND

Disp Time:11/22/15 9:32 PM

Comment: MANSE RD 178--ALL OUT 20 MINS
10:40 PM

Cause: CUT OUT DOOR THAT WAS BURNT

Power On Time:11/22/15

UP= PUT FUSE BACK

Outage Hrs: 1.17

Addl Remarks:

NAME: CHADWELL LARRY
ACCOUNT: 22924004
SVC_ADDR: MANSE RD 65 BARN
LOCATION: 22224027

LINE_SEC:
PHONE: 8599254221
METER: 126634

Off Time: 11/22/15 9:30 PM
Call Time: 11/22/15 9:31 PM
Summary Time: 11/22/15 9:31 PM

Disp Crew: JOHN LAND

Disp Time:11/22/15 9:32 PM

Comment: MANSE RD 178--ALL OUT 20 MINS
10:40 PM

Cause: CUT OUT DOOR THAT WAS BURNT

Power On Time:11/22/15

UP= PUT FUSE BACK

Outage Hrs: 1.17

Addl Remarks:

1st call

NAME: LAPPIN KATHERINE ELIZABETH
ACCOUNT: 109216001
SVC_ADDR: PATSY RIFFE RD 3843
LOCATION: 22578011

LINE_SEC: 2229
PHONE: 6065101121
METER: 110013

Off Time: 11/22/15 10:16 PM
Call Time: 11/22/15 10:18 PM
Summary Time: 11/22/15 10:18 PM

Disp Crew: COLBY GRIDER

Disp Time:11/22/15 10:30 PM

Comment: MBR DISC THE CALL BEFORE GIVING ME A Cause: NO CODES GIVEN, HAD A Power On Time:11/23/15 4:00 AM

GOOD CB# PHASE DOWN. Outage Hrs: 5.73
Addl Remarks:

NAME: BRAYMER DAVID LINE_SEC: 2199 Off Time: 11/22/15 10:17 PM
ACCOUNT: 71693001 PHONE: 6063469808 Call Time: 11/22/15 10:19 PM
SVC_ADDR: PATSY RIFFE RD 2019 METER: 125582 Summary Time: 11/22/15 10:19 PM
LOCATION: 22590001

Disp Crew: COLBY GRIDER Disp Time:11/22/15 10:30 PM

Comment: CALL BACK CELL 6067063559 Cause: NO CODES GIVEN, HAD A Power On Time:11/23/15 4:00 AM

PHASE DOWN. Outage Hrs: 5.72
Addl Remarks:

NAME: IPOCK JACK LINE_SEC: 2184 Off Time: 11/22/15 10:18 PM
ACCOUNT: 80965005 PHONE: 6063469412 Call Time: 11/22/15 10:20 PM
SVC_ADDR: W POPLAR HOLLOW RD 182 METER: 100157 Summary Time: 11/22/15 10:20 PM
LOCATION: 22682010

Disp Crew: COLBY GRIDER Disp Time:11/22/15 10:30 PM

Comment: Cause: NO CODES GIVEN, HAD A Power On Time:11/23/15 4:00 AM

PHASE DOWN. Outage Hrs: 5.70
Addl Remarks:

Summary- Inter County Energy-TN (6155) History
Time Zone: Eastern

11/23/15 7:30 AM

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NAME: MCKINNEY LOLA H LINE_SEC: 2184 Off Time: 11/22/15 10:19 PM
ACCOUNT: 103239001 PHONE: 6063465941 Call Time: 11/22/15 10:21 PM
SVC_ADDR: W POPLAR HOLLOW RD 249 METER: 113654 Summary Time: 11/22/15 10:21 PM
LOCATION: 22682011

Disp Crew: COLBY GRIDER Disp Time:11/22/15 10:30 PM

Comment: POWER JUST WENT OUT Cause: NO CODES GIVEN, HAD A Power On Time:11/23/15 4:00 AM

PHASE DOWN. Outage Hrs: 5.68
Addl Remarks:

NAME: ROSS REGAN G LINE_SEC: 9440 Off Time: 11/22/15 10:27 PM
ACCOUNT: 48232001 PHONE: 6063465904 Call Time: 11/22/15 10:28 PM
SVC_ADDR: LONG BRANCH RD 300 METER: 110043 Summary Time: 11/22/15 10:28 PM
LOCATION: 22579002

Comment: Disp Crew: COLBY GRIDER Disp Time:11/22/15 10:30 PM
 Cause: NO CODES GIVEN, HAD A Power On Time:11/23/15 4:00 AM
 PHASE DOWN. Outage Hrs: 5.55
 Addl Remarks:

NAME: ROSS REGAN G LINE_SEC: Off Time: 11/22/15 10:27 PM
 ACCOUNT: 48232002 PHONE: 6063465904 Call Time: 11/22/15 10:28 PM
 SVC_ADDR: LONG BRANCH RD 300 BARN METER: 112294 Summary Time: 11/22/15 10:28 PM
 LOCATION: 22579008

Comment: Disp Crew: COLBY GRIDER Disp Time:11/22/15 10:30 PM
 Cause: NO CODES GIVEN, HAD A Power On Time:11/23/15 4:00 AM
 PHASE DOWN. Outage Hrs: 5.55
 Addl Remarks:

NAME: RITTER SHERRI LINE_SEC: 2218 Off Time: 11/22/15 10:30 PM
 ACCOUNT: 65412001 PHONE: 6063031642 Call Time: 11/22/15 10:35 PM
 SVC_ADDR: PATSY RIFFE RD 3893 HSE METER: 124549 Summary Time: 11/22/15 10:35 PM
 LOCATION: 22578012

Comment: URGENT: Y Disp Crew: COLBY GRIDER Disp Time:11/22/15 10:45 PM
 Cause: NO CODES GIVEN, HAD A Power On Time:11/23/15 4:00 AM
 PRIORITY: LOUD NOISE PHASE DOWN. Outage Hrs: 5.50
 EMERGENCY Ticket Addl Remarks:
 Name: LAKKIN OPERATOR 3 1710
 Phone:6067879411

 Caller's name: LAKKIN OPERATOR 3 1710
 Callback #: 6067879411
 Department/Agency: CASEY COUNTY 911
 CENTER

 Address: 3893 PATSY RIFFE RD

Summary- Inter County Energy-TN (6155) History
Time Zone: Eastern

11/23/15 7:30 AM

Page -1 of 1

City: LIBERTY
 County: CASEY
 State: KY
 Directions: 127 S SHOULD BE ON THE
 LEFT
 Nearest Cross Roads: 127
 Nearest District Office (svc_area):
 N/A

Nature of Problem: TRANSFORMER BLOWN
Other outages in the area?: YES
Is there anyone in the building/car?:
N/A
Are there any emergency vehicles on
site?: Y FIRE DEPT
Requesting ETA (Y or N): Y
Comments: PERSON CALLED HEARD
EXPLOSION AND SEEN SPARKS COMING OUT
OF THE TRANSFORMER THANK YOU MVRT.

NAME: REED ALICE LINE_SEC: 2275 Off Time: 11/22/15 10:37 PM
ACCOUNT: 73049001 PHONE: 6067062966 Call Time: 11/22/15 10:38 PM
SVC_ADDR: PATSY RIFFE RD 3191 METER: 110044 Summary Time: 11/22/15 10:38 PM
LOCATION: 22589002

Comment: Disp Crew: COLBY GRIDER Disp Time:11/22/15 10:40 PM
 Cause: NO CODES GIVEN, HAD A Power On Time:11/23/15 4:00 AM
 PHASE DOWN. Outage Hrs: 5.38
 Addl Remarks:

NAME: REED KIMBERLY A LINE_SEC: Off Time: 11/22/15 10:43 PM
ACCOUNT: 100982002 PHONE: 6063462072 Call Time: 11/22/15 10:44 PM
SVC_ADDR: PATSY RIFFE RD 3216 SHED METER: 107871 Summary Time: 11/22/15 10:44 PM
LOCATION: 22589020

Comment: PWR IS OUT Disp Crew: COLBY GRIDER Disp Time:11/22/15 10:47 PM
 Cause: NO CODES GIVEN, HAD A Power On Time:11/23/15 4:00 AM
 PHASE DOWN. Outage Hrs: 5.28
 Addl Remarks:

NAME: PRICE FRANCES ANN LINE_SEC: 2200 Off Time: 11/22/15 11:02 PM
ACCOUNT: 103185001 PHONE: 6063462251 Call Time: 11/22/15 11:04 PM
SVC_ADDR: PATSY RIFFE RD 1933 METER: 113612 Summary Time: 11/22/15 11:04 PM
LOCATION: 22589001

Comment: Disp Crew: COLBY GRIDER Disp Time:11/22/15 11:08 PM
 Cause: NO CODES GIVEN, HAD A Power On Time:11/23/15 4:00 AM
 PHASE DOWN. Outage Hrs: 4.97
 Addl Remarks:

Summary- Inter County Energy-TN (6155) History
Time Zone: Eastern

NAME: SMITH BRENDA LINE_SEC: 2227 Off Time: 11/23/15 1:49 AM
ACCOUNT: 91712001 PHONE: 6063463616 Call Time: 11/23/15 1:51 AM
SVC_ADDR: LONG BRANCH RD 176 METER: 112293 Summary Time: 11/23/15 1:51 AM
LOCATION: 22579006

 Disp Crew: DAVE T/BO M Disp Time:11/23/15 1:58 AM
Comment: Cause: NO CODES GIVEN, HAD A Power On Time:11/23/15 4:00 AM
 PHASE DOWN. Outage Hrs: 2.18
 Addl Remarks:

NAME: IPOCK JACK LINE_SEC: 2184 Off Time: 11/23/15 3:12 AM
ACCOUNT: 80965005 PHONE: 6063469412 Call Time: 11/23/15 3:14 AM
SVC_ADDR: W POPLAR HOLLOW RD 182 METER: 100157 Summary Time: 11/23/15 3:15 AM
LOCATION: 22682010

 Disp Crew: DAVE T/BO M Disp Time:11/23/15 3:31 AM
Comment: MEMBER IS ON OXYGEN LAST BACK UP TANK Cause: NO CODES GIVEN, HAD A Power On
Time:11/23/15 4:00 AM
 CHECKING STATUS PHASE DOWN. Outage Hrs: 0.80
 Addl Remarks:

Attachment 3 System Protective devices

Peyton's Store 7-8-9

ASPEN Recloser Data

Substation Recloser

Recloser Info

342145 PEYTONS STOR 24.94kV - 342146 PEYTONS LD 24.94kV 1L

ID= Total operations to lock-out=

Reclosing interval (s)= No. of fast operations=

Rated momentary amps= Interrupting time (s)=

Phase Unit

Fast ...

Pickup (A)= Min time (s)=

Time mult.= Time add.=

Slow ...

Pickup (A)= Min time (s)=

Time mult.= Time add.=

High Current Trip

Trip (A)= Delay (s)=

Memo:

Ground Unit

Fast ...

Pickup (A)= Min time (s)=

Time mult.= Time add.=

Slow ...

Pickup (A)= Min time (s)=

Time mult.= Time add.=

High Current Trip

Trip (A)= Delay (s)=

Memo:

Relay Database

Linked relays=

... + -

Tags: [None](#)

Last changed Jul 10, 2015

Peyton Store
field verified 5/13/09 DLP
Programming

Access Code	Parameter	Ellisburg Form 4C	
01	Minimum Trip - Phase	280	amps
01	Minimum Trip - Ground	120	amps
02	TCC1 - Phase (socket 1)	105	
02	TCC1 - Ground (socket 1)	111	
03	TCC2 - Phase (socket 2)	c117	
03	TCC2 - Ground (socket 2)	c135	
04	TCC1 Operations - Phase	1	
04	TCC1 Operations - Ground	1	
05	Operations to Lockout - Phase	3	
05	Operations to Lockout - Ground	3	
06	Reset Time	10	sec
07	Reclose #1	0.6	sec
08	Reclose #2	2	sec
09	Reclose #3	5	sec
10	CT Selection		
11	Alternate Minimum Trip - Phase	280	amps
11	Alternate Minimum Trip - Ground	120	amps
12	Supervisory Close Reset Time	30	sec
20	Sequence Coordination	on	
21	Target Reset After Successful Reclose	on	
22	Operations Counter	on	
23	Event Recorder	on	
24	Recloser Duty Monitor	on	
25	Ground Trip Precedence	off	
26	Supervisory Via Momentary Contact	off	
110	Complex TCC2 (on/off) - Phase	on	
110	Complex TCC2 (on/off) - Ground	on	
111	TCC2 Selection - Phase	117	
111	TCC2 Selection - Ground	135	
112	TCC2 Constant Time Adder - Phase	0	sec
112	TCC2 Constant Time Adder - Ground	0	sec
113	TCC2 Multiplier Value - Phase	0.9	
113	TCC2 Multiplier Value - Ground	1	
114	TCC2 Minimum Response Time - Phase	0	cycles
114	TCC2 Minimum Response Time - Ground	0	cycles
120	Sensitive Ground/Earth Fault (ON/OFF)	off	
121	Percent of Ground Minimum Trip	100	%
122	Percent of Alternate Ground Minimum Trip	100	%
130	High Current trip - Phase(ON/OFF)	on	
131	High Current trip - Ground(ON/OFF)	on	
132	High Current Trip (Multiple of Min. Trip) - Phase	6	
132	High Current Trip (Multiple of Min. Trip) - Ground	12	
133	High Current Trip (Trip Time Delay) - Phase	1	cycles
133	High Current Trip (Trip Time Delay) - Ground	1	cycles
134	High Current Trip (Active Shot Number) - Phase	1-2-3-4	
134	High Current Trip (Active Shot Number) - Ground	1-2-3-4	

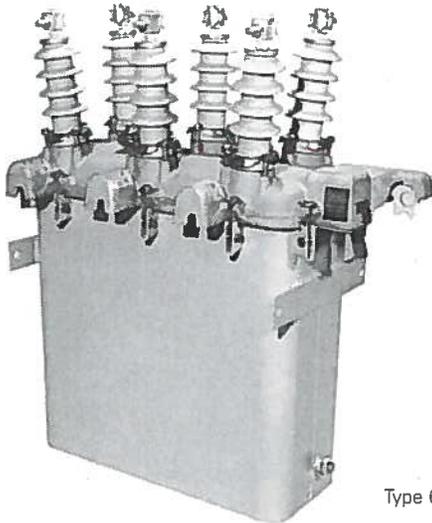
Types E, 4E, V4E, H, 4H, V4H, L, V4L, single-phase and 6H, V6H three- phase reclosers



Type L

-) Reclosers 7-8-9
100amp V4E
Catalog #
KHV4100B22

-) Recloser # R331
50 Amp H
Catalog #
KH150B22



Type 6H

Description

Types E, 4E, V4E, H, 4H, V4H, L, and V4L single-phase reclosers and Types 6H and V6H three-phase reclosers provide reliable, self-contained distribution-circuit overcurrent protection at low initial cost, and require minimal service. Because most line faults are temporary in nature, they will clear after only momentary circuit interruption; therefore, permanent outages usually are prevented. Automatic circuit reclosers both improve customer service and reduce operating costs.

A summary of all available reclosers – ratings, basic characteristics, and applications – is included in *Catalog 280-05, General Ratings Information and Catalog Guide for Single-Phase and Three-Phase Reclosers*.

Basic ratings and characteristic features

Reclosers in the E, H, and L groups include most of the single-phase reclosers produced by Eaton's Cooper Power Systems. The three-phase reclosers – Types 6H and V6H – are included in here because they adapt three single-phase interrupting structures with a common lockout mechanism. In operation, these reclosers sense line current in each phase individually and trip individually; however, if one phase sequences to lockout, all phases lock out.

Reclosers can be installed on poles or in substations to protect lines requiring the ratings shown in Table 1.

Both single-phase and three-phase reclosers are hydraulically controlled. Tripping is initiated by a series-connected coil. Current-carrying and interrupting capacities vary with the operating coil's rating, which is selected to meet circuit requirements. A choice of dual time-current characteristics permits coordination with other protective devices. A non-reclosing feature (Figure 1), standard on all Eaton's Cooper Power Systems reclosers, is set with a hookstick-operated lever for one operation to lockout without removing the recloser from service.

Two types of interrupters are available:

1. In Types E, 4E, 4H, L, and 6H reclosers, current interruption takes place in oil.
2. Types V4H, V4L, V4E, and V6H reclosers are equipped with vacuum interrupters. A major advantage of vacuum interrupters is reduced maintenance frequency.

**Cooper
Power Systems**
by **EATON**

Application

Both single- and three-phase H-group and L-group reclosers are designed, tested, and rated for operation on 14.4 kV three-phase systems where the line-to-ground voltage is 8.32 kV. Bushing insulation strength and other line-to-ground insulation is designed for this 8.32 kV stress.

The standard recloser (110 kV BIL) is not suitable for operation on single-phase taps of 14.4/24.9 kV systems. Operation on these higher voltage systems will stress the insulation at the 14.4 kV level, resulting in excessive radio influence voltage and deterioration of the insulation.

Types E, 4E, and V4E reclosers can be used for operation on single-phase taps of a 20/34.5 kV system where the 150 kV BIL rating is satisfactory. The bushings and other line-to-ground insulation are adequate for the 20 kV line-to-ground voltage stress. Since the interrupting capability is 24.9 kV, application on this system is limited to single-phase taps only. Operation on the three-phase line can result in a single recloser attempting to interrupt the full 34.5 kV voltage, which is in excess of its rating.

Surge protection

Reclosers operate best when protected with surge arresters. On line applications, arrester protection is recommended on both sides of the recloser. If protection is to be provided on one side only, install the arrester on the source side. In substations, arresters are located on the load-side. Eaton's Cooper Power Systems distribution-class arresters provide excellent protection; see *Catalog 235-99, UltraSIL™ Polymer-Housed Evolution™ Surge Arrester* or *Catalog 235-35, UltraSIL™ Polymer-Housed VariSTAR™ Surge Arrester* for more information.

Ordering information

To order an E-, H-, or L-group recloser:

1. Use the chart below to construct a catalog number that describes the required recloser.
2. From Tables 2 through 13, specify the catalog number that describe the required recloser accessories and mounting equipment.

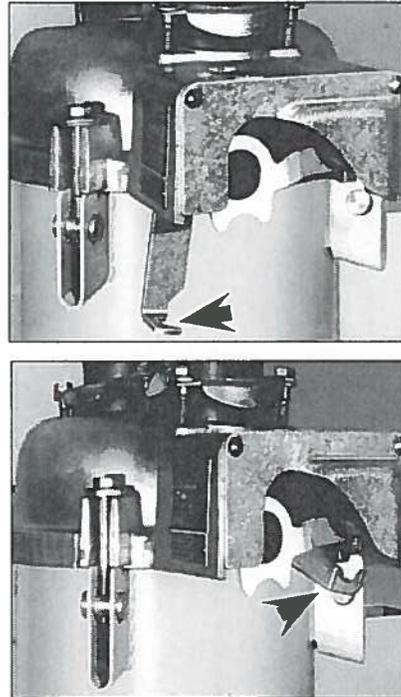


Figure 1. The non-reclosing feature is set with a handle under the sleet hood (see arrow). When the handle is down (top), the recloser will trip on overcurrent and lock out without reclosing. When the handle is up (bottom), the recloser will operate according to its internally set program.

Constructing a catalog number

To order a basic Type 4H recloser with a 100-amp coil, time-current Curve B, and two fast and two retarded operations to lockout, the catalog number would be constructed as shown on following page.

Table 1. Basic Ratings

Type	Nominal Voltage (kV)	Max Continuous Current (amps)	Max Interrupting Current (symmetrical amps)			
			@ 2.4–4.8 kV	@ 4.8–8.32 kV	@ 8.32–14.4 kV	@ 24.9 kV
Single-Phase						
H	2.4–14.4	50	1250	1250	1250	—
4H	2.4–14.4	100	3000	2500	2000	—
V4H	2.4–14.4	200	3000	2500	2000	—
L	2.4–14.4	280	6000	5000	4000	—
V4L	2.4–14.4	280	6000	6000	6000	—
E	24.9	100	—	—	—	2500
4E	24.9	280	—	—	—	4000
V4E	24.9	280	—	—	—	6000
Three-Phase						
6H	2.4–14.4	100	3000	2500	2000	—
V6H	2.4–14.4	200	3000	2500	2000	—

Types E, 4E, 4E, V4E, H, 4H, V4H, L, V4L single-phase and 6H and V6H three-phase reclosers

Technical Data 280-10
Effective May 2014

KH Basic letters for H-group reclosers;
E-group reclosers: KE
L-group reclosers: KL

4 Recloser type:
Omit for Types E or L;
1 for Type H;
4 for Type 4H or 4E;
V4 for Type V4H, V4E, or V4L;
6 for Type 6H;
V6 for Type V6H.

100 Continuous current rating of series-trip coil:
Type E : 5, 10, 15, 25, 35, 50, 70, or 100 amps;
Type 4E: 50, 70, 100, 140, 200, or 280 amps;
Type V4E : 15, 25, 35, 50, 70, 100, 140, 200, or 280 amps;
Type H : 5, 10, 15, 25, 35, or 50 amps;
Type 4H : 5, 10, 15, 25, 35, 50, 70, 100, 140, or 200 amps;
Type 6H : 5, 10, 15, 25, 35, 50, 70, or 100 amps;
Type V6H: 5, 10, 15, 25, 35, 50, 70, 100, 140, or 200 amps;
Type L : 25, 35, 50, 70, 100, 140, 200, or 280 amps;

B Delayed time-current curve:
Types H, 4H, V4H, 6H, or V6H: B or C;
Types E, 4E, V4E, or L: B, C, or D.
If all fast operations are required, insert letter A.

2 Number of fast A-curve operations:
0, 1, 2, 3, or 4.

2 Number of delayed operations:
0, 1, 2, 3, or 4.

} Fast + delayed operations not to exceed 4.

KH 4 100 B 2 2

KH4100B22 is the catalog number for the required Basic Type 4H recloser.

Accessories

E-, H-, and L-group reclosers can be supplemented with factory- or field-installed accessories. Select the accessories and mounting equipment required from Tables 2 through 13.

1. Shunt lockout mechanism (Types E, 6H, and V6H only) enables remote electrical trip and lockout.
2. Lockout-indicating switch (all types) provides remote indication of recloser lockout.
3. Bushings with 17-in. creepage distance (all H-group and L-group) increase creepage distance from standard bushing distances of 10-3/8 in. for H; 10-7/8 in. for 4H, V4H, 6H, V6H; 11-3/4 in. for L and V4L.
4. Bushings with 26-1/2-in. creepage distances (Types E, 4E, and V4E) increase creepage distance from standard bushing distances of 13-5/8 in. for E and 17 in. for 4E and V4E.
5. Slip-on, multi-ratio bushing-current transformer kit for field installation (all types) is easily installed at low cost and is convenient for metering. Taps are available for 100, 150, 200, 250, 300, and 450:5 amp ratio; 5% accuracy.

Accessories

Types E, 4E, V4E, L, and V4L (Single-Phase) Reclosers

Table 2. Shunt Lockout and Lockout Indication; Factory Installed

Description	Type E	Type 4E	Type V4E	Type L	Type V4L
Shunt-lockout mechanism*	KA193E	—	KA193E	—	KA193E
Lockout-indicating switch..	KA194E**	KA86L2	KA86L2	KA86L1	KA86L2

* Specify operating voltage: 120 or 240 Vac

** Includes shunt-lockout mechanism.

Table 3. Bushings; Factory-Installed

Description	Type E	Type 4E	Type V4E	Type L	Type V4L
17-in.-creepage bushings..	—	—	—	KA126L	KA121V4L
261/42-in.-creepage bushings	KA188E	KA149E4-1	KA149E4-1	—	—

Table 4. Hardware; Factory-Installed

Description	Type E	Type 4E	Type V4E	Type L	Type V4L
Two-bolt flat pad connectors, set of two	—	—	—	—	KA146L1

Table 5. Bushing Current Transformer for Field Installation

Description	Type E	Type 4E	Type V4E	Type L	Type V4L
Slip-on bushing current transformer kit, one BCT per kit..	KA712L1	KA712L1	KA712L1	KA712L1	KA712L1

Table 6. Mounting Equipment

Description	Type E	Type 4E	Type V4E	Type L	Type V4L
Crossarm mounting hanger; two required for each recloser	KA39H	KA39H	KA39H	KA39H	KA39H

Peyton Sub - Hustonville Ckt. - Event records

PEYTON STORE 224
7.8.9

Untitled
Date: 11/23/15 Time: 11:59:40.286

*Note: recloser time
one hour Rest.*

Level 2
=>>HIS 50

PEYTON STORE 224
7.8.9

Date: 11/23/15 Time: 11:59:49.676

#	DATE	TIME	EVENT	LOCAT	CURR	FREQ	GRP	SHOT	TARGETS
1	11/23/15	00:43:12.153	AG	\$\$\$\$\$\$\$	372	60.01	1	1	11000000 10000000
2	11/23/15	00:43:10.437	AG	\$\$\$\$\$\$\$	376	60.01	1	1	11000000 10000000
3	11/23/15	00:43:08.912	AG	\$\$\$\$\$\$\$	381	60.01	1	0	11000000 10000000
4	11/22/15	23:09:52.963	AG	\$\$\$\$\$\$\$	380	60.01	1	1	11000000 10000000
5	11/22/15	23:09:51.434	AG	\$\$\$\$\$\$\$	376	60.01	1	0	11000000 10000000
6	11/12/15	07:52:19.053	ER	\$\$\$\$\$\$\$	241	60.01	1	1	11000000 01000000
7	11/12/15	07:52:13.729	AG T	\$\$\$\$\$\$\$	1311	60.01	1	0	11001100 01000010
8	11/10/15	12:52:38.599	BG	\$\$\$\$\$\$\$	255	60.00	1	0	11000000 10000000
9	11/06/15	12:47:07.803	BG	\$\$\$\$\$\$\$	835	60.00	1	0	11000000 10000000
10	11/05/15	10:52:25.325	AG	\$\$\$\$\$\$\$	300	59.99	1	0	11000000 10000000
11	11/04/15	14:08:27.381	CG	\$\$\$\$\$\$\$	415	59.98	1	0	11000000 10000000
12	10/30/15	12:20:00.687	AG	\$\$\$\$\$\$\$	341	60.02	1	0	11000000 10000000
13	10/28/15	11:18:26.910	CG	\$\$\$\$\$\$\$	636	59.98	1	0	11000000 10000000
14	10/22/15	13:10:00.243	ER	\$\$\$\$\$\$\$	385	59.99	1	0	11000000 10000000
15	10/15/15	11:33:02.661	TRIP	\$\$\$\$\$\$\$	21	59.99	1	0	11001000 00100000
16	10/15/15	11:29:02.021	TRIP	\$\$\$\$\$\$\$	22	60.01	1	0	11001000 00100000
17	10/15/15	11:26:55.293	TRIP	\$\$\$\$\$\$\$	2	60.01	1	0	11001000 00100000
18	10/15/15	11:21:54.925	TRIP	\$\$\$\$\$\$\$	25	60.00	1	0	11001000 00100000
19	10/15/15	11:07:34.422	TRIP	\$\$\$\$\$\$\$	27	60.01	1	0	11001000 00100000
20	10/12/15	20:43:43.348	AG	\$\$\$\$\$\$\$	662	60.01	1	0	11000000 10000000
21	10/12/15	20:40:14.766	CG	\$\$\$\$\$\$\$	321	60.02	1	0	11000000 10000000
22	10/04/15	02:47:32.502	ER	\$\$\$\$\$\$\$	200	60.02	1	1	11000000 01000000
23	10/04/15	02:47:27.174	BG T	\$\$\$\$\$\$\$	1343	60.02	1	0	11001100 01001010
24	10/02/15	15:19:06.937	ER	\$\$\$\$\$\$\$	382	60.01	1	1	11000000 01000000
25	10/02/15	15:19:01.581	CG T	\$\$\$\$\$\$\$	1020	60.00	1	0	11001100 01000110
26	09/28/15	08:31:58.797	CG	\$\$\$\$\$\$\$	290	59.99	1	0	11000000 10000000
27	09/27/15	15:20:28.218	CG	\$\$\$\$\$\$\$	280	60.00	1	0	11000000 10000000
28	09/26/15	09:41:03.505	CG	\$\$\$\$\$\$\$	349	60.00	1	0	11000000 10000000

11-23-15 10:27AM

R443 140 VVWE27 Cooper 4C

Ellisburg

Time Clock

Month: Day 154 11.23

Hour: Min 155 11:24

Event #	161	1	2	3	4
Event Type	162	2	11	2	11
Month: Day	163	11.23	11.23	11.22	11.22
Hour: Min	164	0:40	0:40	23:07	23:07
Second	165	0:47	0:34	0:27	0:16
Ground	166	0:02	0:01	0:00	0:00
Phase 1-2	167	0:02	0:02	0:03	0:03
Phase 3-4	168	0:04	0:04	0:04	0:04
Phase 5-6	169	0:02	0:03	0:04	0:03

Event Type: 2 Reset
11 Sequence Coordination

Phase and Ground Current ($\times 10^3$)

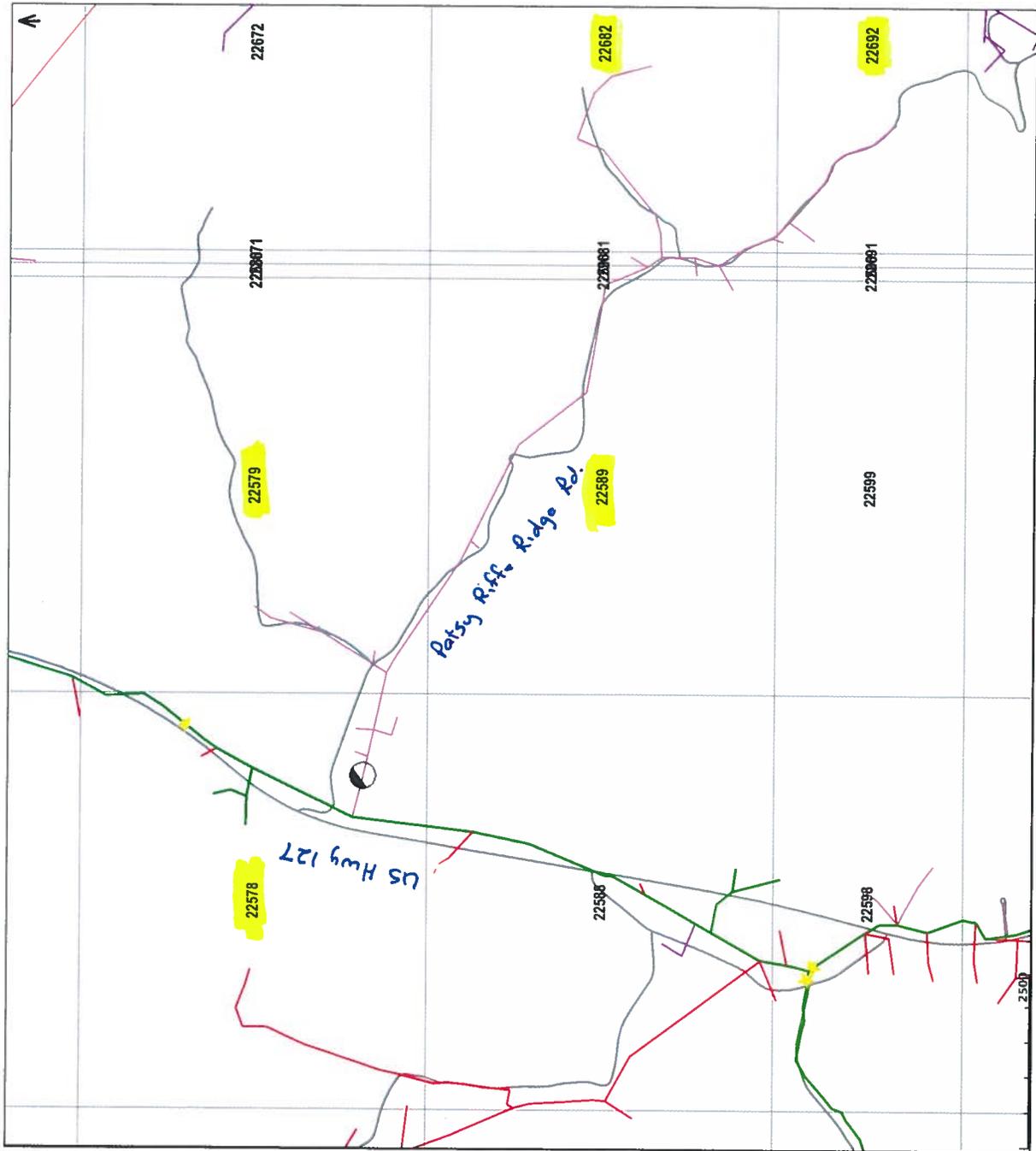
Two-Year Inspection - Inter-County Energy Service Territory - Colby Grider			
2015	Inspected	Date	Time
	By:		
22502	CAG	8/10/15	5:00 PM
✓ 22504	CAG	8/13/15	2:00 PM
22506	CAG	2/10/15	
✓ 22507			
22508	CAG	3/17/15	
22509			
✓ 22513	CAG	4/7/15	3:00 PM
✓ 22514	CAG	8/13/15	1:00 PM
✓ 22515	CAG		
22517	CAG	2/10/15	
22518	DA	10/13/15	11:00 AM
22519	DA	10/13/15	11:00 AM
22522	CAG	3/3/15	5:00 PM
22523	DA	10/13/15	2:00 PM
22524	CAG	8/13/15	11:00 AM
22525	DA	10/15/15	2:30 PM
22526	CAG	6/4/15	12:00 PM
22527	DA	10/13/15	
22528	DA	10/13/15	12:30 PM
22529	DA	10/13/15	10:00 AM
22532	DA	10/15/15	2:30 PM
22533	DA	10/15/15	3:00 PM
22534	CAG	8/11/15	5:00 AM
22535			
22536	DA	10/13/15	
22537	CAG	7/7/15	12:00 PM
22538	CAG	4/2/15	
✓ 22539	CAG	5/13/15	10:30 AM
22542	CAG	5/27/15	2:00 PM
22543			
22544	CAG	8/11/15	5:00 PM
22545	CAG	9/2/15	4:00 PM

Macey Valley

COPY

Attachment 4
2 yr system inspection

Map grid numbers corresponding to the tap where the accident occurred
2 yr inspections are tracked by map grid numbers



Partner Software, Inc. <http://www.partnersoft.com> 2015/12/01 11:59:03 davidp

22546	CAG	7/7/15	7:30 PM
22547	DA	10/13/15	
22548	CAG	4/2/15	
✓ 22549	CAG	5/13/15	3:30 PM
22553			
22554			
22555			
22556	CAG	7/7/15	2:45 PM
22557	DA	10/13/15	
22558	DA	10/13/15	
22559	CAG	5/13/15	6:00 PM
22562			
22563			
22564			
22565	CAG	7/1/15	3:00
22566	CAG	7/2/15	4:00
22567	CAG	7/2/15	5:00 PM
22568			
22569	DA	10/13/15	
22572	CAG	9/22/15	12:00 PM
22573	CAG	4/14/15	2:55 PM
22574	CAG	4/14/15	3:30 PM
22575	CAG	7/2/15	2:00 PM
22576	DA	7/2/15	5:00 PM
22577	CAG	7/2/15	5:30 PM
22578	DA	10/13/15	
✓ 22579	CAG	7/14/15	
22582	CAG	9/22/15	3:00 PM
22583			
22584	CAG	7/29/15	
22585	CAG	7/2/15	12:00 PM
22586	CAG	7/3/15	2:30 PM
22587	CAG	6/9/15	12:00 PM
22588	CAG	6/9/15	3:00 PM
✓ 22589	CAG	7/14/15	
22592	CAG	9/22/15	4:00 PM

Murtias Creek
 Shucks Creek / Adams Cem.
 Adams Cemetery
 Upper Brush
 Murtias Creek
 Shucks Creek
 Upper Brush
 Shucks Creek
 Scott Rd / Davidson
 Upper Brush

CAG

22593	CAG	5/13/15	2:00 PM
22594	CAG	7/29/15	
22595			
22596			
22597	CAG	7/19/15	11:00 AM
22598			
22602			
22603			
22604			
22622			
✓ 22632	CAG	5/13/15	
22682	CAG	7/14/15	
23102	CAG	9/22/15	5:00 PM
23103	CAG	5/18/15	2:30 PM
23104	CAG	7/24/15	
23105			
23106			
23107			
23108			
23109	CAG	7/13/15	
23112	CAG	7/8/15	1:00 PM
23113	CAG	5/18/15	5:00 PM
23114	CAG	9/23/15	
23115	CAG	9/16/15	3:00 PM
23116	CAG	9/17/15	12:00
23117	CAG	9/17/15	2:00
23118	CAG	3/30/15	3:00 PM
23119	CAG	7/13/15	
23122	CAG	7/5/15	3:00 PM
23123	CAG	7/15/15	12:00
23124	CAG	7/15/15	2:00
23125	CAG	9/16/15	5:00 PM
23126	CAG	3/30/15	3:00 PM
23127	CAG	3/30/15	4:00 PM
23128	CAG	5/30/15	12:00 PM
✓ 23129	CAG		

~~Reynolds Creek~~ Reynolds Creek

CARR SASSER

Carey Fork / Wilson Ridge

22731 J.L.B. 1/29/15 12:20p.
 22640 J.L.B. 1/29/15 12:20p.
 22600 J.L.B. 10/26/15 4:05p.
 22791 J.L.B. 10/26/15 4:05p.

Two-Year Inspection - Inter-County Energy
 Service Territory - Chase Gander

2015	Inspected By:	Date	Time
22679	J.L.B.	1/20/15	2:30 p.m.
22683	J.L.B.	2/12/15, 2/13/15 2/24/15, 2/25/15	4:55 p.m.
22684	J.L.B.	2/27/15	1:05 p.m.
22685	J.L.B.	2/27/15	3:00 p.m.
22686	J.L.B.	3/2/15	4:50 p.m.
22689	J.L.B.	3/3/15, 3/4/15	2:15 p.m.
22692	J.L.B.	3/19/15, 3/20/15	1:35 p.m.
22693	J.L.B.	3/20/15	2:45 p.m.
22694	DA	11/9/15	
22695	DA	11/30/15	
22696	DA	11/30/15	
22699	J.L.B.	10/26/15	3:50 p.m.
22702	DA	11/30/15	
22703	DA	11/10/15	
22704	J.L.B.	1/20/15	3:50 p.m.
22706			
22707			
22708	J.L.B.	5/21/15	4:40 p.m.
22709	J.L.B.	5/21/15	3:00 p.m.
22712			
22713			
22714	J.L.B.	1/20/15 1/21/15 4/23/15 5/20/15	4:50 p.m.
22715	J.L.B.	1/20/15 1/21/15 1/22/15	1:00 p.m.
22716			
22717			
22718			
22719			
22722	DA	11/10/15	
22723	DA	11/10/15	
22724	DA	11/10/15	
22725		11/11/15	
22726	J.L.B.	8/27/15	3:15 p.m.

✓ on 3/2/15
 need (2) walk out from Lake Rd. + (2) Moccasin F
 take rd. done ✓
 need (2) finish 1978
 need (2) de Pabst Ridge Rd.

22
 the
 nor

POLICY NO. 315**SAFETY AND OCCUPATIONAL HEALTH****I. OBJECTIVE**

To promote safe working practices for employees of the Cooperative.

II. POLICY CONTENT

The Cooperative shall provide a safe and healthful working environment for its employees. Furthermore, the Cooperative shall promote practices that will eliminate personal injury and occupational disease. The Cooperative shall also make reasonable accommodations in the design of the workplace that take into consideration individual employee's capabilities and limitations. Applicable guidelines for safety accountability and employee protection practices are outlined in the attachments listed below:

Attachment A - Corrective Action Guidelines

Attachment B - Arc Flash / Blast Protection

Attachment C - Lockout / Tagout Policy
De-Energizing Lines and Equipment for Employee Protection

Attachment D - Cooperative Protective Footwear Policy

Attachment E - De-Energizing Work/Grounds

III. PROVISIONS

- A. The Federal Occupational Safety and Health Act of 1970 contemplates that the final responsibility for providing a safe working environment rests with the Cooperative.
- B. The Cooperative also recognizes that Section 5(b) of the federal Occupational Safety and Health Act of 1970 requires employees to obey all rules, regulations, and orders respecting their own actions and conduct in the workplace in regard for their own safety.
- C. To this end and in order to provide a safe working environment, the Cooperative shall:
 1. Maintain memberships in the safety and job training program sponsored by the Kentucky Association of Electric Cooperatives.
 2. Maintain membership in the National Safety Council.
 3. Accept and endorse the Safety Accreditation Program sponsored by the National Rural Electric Cooperative Association.
 4. Adopt the "Safety Manual for an Electric Utility" as published by the American Public Power Association.

5. Provide for scheduling regular safety meetings and other related instructional and training meetings:
 - a. requiring ALL employees to attend the monthly safety meeting unless a conflict arises due to vacation, illness or an excused absence with prior approval by their supervisor, and
 - b. requiring ALL employees to annually complete the Kentucky Association of Electric Cooperatives web-based Safety courses.
 6. Provide for attendance at various training schools when such are considered to be beneficial to the employees and the Cooperative.
 7. Furnish appropriate mechanical safeguards, personal protective equipment, and appropriate first aid equipment.
 8. Provide for pre-employment physical examinations to ensure that employees are physically capable of performing their duties.
 9. Make reasonable accommodations in the design of the workplace that take into consideration individual employee's capabilities and limitations.
 10. Furnish to each member of the Board of Directors a copy of the minutes of each formal safety meeting.
 11. Pursuant to the OSHA regulations at 29 C.F.R. Part 1910, all employees will be trained in and made familiar with the safety practices, procedures, and requirements, including applicable emergency procedures, that pertain to their respective job assignments or that are related to their work and are necessary for their safety.
- D. Employees are expected to abide by the safety rules and regulations published within the APPA Safety Manual and this policy, copies of which shall be given to all employees. The attached Corrective Action Guidelines outline the Cooperative's disciplinary procedures in the event of safety infractions and violations.

NOTE:

NOTHING CONTAINED IN THIS POLICY SHALL CONSTITUTE A WAIVER OF ANY RIGHTS OR REMEDIES OF THE COOPERATIVE, ITS OFFICERS, OR AGENTS TO DISCIPLINE, DEMOTE, OR DISMISS ANY OFFICER, AGENT OR EMPLOYEE FOR WILLFUL OR NEGLIGENT VIOLATION OF ANY COOPERATIVE SAFETY PRACTICES. NOTHING IN THIS POLICY IS INTENDED TO MODIFY THE COOPERATIVE'S EMPLOYMENT-AT-WILL POLICY. THE COOPERATIVE IS NOT OBLIGATED TO OBSERVE ANY PARTICULAR SEQUENCE OF DISCIPLINARY ACTIONS, AND AN EMPLOYEE VIOLATING A SAFETY PRACTICE MAY BE IMMEDIATELY TERMINATED AT THE OPTION OF THE COOPERATIVE.

IV. RESPONSIBILITY

- A. The President/CEO shall be responsible for administering this policy and shall report all accidents or related activity to the Board.
- B. All employees shall be required to familiarize themselves with this policy and to observe the applicable rules outlined in the safety manual, in addition to other specific safety requirements and procedures as management may from time to time establish.

Effective: September 18, 1992
Revised: August 20, 2010
Revised: November 29, 2011
Revised: June 19, 2015

POLICY NO. 315 – ATTACHMENT A

CORRECTIVE ACTION GUIDELINES

I. PURPOSE

To develop a means of accountability that will aid in the decision making process of being safe. To offer a systematic way of discipline that has no lasting effects on the employee's record when an employee demonstrates a conscious decision to work safe and becomes progressively severe when an employee continues to work unsafe.

II. GOAL

To emphasize the importance of safety to all employees. To make Inter-County Energy a safer place to work and to better protect the public from safety issues regarding the employees of Inter-County Energy.

III. ROLE OF MANAGEMENT

The role of management is to emphasize the importance of safety at Inter-County Energy by the use of disciplinary action when an employee chooses not to comply with safety rules. Also, to exercise fairness in the assignment of disciplinary action without consideration of results involved in the violation. Lastly, management shall implement disciplinary action without prejudice regarding personal relations or emotion.

IV. CORRECTIVE PROCEDURE

- A. Violations of and/or disregard for safe work practices shall result in corrective action appropriate to the seriousness or potential seriousness of the offense. Violations shall be recorded and become a part of the employee's personnel file. The employee's safety record shall be a basic factor in determining the employee's eligibility for promotion, or suitability for continued employment with the cooperative.
- B. Management, crew leaders or anyone in a supervisory role who knowingly permit violations of a safe work procedure or receive notification of a safety violation and neglect to take appropriate corrective action shall be subject to the same corrective action as prescribed for the specific safety violation.
- C. When an employee observes an unsafe work practice, the employee shall immediately take corrective action. Corrective action may include, but not limited to, reminding the offending employee of the safe work practice or reporting the violation to the employee's immediate supervisor. If the violation involves the immediate supervisor, the violation is to be reported to Management.
- D. Violation of safe work practices shall carry predetermined corrective actions as detailed in the following pages. Violations of safe work practices are not necessarily limited to the work practices identified in the following pages.

- E. Management reserves the right to invoke corrective action, up to and including immediate dismissal, for violation of safe work practices, poor judgment in dealing with conditions or at risk behavior above or beyond those covered in these guidelines.
- F. Corrective Action is based on the current edition of the APPA Safety Manual.

The categories for safe work practices violations are rated from Level One through Level Four according to the severity of the violation or the likelihood that a violation of a specific rule could result in serious injury to oneself, a coworker, or a member of the public. Level One are those which apply to work rule violations with the least likelihood of causing serious injury. Level Four results from a violation of a work rule which has the greatest potential for causing serious injury to oneself, a fellow employee, the general public, or causing property damage.

Each Level has a specific rollover period attached to it. A rollover period is the specific length of time that the corrective action is carried on the records. After a rollover period has elapsed and the same employee again violates a safe work practice, the violation is treated as a first offense. If an employee violates a safe work practice before the rollover period has elapsed on a previous violation in the same level, the violation is treated as a second offense (or third offense) and the employee will receive a more stringent corrective action for the additional violation. The rollover period starts on the date of the violation. When a second or third violation occurs before the previous rollover period has expired, the new rollover period commences on the date of the newest violation.

V. IMMINENT DANGER

In the event that an employee is charged with a violation that can be interpreted as imminent danger, progression of disciplinary guidelines may not be followed. Imminent danger is described as any violation that could reasonably result in a catastrophic event such as major injury or death. Examples of this could be improper grounding of lines, not wearing gloves and sleeves within minimum approach distances, or not using a fall arrest harness while working from an aerial device. All safety rules are important, but some infractions are as little as one step away from becoming a catastrophic event. If the infraction has been determined to be imminent danger, the normal order of progressive discipline could be dismissed and management may assign discipline deemed appropriate for the violation.

VI. DISCIPLINARY JURISDICTION

The process of disciplinary action will be as follows:

- A. When a safety infraction has occurred, it will be investigated by the Department Manager and the Safety/Loss Control Coordinator. The Department Manager and Safety/Loss Control Coordinator will make a recommendation regarding disciplinary action in accordance with the Levels of Corrective Action Guidelines contained within this Policy.
- B. The Department Manager and the Safety/Loss Control Coordinator will review the infraction and the disciplinary action recommendation with the Inter-County Energy President/CEO prior to implementation.

- C. In all steps of the process, the employee that has committed the infraction will have the opportunity to explain the cited actions.
- D. The Safety Committee will review and discuss the infraction(s) at the next regularly scheduled Safety Committee Meeting and may make possible recommendations to management as to changes in procedures that could prevent future infractions.

Corrective Action Levels and rollover periods for violation of safe work practices are as follows:

CORRECTIVE ACTION LEVELS			
LEVELS	OFFENSE	MINIMUM	ROLLOVER
Level One	1st	Oral	6 Months
	2nd	Written	6 Months
	3rd	1 Day	6 Months
Level Two	1st	1 Day	6 Months
	2nd	2 Days	6 Months
	3rd	1 Week	1 Year
Level Three	1st	2 Days	6 Months
	2nd	1 Week	1 Year
	3rd	Demotion or Discharge	1 Year
Level Four	1st	3 Days	6 Months
	2nd	1 Week	1 Year
	3rd	Demotion or Discharge	1 Year

FROM THE 14TH EDITION OF THE APPA SAFETY MANUAL

LEVEL ONE		
103	a, b, c	Reporting Employee Injuries
104	a, b	Reporting Hazardous Conditions
105	B	Taking Chances
106		Practical Jokes
110	a, b, d, e, f, g, h, j, k, n	Housekeeping
112	a, b, d, h, j, k, n, p, t (1, 2, 3, 4, 5)	Welding and Cutting - General
113	a (1, 2, 3, 4)	Cellular Telephones and Electronic Wireless Communication Devices
115.5	a, b, c, d	Training - Job Briefing
201	1, 2, 3, 4	Confined or Enclosed Spaces
203	a, c, e	Fall Protection

204		Lighting
205	A	Exhaust and Ventilation
207.1	a, b, c, d, e, f	Fire Protection and Emergency Plans
207.2	a (1,2,3,4), b, c, d, f, g, h (1,2,3,4), i, j	Fire Extinguisher
207.3	a, b, c	Hydrants, Standpipes, Hose Stations
207.4	a, b, c	Sprinkler Systems
301	a, b, c, d, e, f, g	Material Handling and Storage
303	a, b, c, d, e, f, g, l, o, p, q, r	Compressed Gases
304	a, b, c, d, e, f, g, h, i, k	Hazardous Materials
305	a, b, c, d, e, f	Fuels and Lubricants
306	C	Noise
307	N/A	Asbestos
314	a, b, d, e, f, g, h, i, j, k, l, m, n, o, p	Use of Herbicides and Other Chemicals
402	a, b, c, d, e, f, g, h	Eye and Face Protection
403	b, d	Head Protection
405	c, d	Clothing
406	i, j, k	Use and Care of Rubber Gloves
408		Life Jackets
501.1	a, b, c, d, e, f, g, h, i, j, k, l, m, n, p, q, r, s, t	Office Safety
501.2	a (1, 2, 3, 4, 5, 6), b	Video Display Terminals
502.1	a, b, c, d, e, f, g	Warehouse Operations - General
502.2	a, b, c, d, e, f, g	Shipping and Receiving
503.1	a, b, c, d, e, f, g, h, i, j	Vehicle Operations - General
503.2	a, b, c, d	Inspection of Equipment
503.3	a, b, c, d, e, f	Exhaust Gas
503.5	a, b, c, d, e, f	Parking
503.6	a, b, c (1, 2, 3, 4, 5)	Backing
503.7	a, b (1, 2, 3, 4)	Stopping on the Highway
503.8	a, b, c, d	Hauling Poles or Ladders
503.9	a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q	Industrial Trucks – Fork Lifts
503.10	a, b, c, d, e (1,2,3,4,5), f, g, h, i, j, k, l, m, n, o, q (1 a, b), r	Cranes, Derricks, Hoisting Equipment
503.11	a, b, f, g, h, i, j, k, l, m	Rigging Equipment
503.12	a, b, c, e, f, g, m, n, p, q, u	Aerial Devices
503.13	b, c, d, e, f	Reporting Utility Vehicle Accidents
503.14	a, b, c, d	Portable and Vehicle Mounted Generators
504.1	a, b, c, d	Vehicle Maintenance - General
504.2	a, b	Batteries
504.6	a, b, c, d, e, f, g, h	Maintenance and Inspection of Fleet
505.1	D	Work Zone Safety - General
505.2	a, d, e	Equipment
505.3	d, e, f, g, h	Flagmen

506.1	a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s	Hand Tools
506.2	a (1, 2), b, c, d, e, f, h (1, 2, 3)	Portable Electric Tools
506.3	a, b, c, d, e, f, g, h, i, j, k, l, m, n	Pneumatic Tools
506.4	a, b, d	Hydraulic Tools
506.5	c, d (1, 2, 3)	Power Lawn Mowers, Edger's, Etc.
506.6	a, b, d, e, f, g, h, i, j, k, l, m, n	Power Activated Tools
506.7	a, b, c, d, e, f, g, h, i, j	Safe Supports and Scaffolds
506.8	a, c, e, f, g, h, i, j, k, l, m, n	Ladders - General
506.9	a, b, c, d, e, f	Straight Ladders
506.1	a, b, c, d	Step Ladders
507.1	d (1, 2, 3), g, h, i, j, l, m	Working On or Near Exposed Energized Lines and Equipment
507.2	f, h, i, k, l, m	Flexible Protective Equipment
507.3	e, f, i, j, k, l, m, n	Climbing and Working on Poles
507.4	c, d, e, f, h, j, k, m	Working on Energized Lines with Live Line Tools
507.9	d, e	Hoisting Cables
507.10	d	Working on Capacitors
507.11	a, c, f	Stringing or Removing De-Energized Conductors
507.12	t, v, x	Stringing Adjacent to Energized Lines
507.13	g, h, n	Grounding - General
507.15	a, b, c, d, e, f, g, h, i	Pole Hauling and Temporary Storage
507.16	a, b, c, e, f, h, i, j, k, l, n	Setting and Removing Poles
507.19	a, b, c, d, f, g, h	Rope
507.20	a, b, c, e, f, h, k, l, n	Substations
507.21	b, c, d (1, 2, 3), e, f, g, j, k, l, m, n, o	Metering
507.22	a, b, c (1, 2, 3), d, e, f, g, h, i (1, 2), j, l, o, p, q	Testing and Test Facilities
508.1	a, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u	Tree Trimming - General
508.2	i, k, l, m, n, o	Working Near Energized Conductors
508.3	a, b, c, d, e, f, g, h, i	Tree Felling
508.4	a, b, c, d, e, f, g, h, i, j, k, l, m, n	Care and Use of Tools and Rope
508.5	c, d, e, f, g, h, i, j, l, m, n, o, p, q, t (1,2,3)	Powered Trimming Equipment
508.6	b, c e, f, g, i, j, k	Chippers
508.7	a, b, c, d, e	Right-of-Way Clearing and Maintenance
509.1	2, 4	Opening and Guarding Holes
509.3	n, o	Work on Energized Cables
509.5	f	Work on De-Energized Cables
509.6	b	Opening and Closing Circuits
509.7	g	Grounding
509.8	a, d, e, f, g	Heating Materials

509.10	a, b, c, e (3), f, g, h, j, k, l, m, n, o, q, r, s, t, u, v, w, x, h, z, aa, bb, cc, ee	Excavations
509.12	a, b, c	Pulling Cables
509.13	d	Moving Energized Lines
511.1	a, b (1), c (3), d(2), e (1, 2, 3, 6, 7, 8, 9, 10, 11), f, h, i, j, k, l	Fiber Optic Systems
511.2	a (1, 2, 3), b (1, 2, 3, 4, 5), c (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12), d (1, 2, 3) (a, b, c, d) (4), e (1, 2), f	Radio Frequency Radiation
LEVEL TWO		
103	d	Reporting Employee Injuries
105	a	Taking Chances
107	a, b	Guards
108	a	Warnings
110	l, m	Housekeeping
111		Smoking
112	c, e, f, g, i, l, m, o, q, r	Welding and Cutting - General
201	a, b, c, d	Confined or Enclosed Spaces
202	a, b, c, d	Hazardous Energy Control (Lock Out - Tag Out)
203	a, c, e	Fall Protection
205	b	Exhaust and Ventilation
301	h (1, 2)	Material Handling and Storage
303	h, i, j, k, m, n, s (1, 2), t (1, 2)	Compressed Gases
304	j	Hazardous Materials
306	a, b	Noise
307	N/A	Asbestos
308	a, b, c, d	PCB's (Pyranol, Askarel, Interteen, Etc.)
401	a, b, c	Personal Protective Equipment (PPE)
402	i, j, k, l, m, n, o	Eye and Face Protection
403	a, c	Head Protection
404		Wearing Apparel
405	a, e	Clothing
406	d (10, 11, 12, 13), f, g	Use and Care of Rubber Gloves
501.1	o	Office Safety
503.10	p, q (1)	Cranes, Derricks, Hoisting Equipment
503.11	c, d	Rigging Equipment
503.12	d, h, i, j, k, o, r, s	Aerial Devices
503.13	a	Reporting Utility Vehicle Accidents
504.3	b	Hydraulic Systems
505.1	a, b, c	Work Zone Safety - General
505.2	b, c	Equipment

505.3	a, b, c (1, 2, 3)	Flagmen
506.3	k	Pneumatic Tools
506.4	c, e	Hydraulic Tools
506.5	a, b, d (4)	Power Lawn Mowers, Edger's, Etc. (Safety Glasses, Hearing Protection)
506.7	l	Safe Support and Scaffolds
506.8	b, d	Ladders - General
506.9	g	Straight Ladders
507.1	a (1, 2), c (1, 2, 3, 4, 5), d (e, f, n)	Working On or Near Exposed Energy Lines
507.2	d, e, n	Flexible Protective Equipment (Rubber, Synthetics, Etc.)
507.3	a, b, c, d, g, h	Climbing and Working on Poles
507.4	b, g, i, l	Working on Energized Lines with Live Line Tools
507.8	c	Working on Transformers
507.9	a, b, c	Hoisting Cables - Conductive Material
507.10	a, c	Working on Capacitors
507.11	b, d, e	Stringing or Removing De-Energized Conductors
507.12	a, b, f, g, i, j, k, l, m, n, o, p, q (1, 2), r (1, 2, 3, 4, 5), s	Stringing Adjacent to Energized Lines
507.13	i, j	Grounding - General
507.16	d (1, 2, 3), g, m	Setting and Removing Poles
507.18		Fuses
507.19	e	Rope
507.20	d, g, i, j, m	Substations
507.21	a, h, i	Metering
507.22	h, k, m, n, r (1, 2, 3, 4, 5, 6)	Testing and Test Facilities
507.23	a (1, 2, 3, 4, 8, 9, 10, 11, 12, 13), b, c	Hazardous Energy Control
508.1	b, c	Tree Trimming - General
508.2	a, b, c (1, 2), d, e (1, 2, 3), f, g, h, j	Working Near Energized Conductors
508.5	a, b, k (1, 2, 3), s	Powered Trimming Equipment
508.6	a, d, h	Chippers
509.1	1, 3	Opening and Guarding Holes
509.3	a (1, 2, 3, 4, 5), b (1, 2, 3) d (1, 2), k, l, m	Work On Energized Cables
509.10	1, 3	Excavations
511.1	b (2, 3), c (1, 2), d (1), e (4, 5, 10), g	Fiber Optic Systems
LEVEL THREE		
110	c, i	Housekeeping
405	b	Clothing
406	b, d (1,2,3,4,5,6,7,8,9), 14 (i, ii, iii)	Use and Care of Rubber Gloves

503.10	k (1,2,3,4)	Cranes, Derricks, Hoisting Equipment
503.12	l, t, v	Aerial Devices
507.1	b (1), k, o	Working On or Near Exposed Energized Lines and Equipment
507.2	c, j	Flexible Protective Equipment (Rubber, Synthetics, Etc.)
507.4	n	Working on Energized Lines with Live Line Tools
507.6	c	Working on De-Energized Lines and Equipment
507.7	a (1, 2), b	Series Street Lighting Circuits
507.8	a, b	Working on Transformers
507.11	g	Stringing or Removing De-Energized Conductors
507.12	c, d, e, h	Stringing Adjacent to Energized Lines
507.13	c, d, k	Grounding - General
507.17	1, 2, 3, 4	Derrick Trucks, Cranes, Etc.
509.3	c, e, f, g, h, i	Work on Energized Cables
509.4	e, h	Work on Energized Equipment
LEVEL FOUR		
115.7		After Rescue
406	a, c, e (1, 2)	Use and Care of Rubber Gloves
507.2	a, b (1, 2), g	Flexible Protective Equipment (Rubber Synthetics, etc.)
507.4	a	Working on Energized Lines with Live-Line Tools
507.6	a (1, 2) b	Working on De-Energized Lines and Equipment
507.10	b	Working on Capacitors
507.13	a, b (1, 2), e (1, 2), f (1, 2), l, m	Grounding - General
507.14	a, b, c, d, e, f	Equal Potential Grounding
509.5	a, b, c, d, e	Work on De-Energized Cables
509.6	a, c, d	Opening and Closing Circuits
509.7	a, b (1, 2, 3), c, d, e, f	Grounding
509.9	a, b, c, d, e, f	Rubber Glove Use
509.13	c	Moving Energized Cables

Effective: September 18, 1992

Revised: August 20, 2010

Reviewed: November 29, 2011

POLICY NO. 315 – ATTACHMENT B**ARC FLASH / BLAST PROTECTION****I. OBJECTIVE**

To promote safe working practices for employees of the Cooperative.

II. POLICY CONTENT

The Cooperative shall conduct an assessment to determine an employee's potential exposure to an electric arc. The guidelines described in the National Electric Safety Code and the approved Cooperative Safety Manual shall be used to determine the clothing or clothing system that is required to be worn by the Cooperative's employees.

III. PROVISIONS

- A. Cooperative employees shall wear flame retardant clothing with sleeves rolled down, hard hats, appropriate eye and hearing protection, appropriate gloves and any additional PPE required when performing work.
- B. Cooperative employees shall wear rubber gloves from ground to ground and cradle to cradle when working on or near energized conductor.
 - 1. Sleeves shall be worn with rubber gloves at all times with the following exceptions:
 - a. Removing and installing a meter in an energized meter base, only use rubber gloves.
 - b. Installing service and primary conduit on a pole below the system neutral.
 - c. Working as a ground man assisting with the setting of a utility pole in an energized line, only use rubber gloves.
 - 2. A hard hat with face shield and eye protection shall be worn as follows:
 - a. Install/remove a meter in/from an energized meter base.
 - b. Opening an energized pad mount transformer or a secondary enclosure.
 - c. When the supervisor determines that the employee's assigned task or work duties warrants the added protection due to proximity and/or strong possibility of exposure, while also ensuring that face shield does not create additional or greater hazards than the possible exposure to the heat energy of the electric arc.

3. Clothing worn under flame retardant clothing shall be made of 100% natural fiber. Multiple layers of flame retardant clothing material has been shown to block more heat than a single layer.
- C. Equipment energized at 480 volts shall be de-energized before performing work.
 - D. Employees are expected to abide by the safety rules and regulations published, copies of which shall be given to employees. Any employee who recklessly disregards his/her safety or the safety of others may be immediately discharged regardless of whether the employee has previously violated any safety practice.

NOTE:

NOTHING CONTAINED IN THIS POLICY SHALL CONSTITUTE A WAIVER OF ANY RIGHTS OR REMEDIES OF THE COOPERATIVE, ITS OFFICERS, OR AGENTS TO DISCIPLINE, DEMOTE, OR DISMISS ANY OFFICER, AGENT OR EMPLOYEE FOR WILLFUL OR NEGLIGENT VIOLATION OF ANY COOPERATIVE SAFETY PRACTICES. NOTHING IN THIS POLICY IS INTENDED TO MODIFY THE COOPERATIVE'S EMPLOYMENT-AT-WILL POLICY. THE COOPERATIVE IS NOT OBLIGATED TO OBSERVE ANY PARTICULAR SEQUENCE OF DISCIPLINARY ACTIONS, AND AN EMPLOYEE VIOLATING A SAFETY PRACTICE MAY BE IMMEDIATELY TERMINATED AT THE OPTION OF THE COOPERATIVE.

IV. RESPONSIBILITY

- A. The President/CEO shall be responsible for administering this policy and shall report all accidents or related activity to the Board.
- B. All employees shall be required to familiarize themselves with this policy and to observe the applicable rules outlined in the Safety Manual, in addition to other specific safety requirements and procedures as Management may from time to time establish.

Effective: November 21, 2008
 Reviewed: November 29, 2011
 Revised: June 19, 2015

POLICY NO. 315 – ATTACHMENT C

LOCKOUT / TAGOUT POLICY

DE-ENERGIZING LINES AND EQUIPMENT FOR EMPLOYEE PROTECTION

I. OBJECTIVES

To promote safe work practices for the employees of Inter-County Energy and to provide guidance for the process of de-energizing lines and equipment on a distribution system.

II. SCOPE

The strict following of this procedure assures the safety of all field personnel while working on or near high voltage lines and equipment.

III. DEFINITIONS

Clearance - The purpose of the clearance is to provide safe working conditions for any personnel whose maintenance or construction duties require them to work on or near any lines or equipment while in a de-energizing condition.

Hold Tag or Hold Card - A red card with the words, “**Danger, Do Not Operate**” printed in bold type, used to prevent the closing of a line or equipment without the express permission of the one who ordered the line open and the tag attached. These tags will be provided by the employer and will be attached to the switch, line or equipment in such a manner that they cannot be inadvertently or accidentally detached during use.

Caution Pole Band - An orange band with yellow trim that wraps around the pole and attaches to the pole. Caution bands display the words “**Worker on Line**” boldly. These also contain a transparent pocket in which a hold tag can be placed visibly. These are used to denote the temporary disabling of equipment such as an oil circuit re-closer (OCR) by turning the re-closer switch to non-reclose.

System Dispatcher - A person who assists the employee in charge by keeping records of clearances currently issued and keeping track of crews and personnel in the field to avoid accidental re-energizing of lines or equipment.

Employee in Charge - A qualified employee that is designated to de-energize lines and equipment and is in charge of the clearance. Unless this employee releases his duties to someone else, they are the only one authorized to re-energize the lines and equipment.

Clearance Release - To release a clearance, the employee in charge shall notify employees under his or her direction that the clearance is to be released. They must determine that all employees in the crew are clear of the lines and equipment and that all protective grounds installed by the crew have been removed and report this information to the system dispatcher and release the clearance.

Clearance Transfer - If the employee in charge is forced to leave the work site due to illness or other emergency, the employee's supervisor and/or the system dispatcher shall be informed as well as the employees in the crew. A new employee shall be chosen to be responsible for the clearance.

IV. PROCEDURES

A. Lockout/Tagout With Single Point of Control

If only one crew will be working on the lines and equipment, and if the means of disconnection are accessible and under the sole control of the employee in charge of the clearance, then this procedure is to be followed.

1. An employee in charge shall contact the system dispatcher in the designated dispatch office (during business hours and when available after hours) to inform of intent to de-energize and tag the lines or equipment (request clearance). Dispatcher assists by making record of clearance to prevent any other crews from accidentally re-energizing lines or equipment.
2. After clearances have been received, all switches, jumpers, taps and other means through which known sources of electric energy may be supplied to the particular lines and equipment to be de-energized shall be opened. Any disconnecting means that are accessible to be de-energized shall be opened. Any disconnecting means that are accessible to persons outside the employer's control, such as the general public, shall be rendered inoperable while they are open for the purpose of protecting employees and tagged to indicate employees are at work.
3. Tags shall prohibit operation of the disconnecting means and shall indicate employees are at work.
4. The lines or equipment shall be tested for voltage with an approved voltage tester to ensure that they are not energized before grounding.
5. Protective grounds shall be installed using approved grounding practices.
6. Inform the system dispatcher when this is accomplished and give the time off. If system dispatcher is not available, employee in charge shall make note of the time off.
7. Only after all these procedures have been followed will the lines and equipment be worked as de-energized.
8. When work is completed, the employee in charge will notify the system dispatcher, when available, that they are ready to re-energize the lines or equipment.
9. The system dispatcher, when available, will check for assurance that no other crews or personnel have entered the work zone.

10. Only after protective grounds have been removed and all employees are clear of the lines and equipment shall action be initiated to re-energize the lines and equipment at the point of disconnection.
11. Notify the system dispatcher of the fact that the lines and equipment are energized and what time this was accomplished. If system dispatcher is not available, employee in charge will make note of the time that lines and equipment are re-energized.
12. Tags may now be removed if the associated clearances have been released.

B. Lockout/Tagout – Multiple Crews

If more than one crew is working on a line or if an emergency outage requires crews to be working in adjacent areas that could cause confusion on line feeds or locations, then this procedure would apply.

1. A designated employee shall contact the system dispatcher in the designated dispatch office (during business hours and when available after hours) to inform of intent to de-energize and tag the lines or equipment. The designated employee becomes the employee in charge and is responsible for the clearance. Dispatcher assists by making record of clearance to prevent any other crews or personnel from accidentally re-energizing lines or equipment. If dispatch is not available, it is the responsibility of the employee in charge to contact all crews to inform them of clearance.
2. After clearances have been received, all switches, jumpers, taps and other means through which known sources of electric energy may be supplied to the particular lines and equipment to be de-energized shall be opened. Such means shall be rendered inoperable, unless its design does not permit, and tagged to indicate that employees are at work.
3. Tags shall prohibit operation of the disconnecting means and shall indicate that employees are at work.
4. After the clearance has been given and the lines or equipment have been de-energized, the lines and equipment shall be tested with a voltage tester to ensure that they are de-energized.
5. Protective grounds shall be installed using approved grounding practices.
6. Inform the dispatcher, when available, when this is accomplished and give the time off. If dispatch is not available, make note of the time off.
7. Only after all these procedures have been followed will the lines and equipment be worked as de-energized.
8. If two or more crews will be working on the same lines or equipment, one employee shall take the lead to be responsible for the installation of the tag, but only after clear and concise communication with both crews. If two or more independent crews will be working on the same lines or equipment with

different opening points then each crew shall independently comply with the requirements in this procedure.

9. The employee in charge will notify the system dispatcher, when available, that work is completed.
10. System dispatcher, when available, will check for assurance that no other crews or personnel have entered the work zone.
11. Only after protective grounds have been removed and all employees are clear of the lines and equipment shall action be initiated to re-energize the lines and equipment at the point of disconnection.
12. Employee in charge notifies the system dispatcher that lines and equipment are re-energized and what time this was accomplished. If system dispatcher is not available, employee in charge will make of the time that lines and equipment are re-energized.
13. Tags may now be removed if the associated clearances have been released.

V. USAGE OF CAUTION POLE BANDS

Some equipment offers a non-reclosing feature, or one shot to lock out switch. This feature is very desirable when working on or near energized lines or equipment because it allows the workers to reduce their exposure by limiting the electrical energy to one quick operation. The following steps should be taken when using this feature:

- A. The employee in charge shall call and inform the system dispatcher of the use of the non-reclosing switch and the location of the line or equipment to be worked on. This rule does not apply if work is being done at the equipment site.
- B. A caution pole band shall on the pole that bears the equipment in such a manner that it can be easily seen.
- C. The system dispatcher will record the information and inform area service personnel of the work being done.
- D. After work has been completed, the non-reclosing switch should be returned to normal reclosing to reduce the chance of unnecessary outages. The system dispatcher should be informed of the removal of the caution band and return the equipment to normal operation.

VI. RESPONSIBILITY

- A. The President/CEO shall be responsible for administering this policy and shall report all accidents or related activity to the Board.
- B. All employees shall be required to familiarize themselves with this policy and to observe the applicable rules outlined in the safety manual, in addition, to other specific safety requirements and procedures as management may from time to time establish.

DISCLAIMER: This policy supersedes Section 202.1, "Control of Hazardous Energy/Lockout-Tagout", of the 14th Edition of the APPA Safety Manual, which was adopted by the Inter-County Energy Board of Directors.

Effective: November 29, 2011

POLICY 315 – ATTACHMENT D**COOPERATIVE PROTECTIVE FOOTWEAR POLICY****I. OBJECTIVE**

To provide a consistent policy in our work environment, footwear, as defined below, shall be worn. Affected employees shall be required to wear footwear meeting this policy effective July 1, 2013.

II. POLICY CONTENT

In accordance with OSHA 29CFR1910.136 the employer shall ensure that each employee uses protective footwear in areas where there is a danger of foot injuries due to falling or rolling objects, objects piercing the sole of the footwear and where an employee's feet may be exposed to electrical hazards. This footwear must meet or exceed the requirements of F2413-05 Toe Impact Resistance (I75); Compression Resistance (C75); and Electrical Hazard (EH).

III. PROVISIONS

- A. **NON-EH FOOTWEAR** - All employees specified under this policy must wear compliant shoes comprised of steel or composite toe that meets the new ANSI standard F2413-05. Shoes must be worn with a toe protection (C75 rating) and aggressive soles substantial enough to resist punctures. Pull on boots will be permitted. Those specific employee job positions include: Facilities Maintenance Coordinator and Purchasing/Warehouse Coordinator.
- B. **EH FOOTWEAR** - Any employee that is or may be exposed to electrical hazards must have electric hazard (EH) certified boots. EH work boots are equipped with non-conductive soles and heels that are shock resistant. The sole must be designed to minimize shock if it is exposed to an open circuit of 600 volts AC or less. The outer sole must have additional electric shock prevention qualities to protect the worker. Footwear must have toe protection (C75 rating); sturdy upper portions with a defined heel and aggressive soles substantial enough to resist punctures and electrical hazard (EH) rated. Laced up, over the ankle support is strongly recommended, however, pull on boots will be permitted. Those specific employee job descriptions include: Crew Leader, Line Technician, Maintenance Technician, Safety/Loss Control Coordinator, Construction Superintendent and Maintenance Superintendent.
- C. Effective July 1, 2013, the Cooperative shall reimburse all current required personnel under this policy a one-time payment of up to, but not exceeding, \$300 toward the purchase of approved footwear. Effective on January 1, 2014 and every year thereafter, the Cooperative shall reimburse a one-time annual reimbursement of up to, but not exceeding, \$100 toward the purchase of the approved footwear for these specific positions on a calendar year basis. A receipt of purchase shall be provided to the Cooperative to qualify for reimbursement.
- D. If desired by the employee, the Cooperative shall furnish dielectric rubber overshoes as an additional means of fieldwork protection in which energized parts and

equipment could be encountered. It shall be noted that, while considered to provide a measure of additional protection from electrical shock, these rubber overshoes shall not be solely relied upon in any situation for such protection by employees due to punctures or other failures from use.

IV. RESPONSIBILITY

- C. The President/CEO shall be responsible for administering this policy and shall report all accidents or related activity to the Board.
- D. All employees shall be required to familiarize themselves with this policy and to observe the applicable rules outlined in the safety manual, in addition, to other specific safety requirements and procedures as management may from time to time establish.

Approved: May 17, 2013

Effective: July 1, 2013

POLICY NO. 315 – ATTACHMENT E

DE-ENERGIZING WORK/GROUNDS

I. OBJECTIVE

To promote safe working practices pertaining to de-energizing work/grounds.

II. POLICY CONTENT

De-energizing lines shall always be performed following the guidelines set forth in Inter-County Energy Lock-out/Tag-out procedures communicated through Inter-County Energy Dispatch. Grounds shall be applied as stated in the Safety Manual with the following provisions.

III. PROVISIONS

- A. All grounds shall be visually inspected before each use and properly maintained. This maintenance includes:
1. Being protected from the weather in a tool bin or self-sealing container.
 2. Stored properly by placing the grounds in a general roll pattern which does not create a crimp in the wire or at the clamp connection.
- B. A visible opening of disconnect from the energy source shall be established.
- C. The line shall be tested using approved voltage tester.
- D. Approved protective grounds shall be installed within sight on both sides of the working area of all workmen before beginning work on any de-energized line.
- E. Protective grounds shall be sized at a minimum of 1/0 copper with approved grounding clamps and shall be attached and detached with hot sticks and rubber gloves.
- F. Line trucks, bucket trucks and track machines shall be grounded any time work is being performed on or near energized lines, structures, or sub-stations. Best approved ground device shall be the system neutral. Pole ground may be used if grounding to the system neutral is impractical or could create an additional hazard.
- G. All protective grounds shall be cleaned/maintained as necessary and tested a minimum of one time per year using an approved, electronic testing device with documentation of tests performed and grounds tagged with Truck #, Ground ID #, and Test Date.

IV. RESPONSIBILITY

- A. The President/CEO shall be responsible for administering this policy and shall report all accidents or related activity to the Board.
- B. All employees shall be required to familiarize themselves with this policy and to observe the applicable rules outlined in the safety manual, in addition, to other specific safety requirements and procedures as management may from time to time establish.

Approved: June 19, 2015

Colby Grider Witness Statement

Colby Grider contact accident

November 30th, 2015

I received a phone call from CRC at 10:29 PM on Sunday, November 22nd concerning an outage on Patsy Riffe Ridge Road. They told me there were six outages reported. I believed the entire road was out because the breaker is located at the beginning of the road coming off Hwy 127. I sent a text to Colby Long to see if he was still awake. I didn't hear back from him so I called Seth Rose. Seth told me he wasn't working the next day (Monday) and to try to find someone else if I could. I remember calling Bo McGuffey's work phone first. I then called his personal phone. I can't recall which phone I talked to him on, but I believe it was his personal cell phone.

I drove to the location of the outage and parked my truck in the first driveway on the right. I put the spotlight of the truck on the breaker pole in the corn field. I could not see the breaker handle but the phase was low on the pole after the breaker pole. It looked like it had broken and run through the insulator on the A1. I walked into the corn field to see what size wire we would need for repairs and to check to see if the breaker was open. As I walked toward the breaker pole I saw a flash. I don't know if I lost consciousness. I don't remember anything other than being lost in the corn field and calling Bo to help me. I had forgotten that I had already called him. I wasn't sure of my location. I thought that I was on Norris Road. I remember asking him if I was on-call. I remember him telling me to stay put in the field and he would help me find my way out when he got there. I remember being extremely thirsty and drinking a lot of water once I got into Bo's truck.

I remember getting into the ambulance myself and telling the paramedic he would have a hard time with the IV. I told him I may puke because I get car sick but not to get alarmed. He asked me the voltage. I told him it was 7200.

I then remember being in the hospital and people showing up.

Colby A. Grider
Colby A. Grider

On Sunday November 22, 2015 at approx. 11:20 PM I recieved a call from Colby Grider asking for help to put wire back up on Patsy Riffe Ridge Rd. I went and picked up Truck #26 at the office in Danville & headed toward Patsy Riffe Rd. I was just south of Hustonville when Colby called me again (12:03 AM according to my phone). It was at this time that he informed me that he had been burnt on his right hand, was not sure where he was, and that he could not locate his truck. Only thing he could really tell me was that he was in a corn field. Once I got to the corn field, while still on the phone, started blowing my horn to try & help locate Colby. After a very short time I spotted Colby's hard hat light in the field. I told Colby to remain where he was & I drove to the driveway where his truck was parked (3093 Patsy Riffe Rd). Once here I blew my horn again & Colby could tell where I was & started out of the corn field. I met Colby at the edge of the corn field, we took a quick look at the burn on his hand & then got him into my truck. I called 911 to get an ambulance on the way. Colby was very thirsty & was shaking; I gave him a bottle of water, an extra jacket, & a toboggan. In a short time the ambulance arrived & took Colby to the hospital. After Colby

left in the Ambulance I called Clayton Watts + told him what had happened to Colby. After talking to Clayton, I called Colby's wife Laken. Clayton called me back to let me know that Dave Turner was on his way to help me with the wire. Once Dave arrived we assessed the situation, de-energized line + grounded, took photos, put wire back up, removed grounds, + energized line.

Bo McGuffey

~~Bo McGuffey~~

11/30/15

11.30.15

App. time (12:54am)

On November 23, 2015 I received A phone call from the maintenance Supervisor Clayton Watts telling me I need to go to Patsy Rife Ridge to help Bo McGuffey restore power. Clayton also told me our employee Colby Grider had a contact but felt that he was going to be O.K. When I arrived on scene Bo was there waiting for me. We made a plan to drop the step down out of service, ground both sides of our work location, Access the damage, and make list on what we need to make repairs, we also took photos of the accident scene for Safety Coordinator Charlie Lewis. After repairs were made, grounds removed and service restored we went home.

David Turnee
 DAVID TURNEE

Attachment C

KPSC Photographs of Accident Site



#1



#2



#3



#4



#5



#6



#7



#8



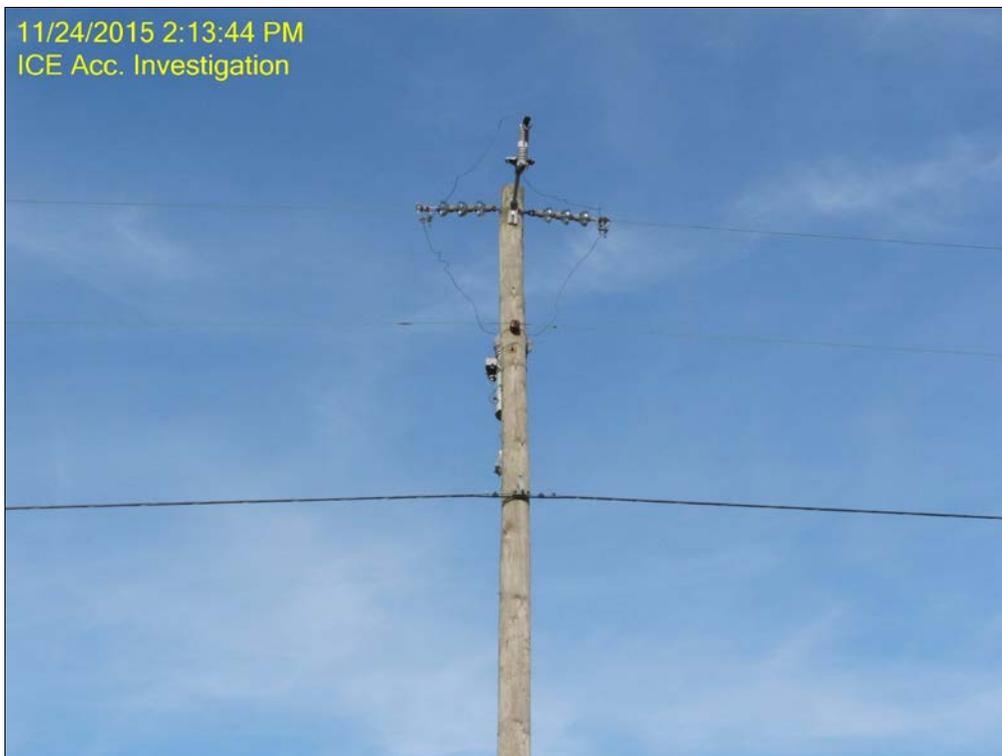
#9



#10



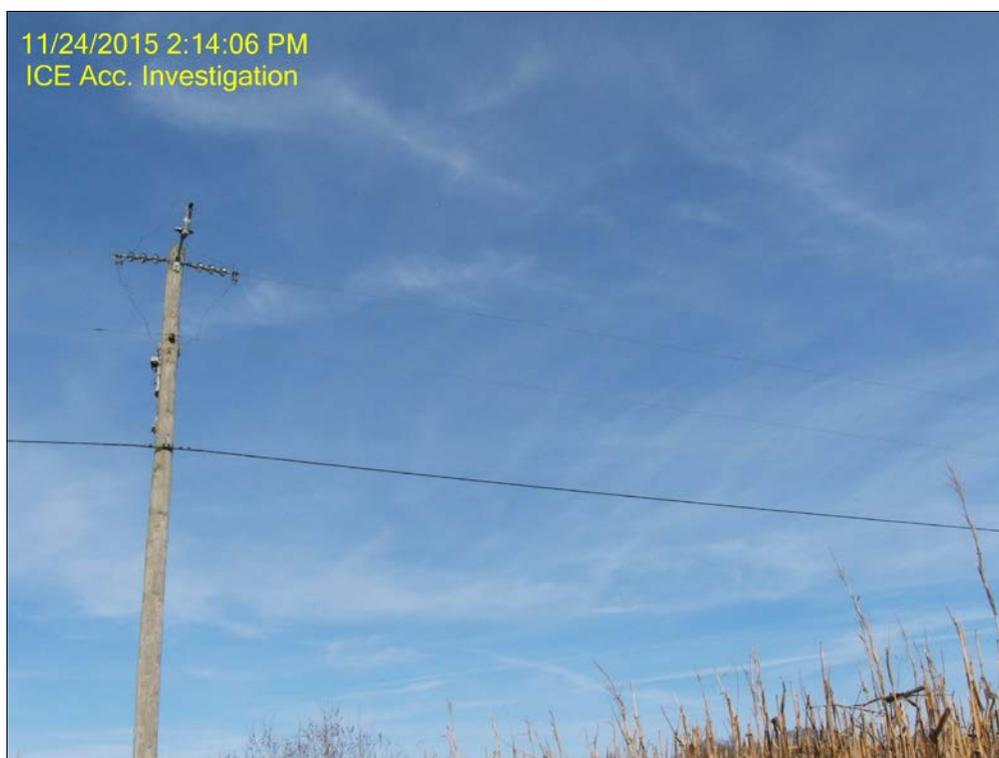
#11



#12



#13



#14



#15



#16

11/24/2015 2:22:50 PM
ICE Acc. Investigation



#17

11/24/2015 2:23:04 PM
ICE Acc. Investigation



#18



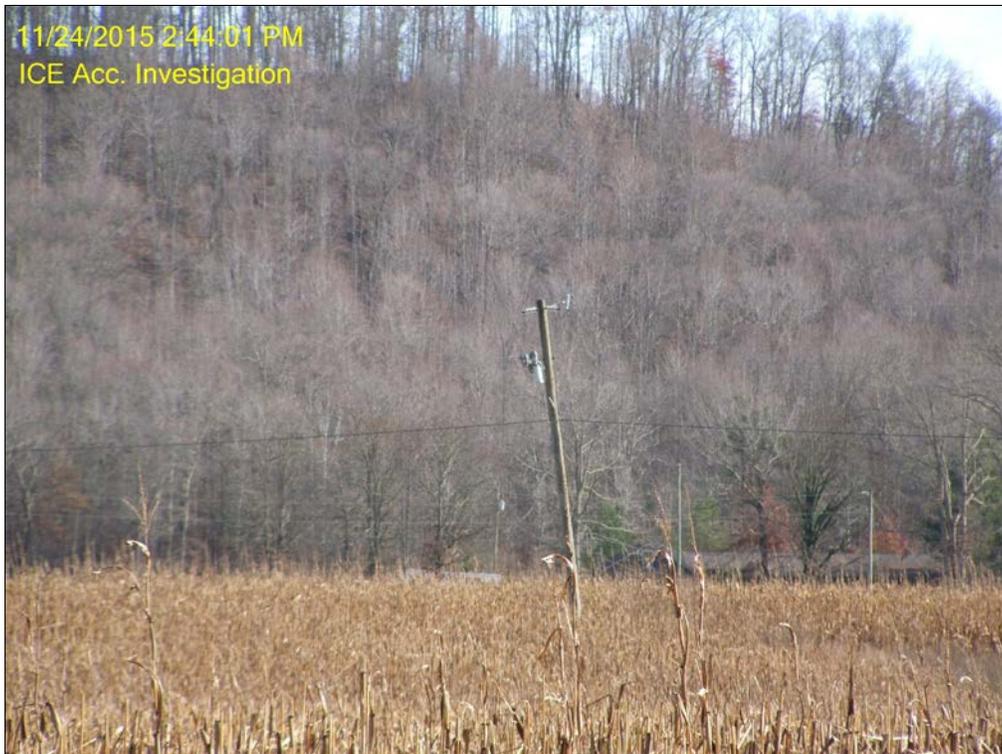
#19



#20

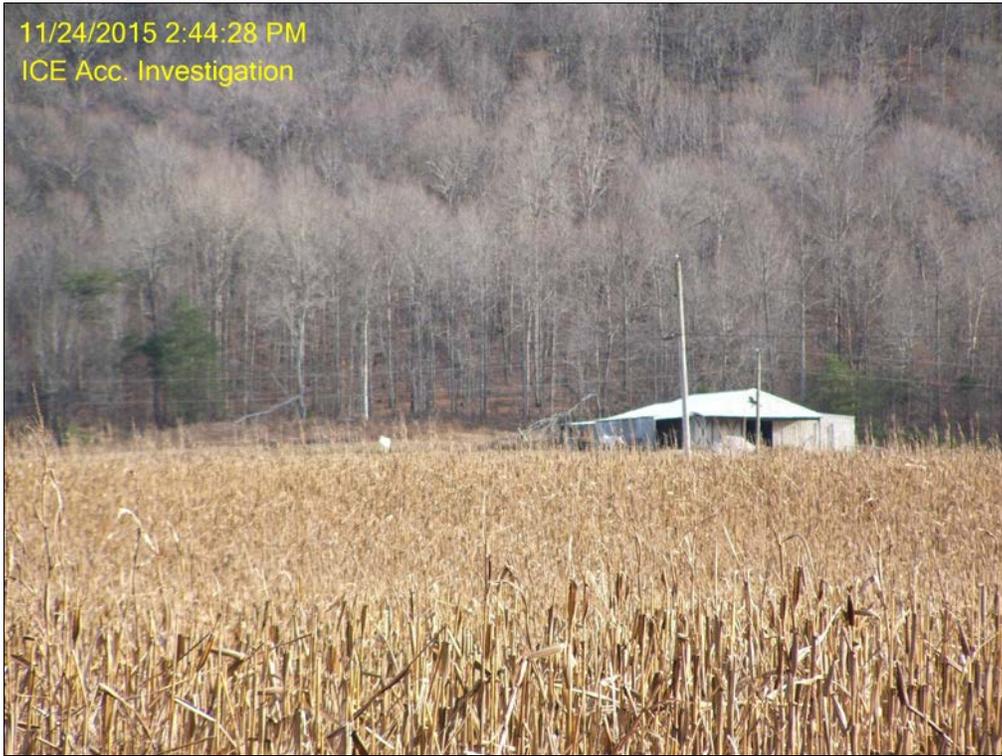


#21



#22

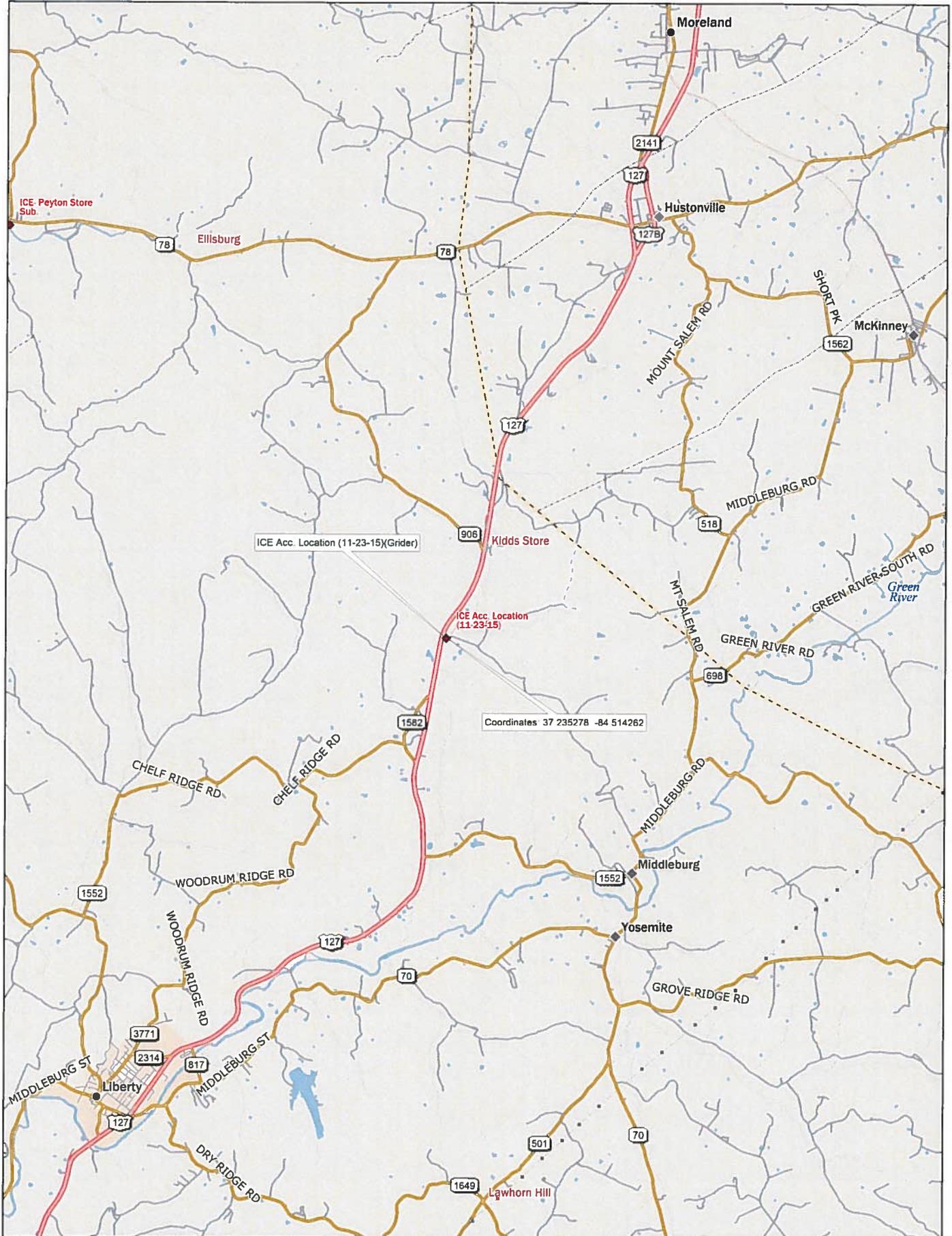
11/24/2015 2:44:28 PM
ICE Acc. Investigation



#23

Attachment D

KPSC Map of Accident Site



Data use subject to license.

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Scale 1 : 100,000



1" = 1.58 mi

Data Zone 1401-0

Attachment E

Accident Notification Information

Kingsolver, Steve (PSC)

From: Kingsolver, Steve (PSC)
Sent: Monday, November 23, 2015 10:38 AM
To: PSC - Utility Electric Notifications
Subject: Inter-County Energy Employee Accident-Shock and Burn

I received a call at approximately 9:15 AM on 11-23-15 from Charlie Lewis following up on the voicemail left earlier this morning on an employee accident. Information below is from that call.

Utility: Inter-County Energy (ICE)
Reported By: Charlie Lewis, Safety Director, ICE
Accident Happened: Approximately 12:04AM, 11-23-15
Utility Notified: Approximately 12:15AM, 11-23-15
PSC Notified: Approximately 1:47PM, 11-23-15. (Voice message to Jeff Moore's cell phone)
Employee/Victim: Colby Grider, Journeyman Lineman
Location: Riffe Ridge Rd, Casey County

Description of Accident:

Victim was responding to an outage call when this accident took place. Victim was going to the recloser pole that feed this circuit and had to walk through a corn field that had not been chopped. As he was going through the corn field, it appears from information received, that he made contact with an primary energized conductor. He has multiple burns on his body but the major burn is to his right hand. He was taken by ambulance to the Danville Hospital where he was admitted. The victim was wearing PPE consisting of Hardhat, FR Clothing and leather gloves.

This is preliminary information from the utility and could change as the investigation goes forward.

I will be performing a site visit at Inter-County Energy on Tuesday, 11-24-15 and will be using Vehicle B1790 unless told different. Comp time could be earned during this investigation. (1-2 Hours)

Steve Kingsolver

Information from the voicemail to Jeff Moore:

Steve,

Per our conversation, this is the information from the voice mail for the psc.electric.notice@ky.gov if needed. I just listened to the voice mail (12:15am) from Charlie Lewis with Inter-County reporting an employee contact and burn that happened approximately 12:15am this morning. Employee was responding to a trouble call and came in contact with primary conductor on the ground. He mentioned entry wound to the hand, but no visible exit wound. Employee had some splatter burns on other areas of his body. According to Mr. Lewis the employee is talking and appears to be okay. Also, Charlie said he had left a voice message with Steve Kingsolver reporting the incident.

Jeff Moore
Utility Regulatory & Safety Investigator
EEC/Public Service Commission
Office: 502-564-3940
Cell: 502-352-0767
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