

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

CLOSURE OF INVESTIGATION OF MAY 8, 2019 INCIDENT – BIG RIVERS ELECTRIC CORPORATION	) ) )	CASE NO. 2019-00429
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ORDER

The Commission, on its own motion, initiates this proceeding to close the investigation of an incident that occurred on May 8, 2019, near 246 Sand Hill Road, Ledbetter, Kentucky. As a result of the incident, an employee of Asplundh, a contractor hired by Big Rivers Electric Corporation (BREC) to trim and remove trees in a BREC 161kV transmission right-of-way, suffered injuries requiring overnight hospitalization. The employee, Keith Kraft, had climbed an oak tree and begun removing limbs. Mr. Kraft cut a section of the tree to which he was still tied, and when the section fell, the rope slammed him into the tree, breaking his pelvis.

Commission Staff (Staff) investigated the incident and found one probable violation of Commission safety regulations. Staff issued BREC 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 May 8, 2019 incident. Staff reviewed and approved post-incident corrective action and safety training completed by BREC and Asplundh, and BREC paid the proposed penalty.

The Commission finds that BREC has addressed to its satisfaction the probable violations cited by Staff in connection with the May 8, 2019 incident. The Commission further finds that the Commission's investigation of the incident should be closed.

IT IS THEREFORE ORDERED that:

1. BREC'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 May 8, 2019 incident.

2. BREC's payment of Staff's proposed penalty is not an admission by BREC that it willfully violated any provision of KRS Chapter 278 or any administrative regulation promulgated pursuant thereto.

3. The Commission's investigation of the May 8, 2019 incident is closed.

4. This case is closed and removed from the Commission's docket.

By the Commission

ENTERED  
JAN 07 2020  
KENTUCKY PUBLIC  
SERVICE COMMISSION

ATTEST:

  
Executive Director

Case No. 2019-00429

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASE NO. 2019-00429 DATED **JAN 07 2020**

TWENTY-FIVE PAGES TO FOLLOW



Matthew G. Bevin  
Governor

Charles G. Snavely  
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

Michael J. Schmitt  
Chairman

Robert Cicero  
Vice Chairman

Talina R. Mathews  
Commissioner

## SATFF INVESTIGATION REPORT June 10, 2019

Utility: Big Rivers Electric Corporation

Address: 201 Third Street, Henderson, KY 42419-0024

Contact Person: Troy Stovall

Phone: 270-827-2561

Email: [troy.stovall@bigrivers.com](mailto:troy.stovall@bigrivers.com)

Title: Corporate Safety Manager

Contractor: Asplundh

Address: 200 Two Oaks Drive, Nicholasville, KY 40356

Contact Person: Bobby King

Phone: 859-304-3700

Email: Unknown

Title: Manager

Incident Location: 246 Sand Hill Road, Ledbetter, KY 42048

Incident Date: May 8, 2019

Time: Approximately, 10:50 AM CST

Date PSC Notified: May 8, 2019

Time: Approximately, 6:07 PM EST

Date PSC Investigated: Site visit not scheduled

Person(s) Injured: Keith A. Kraft

Injury: Fractured Pelvis

Fatality: No

Personnel at Site Visit: N/A

PSC Investigator: Jeff Moore

Incident Summary Report: See Attachment A

Description: According to Asplundh's investigation, a transmission crew was trimming and removing trees in a 161kV transmission right-of-way (ROW). The injured employee climbed an oak tree approximately 38 feet and removed some limbs from the top of the tree. After removing the limbs, he tied a hand line around the same crotch he was tied-in to, and descended about 20 feet. He placed a safety lanyard around the tree, and the foreperson and another employee on the ground started dragging the end of the hand-line out in to the woods so they could pull the top over when the he made his cut. The trimmer put a notch in the top and without warning, and proceeded to make his back cut. The utility

forester was standing in the ROW, looked up, and noticed the he was still tied-in to the top of the tree he was cutting out. The utility forester started yelling at him and that got the attention of the foreperson who also started yelling, but because he had in his earplugs in and saw running, he could not hear them. When he finished his back cut, it was only then when he heard the people on the ground yelling. He looked up and realized what he had done, and hung the saw on his climbing saddle. At this point, the treetop was starting to move so he tried to unhook his climbing line from the d-rings, but it was too late. The rope attached to the top of the tree jerked him up against the tree and pinned him there.

The utility forester grabbed a saw and cut a seven-foot section from the top so they could free the climbing line. The other employees on the ground were then able to lower him down using his climbing line. They unhooked the climbing line from the saddle and laid him on the top that was cut out and then on the ground next to the tree.

Asplundh called 911 and EMS responded to the scene, transported him by air to Deaconess Hospital in Evansville, IN., and hospitalized overnight.

Findings: After reviewing additional documentation provided by Big Rivers (Attachment B) and Asplundh (Attachment C) about the incident, one (1) probable violation is listed from the National Electrical Safety Code, Section 42, 420 (C) (4).

Applicable Statute and/or Code

KRS 278.042

Service Adequacy and Safety Standards for Electric Utilities-National Electrical Safety Code (NESC)

1. Part 4: Work Rules

Section 42.

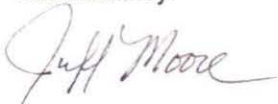
General Rules for Employees

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.

Submitted by:



Jeff Moore

Electric Utility Investigator

Kentucky Public Service Commission

Attachments:

- A: Utility Summary Report
- B: Additional Documentation from Big Rivers
- C: Additional Documentation from Asplundh



## ATTACHMENT A

Your Touchstone Energy Cooperative

May 14, 2019

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

RECEIVED

MAY 20 2019

PUBLIC SERVICE  
COMMISSION

Re: May 8, 2019 contractor incident on Big Rivers' right-of-way

Mr. Moore:

This document is being submitted as Big Rivers' summary written report to confirm and supplement information reported to you on May 8, 2019, regarding the referenced incident.

On May 8, 2019, at approximately 10:50 a.m. a four-person Asplundh transmission crew was in the process of trimming and removing trees in a Big Rivers Electric 161kV transmission right-of-way. The trimmer climbed approximately 38-feet up an Oak tree that was to be removed. He tied a hand line to the same tree crotch that he was tied-in to and descended approximately 20-feet, where he then placed a safety lanyard around the tree. The Foreperson and another Asplundh ground employee were pulling the end of the hand line out in the woods so they could pull the top over when the Trimmer made his cut. The Trimmer notched the top section of the tree and without warning, proceeded to make his back cut. The Big Rivers employee on site noticed the trimmer was still tied-in to the top of the tree and began yelling to the Trimmer. The Asplundh Foreperson then began yelling as well, but the employee could not hear them due to his hearing protection and the noise of the saw. The Trimmer did not hear the yelling until he completed his back cut. He then noticed what he had done, placed the saw on his climbing saddle and tried to disconnect the climbing line from the D-ring, but the tree top had already begun to fall. The top fell over where it was planned, but in the process, the rope jerked the Trimmer against the tree injuring his hip area. The Big Rivers employee then used a saw to cut a seven-foot section from the tree top, which freed the climbing line. The other Asplundh employees on the ground then lowered the injured employee with the climbing line.

Due to the remote location, the injured employee was taken by UTV to meet a medivac unit. The injured employee was air-lifted to the hospital, where he was diagnosed with a fractured pelvis. The injured employee was released from the hospital on May 10<sup>th</sup> and is expected to be off work for 6-8 weeks.

Do not hesitate to contact me for additional information.

Sincerely,

A handwritten signature in black ink that reads "Troy A. Stovall". The signature is written in a cursive style.

Troy A. Stovall, CSP  
Corporate Safety Manager  
Big Rivers Electric Corporation

C: Mike Chambliss  
Lindsay Durbin



**Moore, Jeffrey C (PSC)**

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**From:** Stovall, Troy <Troy.Stovall@bigrivers.com>  
**Sent:** Monday, June 10, 2019 10:06 AM  
**To:** Moore, Jeffrey C (PSC)  
**Subject:** RE: 5-8-19 Contractor Incident on Big Rivers Electric Right-Of-Way  
**Attachments:** IMG\_1293 (Job Briefing pg 1).jpeg; IMG\_1294 (Job Briefing pg 2).jpeg

Jeff,

They did document a job briefing. I have attached photos, taken by our ROW Supervisor, shortly after the incident occurred.

Let me know if you need any further information.

Have a good day,

Troy A. Stovall, CSP  
Corporate Safety Manager  
Big Rivers Electric Corporation  
201 Third Street  
Henderson, KY 42420  
Office: 270-844-6118  
Mobile: 270-577-8018  
Email: [troy.stovall@bigrivers.com](mailto:troy.stovall@bigrivers.com)



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**From:** Moore, Jeffrey C (PSC) <JeffreyC.Moore@ky.gov>  
**Sent:** Monday, June 10, 2019 8:49 AM  
**To:** Stovall, Troy <Troy.Stovall@bigrivers.com>  
**Cc:** Chambliss, Mike <Michael.Chambliss@bigrivers.com>  
**Subject:** RE: 5-8-19 Contractor Incident on Big Rivers Electric Right-Of-Way

Troy,  
This is a little after the fact, did the crew perform and document a job briefing prior to beginning work at the incident site?

Jeff

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**From:** Stovall, Troy <Troy.Stovall@bigrivers.com>  
**Sent:** Wednesday, May 29, 2019 2:35 PM  
**To:** Moore, Jeffrey C (PSC) <JeffreyC.Moore@ky.gov>  
**Cc:** Chambliss, Mike <Michael.Chambliss@bigrivers.com>  
**Subject:** RE: 5-8-19 Contractor Incident on Big Rivers Electric Right-Of-Way

**\*\*CAUTION\*\* PDF attachments may contain links to malicious sites. Please contact the COT Service Desk [ServiceCorrespondence@ky.gov](mailto:ServiceCorrespondence@ky.gov) for any assistance.**

Jeff,

I received the "Lessons Learned" attachment, which includes corrective actions, just after our phone call today.

Please find the following attachments:

- The first four pdf attachments regard your contract request, from Big Rivers.
- The fifth pdf attachment regards the Safety & Training Manual "Climbing Techniques request, from Asplundh.
  - This attachment is 43 pages of a 500+ page manual.
- The sixth attachment regards the post-incident lessons learned and corrective actions taken by Asplundh.

Please let me know if you need additional information.

Sincerely,

Troy A. Stovall, CSP

Corporate Safety Manager  
Big Rivers Electric Corporation

201 Third Street

Henderson, KY 42420

Office: 270-844-6118

Mobile: 270-577-8018

Email: [troy\\_stovall@bigrivers.com](mailto:troy_stovall@bigrivers.com)



Your Touchstone Energy® Cooperative 

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**From:** Moore, Jeffrey C (PSC) <[JeffreyC.Moore@ky.gov](mailto:JeffreyC.Moore@ky.gov)>

**Sent:** Monday, May 20, 2019 10:14 AM

**To:** Stovall, Troy <[Troy.Stovall@bigrivers.com](mailto:Troy.Stovall@bigrivers.com)>

**Subject:** RE: 5-8-19 Contractor Incident on Big Rivers Electric Right-Of-Way

Thanks Troy

Jeff

---

**From:** Stovall, Troy <[Troy.Stovall@bigrivers.com](mailto:Troy.Stovall@bigrivers.com)>

**Sent:** Monday, May 20, 2019 11:09 AM

**To:** Moore, Jeffrey C (PSC) <[JeffreyC.Moore@ky.gov](mailto:JeffreyC.Moore@ky.gov)>

**Subject:** RE: 5-8-19 Contractor Incident on Big Rivers Electric Right-Of-Way

Jeff,

I will try to gather what you've requested and return to you asap.

Have a good day,

**Troy A. Stovall, CSP**

Corporate Safety Manager  
Big Rivers Electric Corporation  
201 Third Street  
Henderson, KY 42420  
Office: 270-844-6118  
Mobile: 270-577-8018  
Email: [troy.stovall@bigrivers.com](mailto:troy.stovall@bigrivers.com)



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**From:** Moore, Jeffrey C (PSC) <[JeffreyC.Moore@ky.gov](mailto:JeffreyC.Moore@ky.gov)>  
**Sent:** Monday, May 20, 2019 9:10 AM  
**To:** Stovall, Troy <[Troy.Stovall@bigrivers.com](mailto:Troy.Stovall@bigrivers.com)>  
**Subject:** FW: 5-8-19 Contractor Incident on Big Rivers Electric Right-Of-Way

Troy,  
Can you get the following information for me?  
Asplundh's safety manual, ROW climbing procedures, and any correction actions (if any) Asplundh may have taken to address the incident.  
Does Big Rivers have a contract with Asplundh? If so, I need a copy of the contract. Please redact any personal or monetary information.  
Thanks

Jeff

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**From:** Moore, Jeffrey C (PSC)  
**Sent:** Wednesday, May 15, 2019 8:54 AM  
**To:** Stovall, Troy <[Troy.Stovall@bigrivers.com](mailto:Troy.Stovall@bigrivers.com)>  
**Subject:** RE: 5-8-19 Contractor Incident on Big Rivers Electric Right-Of-Way

Thanks Troy

Jeff

---

**From:** Stovall, Troy <[Troy.Stovall@bigrivers.com](mailto:Troy.Stovall@bigrivers.com)>  
**Sent:** Tuesday, May 14, 2019 9:19 PM  
**To:** Moore, Jeffrey C (PSC) <[JeffreyC.Moore@ky.gov](mailto:JeffreyC.Moore@ky.gov)>; Kingsolver, Steve R (PSC) <[Steve.Kingsolver@ky.gov](mailto:Steve.Kingsolver@ky.gov)>  
**Cc:** Stovall, Troy <[Troy.Stovall@bigrivers.com](mailto:Troy.Stovall@bigrivers.com)>  
**Subject:** 5-8-19 Contractor Incident on Big Rivers Electric Right-Of-Way

Mr. Moore,

The attached documents are being submitted as Big Rivers' seven-day summary written report to the PSC, confirming and supplementing information reported to you on May 8, 2019, regarding the referenced Incident. A hard copy is being mailed to you as well.

If you need any additional information, please let us know.

Sincerely,

**Troy A. Stovall, CSP**

Corporate Safety Manager

Big Rivers Electric Corporation

201 Third Street

Henderson, KY 42420

Office: 270-844-6118

Mobile: 270-577-8018

Email: [troy.stovall@bigrivers.com](mailto:troy.stovall@bigrivers.com)



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# JOB BRIEFING

G.F. NAME: Raymond Kelley

DATE: 5/8/19 TIME: 2:00 CREW: 059605 FOREPERSON: Earl Williams

WORKSITE LOCATION: 246 San Hill Rd Ledbetter

## IN CASE OF EMERGENCY, DIAL 911

Crew Task Description: Describe the job/task(s)  
Climb and cut Bad Trees from right of way

Crew Assessment: Is each crew member properly trained to perform their assigned task(s)?  Yes  No

Crew Assessment: Does crew possess the proper tools needed to do the task(s) safely?  Yes  No

Human Performance Traps: What Traps might be encountered?

Distractions

Human Performance Tools: What Tools will be used to overcome the potential Traps?

Job Briefing, self check  
Peer check

Weekly Safety Topic: Refer to Weekly Safety Meeting booklet E.H.C.P.

Nearest Medical Facility: Lourdes Hospital

Medical Facility Address: 1530 Lane Oak Rd.

Medical Facility Phone #: 270-444-2444

Cell Service:  Yes  No

Fire Danger Level Today: mod

# of Employees: 4  
Emergency Meeting Place: 128 Days Safe Tract

Environmental Concerns: Is Spill Kit available?  Yes  No

Who to Call if Spill Occurs: Raymond Kelley

Foreperson Acknowledgment: I have assessed the crew and it is able to perform the task(s) at hand safely.  Yes  No  
If no, do NOT proceed with the task.

**IF THE JOB CANNOT BE PERFORMED SAFELY, STOP THE JOB AND ASK FOR ASSISTANCE!**

What is the most likely thing that could go wrong on this job? Plan for the worst to prevent unsafe events! S.T.A.R (Stop - Think - Act - Review)

Mark all boxes that apply. Fill in the blanks when applicable. Please note that this is not an all-inclusive list.

Work Procedures - (Per crewmember)

Keith - climbing and cutting trees  
Mike - climbing and cutting trees

Jesse - clean up brush

Earl - clean up brush and climbing

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Job Setup                 | <input type="checkbox"/> High-Conductive Tool Inspection |
| <input checked="" type="checkbox"/> Job/Bulk Work             | <input checked="" type="checkbox"/> Handsaw with Climber |
| <input checked="" type="checkbox"/> Transmission Work         | <input type="checkbox"/> Handsaw in Bucket               |
| <input type="checkbox"/> Substation Work                      | <input type="checkbox"/> Boom Spooler                    |
| <input type="checkbox"/> Job Entry Location (JEL)             | <input type="checkbox"/> Securing Vehicle Load           |
| <input type="checkbox"/> Manual Climbing                      | <input type="checkbox"/> Night Work                      |
| <input type="checkbox"/> Bucket Work                          | <input type="checkbox"/> Tagging                         |
| <input checked="" type="checkbox"/> Light/Trimming/Clipping   | <input type="checkbox"/> Rigging/Roping Work             |
| <input type="checkbox"/> Deck/Felling                         | <input type="checkbox"/> Clipping, Equipment Inspection  |
| <input type="checkbox"/> String/Material Handling             | <input checked="" type="checkbox"/> RIG/VIATV Operations |
| <input checked="" type="checkbox"/> On-site First Aid and CPR | <input type="checkbox"/> Claw, Chain or Log Loader Work  |
| <input type="checkbox"/> Top Zone Marked                      | <input type="checkbox"/> Specialized Equipment (Lift)    |
| <input type="checkbox"/> Danger Zone Marked                   | <input type="checkbox"/> Winching Operations             |
| <input type="checkbox"/> Green Log Weight Estimates           | <input type="checkbox"/> All Stop Procedures             |
| <input type="checkbox"/> Equipment Lockout Tagout             | <input type="checkbox"/> Other                           |
| <input type="checkbox"/> Customer Specific Requirements       |  |

Energy Sources & Controls (What energy sources are present? (Consider both electrical AND stored energy))

161 KV

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Electric Voltage KV: <u>161 KV</u> | <input type="checkbox"/> Winch Cable           |
| <input type="checkbox"/> RIGAD (Use Decal or LOGS)                     | <input type="checkbox"/> Lockout/Tagout Issues |
| <input type="checkbox"/> Neutral MAD                                   | <input type="checkbox"/> Outage-Scheduled      |
| <input type="checkbox"/> Vehicle MAD Chart (Posted & Legible)          | <input type="checkbox"/> Grounding             |
| <input type="checkbox"/> Stored Energy (limbs, wood etc.)              | <input type="checkbox"/> Gas Utilities         |
| <input type="checkbox"/> Stored Energy (wires, guys etc.)              | <input type="checkbox"/> Communication Lines   |
| <input type="checkbox"/> Stored Energy (fluids, air etc.)              | <input type="checkbox"/> Other                 |

**BE DETAILED: USE BOX ON LEFT IF ADDITIONAL SPACE IS NEEDED FOR DETAILED EXPLANATIONS OR COMMENTS**

**COMO EFECTUAR EL PLAN DE TRABAJO EN 5 PASOS**  
**Procedimiento de entrenamiento en el campo de trabajo**

<p>3</p> <p>① Drop zone    ② Danger zone          ③ Fall from Height</p>	<p>BE DETAILED; USE BOX ON LEFT IF ADDITIONAL SPACE IS NEEDED FOR DETAILED EXPLANATIONS OR COMMENTS</p>
<p>4</p> <p>① Drop zone cones          ② Danger zone marked          ③ Fall protection.</p>	<p>Presence of trees in tree          Closest Tree Risk Assessment &amp; Mitigation          Temporary Traffic Control          Storm Work          Checkbook, Name: _____          TIN # _____          Change Requirements &amp; Frequency  <input checked="" type="checkbox"/> Time Reviewed  <input checked="" type="checkbox"/> Danger Zone Reviewed  <input checked="" type="checkbox"/> Pedestrians/Sidewalk Mgmt  <input checked="" type="checkbox"/> Pre-existing Property Damage (Document)  <input checked="" type="checkbox"/> Utility/Environmental Protection  <input checked="" type="checkbox"/> Season Personnel Required (10' Rule to Lines &amp; 12' Rule off Ground)  <input checked="" type="checkbox"/> Equipment Safety Zone  <input checked="" type="checkbox"/> Sign &amp; Structure Marking  <input checked="" type="checkbox"/> Clear Path of Travel  <input checked="" type="checkbox"/> Trip/Tipping Hazards  <input checked="" type="checkbox"/> Mark Tipping Hazards  <input checked="" type="checkbox"/> Alert Others to Tipping Hazards  <input checked="" type="checkbox"/> Out Rigging Placement  <input checked="" type="checkbox"/> Shield Zone  <input checked="" type="checkbox"/> Night Work / Special Lighting Requirements  <input checked="" type="checkbox"/> Safety Communication Requirements  <input checked="" type="checkbox"/> Other Check  <input type="checkbox"/> Other</p>
<p>5</p> <p>Hard hat, chaps, Eye Prot, Eye Prot,          Fall protection,</p>	<p><input checked="" type="checkbox"/> Hard Hat  <input checked="" type="checkbox"/> Eye Protection  <input checked="" type="checkbox"/> Fall Protection  <input checked="" type="checkbox"/> Chaps  <input checked="" type="checkbox"/> Eye Protection  <input checked="" type="checkbox"/> Fall Protection  <input checked="" type="checkbox"/> Respiratory Protection  <input type="checkbox"/> Personal Position Device  <input type="checkbox"/> Glove Type: _____  <input type="checkbox"/> Safety/Work Parts  <input type="checkbox"/> Appropriate Footwear  <input type="checkbox"/> Hi-Vis Visibility Apparel (Class 2)  <input type="checkbox"/> Long Sleeve Shirt  <input type="checkbox"/> Chino Pants  <input type="checkbox"/> Other</p>

The Job Briefing has been thoroughly reviewed with the people below:

Crew		Visitors	
Print Name	Signature	Print Name	Signature
Earl Williams	<i>Earl Williams</i>		
Mike King	<i>Mike King</i>		
Keith Kraft	<i>Keith Kraft</i>		
Jose Mohr	<i>Jose Mohr</i>		

Supervisor: \_\_\_\_\_

# GF Incident Investigation Report

## INCIDENT DATE / TIME; AND PREPARER INFORMATION

<b>CREATED ON:</b> 05/08/2019	<b>Created By:</b> Bill Johnson	<b>Preparer's Title:</b> Region Safety Supervisor	<b>Preparer Phone:</b> 270-401-4880	<b>Region [xxx]:</b> 059
<b>DATE OF INCIDENT:</b> 05/08/2019	<b>Incident Time:</b> 10:50 am cst.	<b>Date Reported to Employer:</b> 05/08/2019	<b>Time Reported:</b> 11:12 am cst.	<b>Work Shift:</b> Normal (Day)

## EMPLOYEE DETAILS

<b>Injured Employee:</b> [Last Name] Kraft	<b>First Name:</b> Keith	<b>Middle initial:</b> A.	<b>Employee's Title:</b> Trimmer	<b>Employee ID #:</b> 1000087416
<b>Immediate Supervisor:</b> Jimmie Brown		<b>Immediate Supervisor Phone:</b> 270-945-7448		<b>Immediate Supervisor - Length of Service in Job:</b> 10 Years - 10 Months

## INCIDENT GENERAL DETAILS

<b>Incident/Event Address or (Closest Street Intersection):</b> 246 Sand Hill Rd., Ledbetter, KY. 42048	<input checked="" type="checkbox"/> Injury or Illness	<input type="checkbox"/> Auto	<input type="checkbox"/> General Liability
<b>Work Station:</b> [Describe Area] In Tree - Transmission	<b>Specific Location:</b> Climbing and trimming in a tree	<input type="checkbox"/> Hospitalization	<input type="checkbox"/> Property Damage
		<input type="checkbox"/> Near Miss	<input type="checkbox"/> Outage
		<input type="checkbox"/> Fatality	

Is this considered Storm Work OR was Weather a Contributing Factor?  Yes  No IF YES – Describe the Weather Conditions:

## INCIDENT DESCRIPTION

### Describe the Incident:

- What was Employee doing JUST BEFORE the incident occurred? [Name tools, equipment materials and what the employee was doing with them]  
Climbing and removing the top out of an Oak Tree using a 550 Husqvarna chainsaw.
- HOW did the incident occur? Give Full Details [Describe WHAT and HOW details, name objects, substances involved].  
A four-person Transmission Crew was trimming and removing trees in a 161kV Transmission ROW. The Utility Forester was also on site. The Trimmer climbed an Oak Tree that was to be removed. He climbed up approximately 38 feet and removed some limbs from the top of the tree. After removing the limbs in the top, he tied a hand line around the same crotch he was tied-in to and descended about 20 feet. He then placed a safety lanyard around the tree. The Foreperson and another employee on the ground started dragging the end of the hand line out in to the woods so they could pull the top over when the Trimmer made his cut. The Trimmer put a notch in the top and without warning he proceeded to make his back cut. The Utility Forester was standing in the ROW and looked up and noticed the Trimmer was still tied-in to the top of the tree that he was cutting out. The Utility Forester started yelling at the Trimmer and that got the attention of the Foreperson who also started yelling at the Trimmer but because he had in his ear plugs and with the saw running, he couldn't hear them. When the Trimmer finished his back cut it was only then when he heard the guys on the ground yelling. They told him he was still tied-in to the top. The Trimmer looked up and realized what he had done and hung the saw on his climbing saddle. At this point the top was starting to move so he tried to unhook his climbing line from the D-rings, but it was too late. The top fell over and the top of the tree hit the ground seven feet away from the base of the tree and the cut end fell back passed the base of the tree. The rope jerked the Trimmer up against the tree and pinned him there. The Utility Forester grabbed a saw and cut a seven-foot section from the top so they could free the climbing line. The other employees on the ground were then able to lower the Trimmer down using his climbing line low enough to a point where the Foreperson could hold the Trimmer. They unhooked the climbing line from the saddle and laid the Trimmer on the top that was cut out and then on the ground next to the tree.  
  
911 was called and EMS responded to the scene. Because of the remote location he was taken out on a UTV by EMS to a waiting medevac. The employee was air-flighted to the Hospital.
- List INJURY or ILLNESS Body part. Describe the nature of the injury.  
Fractured Pelvis

**Name any other Witness(es) present at the time of the incident:** Earl Williams / Michael King / Jessie Mohnen / Jerry Patterson - Big Rivers Electric Coop

<b>Accident Type:</b> Contact with Objects and Equipment	<b>Source of Injury:</b> Pinned Against Tree	<b>Primary Body Part:</b> Pelvis
--	--	----------------------------------

## TREATMENT INFORMATION

### Describe Medical Treatment given beyond First Aid:

Employee was air-flighted to Deaconess Hospital in Evansville, IN.

<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No -Was injured treated in an <b>Emergency Room</b> ?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No - Was employee sent <b>Off-Site for treatment</b> ?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Was employee seen by a <b>Licensed Health Care Professional</b> ?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No -Was injured <b>hospitalized overnight</b> as Inpatient?	<b>Hospital/Treatment Facility:</b> Deaconess Midtown Hospital 600 Mary Street Evansville, IN. 47710	Physician Name unknown at this time 600 Mary Street Evansville, IN. 47710
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No -Was medical treatment provided <b>On-Site</b> ?		

**CERTIFICATION**

*The above information is true to the best of my knowledge. I authorize an investigation of the incident events as stated and I understand that I am responsible for coordinating and providing further details related to the event.*

Employee Name and Signature: Keith Kraft

Date: 05/08/2019

Preparer's Name and Signature: Bill Johnson

Date: 05/08/2019

**NOTE: The Event Record must be started and this GF Incident Investigation Report needs to be added into SAFETYSUITE - within 24 Hours of the Event.**



IMPORTANT: Answer every question or write "UNKNOWN."

## Foreperson, Crewmember, Witness Report

Crew #: 059608

Crew Type: Transmission

Name of Crew Foreperson:

Name of General Foreperson:

Earl Williams

Jimmie Brown

Witness (Print)

Job

Name: Earl Williams

Title: Foreperson

Phone #: 270-980-0835

1. Did you see the incident (*Circle*)?:  YES      NO

2. Other possible witnesses:

Michael King / Jessie Mohnen / Jerry Patterson – Big Rivers Electric Coop

3. What did you see and hear?

Crew was removing a bad Oak Tree in the Right-of-Way. The injured employee was climbing the tree. He had removed most of the top of the tree. On the last cut of the top he failed to untie from the log he was cutting, and it fell pulling him in to a fork of the tree. He was pinned by his rope until we cut a section of the top on the ground to free his rope and let him down. The Utility Forester and I were yelling at the employee trying to stop him but failed to get his attention.

4. Names of those injured, describe nature of injuries and part(s) of the body injured.

Keith Kraft / Fractured Pelvis

5. Where were you and what were you doing at the time the incident occurred?

I was pulling the rope out in to the woods to get ready to help pull the top of the tree over.

6. Witness Signature: Earl Williams      Date: 05/08/2019

IMPORTANT: Answer every question or write "UNKNOWN."

## Foreperson, Crewmember, Witness Report

Crew #: 059608

Crew Type: Transmission

Name of Crew Foreperson:

Name of General Foreperson:

Earl Williams

Jimmie Brown

Witness (Print)

Job

Name: Michael King

Title: Groundperson

Phone #: 270-366-1558

1. Did you see the incident (*Circle*)?:  YES      NO

2. Other possible witnesses:

Earl Williams / Jessie Mohnen / Jerry Patterson – Big Rivers Electric Coop

3. What did you see and hear?

The injured employee was climbing a tree that needed to be trimmed back. He came down to make the last cut and placed a safety lanyard around the tree. He failed to bring his climb line down to were he was. When he cut the top out it pulled him in to a crotch in the tree. The Foreperson and Utility Forester were able to get him to the ground. I was on the ground helping.

4. Names of those injured, describe nature of injuries and part(s) of the body injured.

Keith Kraft / Fractured Pelvis

5. Where were you and what were you doing at the time the incident occurred?

I was on the ground out of the way waiting for Keith to finish so I could climb the next tree.

6. Witness Signature: Michael King \_\_\_\_\_ Date: 05/08/2019

IMPORTANT: Answer every question or write "UNKNOWN."

## Foreperson, Crewmember, Witness Report

Crew #: 059608

Crew Type: Transmission

Name of Crew Foreperson:

Name of General Foreperson:

Earl Williams

Jimmie Brown

Witness (Print)

Job

Name: Jessie Mohnen

Title: Groundperson

Phone #: 270-820-1360

1. Did you see the incident (Circle)?:  YES      NO

2. Other possible witnesses:

Earl Williams / Michael King / Jerry Patterson – Big Rivers Electric Coop

3. What did you see and hear?

The injured employee was trimming the tree. We were getting ready to finish the last of it when someone noticed he was still tied-in but by the time we got his attention it was too late. He was yanked in to the tree pretty hard.

4. Names of those injured, describe nature of injuries and part(s) of the body injured.

Keith Kraft / Fractured Pelvis

5. Where were you and what were you doing at the time the incident occurred?

I was holding the pull rope waiting to pull the top out.

6. Witness Signature: Jessie Mohnen \_\_\_\_\_ Date: 05/08/2019

IMPORTANT: Answer every question or write "UNKNOWN."

## Foreperson, Crewmember, Witness Report

Crew #: 059608

Crew Type: Transmission

Name of Crew Foreperson:

Name of General Foreperson:

Earl Williams

Jimmie Brown

Witness (Print)

Job

Name: Jerry Patterson

Title: Utility Forester

Phone #: 270-836-1972

Big Rivers Electric Coop

1. Did you see the incident (Circle)?:  YES  NO

2. Other possible witnesses:

Earl Williams / Michael King / Jessie Mohnen

3. What did you see and hear?

The injured employee was cutting approximately a 20-foot section of an Oak Tree trunk. He was approximately 20-25 feet high off the ground and the trunk was approximately 35-40 feet tall. I was in the Right-of-Way, Earl, Jessie and Mike were in the woods pulling the top section off the trunk. They had a rope in the section being cut, the Trimmer had his ear plugs in and was starting to make his back cut. As soon as he started his cut, I realized he was tied in to the section they were pulling over and I started screaming for him to stop. As soon as I did the Foreperson realized what was going on and also tried to get his attention but with his ear plugs in and the saw running the Trimmer didn't hear us and he cut out the section he was tied in to. When the section he cut that he was tied in to hit the ground it slammed him in to the tree and the weight of the section being cut had him pinned. I got a saw and cut the end off of the section of top he was tied in to, to let the pressure off of his climbing line and they other guys lowered him to the ground.

There was a pull rope in the section being felled, the Trimmer had his ear plugs in and was lanyard off below his cut. Unfortunately, when he realized what was going on it was too late.

4. Names of those injured, describe nature of injuries and part(s) of the body injured.

Keith Kraft / Fractured Pelvis

**5. Where were you and what were you doing at the time the incident occurred?**

Standing out in the Right-of-Way yelling at the Trimmer.

**6. Witness Signature:** Jerry Patterson **Date:** 05/08/2019













# How to Deliver This Lessons Learned

## 1. The purpose of this Lessons Learned:

Is to effectively communicate that a significant incident has occurred. We've investigated the incident and are now sharing what we've learned with the intent of preventing similar incidents in the future.

## 2. This Lessons Learned is for:

All operations employees.

## 3. How to cover the materials in this Lessons Learned:

Gather the crew members together. Get their attention, put the phones down, no side conversations, no smoking, and maintain eye contact assuring everyone is paying attention. With sincerity, express to them that we are a team and WE can prevent future incidents by learning from past incidents. Tell them we're going to discuss an incident that resulted in a significant, but PREVENTABLE, injury. Read this Lessons Learned to them. When finished, ask each crewmember what this Lessons Learned meant to them and how they will change their behavior to prevent a similar incident in the future. Open it up for questions and answers. Conclude with thanking everyone for their commitment to safety both on and off the job and tell them if they ever have a safety concern, or a good idea to improve safety, then please bring it up so we can consider using it.

## 4. How long should it take to deliver this Lessons Learned:

This depends on crew size and the amount of question, but it should take long enough for everyone to be heard and their meaningful feedback acknowledged.

### Helpful Tips:

#### Use Props:

This Lessons Learned relates hazards presented by an uprooted, leaning tree. After presenting this Lessons Learned, ask your crew members when the last time they had to address an uprooted, leaning tree at a job site, and how they planned the job to mitigate the related hazards.

#### Stay on topic:

Try not to get side tracked by other subjects or topics. Safety stand downs should focus on one subject.

#### Keep it simple:

Avoid jargon and make sure your message is easy to follow.

#### Present Positively:

Crew members will be more inclined to listen to a positive talk, and the safety stand down should be all about positive attitudes towards health and safety.

#### Speak then listen:

Some of the most important outcomes from your safety stand down will come from the questions and feedback you receive from your crewmembers. Communication is a two-way process, so make sure you show your crewmembers that you are interested in their questions, thoughts, and opinions and that you value their feedback. Give them plenty of opportunities to speak up and be heard.

#### Make sure they understand:

Make sure that the crews understood the Lessons Learned. Don't just ask if they understand, ask questions about what job sites have they been at recently where a hazard existed that required input from someone outside of the crew, in order to mitigate it successfully.

# Lessons Learned

## Struck Against Tree During Trimming Event

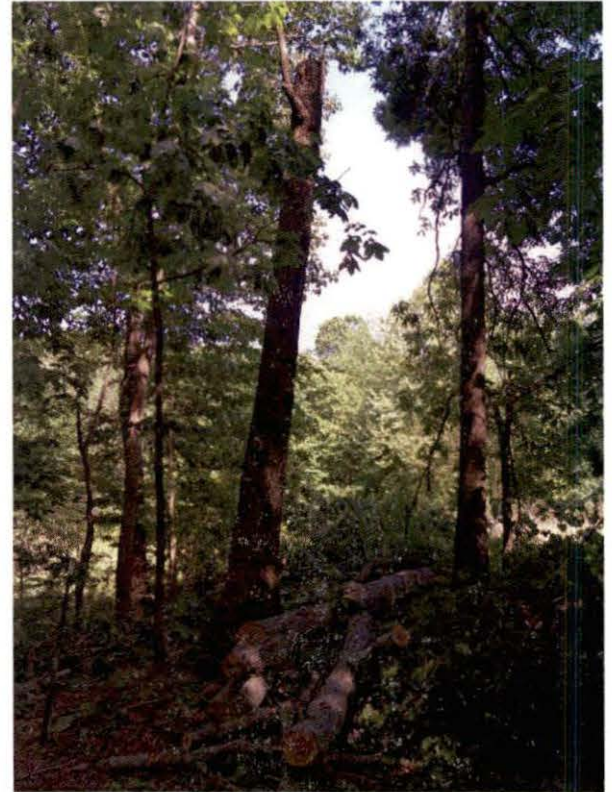
**Day of Incident:** Wednesday  
**Location:** Mid-West  
**Task at Hand:** Climbing  
**Crew Makeup:** 4 Person Manual  
**Extent of Injuries:** Fractured Pelvis



### At-Risk Behaviors

#### EVENT SUMMARY:

A four-person Transmission Crew was trimming and removing trees in a 161kV Transmission ROW (Utility Forester was also on site). The Trimmer climbed an Oak Tree approximately 38 feet and removed some limbs from the top of the tree. After removing the limbs in the top, he tied a hand line around the same crotch he was tied-in to and descended about 20 feet. He then placed a safety lanyard around the tree. The Foreperson and another employee on the ground started dragging the end of the hand line out in to the woods so they could pull the top over when the Trimmer made his cut. The Trimmer put a notch in the top and without warning he proceeded to make his back cut. The Utility Forester was standing in the ROW and looked up and noticed the Trimmer was still tied-in to the top of the tree that he was cutting out. The Utility Forester started yelling at the Trimmer and that got the attention of the Foreperson who also started yelling at the Trimmer but apparently he couldn't hear them. When the Trimmer finished his back cut it was only then when he heard the guys on the ground yelling (they told him he was still tied-in to the top). The Trimmer looked up and realized what he had done and hung the saw on his climbing saddle. At this point the top was starting to move so he tried to unhook his climbing line from the D-rings. The top fell over and the top of the tree hit the ground seven feet away from the base of the tree. The cut end fell back passed the base of the tree. The climbing line laid over in a crotch and jerked the Trimmer up against the tree and pinned him there. The Utility Forester grabbed a saw and cut a seven-foot section from the top on the ground so they could free the climbing line. The other employees on the ground were then able to lower the Trimmer down using his climbing line low enough to a point where the Foreperson could hold the Trimmer. They unhooked the climbing line from the saddle and laid the Trimmer on the ground next to the tree. 911 was called and EMS responded to the scene. Because of the remote location the employee was taken out of the ROW on a UTV by EMS to a waiting medevac. The employee was air-flighted to the Hospital.



#### Why is This Significant?

The incident resulted in a fractured Pelvis (Left Side) that required the employee to be kept in the hospital for two nights and then transferred to another hospital closer to his home for in-patient rehabilitation for one week.

#### How Could This Have Been Prevented:

Better planning and preparation for the task of removing the top.

Better communication between the Foreperson on the ground and the Trimmer. The Foreperson asked the Trimmer if he was going to take the section of tree out in two pieces and the Trimmer said I got this.

Remaining focused on the task at hand and not allowing yourself to be distracted.

# Lessons Learned

## Struck Against Tree During Trimming

### CAUSAL FACTORS:

- Lack of Detailed Communication.
- Poor Planning & Poor Preparation for the Job
- Trimmer was Mentally Distracted from an Earlier Event

### IMMEDIATE CORRECTIVE ACTIONS:

- A regionwide Safety Stand Down was conducted with all employees on the importance of Peer Checking and 3-Way Communication.
- Region will conduct refresher "Work Stoppage" whistle training with all employees to reinforce the importance of every employee having a whistle on their person at all times and what its used for. Going forward whistle training will be included during the new hire process.
- Crews will be provided with an EXAMPLE Job Briefing with comments on how to properly fill out a Job Briefing. The EXAMPLE Job Briefing will be laminated and kept in the Job Briefing Bag with the Job Briefing book.
- General Forepersons will participate in the preparation and communication of one Job Briefing per week using the example Job Briefing as a guide with a crew making sure to participate with 100% of crews monthly.
- Upper Management will review (at a minimum) two Job Briefings per month with crews using the example Job Briefing as a guide to ensure quality and completeness of the Job Briefing performed by the crew. The goal is to make sure all Hazards are identified and mitigated or eliminated.
- General Forepersons perform a Job Behavior Observation (JBO) on 100% of crews every two weeks.
- Supervisors, RSS and RST will perform 8 JBO's per month.
- When performing a JBO Forepersons will shadow the observer in the JBO process once per week to ensure they understand their safety responsibilities.
- General Forepersons will perform a Crew Visit Checklist on 100% of crews every two weeks to ensure that crews are accountable for their safety operations.
- Region will conduct Human Performance (HuP) Training in a weekly safety campaign entitled 10-in-10 HuP Traps & Tools in 10 weeks. A sign-off sheet will be sent to the RSS weekly.
- Region will provide Adjustable False Crotch (AFC) Training with all qualified climbers using the Corporate AFC proficiency training guideline.
- General Forepersons will perform refresher Spotter Training with all employees to ensure they understand their responsibilities.

### LESSONS LEARNED:

- Job Briefing was performed but did not adequately identify work procedures or include a thorough assessment and mitigation of hazards.
- Ground employees assumed that the climber was descending to remove a limb and would re-crotch his climb line prior to starting the notch and back cut.
- There was no 3-way communication between climber and ground personnel.
- Natural crotches for tie-in were not readily available to complete the tree removal process. There was no Adjustable False Crotch (AFC) available for use, nor has any training been conducted on their usage. Crew had stated that they usually make "small notches" in order to secure climb lines or they take "several wraps" around the tree with the lanyard to prevent rope movement.

**"Safety First... It's Your Life"**

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