

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

CLOSURE OF INVESTIGATION OF JULY 3, 2019)	CASE NO.
INCIDENT – LOUISVILLE GAS AND ELECTRIC)	2020-00084
COMPANY)	

ORDER

The Commission, on its own motion, initiates this proceeding to close the investigation of an incident that occurred on July 3, 2019, in Louisville, Kentucky. As a result of the incident, an employee of Davis H. Elliot Company, Inc. (DEH), a contractor for Louisville Gas and Electric Company (LG&E), suffered flash burns and injuries requiring overnight hospitalization. The employee who was injured, Dennis Shields, was attempting to verify phasing on newly installed underground conductors at a switchgear cabinet using a tone-generating device called a ringer. Mr. Shields inadvertently accessed the incorrect side of the switchgear and suffered burns when he attempted to attach the ringer to an energized conductor.

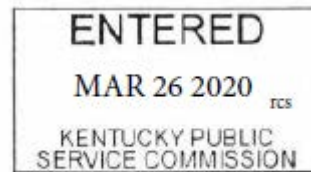
Commission Staff (Staff) investigated the incident and cited LG&E for 11 probable violations of Commission safety regulations. Staff issued LG&E a Demand for Remedial Measures and Penalty Assessment, a copy of which is attached to this Order as an Appendix, to resolve all compliance and enforcement matters pertaining to the July 3, 2019 incident. Staff reviewed and approved post-incident corrective action and safety training completed by LG&E and DEH, and LG&E paid the proposed penalty.

The Commission finds that LG&E has addressed to its satisfaction the probable violations cited by Staff in connection with the July 3, 2019 incident. The Commission further finds that the Commission's investigation of the incident should be closed.

IT IS THEREFORE ORDERED that:

1. LG&E's payment of Staff's proposed penalty and completion of remedial measures is accepted and resolves all alleged violations of KRS 278.042, 807 KAR 5:006, or 807 KAR 5:041 as well as any penalty that could be assessed under KRS 278.990(1), arising out of the July 3, 2019 incident.
2. LG&E's payment of Staff's proposed penalty is not an admission by LG&E that it willfully violated any provision of KRS Chapter 278 or any administrative regulation promulgated pursuant thereto.
3. The Commission's investigation of the July 3, 2019 incident is closed.
4. This case is closed and removed from the Commission's docket.

By the Commission



ATTEST:

Executive Director

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN CASE NO. 2020-00084 DATED MAR 26 2020

[FOURTY ONE PAGES TO FOLLOW]



Andy Beshear
Governor

Rebecca W. Goodman
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
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Michael J. Schmitt
Chairman

Robert Cicero
Vice Chairman

Talina R. Mathews
Commissioner

December 23, 2019

Robert Conroy, VP State Regulation & Rates
Louisville Gas and Electric Company
220 W. Main Street
P.O. Box 32010
Louisville, KY 40232-2010

Re: July 3, 2019 Incident

**DEMAND FOR REMEDIAL MEASURES AND
PENALTY ASSESSMENT**

Dear Mr. Conroy:

This letter is in reference to an incident that occurred on July 3, 2019, at a switchgear located at 101 Whittington Parkway, Louisville, Jefferson County, Kentucky. As a result of the incident, an employee of Davis H. Elliot Company, Inc. (DHE), an electrical contractor hired by Louisville Gas & Electric Company (LG&E), suffered flash burns and injuries requiring overnight hospitalization. Kentucky Public Service Commission Staff (Staff) investigated the incident and prepared the attached Accident Investigation Staff Report (Report).

According to the Report, Dennis Shields, the DHE employee who was injured, was attempting to verify phasing on newly installed underground conductors at a switchgear cabinet using a tone generating device called a ringer. Mr. Shields inadvertently accessed the incorrect side of the switchgear and suffered burns when he attempted to attach the ringer to an energized conductor.

Based on its investigation of the incident, Staff has determined that LG&E's contractor violated the following provisions of the 2017 edition of the National Electric Safety Code NESC:

NESC Part 4, Section 42 – General rules for employees

1. Rule 420(C)(4) – Safeguarding oneself and others, consider all effects of own actions.
2. Rule 420(C)(5) – Safeguarding oneself and others, minimum approach distance precautions for conductive objects.
3. Rule 420(D) – Energized or unknown conditions.
4. Rule 420(F) – Arcing conditions.

5. Rule 420(H) – Tools and protective equipment.
6. Rule 420(I)(1) – Clothing, suitable for assigned task and work environment.
7. Rule 420(I)(2) – Clothing, exposure to electric arc.

NESC Part 4, Section 44 – Additional rules for supply employees

8. Rule 441(A)(1) – Minimum approach distance to energized parts, requirements and precautions for approaching within minimum distance.
9. Rule 441(A)(3) – Minimum approach distance to energized parts, voltages from 301 V to 72.5 kV, exposed ground lines.
10. Rule 443(A)(1) – Work on energized lines and equipment, isolate employee from energized parts and isolate/insulate from ground
11. Rule 443(A)(2) – Work on energized lines and equipment, dependence on covering of wires.
12. Rule 443(A)(3) – Work on energized lines and equipment, grounding of lines exposed to higher voltage than those guarded against by PPE.
13. Rule 443(G) – Switchgear.

KRS 278.042 provides that the Commission shall 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 regulation and orders and in the most recent edition of the NESC. 807 KAR 5:041, Section 3(1) requires each electric utility to construct and maintain its plant and facilities in accordance with accepted engineering practices, adopting the provisions of the NESC as applicable standards of accepted good engineering practices. Based on its investigation of the incident and its determination that LG&E's contractor committed violations of the NESC, Staff finds that LG&E is in violation of 807 KAR 5:041, Section 3(1), for failing to maintain its plant and facilities in accordance with accepted engineering practices.

REMEDIAL MEASURES

Based upon information provided by LG&E, Staff has determined that LG&E and DHE have completed appropriate post-incident corrective actions and safety training.

CIVIL PENALTY

KRS 278.990(1) provides that a utility's willful violation of any of the provisions of KRS Chapter 278, or any administrative regulation promulgated pursuant thereto, shall subject the utility to a civil penalty assessed by the Commission not to exceed \$2,500 for each violation. Under the statute, each act, admission or failure of a person acting for a utility within the scope of his employment shall be deemed to be the act, omission or failure of the utility. After investigation of this matter, and considering the duplicative nature of certain violations, it is Commission Staff's determination that LG&E be subject to a civil penalty in the amount of \$22,500 for violation of 807 KAR 5:041, Section 3(1).

If LG&E does not wish to contest the proposed civil penalty, LG&E should mail or deliver a company check, cashier's check or money order made payable to the "**Kentucky State Treasurer**" in the amount of \$22,500 within 30 days of the date of this letter, to:

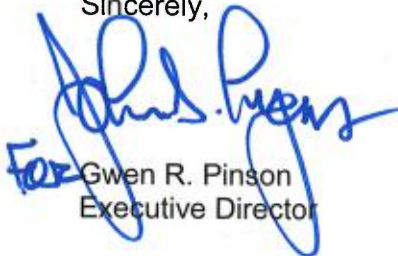
Kentucky Public Service Commission
211 Sower Blvd.
Frankfort, Kentucky, 40602

Payment of the proposed civil penalty will satisfy and resolve any and all claims the Commission may have against LG&E for any violation of KRS 278.042, 807 KAR 5:041, Section 3, or 807 KAR 5:006, Section 27(1), and for any penalty under KRS 278.990 arising out of the July 3, 2019, 2018 incident. LG&E's payment of the proposed civil penalty will not be considered an admission by LG&E that it willfully violated any provision of KRS Chapter 278 or any administrative regulation promulgated pursuant thereto. Upon payment of the proposed penalty, the Commission will confirm resolution of this matter by entry of an order. Payment of the penalty constitutes a waiver by LG&E of any right to a hearing in any proceeding initiated to close the investigation.

If LG&E does not pay the proposed civil penalty within 30 days of the date of this letter, the Commission will institute an administrative proceeding against LG&E and schedule a formal hearing, at which LG&E will have an opportunity to present evidence and show cause why it should not be subject to penalties in KRS 278.990(1) based on the July 3, 2019 incident.

This demand letter addresses only those matters specifically referred to in this document. This demand does not waive or otherwise affect any obligations or liabilities that may result from other activities by LG&E. If you have any questions, please contact John Park at 502-782-2589.

Sincerely,


For Gwen R. Pinson
Executive Director

Attachment

Matthew G. Bevin
Governor

Charles G. Snavey
Secretary
Energy and Environment Cabinet



Commonwealth of Kentucky
Public Service Commission
211 Sower Blvd.
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Michael J. Schmitt
Chairman

Robert Cicero
Vice Chairman

Talina R. Mathews
Commissioner

Staff Incident Investigation Report

August 19, 2019

Utility: Louisville Gas & Electric (LG&E)

Address: 220 West Main Street, Louisville, KY 40202

Contact Person: Keith McBride

Title: Public Safety and Investigator

Phone: 502-627-4830

Email: keith.mcbride@lge-ku.com

Contractor: Davis H. Elliot (DHE)

Address: 673 Blue Sky Parkway, Lexington, KY 40509

Contact Person: David White

Title Regional Safety Director

Phone: 859-263-5148

Email: Unknown

Incident Location: 101 Whittington Parkway, Louisville, KY 40222 (Jefferson County)

Incident Date: July 3, 2019

Approximate Time: 5:58 PM

Date PSC Notified: July 3, 2019

Time: 10:16 PM

Date PSC Investigated: July 11, 2019

Person(s) Injured: Dennis Shields (Foreman DHE)

Injury: Yes, flash burn

Fatality: No

Utility personnel at investigation site: LG&E-KU utility personnel; Keith McBride (Safety), Adam Haley (Team Leader), Shawn Strickler (Manager - Underground Operations), and Robert Yates (Group Leader - Underground Operations)

PSC Investigator: Jeff Moore

Incident Summary Report: See Attachment A

DHE Incident Investigation Report: See Attachment C

Description: According to LG&E's summary report, DHE investigation report, and the description of the incident from utility personnel at the incident site visit on 7/11/2019. DHE employees finished pulling in underground conductors and terminated the conductors inside switchgear SG6-1027, See Photos in Attachment B.

According to utility personnel at the incident investigation on 7/11/2019, DHE employees stopped work due to rain. Once the rain cleared, Dennis Shields and Scotty New went back to the switchgear cabinet and attempt to verify the continuity and determine the correct phasing of the new de-energized conductors using a device called a ringer. The ringer generates a tone that helps identify the correct phasing when connected to the conductors.

After Mr. Shields returned to the switchgear cabinet, he inadvertently accessed a 7200 volt energized section of the switchgear and a flash occurred when he attempted to connect the ringer to an energized conductor. See Photos of damaged ringer and burn marks to the switchgear cabinet in Attachment C. Mr. Shields suffered burns on his right wrist, left side of his face, neck, chest, and ear. EMS transported Mr. Shields to University of Louisville Hospital and admitted him at approximately 10:15 P.M. for 24-hour observation. Mr. Shields was released on 7/5/2019 and is expected to make a full recovery.

Applicable Statutes, Codes, and Regulations:

KRS Chapter 278

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

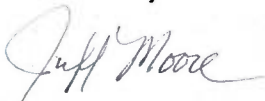
(1) For the purposes of this section, "NESC" means the National Electrical Safety Code as published by the Institute of Electrical and Electronics Engineers, Inc.

(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 plan 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.

Conclusion: Based on the information provided by the LG&E and DHE, the following probable violations of the National Electrical Safety Code (NESC) are noted.

Probable Violations: See Attachments D - H

Submitted by:



Jeff Moore

Electric Utility Investigator

Kentucky Public Service Commission

- Attachments:
- A. Utility Incident Summary Report
 - B. PSC Photos
 - C. DHE Incident Investigation Report
 - D. NESC, Rule 420 C (4), (5), and D
 - E. NESC, Rule 420 F, H, and I
 - F. NESC, Rule 441 A (1) and (3)
 - G. NESC, Rule 443 A (1), (2), and (3)
 - H. NESC, Rule 443 G

ATTACHMENT A



July 10, 2019

Ms. Gwen Pinson
Executive Director
Kentucky Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602

Re: Report No. 19-ED-E-010

Dear Ms. Pinson:

I am forwarding the enclosed Incident Report prepared by Keith McBride regarding the incident that occurred on July 3, 2019 at 101 Whittington Parkway in Louisville. Louisville Gas & Electric Company is providing this report to the KPSC in accordance with the applicable seven-day reporting requirement. Please return a file stamped copy of the report in the envelope provided.

Should you need additional information concerning this outage, please contact me at (502) 627-2166.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Gomsak".

Mark Gomsak

RECEIVED

JUL 10 2019

PUBLIC SERVICE
COMMISSION

LG&E and KU Energy, LLC
Corporate Law
220 W. Main Street
Louisville, Kentucky 40202
www.lge-ku.com

Mark Gomsak
Corporate Attorney
T 502-627-2166
F 502-627-3367
Mark.Gomsak@lge-ku.com

Kentucky Public Service Commission 7-Day Investigation Report

LG&E Contractor Employee Admitted to Hospital

Type of Report

19-ED-E-010

Report Number

Keith McBride

Investigators

July 3, 2019

Date of Incident

Location: 101 Whittington Parkway
Louisville, Kentucky 40222
Jefferson County

Incident Summary

On July 3, 2019 at approximately 5:58 P.M., LG&E-KU Distribution Control Center (DCC) detected a relay on circuit Plainview (PV) 1254. Shortly after, DCC received notice that a contract employee working for Davis H. Elliot (DHE), an electrical contractor for LG&E-KU, received flash burns while working in an energized switch gear.

The employee was taken to the hospital and was admitted to the hospital later that evening for 24-hour observation.

Keith McBride, Senior Electric Technical Training, Public Safety and Investigator, notified the Kentucky Public Service Commission (KPSC) of the hospitalization at 10:16 P.M. via the KPSC email notification system.

Incident Investigation

On July 3, 2019 at approximately 5:58 P.M., LG&E-KU Distribution Control Center (DCC) saw a relay occur on circuit Plainview (PV) 1254. Shortly after, DCC received notice that a contract employee for DHE, an electrical contractor for LG&E-KU, received a flash burn while working in an energized switch gear.

According to DHE, Dennis Shields, DHE Foreman, and his crew, had finished pulling in a set of 350cu copper cables and had terminated the cables inside of switchgear #SG6-1027. Mr. Shields was attempting to verify the continuity and determine the correct phasing of the newly installed, de-energized cables by connecting a tone generating device commonly referred to as a "ringer".

Mr. Shields however had accessed the incorrect side of the switchgear and when he attached the ringer, a 7200 volt phase to ground arc flash occurred.

Mr. Shields suffered burns to his right wrist, left side of his face, neck, chest, and ear.

911 was notified and Mr. Shields was transported to University of Louisville Hospital via EMS.

At approximately 10:15 P.M., Mr. Shields was admitted to the hospital for 24 hour observation and further treatment of the flash burns.

Mr. Shields was released from the hospital on Friday, July 5, 2019 and is expected to recover fully.

Contractor Information:

Davis H. Elliot Company, Inc. – LG&E-KU Electric contracting partner
673 Blue Sky Pkwy.
Lexington, Kentucky 40509
(859) 263-5148

Injured party:

Dennis A. Shields (Foreman)
214 Old Veechdale Rd
Simpsonville, KY 40067
(865)924 2582
DOB – 2/15/64
Hire date – 5/19/14

Incident Details:

- Date and time of flash – 7/3/19 5:58 P.M. EST
- Address – 101 Whittington Parkway, Louisville Kentucky 40222
- Circuit – Plainview (PV) 1254 relayed at 5:58 P.M.

Co-workers on site at time of incident:

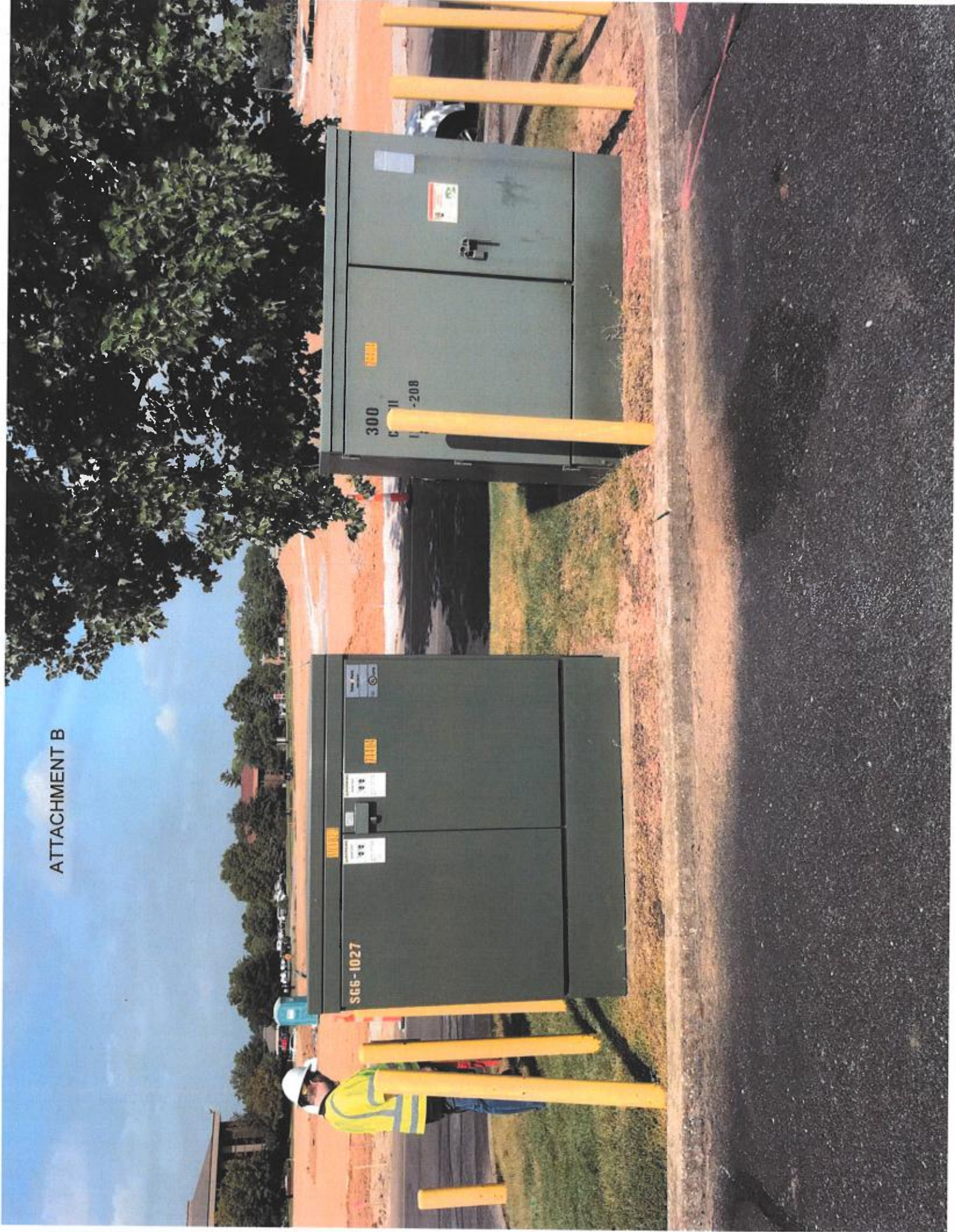
- Scotty New, Foreman

- Christopher Isaacs, URD Technician
- Steven Bright, URD Technician 4
- Josten Folmar, URD Technician 3
- Jeffery Lea, URD Ground man
- Andrew Ward, URD Ground man 1
- Allen Lambert, URD Technician 4
- Christopher Gaddie, Journeyman URD Technicians

DATE OF REPORT: July 10, 2019

END OF REPORT

ATTACHMENT B



SG6-1027

101823

74404

⚠ WARNING
KEEP OUT

Do not touch, remove, or replace
any components, wires, or cables
without proper training and
authorization.

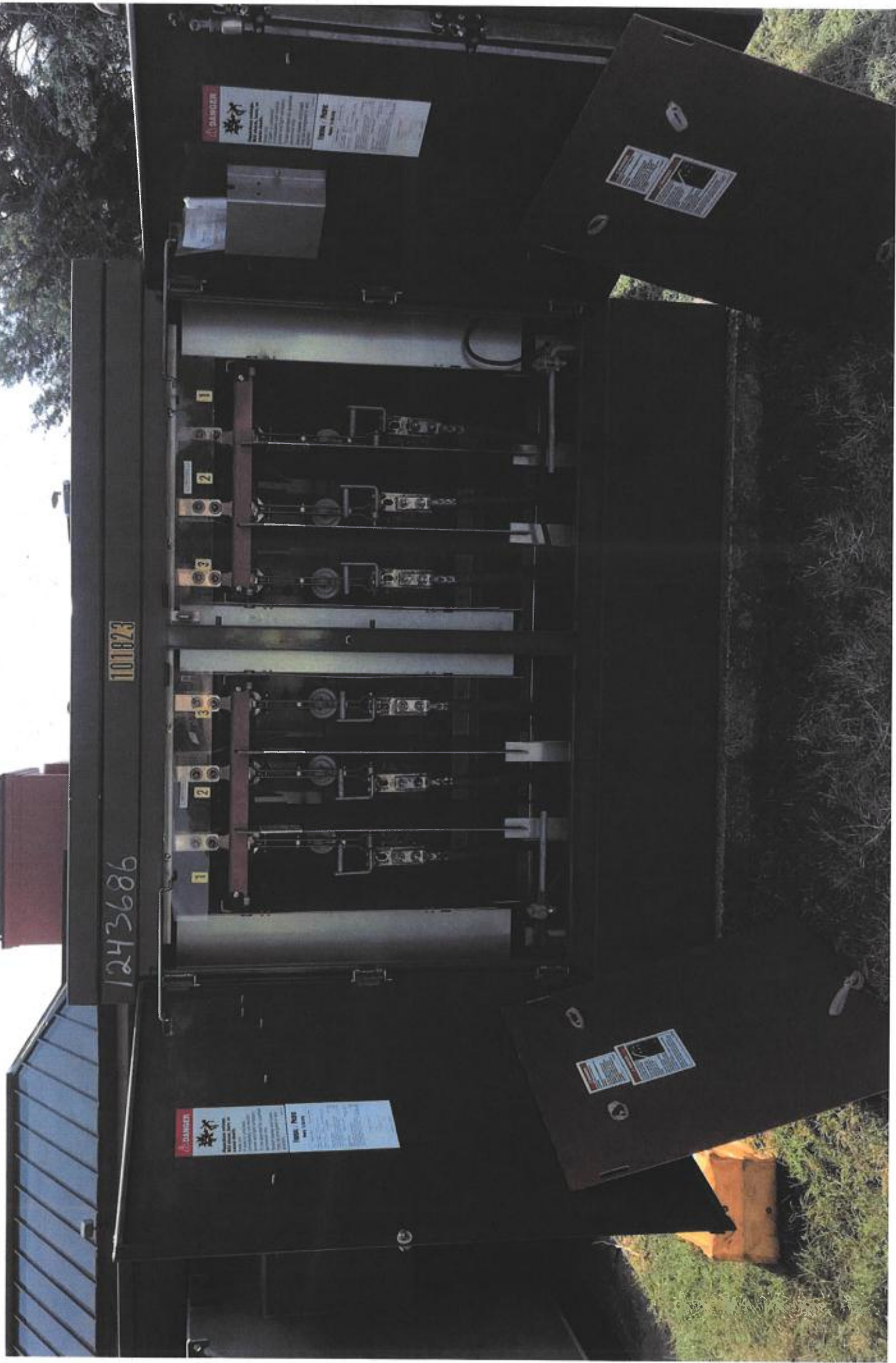
⚠ WARNING
KEEP OUT

Do not touch, remove, or replace
any components, wires, or cables
without proper training and
authorization.



FEDERAL PACIFIC
Power Systems
 LISTED





1243686

101823

1

2

3

3

2

1



1243686

11011823

1

2

3

3

2

1



DANGER
High Voltage
Electrical Equipment
Do Not Touch
Keep Clear
Stay Back

1243686

1011823

SG6-1027



1011823



RECEIVED

JUL 18 2019

PUBLIC SERVICE
COMMISSION

July 17, 2019

Jeff Moore
Kentucky Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602

LG&E and KU Energy LLC
Corporate Law
220 W. Main Street
Louisville, Kentucky 40202
www.lge-ku.com

Michelle Jeffreys
Sr. Paralegal
T 502-627-3308
F 502-
michelle.jeffreys@lge-ku.com

Re: Report No. 19-ED-E-010

Dear Mr. Moore:

In response to your written information request dated July 11, 2019, I am providing the following documents and information:

- Davis H. Elliott Company, Inc.'s (DHE) Investigation Report (enclosed)
- DHE's Job Briefing (enclosed)
- Photographs of Incident Site (enclosed)
- System Map of Area (enclosed)
- Protective Devices on Facilities Involved:
 - 2-line side switches and 1 load bay fusing (20E fuses) at SG6-1027 (TLM 101823); and
 - Substation breaker.
- Required PPE for the Type of Work Performed:
 - Hard hat;
 - Safety eyewear;
 - Fire retardant shirt;
 - Fire retardant pants;
 - Safety steel toed boots; and
 - Rubber gloves and sleeves.
- Dielectric Test Records – The injured worker was not wearing rubber gloves or sleeves at the time of the incident.
- Correction Actions Taken by DHE:
 - DHE management and safety conducted a stand-down with all DHE and LG&E underground distribution crews (3-Phase and

Network) not directly involved in the incident on Monday, July 8, 2019, morning;

- DHE management and safety held a human performance review meeting of incident on Monday, July 8, 2019, afternoon with crew members involved to help determine root cause and other causation factors involved in this incident;
- Mr. Shields and Mr. New were terminated;
- Other crew members were to return to work Tuesday, July 9, 2019 following a stand-down meeting;
- General supervision accompanied interim supervision through the remainder of the week; and
- Additional management and safety oversight will be in place over the next weeks conducting enhanced job site audits.

Please return a file stamped copy of the cover letter in the envelope provided.

Should you need additional information concerning this outage, please contact me at (502) 627-3308.

Sincerely,



Michelle Jeffreys

Investigation Report



Logistics

Event ID #: E-07-192452
Region: Bluegrass
Date of Event: 7/3/19
Time of Event: 6:00 p.m.
Customer: LG&E
Location: 101 Whittington Parkway - Louisville, KY
Person/Crew: Dennis Shields
Task Performed: Checking phasing on newly installed UG primary cable

Event Result: Employee Injury (flash burn)

Investigation

Investigation Level: Level I Level II X Level III

Investigation Team: David G. White (Safety Director); Jake Green, (Division Manager); Keith Simpson, (Regional Vice President); Murray Armstrong (General Foreman); Jason Burns (Safety Director); Don Adkins (Corporate Safety Manager), Ken Sheridan (Corporate Safety).

Crew Members:

- Dennis Shields, Foreman, URD
- Scotty New, Foreman, URD
- Chris Gaddie, Journey URD Tech
- Chris Isaacs, URD Tech 4
- Steven Jay Bright, URD Tech 4
- Allen Lambert, URD Tech 4
- Josten Dakota Folmar, URD Tech 3
- Jeffrey Lea, URD Groundman 4
- Andrew Ward, URD Groundman 1

Event Summary: Davis H. Elliot [DHE] crew was attempting to verify phasing on newly installed, de-energized UG cable. DHE employees Dennis Shields and Scotty New accessed switchgear #SG6-1027. Other crew members were stationed near another switchgear located approximately 315' to the north. A flash occurred as Mr. Shields attempted to connect a tone generating device used to check continuity and determine correct phasing of new cable. DHE crew members notified 9-1-1 and LG&E dispatcher.

Mr. Shields was transported to University of Louisville Hospital via ambulance. He was later admitted at approximately 10:45 pm for observation and treatment of burns to his right wrist and left side of face, ear, neck and upper chest. Mr. Shields was released from the hospital Friday afternoon, July 5, 2019.

Following the incident, DHE staff conducted a field investigation at the site Wednesday evening, July 3, 2019. All available crew members participated in the site investigation. Initial investigation revealed that Mr. Shields and Mr. New accessed the incorrect side of switchgear while attempting to determine phasing of new cable. Mr. Shields attempted to place tone device (a.k.a. "phone ringer") on an energized (7200v) conductor.

Additional Details:

- Hold Card #2540 had been placed on de-energized side of switchgear by Mr. Shields earlier in the day at 9:45 am.
- Mr. New's crew had joined this job site around 11:00 am that morning.
- Mr. Shields failed to wear proper PPE.
- Mr. Shields and Mr. New were wearing hard hat, safety glasses and safety toed shoes.
- No injuries were sustained by Mr. New or any other crew member.
- A job briefing was conducted by Mr. Shields prior to starting work.
- Site pictures submitted with report.
- Additional specific details provided to Keith McBride via e-mail from Jake Green on July 5, 2019 at 12:39 pm.

Contributing Factor(s):

- Designated observer failed to identify hazards to call an all-stop.

Root Cause:

- Failure to perform a zero voltage check on a known, ungrounded conductor.

Immediate Action Plan:

- DHE management and safety conducted a stand-down with all DHE LG&E UG distribution crews (3-Phase and Network) not directly involved in the incident on Monday morning, July 8, 2019.
- DHE management and safety held a Human Performance Review Meeting of incident on Monday afternoon, July 8, 2019 with crew members involved to help determine root cause and other causation factors involved in this incident.
- Mr. Shields and Mr. New indefinitely suspended.
- Other crew members will return to work Tuesday, July 9, 2019 following a stand-down meeting.
- General supervision will accompany interim supervision through the remainder of the week.
- Additional management and safety oversight will be in place over the next weeks conducting enhanced job site audits.

Report provided by:

David G. White
Regional Safety Director
Davis H. Elliot



FormType
BriefingRoster
Briefing Date
07/03/2019
Job Location
Street Address or nearest crossroads
101 whitington parkway
Emergency Numbers
(911 or Other)
911baptist health 4001 kresge way
Description of work to be performed
Pulling out 350 cu cable and pulling in 350 cu copper cable and terminating indoors inside switchgear.

When conducting the briefing, please use the Reference guide page as a reminder to discuss possible hazards or conditions that may be present at the job site and for protective equipment or precautions that may be necessary for the safety of the crew. Keep in mind there may be additional hazards or conditions other than those listed. Make sure each person understands the job to be performed and the protective measures to be taken before allowing them to sign this form.

Select Reference Page Type
<input type="checkbox"/> Electrical Services
<input type="checkbox"/> Transmission/Distribution (OHD)
<input checked="" type="checkbox"/> Underground / Tech Services (URD)

Foreman (Employee In Charge) Name
Dennis Shields

Recognized hazards, personal protective equipment, energy source controls, special precautions, work procedure(s) to be used, and any other information that could affect the safety of my crew. I have verbally delivered my job briefing to my crew and have given each member the opportunity to ask questions.

I will appoint an observer or observers when and as required by company policy.

Additional briefings must be conducted if the scope of the work changes significantly or if additional hazards are recognized.

I am committed to work by the safety rules, to watch out for my co-workers, to speak up when I see a potentially unsafe condition or behavior, to accurately communicate with my co-workers, to ask questions if I am unsure, and to lead by example.

Observer(s)(1)
Observer Name
FOLMAR, JOSTEN 3001441

What are you going to do today to ensure an Accident Free Workspace?
Watch for slips trips and falls. Wear all proper ppe for job task at hand. Set up all proper manhole safety equipment. Test man hole atmosphere at 3 levels before entry and wear monitor while remainder of work is performed in man hole. Cone and chalk all trucks and equipment. Do a 360 walk around before moving trucks and always use a spotter when back and when other wise needed. Use three points of contact when climbing on trucks and ladders. Use proper 3 way communication. Stay out of line of fire and pinch points when pulling and removing cable. If anything changes we will stop regroup and establish a planB. Anyone can call stop at anytime for any reason. Use your Elliot 10 and everyday safe work practices. In the event of a emergency Dakota will call 911 Jeff will assist the ambulance and if either are unable to perform their task andrew will step in and assist. We will have cations on PV 1253 &1254 under cation card number

Video Training Included during Job Briefing?
<input checked="" type="radio"/> Yes <input type="radio"/> No

Training Topic
LM1927
TrainingDescription
COACHING CONVERSATIONS - FEEDBACK (P3)
Crew Members(1)
** Crew Member's signature will be used to acknowledge Video training on a separate Training Roster for the topic selected above **
Employee Name
SHIELDS, DENNIS 3000865
Employee Signature
DS
Signed Date/Time
07/03/2019 09:00 AM
Crew Members(2)
** Crew Member's signature will be used to acknowledge Video training on a separate Training Roster for the topic selected above **
Employee Name
ISAACS, CHRISTOPHER 3001811
Employee Signature
CF
Signed Date/Time
07/03/2019 08:59 AM
Crew Members(3)
** Crew Member's signature will be used to acknowledge Video training on a separate Training Roster for the topic selected above **
Employee Name
BRIGHT, STEVEN 3002936
Employee Signature
SO
Signed Date/Time
07/03/2019 08:58 AM
Crew Members(4)

**** Crew Member's signature will be used to acknowledge Video training on a separate Training Roster for the topic selected above ****

Employee Name

FOLMAR, JOSTEN 3001441

Employee Signature

OF

Signed Date/Time

07/03/2019 08:59 AM

Crew Members(5)

**** Crew Member's signature will be used to acknowledge Video training on a separate Training Roster for the topic selected above ****

Employee Name

LEA, JEFFREY 3004638

Employee Signature

JL

Signed Date/Time

07/03/2019 09:00 AM

Crew Members(6)

**** Crew Member's signature will be used to acknowledge Video training on a separate Training Roster for the topic selected above ****

Employee Name

WARD, ANDREW 3004569

Employee Signature

AW

Signed Date/Time


07/03/2019 08:59 AM



Crew Members(7)

**** Crew Member's signature will be used to acknowledge Video training on a separate Training Roster for the topic selected above ****

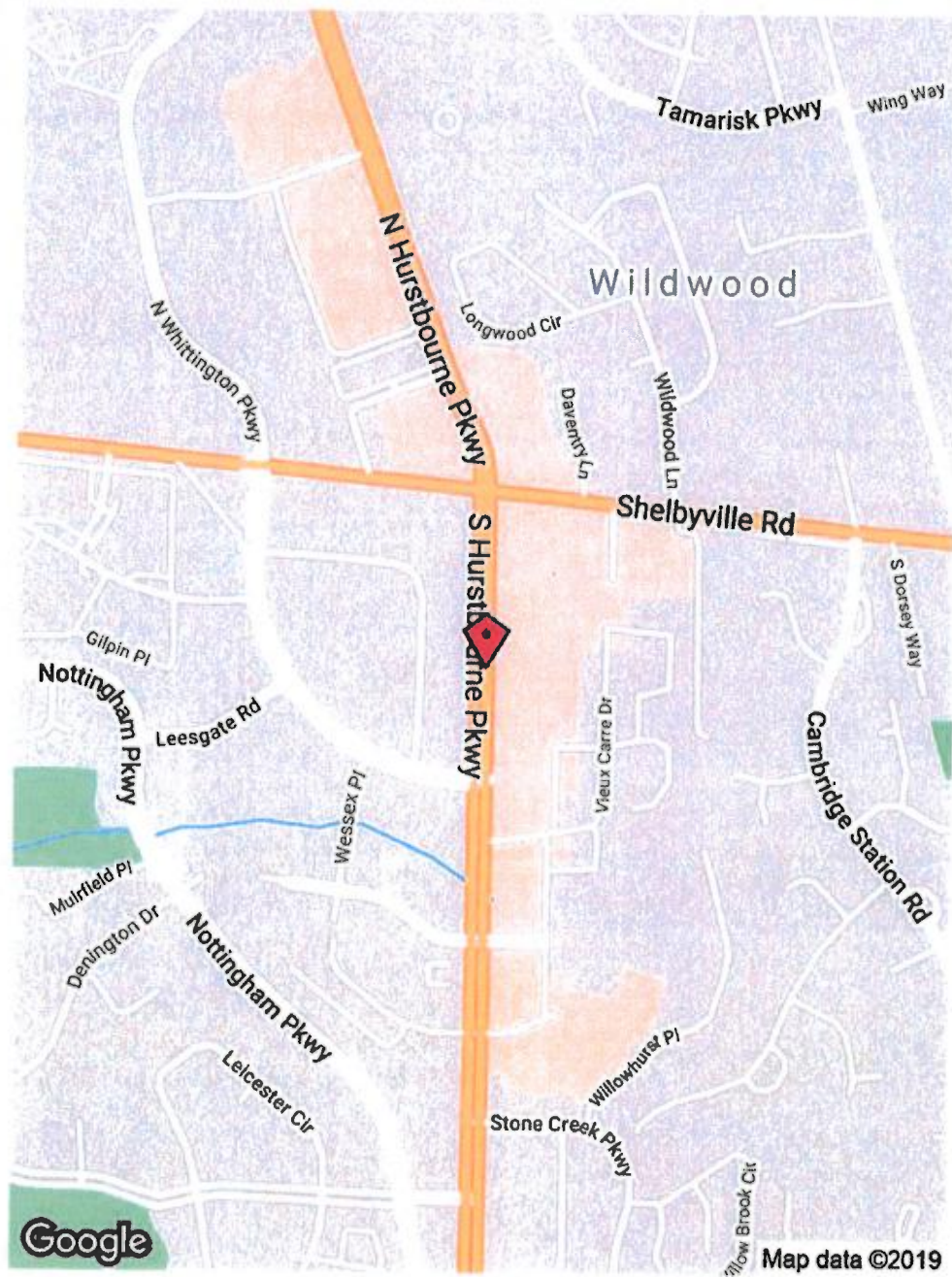
Employee Name

NEW, SCOTTY 6367

Employee Signature
SN
Signed Date/Time
07/03/2019 10:54 AM
Crew Members(8)
** Crew Member's signature will be used to acknowledge Video training on a separate Training Roster for the topic selected above **
Employee Name
LAMBERT, ALLEN 5673
Employee Signature

Signed Date/Time
07/03/2019 10:54 AM
Crew Members(9)
** Crew Member's signature will be used to acknowledge Video training on a separate Training Roster for the topic selected above **
Employee Name
GADDIE, CHRISTOPHER 3003837
Employee Signature
C.S.G
Signed Date/Time
07/03/2019 10:55 AM
Are Visitors Present?
<input checked="" type="radio"/> Yes <input type="radio"/> No
Visitor(s)(1)
Visitor Name
Armstrong, Murray
Employee Number (if applicable)
13008

Visitor Signature

Visitor Signed Date/Time
07/03/2019 13:39:00
Job Briefing Code Please change this number each time you submit an update, add visitors, add crew members, etc. For example on your initial briefing this should be "JB01", if you add a visitor you will need to update this to "JB02" then submit it again. If you were to add additional information later in the day you would change it to "JB03" when re-submitting.
JB02
GPSLocation
<div style="text-align: center;">  </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> Latitude : 38.243756 Longitude : -85.576826 Altitude : 200.8 m Accuracy : 65.0 m </div>

Location Map



101822

8079 403

⚠ HOLD
DO NOT OPERATE

REASON FOR HOLD (SEE INSTRUCTIONS)

DATE 0540

BY 101823

DATE 7-9-77

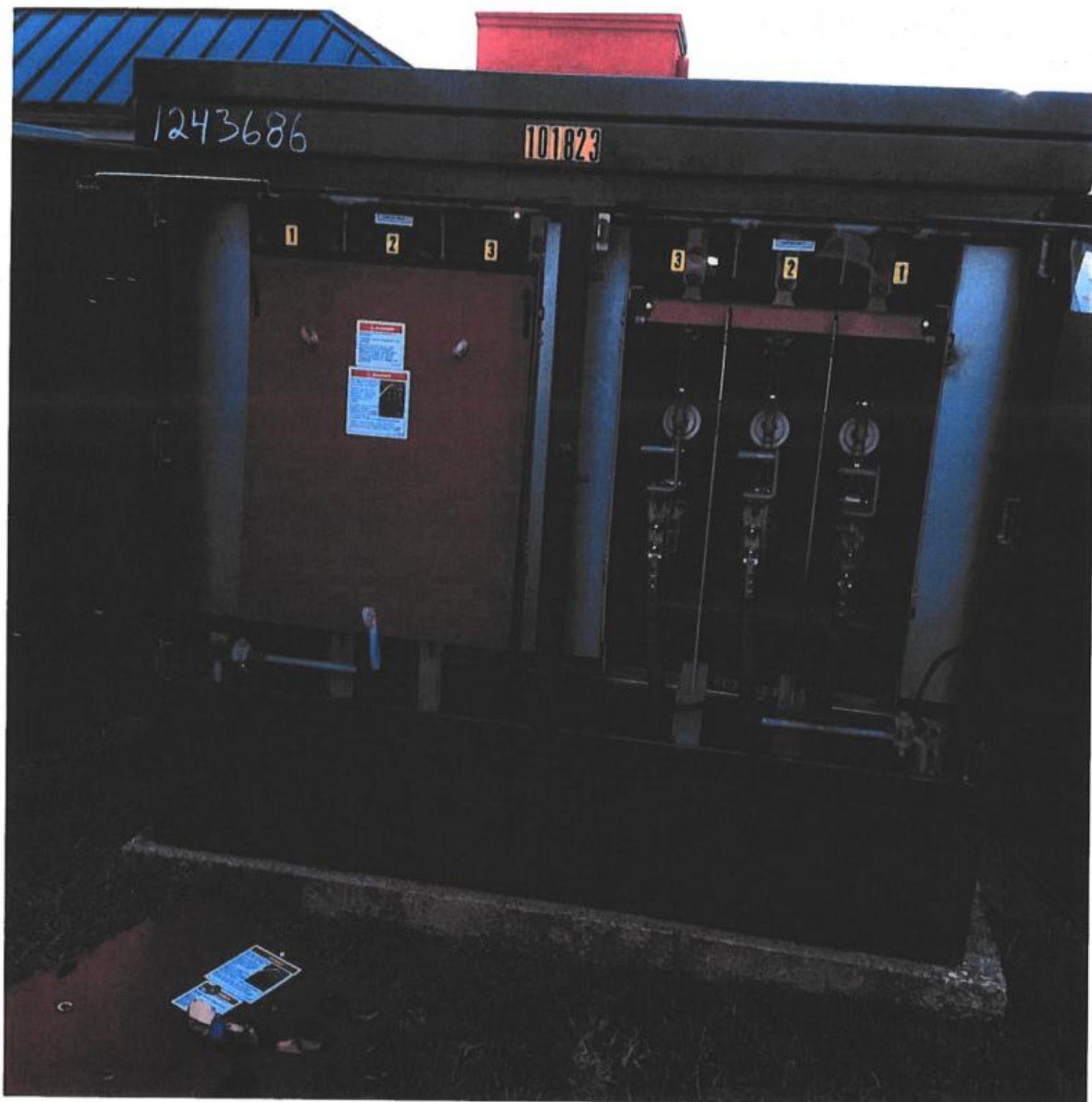
LOCATION 2164L-10000

APPLIED TO Q54-10000

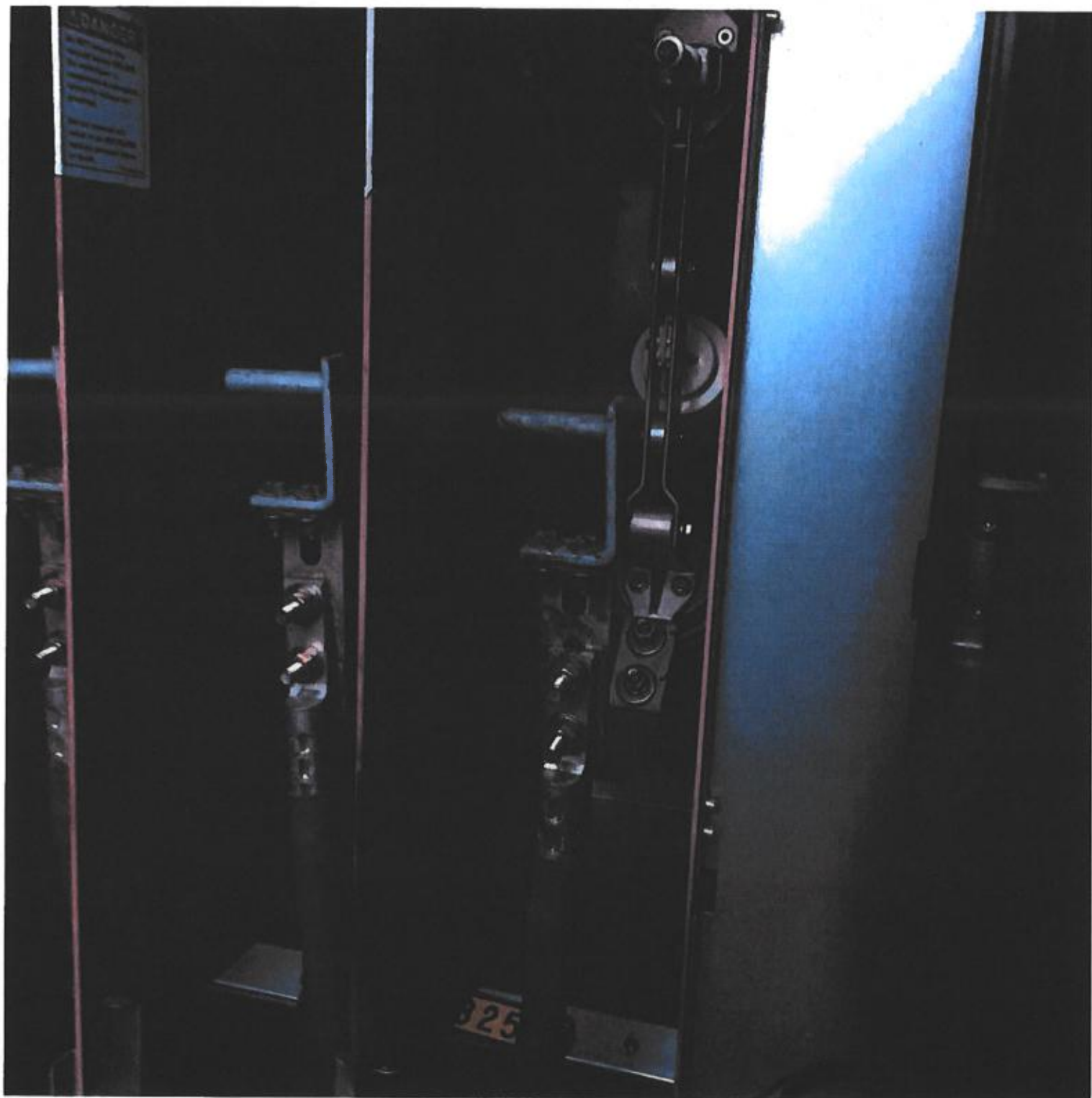
TIME 9:45

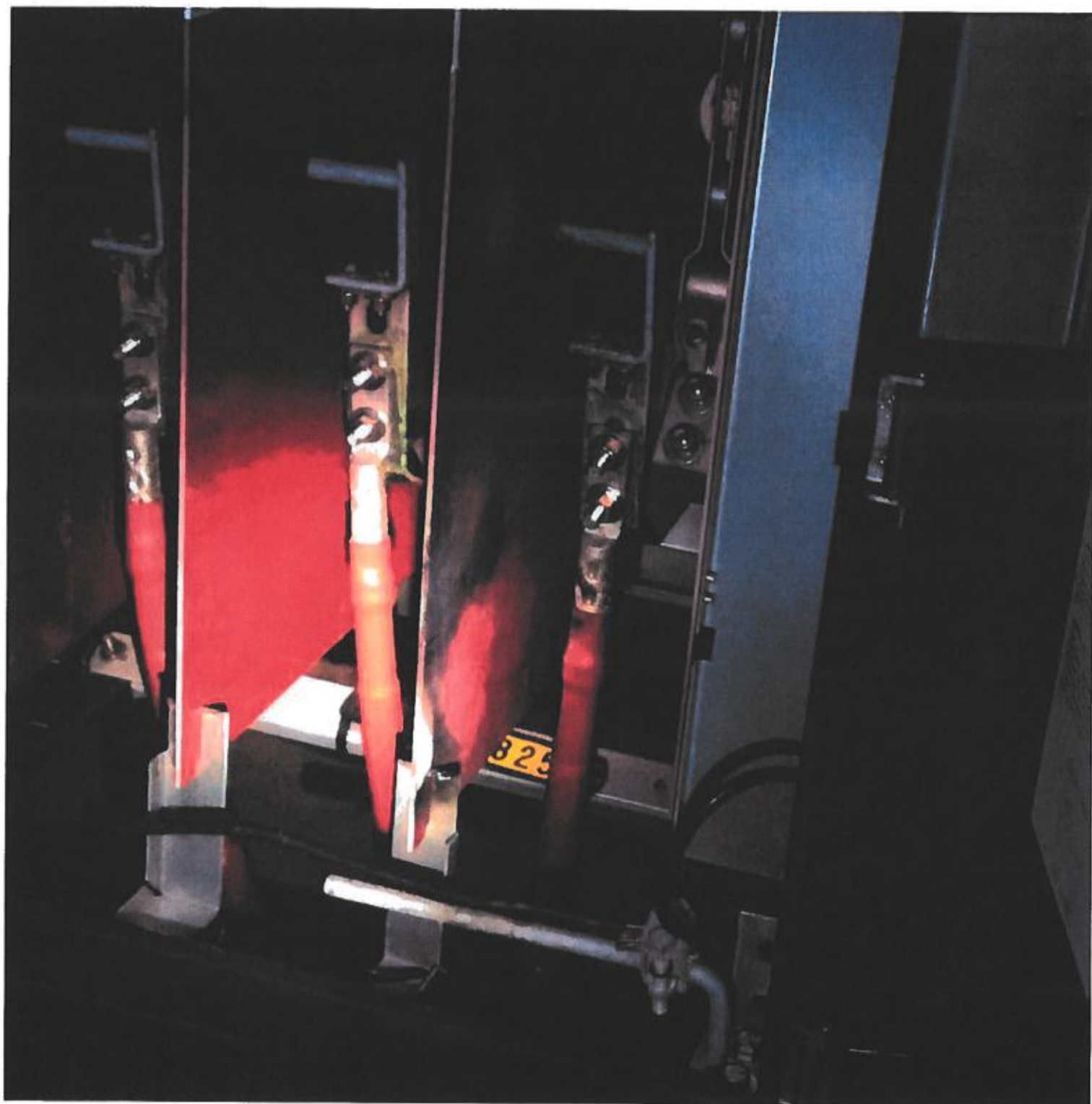
REMOVED BY

DATE













⚠ DANGER

Switches may be energized by backfeed

Switches may be energized in any position

Do NOT assume that an open switchblade is de-energized

Before working in compartment

ALWAYS consider all circuits

and components live until de-energized, tested for voltage and grounded

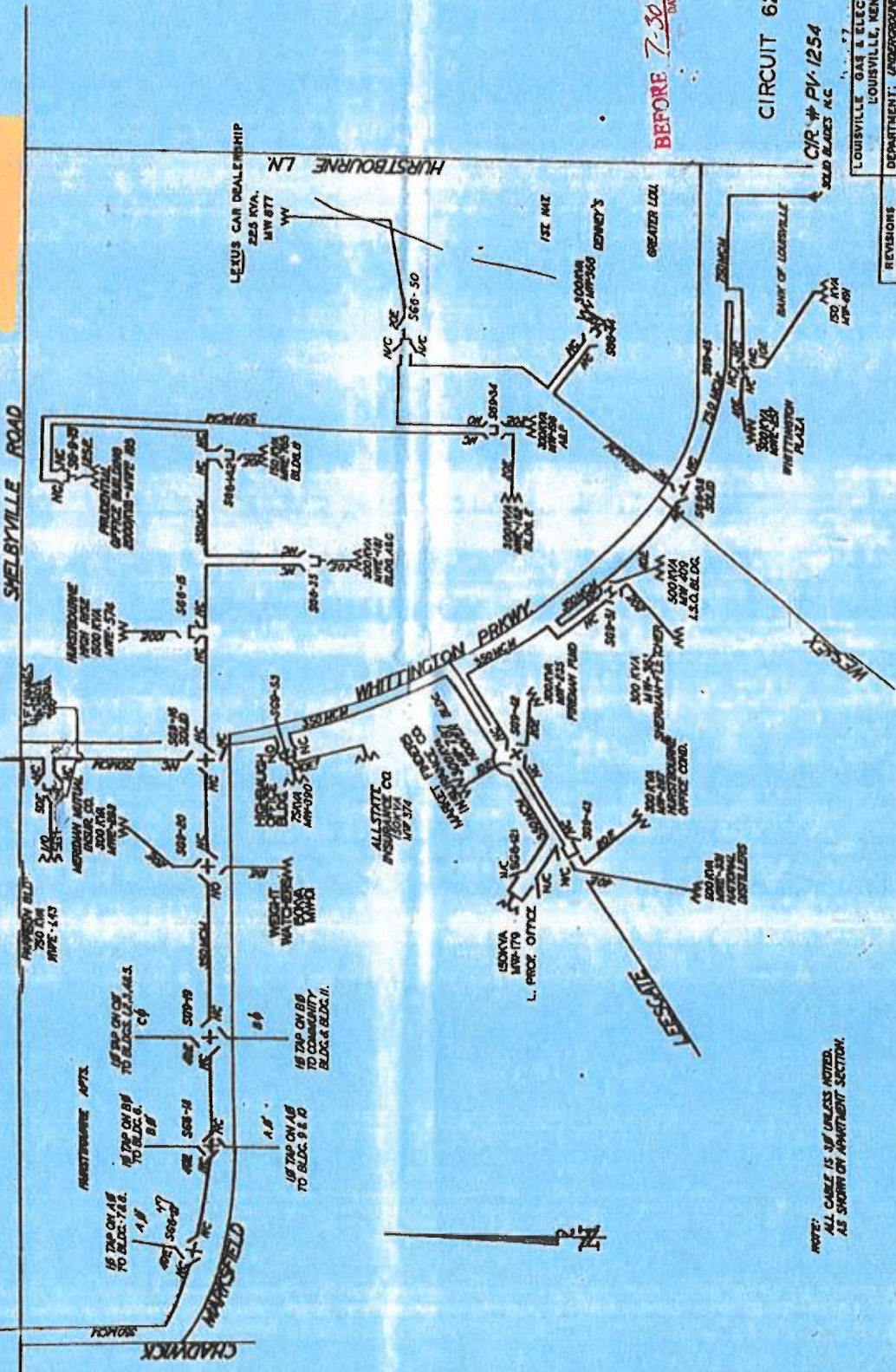
PA 12 (08/01)

JOHN PAVING
LOW PAVING
475 4676

Mt. Morris
381-6823

CIR # OX-1273
SOLD BLADES N.C.

CIR # PV-1253
SOLD BLADES N.C.



BEFORE 7-30-18
DATE

CIRCUIT 621

CIR # PV-1254
SOLD BLADES N.C.

NOTE:
ALL CABLE IS 18' UNLESS NOTED.
AS SHOWN ON APPOINTMENT SECTION.

Q. ADDED 500-121 10-24-90 LAHLE
R. REFUSED 500-121 10-24-90 LAHLE
WITH SET-UP
225VIA. TUNER-11-05 N.C. LAR

VII. J. ADDED PRESIDENTIAL OFFICE BLD. 500-121 10-24-90 LAHLE
K. ADDED 500-121 10-24-90 LAHLE
L. ADDED 500-121 10-24-90 LAHLE
M. ADDED 500-121 10-24-90 LAHLE
N. ADDED 500-121 10-24-90 LAHLE
O. ADDED 500-121 10-24-90 LAHLE
P. ADDED 500-121 10-24-90 LAHLE

REVISIONS	DATE	BY
1	12-77	D.R.L.
2	12-77	D.R.L.
3	12-77	D.R.L.
4	12-77	D.R.L.
5	12-77	D.R.L.
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96	12-77	D.R.L.
97	12-77	D.R.L.
98	12-77	D.R.L.
99	12-77	D.R.L.
100	12-77	D.R.L.

HURSTBOURNE COMPLEX
SCHEMATIC DIAGRAM

LOUISVILLE GAS & ELECTRIC COMPANY
DEPARTMENT: UNDERGROUND
SCALE: 1"=100'
DRAWN BY: LAR
APPROVED BY: P
U-4818-1

and insulating gloves with protectors shall be worn. Employees shall exercise extreme care to prevent short-circuiting conductors when cutting into the insulation.

5. Metal measuring tapes, and tapes or ropes containing metal threads or strands, shall not be used closer to exposed energized parts than the distance specified in Rule 441A. Care should be taken when extending metallic ropes or tapes parallel to and in the proximity of high-voltage lines because of the effect of induced voltages.
6. Equipment or material of a noninsulating substance that is not bonded to an effective ground and which extends into an energized area, and which could approach energized equipment closer than the distance specified in Rule 441A, shall be treated as though it is energized at the same voltage as the line or equipment to which it is exposed.

B. Requirement for assisting employee

In inclement weather or at night, no employee shall work alone outdoors on or dangerously in the vicinity of energized conductors or parts of more than 750 V between conductors.

EXCEPTION: This shall not preclude a qualified employee, working alone, from cutting trouble in the clear, switching, replacing fuses, or similar work if such work can be performed safely.

C. Opening and closing switches

Manual switches and disconnectors shall always be closed by a continuous motion. Care should be exercised in opening switches to avoid serious arcing.

D. Working position

Employees should avoid working on equipment or lines in any position from which a shock or slip will tend to bring the body toward exposed parts at a potential different than the employee's body. Work should, therefore, generally be done from below, rather than from above.

E. Protecting employees by switches and disconnectors

When equipment or lines are to be disconnected from any source of electric energy for the protection of employees, the switches, circuit breakers, or other devices designated and designed for operation under the load involved at sectionalizing points shall be opened or disconnected first. When re-energizing, the procedure shall be reversed.

F. Making connections

In connecting de-energized equipment or lines to an energized circuit by means of a conducting wire or device, employees should first attach the wire to the de-energized part. When disconnecting, the source end should be removed first. Loose conductors should be kept away from exposed energized parts.

G. Switchgear

Switchgear shall be de-energized and grounded per Rule 444D prior to performing work involving removal of protective barriers unless other suitable means are provided for employee protection. The personnel safety features in switchgear shall be replaced after work is completed.

H. Current transformer secondaries

The secondary of a current transformer shall not be opened while energized. If the entire circuit cannot be properly de-energized before working on an instrument, a relay, or other section of a current transformer secondary circuit, the employee shall bridge the circuit with jumpers so that the current transformer secondary will not be opened.

I. Capacitors

Before employees work on capacitors, the capacitors shall be disconnected from the energizing source, short-circuited, and grounded. Any line to which capacitors are connected shall be short-circuited and grounded before it is considered de-energized. Since capacitor units may be connected in series-parallel, each unit shall be shorted between all insulated terminals and the capacitor tank before handling. Where the tanks of capacitors are on ungrounded racks, the racks shall also be grounded. The internal resistor shall not be depended upon to discharge capacitors.

EXCEPTION: If the automatic reclosing feature of a reclosing device is disabled by a Supervisory Control and Data Acquisition System (SCADA), the system shall provide for the following:

- (a) At the SCADA operating point
 - (1) A signal is received by the SCADA operator confirming that the disabling operation has occurred at the reclosing device location, and
 - (2) A readily visible tag or electronic display is used to inform any potential SCADA operator that a disabling operation has been initiated, and
 - (3) The tag or electronic display is removed before action is taken to re-enable the automatic reclosing feature.
 - (b) At the reclosing device location
 - (1) The reclosing feature is disabled in such a manner as to prevent manual override of the normal control by any potential on-site operator, or
 - (2) A signal, flag, or other display is used in such a manner as to alert any potential on-site operator that the reclosing feature has been disabled.
 - 3. The required tags shall be placed to clearly identify the equipment or circuits on which work is being performed.
- F. Restoration of service after automatic trip
- 1. When circuits or equipment upon which tags have been placed open automatically, the circuits or equipment shall be left open until reclosing has been authorized.
 - 2. When circuits open automatically, local operating rules shall determine in what manner and how many times they may be closed with safety.
- G. Repeating oral messages
- Each employee receiving an oral message concerning the switching of lines and equipment shall immediately repeat it back to the sender and obtain the identity of the sender. Each employee sending such an oral message shall require it to be repeated back by the receiver and secure the latter's identity.

443. Work on energized lines and equipment

A. General requirements

- 1. When working on energized lines and equipment, one of the following safeguards shall be applied:
 - a. Insulate employee from energized parts
 - b. Isolate or insulate the employee from ground and grounded structures, and potentials other than the one being worked on
- 2. Employees shall not place dependence for their safety on the covering (nonrated insulation) of wires. All precautions (see Section 44) for working on energized parts shall be observed.
- 3. All employees working on or in the vicinity of lines or equipment exposed to voltages higher than those guarded against by the safety protective equipment provided shall assure themselves that the equipment or lines on which they are working are free from dangerous leakage or induction, or have been effectively grounded.
- 4. Cutting into insulating coverings of energized conductors
 - a. A supply cable to be worked on as de-energized that cannot be positively identified or determined to be de-energized shall be pierced or severed at the work location with a tool designed for the purpose.
 - b. Before cutting into an energized supply cable, the operating voltage shall be determined and appropriate precautions taken for handling conductors at that voltage.
 - c. When the insulating covering on energized wires or cables must be cut into, the employee shall use a tool designed for the purpose. While doing such work, suitable eye protection

Section 44. Additional rules for supply employees

440. General

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

441. Energized conductors or parts

A. Minimum approach distance to energized lines or parts

1. General

Employees shall not approach or bring any conductive object within the minimum approach distance listed in Table 441-1 or Table 441-5 to exposed energized lines or parts unless one of the following is met:

- a. The line or part is de-energized and grounded per Rule 444D.

EXCEPTION: For voltages less than 600 V where the making of the ground is impractical, the line or part may be isolated in lieu of installing temporary protective grounds provided the following conditions are met: (a) the lines and equipment are isolated from all sources and tested to be de-energized, (b) there is no possibility of contact with another energized source, and (c) the hazard of induced voltage is not present.

- b. The employee is insulated from the energized line or part. Electrical protective equipment insulated for the voltage involved, such as tools, rubber gloves, or rubber gloves with sleeves, shall be considered effective insulation for the employee from the energized line or part being worked on.
- c. The energized line or part is insulated from the employee and from any other line or part at a different voltage.
- d. The employee is performing barehand live-line work according to Rule 446.

NOTE 1: Minimum approach distances calculated under this rule for 0.301 kV to 0.750 kV contain the electrical component plus 0.31 m (1 ft) for inadvertent movement. Voltages 0.751 kV to 72.5 kV contain the electrical component plus 0.61 m (2 ft) for inadvertent movement. Voltages above 72.5 kV contain the electrical component plus 0.31 m (1 ft) for inadvertent movement.

NOTE 2: Methodology for calculating minimum approach distances were taken from OSHA 29 CFR 1910.269 Appendix B [B68].

NOTE 3: The voltage ranges are contained in ANSI C84.1-1995, Table 1.

NOTE 4: For the purpose of Section 44, *reach* is defined as the range of anticipated motion of an employee while performing a task, and *extended reach* is defined as the range of anticipated motion of a conductive object being held by an employee while performing a task.

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

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

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

At voltages from 301 V to 72.5 kV, employees shall be protected from phase-to-phase and phase-to-ground differences in voltage. See Table 441-1 or Table 441-5 for the minimum approach distances to live parts.

- a. When exposed grounded lines, conductors, or parts are in the work area, they shall be guarded or insulated.

EXCEPTION: When work is being performed on parts energized between 300 V and 750 V within equipment enclosures, (e.g., control panels and relay cabinets), insulating or guarding of all exposed

ATTACHMENT G

420E

Part 4: Work Rules

420K1b

E. Ungrounded metal parts

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

F. Arcing conditions

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

G. Liquid-cell batteries

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

H. Tools and protective equipment

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

I. Clothing

1. Employees shall wear clothing suitable for the assigned task and the work environment.
2. When employees will be exposed to an electric arc, clothing or a clothing system shall be worn in accordance with Rule 410A3.
3. When working in the vicinity of energized lines or equipment, employees should avoid wearing exposed metal articles.

J. Ladders and supports

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

K. Fall protection

1. Employees shall use appropriate fall protection equipment while climbing, transferring, or transitioning across obstacles on poles or structures, unless doing so is not feasible or creates a greater hazard than doing so unattached.
 - a. When work positioning is used, it shall be rigged in a manner in which the employee cannot free fall more than 0.60 m (2 ft).
 - b. Anchorages for work-positioning equipment shall be capable of supporting at least twice the potential impact load of an employee's fall, or 13.3 kN (3000 lb-force), whichever is greater.

Section 42. General rules for employees

420. General

A. Rules and emergency methods

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

B. Qualifications of employees

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

C. Safeguarding oneself and others

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

D. Energized or unknown conditions

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

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