COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

KENTUCKY POWER COMPANY	)	
	)	CASE NO. 2017-00196
ALLEGED FAILURE TO COMPLY WITH KRS 278.042	)	

ORDER

Kentucky Power Company ("Kentucky Power") is a corporation engaged in the distribution of electricity for compensation for lights, heat, power, and other uses. It is subject to the jurisdiction of the Commission. Pursuant to KRS 278.042, the Commission shall prescribe the service adequacy and safety standards for electric utilities, as stated in the Commission's administrative regulations, orders, and in the most recent edition of the National Electrical Safety Code ("NESC").[1] Under 807 KAR 5:041, Section 3(1), the Commission requires utilities to construct and maintain plants and facilities in accordance with engineering practices set forth in the NESC.

Commission Staff submitted to the Commission an Accident Investigation Staff Report ("Staff Report"), which is attached hereto as an Appendix. The Staff Report alleges that on July 9, 2015, Tony Craig, a Climber/Trimmer employed by Asplundh Tree Expert Company ("Asplundh"), was killed when he attempted to move a limb he was cutting and the limb came into contact with an energized conductor.

[1] At the time of this accident, the 2012 edition of the NESC was the most recent edition.

Asplundh provides vegetation management services to Kentucky Power. At the time of the incident, Mr. Craig and another employee were performing right-of-way maintenance on the Highland Russell circuit just off State Route 693 (Caroline Road) along Donna Court in Flatwoods, Kentucky. The crew was working along a single-phase line (7.2 kilovolts) in a backyard near 7873 KY 1110, in Breathitt County. This particular job consisted of trimming several white pine trees away from the single phase line.

According to the Staff Report, Mr. Craig climbed one of the white pine trees, which was about 46 feet tall, to prune and remove limbs. It appears that Mr. Craig was cutting a limb that was 30 feet from the ground, eight feet in length, and three feet, six inches above the circuit. As he made a cut on the side of the limb, he tried to pull the limb around to the side with his left hand. The limb broke over and down, and made contact with the energized conductor while he was holding it. Mr. Craig received an electrical shock when the cut limb made contract with the energized conductor. Mr. Craig was transported by ambulance to Our Lady of Bellefonte Hospital, where he was pronounced dead.

KRS 278.042 requires an electric utility to maintain its plant and facilities in accordance with the most recent edition of the National Electrical Safety Code ("NESC"). Based on our review of the Staff Report and being otherwise sufficiently advised, the Commission finds that *prima facie* evidence exists that Kentucky Power failed to comply with KRS 278.042 and the 2012 edition of the NESC. Specifically, the Commission finds that Kentucky Power appears to have violated NESC, Section 44, Rule 441(A)(1), which provides:

Rule 441 – Energized conductors or parts

Employees shall not approach (within the reach or extended reach), or knowingly permit others to approach, any exposed ungrounded part normally energized except as permitted by this rule.

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 441-4 or distances determined by an engineering analysis to exposed parts unless one of the following is met:

   a. The line or part is insulated from the employee per Rule 444D.

   b. The employee is insulated from the energized line or part. Electrical protective equipment insulated for the voltage involved, such as tools, 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 bare hand live-line work according to Rule 446.

Table 441-1 lists the minimum phase-to-ground approach distance for the 34.5-kilovolt line as two feet, two inches. A violation of Section 44, Rule 441(A)(1) occurred when Mr. Craig brought the tree branch, a conductive object, within the minimum approach distance of the energized line.

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

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

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

2. Kentucky Power shall appear on September 12, 2017, at 9 a.m., Eastern Daylight Time, in Hearing Room 1 of the Commission's offices at 211 Sower Boulevard in Frankfort, Kentucky, for the purpose of presenting evidence concerning the alleged violations of KRS 278.042 and the 2012 edition of the NESC, and showing cause why it should not be subject to the penalties prescribed in KRS 278.990(1) for these alleged violations.

3. The September 12, 2017 hearing shall be recorded by digital video recording only.

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

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

By the Commission

ENTERED
MAY 31 2017
KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:

Executive Director

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2017-00196 DATED MAY 31 2017

Steven L. Beshear
Governor

Leonard K. Peters
Secretary
Energy and Environment Cabinet

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

James W. Gardner
Chairman

Daniel E. Logsdon Jr.
Vice Chairman

INCIDENT REPORT

AEP/KP Contractor Incident
November 3, 2015

Utility: Kentucky Power
Address: 101A Enterprise Drive, Frankfort, KY
Contact Person: Greg Bell
Phone: (606) 929-1464
Email: gabell@aep.com

Contractor: Asplundh Tree Expert Company
Address: 80 Codell Drive, Lexington, KY 40509
Contact Person: Unknown
Phone: (859) 309-0020
Email: reg443@asplundh.com

Incident Location: 39 Donna Court, Flatwoods, Kentucky
Incident Date: July 9, 2015
Time: 1:45 p.m. Approximately
Date PSC Notified: July 9, 2015
Time: 3:25 p.m. Approximately
Person(s) Injured: Tony Craig (Asplundh Employee)
Fatality: Yes

PSC Investigator: Jeff Moore

Description: According to Kentucky Power's summary report and Asplundh's investigation report (See Attachment A), the employee was trimming pine a tree near a 7200 volt (7.2 kV) single phase circuit. The employee was climbing the tree to perform trimming on the limbs when the incident occurred. According to the report the employee began to cut a limb that was 30-feet from the ground, eight-feet in length, three-foot six-inches above the circuit, and the cut was three-foot six-inches above the circuit. While making the cut the limb broke over and down making contact with the 7.2 kV circuit. The employee was unable to release the limb and was electrocuted as a result of indirect contact with the primary circuit.

Discussion: After reviewing the summary report additional questions were asked and additional information requested pertaining to the incident (See Attachment B). After reviewing the first set of responses, a second set of questions were asked. Questions and responses are listed in Attachment C.

Conclusion: Based on the information provided in the summary report and incident investigation report the employee was working above the conductor trimming a limb when it broke over and made contact with the energized conductor. The employee apparently was not wearing PPE at the time of the incident. Based on the information the employees' actions inadvertently created a probable violation of the National Electrical Safety Code (NESC), Section 44, Rule 441 (A)(1).

> *441 Energized conductors or parts*
> *Employees shall not approach (within the reach or extended reach), or knowingly permit others to approach, any exposed ungrounded part normally energized except as permitted by this rule.*
> *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 441-4 or distances as determined by an engineering analysis to exposed parts unless one of the following is met:*
> *a. The line or part is de-energized and grounded per Rule 444D.*
> *b. The employee is insulated from the energized line or part. Electrical protective equipment insulated for the voltage involved, such as tools, 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 bare hand live-line work according to Rule 446.*

Comments: The contract company identified in its findings (See Attachment B, Region 443 Safety Action Plan) key contributing factors. Along with the identifying factors the contract company implemented safety action plans to be taken for each contributing factor going forward.

Report by:

Jeff Moore

Jeff Moore
Electric Utility Investigator
Engineering Division
Kentucky Public Service Commission

Attachments:

A: Utility Summary Report and Contractor Investigation

B: First Set of Questions and Utility Responses

C. Second Set of Questions and Utility Responses

ATTACHMENT A

Eng

AEP
KENTUCKY POWER
A unit of American Electric Power

RECEIVED
JUL 22 2015
PUBLIC SERVICE COMMISSION

Kentucky Power
101A Enterprise Drive
P O Box 5190
Frankfort, KY 40602-5190
KentuckyPower.com

HAND DELIVERED

Mr. Jeff Moore
Commonwealth of Kentucky
Public Service Commission
P.O. Box 615
Frankfort, KY 40602

July 22, 2015

Re: Summary Report Pursuant to 807 KAR 5:006, Section 27(2)
July 9, 2015 Asplundh Fatality
Kentucky Power Company, Ashland District

Dear Jeff:

This report provides additional information concerning the fatal injury of Tony Craig on July 9, 2015. On July 15, 2015, Kentucky Power sought a deviation from the requirements of 807 KAR 5:006, Section 27(2) to permit the filing of this report out of time.

At the time of his injury and death, Mr. Craig was employed as a Climber/Trimmer by Asplundh Tree Expert Company, which in turn was providing contract vegetation management services to Kentucky Power.

On July 9, 2015, a four person Asplundh crew was performing right of way maintenance on the Highland Russell circuit off State Route 693 (Caroline Rd) along Donna Ct. At the time of the incident, the crew was working on a single phase lateral (7.2 kV) in the side yard near 39 Donna Ct. in Flatwoods, Ky. The crew employed both a climber/trimmer and a backyard bucket truck.

At approximately 1:45 p.m., Mr. Craig ascended a white pine that was 46 feet tall and 15 inches DBH. He was tied in with his climbing rope and lanyard and was manually trimming several white pine tree limbs away from the 7.2 kV single phase line using a handsaw. Mr. Craig began removing limbs from the lower portion of the tree by working his way up the tree. While trimming using his handsaw above the 7.2 kV primary line he began to cut a limb that was 30 feet from the ground, and 3 ½ feet above the primary line. The limb was 1 ½ inches in diameter

and 8ft in length. The distance from the cut to the primary line was 3 ½ feet. The measurement from the base of the limb where it came off the tree to the primary measured 5ft 10 inches. At approximately 2:10 p.m., trimmer Tony Craig made a cut on the side of the limb while trying to pull the limb around to the side with his left hand. The limb broke over and down and struck the 7.2 kV energized primary wire. Mr. Craig was unable to release the limb and was electrocuted as a result of indirect contact with the primary.

A 911 call was made. The crew utilized a pruner pole to break contact between the limb and primary wire. Mr. Craig was believed to be unconscious. The foreperson performed a tree rescue to bring Mr. Craig to the ground. First responders arrived on scene as the crew was bringing Mr. Craig to the ground. Mr. Craig was transported by ambulance to Our Lady of Bellefonte Hospital where rescue efforts were unsuccessful and he was pronounced dead.

The above description of the incident is from the Preliminary Investigation Notification Form submitted by Asplundh. See attachment. As Asplundh releases additional information, a copy will be forwarded to you as soon as it comes available.

Following the contact incident, Kentucky Power removed the fuse link and cutout door, and interrogated the upstream electronic recloser. The last system inspection on these facilities was performed on May 19, 2014. There was no recent work on these facilities prior to July 9, 2015.

Should you have any questions or need additional information, please feel free to contact me at (606) 929-1464.

Sincerely

Gregory Bell by WRC III

Gregory A. Bell
Region Support Manager

cc: Steve Kingsolver
Everett Phillips
Payton Wilson
John Rogness III
Debra Lemaster

CONTRACTOR PRELIMINARY EVENT NOTIFICATION FORM | FORM NO.: DC - 200

Contractor/Company Name:	Employee Name:	Foreman Name:
ASPLUNDH TREE EXPERT CO.	Tony Craig	Dalton Terry

Event Date:	Time of Event:	Day of the Week:	City & State:
7/9/2015	2:10pm	Thursday	Flatwoods, KY

Type of Work *(Please select one of the options to the right)*	OH Line	URD	Network	Pole Inspection	Forestry	Locating	Civil	Other
	☐	☐	☐	☐	☒	☐	☐	☐

1. Storm: ☐
2. Non-Storm: ☒

Employee's Job Classification (i.e., groundman, laborer, journeyman, etc.): Trimmer/Climber

Event Type:

OSHA Medical	OSHA Lost Time	OSHA Restricted	Vehicle	Flash/Outage	First Aid	Fatality	Utility Strike
☐	☐	☐	☐	☐	☐	☒	☐

Near Miss	Spill/Release	Switch/Tag Error	Property Damage	Equipment Damage	OSHA/EPA Visit: ☒ Citation Issued: Y ☐ N ☐
☐	☐	☐	☐	☐	

Work Description/Explain Event:

On July 9th at approximately 2:10 pm an Asplundh Tree Expert Co. employee, Tony Craig, Trimmer, was fatally electrocuted through indirect contact involving a tree limb. Below are the preliminary findings that are known at this time.

The crew was utilizing a backyard bucket in addition to a climber who was manually trimming several white pines trees away from a 7.2kv single phase line. Climber/Trimmer Craig had ascended one of the white pines that was 46 feet tall and 15 inches DBH and tied in with his climbing rope and lanyard. He began removing limbs from the lower portion of the tree working his way back up utilizing a handsaw. As he worked his way back up the tree and above the 7.2kv primary line he began to cut a limb that was 30ft from the ground, 3 ½ ft above the primary using his handsaw. The limb was 1 ½ inches in diameter and 8 foot in length. From where the cut was made out to the primary line was 3 ½ feet. The measurement from the base of the limb where it came off the tree to the primary measured 5ft 10 inches. Trimmer Craig proceeded to make a cut on the side of the limb while trying to pull the limb around to the side with his left hand. The limb broke over and down before clearing the 7.2kv primary wire coming to rest on it. The trimmer was unable to let go of the limb. 911 was called and the crew utilized a pruner pole to break contact between the limb and primary wire. Trimmer Craig was unconscious by this time. The foreperson proceeded to do a tree rescue to get the climber/trimmer to the ground. First responders arrived on scene as the crew was getting the employee on the ground. Climber/trimmer Tony Craig was transported by Ambulance to Our Lady of Bellefonte Hospital where rescue efforts were unsuccessful and he was pronounced dead.

Please Specify Injured Part(s) of the Body:

Fatality

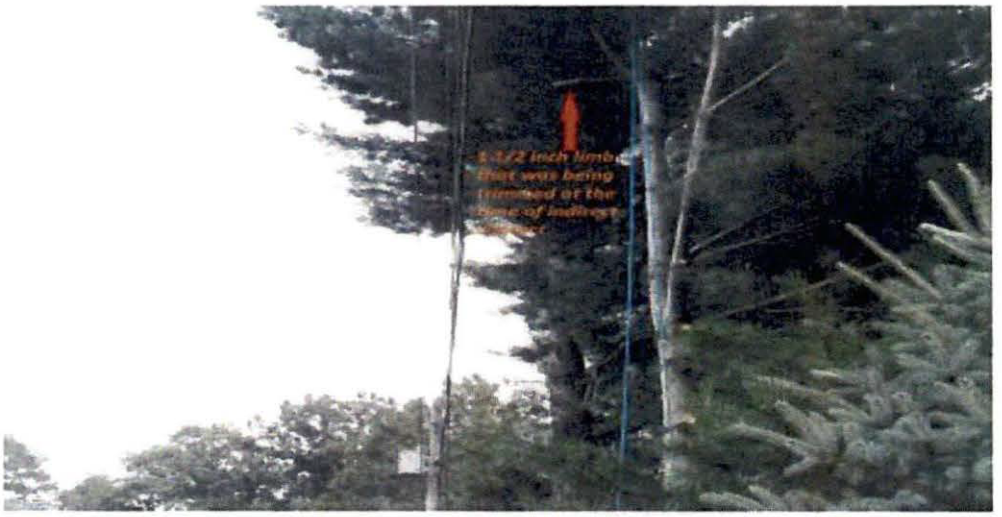
Please Specify Type of Injury (i.e., cut, burn, puncture, fall, etc.):

Fatality

Name of Person Completing This Form:	Date:
Steven Pennycuff	7/9/2015

 | DATE ISSUED: 12/2008

Below is an aerial view of the site


1 1/2 inch limb
that was being
removed at the


1 1/2 inch limb that
removed.

ATTACHMENT B

From: Gregory A Bell
To: Moore, Jeffrey C (PSC)
Cc: moverstreet@stites.com; Debra A Lemaster; Gina E Mazzei-Smith; Marilyn M Willis
Subject: RE: AEP/Kentucky Power Right-of-Way Contractor Incident (Asplundh)
Date: Wednesday, July 29, 2015 12:35:32 PM

Jeff

I received your email and will forward the responses when complete.

Thanks

Gregory A. Bell
Region Support Manager

Cell: (606) 465-7449
Office: (606) 929-1464
Audinet: 600-1464

From: Moore, Jeffrey C (PSC) [mailto:JeffreyC.Moore@ky.gov]
Sent: Wednesday, July 29, 2015 10:39 AM
To: Gregory A Bell
Subject: RE: AEP/Kentucky Power Right-of-Way Contractor Incident (Asplundh)

Greg,
Per our phone conversation about a possible site visit, at this time we will not be making a site visit. I've gone through the information sent on the Asplundh employee incident. I have some questions and information request about the incident.

-

Note: Only need to send one copy on the information below.
Just want to clarify this, when requesting additional time on a summary report, a letter addressed to the Executive Director of the commission showing good cause for the extension of time is all that's needed. Requesting a deviation (as stated in the summary report) is not needed for an extension of time to submit a summary report.

1. Did Kentucky Power and Asplundh conduct an incident investigation?
2. If yes, please submit the incident investigation report(s) as an addendum to Kentucky Power's summary report.
3. Are additional photos of the incident site available (from Kentucky Power's or Asplundh's investigation) that would better describe the measurements taken (proximity of the limb to the primary conductor) at the incident site?
4. If yes, please submit all photos of the incident site as an addendum to the summary report.
5. What was the proximity of other Asplundh employees when the incident occurred?

6. Was the person in charge overseeing the work or performing work when the incident occurred?
7. What are the required work and safety procedures when clearing vegetation near and/or above energized conductors?
8. Could the Backyard Bucket have been used to clear vegetation above the primary conductor?
9. What was the result of the interrogation of the upstream electronic recloser?
10. Did anyone witness the incident?
11. If yes, does Kentucky Power or Asplundh have a record of any statements made about the incident?
12. Were any safety or code violations identified and addressed?
13. If yes, what corrective actions has Kentucky Power or Asplundh implemented as a result of any violations.

Additional information may be requested based on the responses from the information provided above.

From: Gregory A Bell [mailto:gabell@aep.com]
Sent: Thursday, July 09, 2015 8:29 PM
To: Moore, Jeffrey C (PSC); PSC - Utility Electric Notifications
Cc: Michael A Williams; Lloyd M Rayburn JR.; Debra A Lemaster; Marilyn M Willis; Ranie K Wohnhas; Mark E Jackson; Jason C Bradshaw
Subject: RE: AEP/Kentucky Power Right-of-Way Contractor Incident (Asplundh)

Preliminary Information from incident

The incident below has turned into a fatality. Tony Craig, an Asplundh employee, was clearing right-of-way near 39 Donna Dr in Flatwoods, Kentucky. He was working in the side yard of a single phase lateral (7.2 kV) on the Highland/Russell Circuit. He had climbed a pine tree and was cutting a branch that got away from him and made contact with the energized distribution conductor. It is believed the individual reached out to possible stop the limb from hitting the conductor which caused the indirect contact to occur. The voltage entered the hand and exited the knee. The employee was rescued from the tree and transported to Bellefonte Hospital where he was pronounced dead. Asplundh's investigation is underway and a summary written report will follow.

Gregory A. Bell
Region Support Manager
Kentucky Power Company
606-929-1464 office
606-465-7449 cell

From: Moore, Jeffrey C (PSC) [mailto:JeffreyC.Moore@ky.gov]
Sent: Thursday, July 09, 2015 3:38 PM

To: PSC - Utility Electric Notifications
Cc: Michael A Williams; Gregory A Bell
Subject: AEP/KP Right-of-Way Contractor Incident (Asplundh)

I received a call at 3:25 pm from Mike Williams with AEP/KP reporting an electrical contact (approximately 2:49 pm today) of a Asplundh Tree Service employee. All they know at this time is he did receive a shock and has gone to the hospital. AEP/KP personnel are headed to the site near Russell, KY, and will send additional information about the incident.
Summary written report will follow.

Jeff Moore
Utility Regulatory & Safety Investigator
EEC/Public Service Commission
Office: 502-564-3940
Cell: 502-352-0767
jeffreyc.moore@ky.gov

Question No: 1

Did Kentucky Power and Asplundh conduct an incident investigation?

If yes, please submit the incident investigation report(s) as an addendum to Kentucky Power's summary report.

Answer:

Yes, Asplundh conducted an incident investigation. See KPSC_R1_Attachment1.pdf and KPSC_R1_Attachment2.xlsx

On July 10, 2015, Kentucky Power examined its relevant protective equipment to verify that the equipment had been correctly installed and programmed.

Mr. Craig made indirect contact with the Company's 7.2 kV distribution facilities approximately 2.5 miles from the Highland substation on the Highland Russell circuit off State Route 693 (Caroline Rd) near 39 Donna Ct in Flatwoods, Kentucky. At that location, the available maximum fault current is estimated to be 1,892 amps. Located 565 feet ahead of the point of contact is a 30T line fuse at Pole #39831123B00355. The cutout door and fuse link were removed revealing that the appropriately sized 30T fuse link had been installed.

Upstream of the line fuse, approximately 11,300 feet, is an electronic recloser at Pole #39831009B26927. The settings in the control were examined and the Company confirmed the correct trip value settings had been programmed (500 amps on the phase and 425 amps on the ground). The sequence of events history indicated that no current values had reached the trip value threshold at the time of the incident. Also, it was noted that the last electronic control test was performed on June 30, 2015 during a routine inspection. There were no signs of abnormality or malfunction.

On August 4, 2015, Kentucky Power took measurements at the site of the indirect contact to ensure that all NESC construction standard clearances were met. The pertinent measurements, all of which meet or exceed NESC standards, are provided in KPSC_R1_Attachment3.pdf.

This incident involving indirect contact with tree limb created a high impedance fault. High impedance faults produce low current levels that may not open or operate distribution protective equipment. There is no protective equipment available that can fully protect from high impedance faults and still allow the line to function. From its investigation, Kentucky Power believes that there was no malfunction of its protective equipment.

Question No: 2

Are additional photos of the incident site available (from Kentucky Power's or Asplundh's investigation) that would better describe the measurements taken (proximity of the limb to the primary conductor) at the incident site?

If yes, please submit all photos of the incident site as an addendum to the summary report.

Answer:

No additional pictures were taken by Kentucky Power or Asplundh that better show the measurements at the incident site.

Question No: 3

What was the proximity of other Asplundh employees when the incident occurred?

Answer:

Dalton Terry (Foreperson) was on the ground watching Mr. Craig. Catlain Coburn (Trimmer) had just exited the backyard bucket where he had been trimming another white pine at the time of the contact. Adam Decant (Groundperson) was dragging brush to the chipper and was coming around the house at the time of the incident. See the Incident Diagram attached as KPSC_R3_Attachment1.pdf.

Question No: 4

Was the person in charge overseeing the work or performing work when the incident occurred?

Answer:

Dalton Terry (Foreperson) was overseeing the work when the incident occurred.

Question No: 5

What are the required work and safety procedures when clearing vegetation near and/or above energized conductors?

Answer:

Kentucky Power Company requires that contractor practices shall be in compliance with applicable industry standards (e.g., ANSI, OSHA, NESC) whenever practical unless the use of such standards increases the risk of injury or property damage. OSHA 1910.269 (r)(1)(iii) requires that Line Clearance Tree Trimmers (LCTT) shall maintain the Minimum Approach Distance (MAD) from energized conductors according to the nominal voltage working around.

Kentucky Power Company has multiple distribution primary voltages. The maximum nominal voltage to which a line clearance tree trimmer can be exposed while trimming distribution facilities is 34.5 kV. Kentucky Power and Asplundh Tree Expert have agreed that maximum nominal voltage will be used for their minimum approach distance for all primary distribution facilities. If it is necessary for Asplundh workers to encroach on MAD, Asplundh's rules require a non-conductive tool be used if the distribution facilities remain energized.

Question No: 6

Could the Backyard Bucket have been used to clear vegetation above the primary conductor?
What was the result of the interrogation of the upstream electronic recloser?

Answer:

Yes.

See answer to Question No. 1 for results of upstream electronic recloser interrogation.

Question No: 7

Did anyone witness the incident?

If yes, does Kentucky Power or Asplundh have a record of any statements made about the incident?

Answer:

Yes. Please see the Asplundh Foreperson Witness Report attached as KPSC_R7_Attachment1.pdf.

Question No: 8

Were any safety or code violations identified and addressed?

If yes, what corrective actions has Kentucky Power or Asplundh implemented as a result of any violations.

Answer:

Kentucky Power believes its actions and equipment met all safety and code requirements. OSHA has completed its initial site visit but has not yet issued its report or citations, if any, to Asplundh.

	ASPLUNDH INCIDENT INVESTIGATION (07/09/2015)		PAGE 1 OF 7
	CONTRACTOR WORKING FOR KENTUCKY POWER	FORM NO.: DC - 200	

Contractor/Company Name:	Employee Name:	Foreman Name:
Asplundh Tree Expert Co.	Tony Craig	Dalton Terri

Event Date:	Time of Event:	Day of the Week:	City & State:
7/9/15	2:10pm	Thursday	Flatwoods, KY

Type of Work *(Please select one of the options to the right)*	OH Line	URD	Network	Pole Inspection	Forestry	Locating	Civil	Other
	☐	☐	☐	☐	☒	☐	☐	☐

1. Storm: ☐ 2. Non-Storm: ☒	Employee's Job Classification (i.e., groundman, laborer, journeyman, etc.): Trimmer/Climber

Event Type:

OSHA Medical	OSHA Lost Time	OSHA Restricted	Vehicle	Flash/Outage	First Aid	Fatality	Utility Strike
☐	☐	☐	☐	☐	☐	☒	☐

Near Miss	Spill/Release	Switch/Tag Error	Property Damage	Equipment Damage	OSHA/EPA Visit: ☐ Citation Issued: Y ☐ N ☐
☐	☐	☐	☐	☐	

Work Description/Explain Event:

On July 9th at approximately 2:10 pm, an Asplundh Tree Expert Co. employee, Tony Craig, Trimmer, was fatally electrocuted through indirect contact involving a tree limb. Below are the preliminary findings that are known at this time.

The crew was utilizing a backyard bucket in addition to a climber who was manually trimming several white pine trees away from a 7.2kv single phase line. Climber/Trimmer Craig had ascended one of the white pines that was 46 feet tall and 15 inches DBH and tied in with his climbing rope and lanyard. He began removing limbs from the lower portion of the tree working his way back up utilizing a handsaw. As he worked his way back up the tree and above the 7.2kv primary line he began to cut a limb that was 30ft from the ground, 3 ½ ft above the primary using his handsaw. The limb was 1 ½ inches in diameter and 8 foot in length. From where the cut was made out to the primary line was 3 ½ feet. The measurement from the base of the limb where it came off the tree to the primary measured 5ft 10 inches. Trimmer Craig proceeded to make a cut on the side of the limb while trying to pull the limb around to the side with his left hand. The limb broke over and down before clearing the 7.2kv primary wire coming to rest on it. The trimmer was unable to let go of the limb. 911 was called and the crew utilized a pruner pole to break contact between the limb and primary wire. Trimmer Craig was unconscious by this time. The foreperson proceeded to do a tree rescue to get the climber/trimmer to the ground. First responders arrived on the scene as the crew was getting the employee on the ground. Climber/trimmer Tony Craig was transported by Ambulance to Our Lady of Bellefonte Hospital where rescue efforts were unsuccessful and he was pronounced dead.

Please Specify Injured Part(s) of the Body: Fatality

Please Specify Type of Injury (i.e., cut, burn, puncture, fall, etc.): Fatality

Name of Person Completing This Form:	Date: 7/9/15

 DATE ISSUED: 10/2008

	ASPLUNDH INCIDENT INVESTIGATION (07/09/2015)		PAGE 2 OF 7
	CONTRACTOR WORKING FOR KENTUCKY POWER	FORM NO.: DC - 200	

Below is an aerial view of the site

	ASPLUNDH INCIDENT INVESTIGATION (07/09/2015)		PAGE 3 OF 7
	CONTRACTOR WORKING FOR KENTUCKY POWER	FORM NO.: DC - 200	

DATE ISSUED: 10/2008

	ASPLUNDH INCIDENT INVESTIGATION (07/09/2015)		PAGE 5 OF 7
	CONTRACTOR WORKING FOR KENTUCKY POWER	FORM NO.: DC - 200	

DATE ISSUED: 10/2008

	ASPLUNDH INCIDENT INVESTIGATION (07/09/2015)		PAGE 6 OF 7
	CONTRACTOR WORKING FOR KENTUCKY POWER	FORM NO.: DC - 200	

DATE ISSUED: 10/2008

	ASPLUNDH INCIDENT INVESTIGATION (07/09/2015)		PAGE 7 OF 7
	CONTRACTOR WORKING FOR KENTUCKY POWER	FORM NO.: DC - 200	

Corrective Actions:

1. System wide stand-down conducted with crews to review the event and its associated causal factors – completed 7/13/2015
2. Additional Management positions added within Region to provide supplemental oversight
    a. Supervisor – completed 7/20/2015
    b. Regional Safety Superintendent – target completion date of 8/10/2015
3. Administrative policy requiring a pole pruner to be present in every tree being work developed and rolled out – completed 7/27/2015
4. Enhancements to be made to training tracking process – target completion date of 8/3/2015
5. Re-training to be conducted on job briefing expectations – target completion date of 8/14/2015
    a. All General Forepersons (GFs) to be required to participate in a special emphasis program focused on job briefing quality – target completion date of 11/3/2015
6. Electrical hazard awareness refresher training to be completed with all regional employees – target of 8/27/2015
7. Human performance training to be rolled out to all employees – target completion date of 10/9/2015

KENTUCKY POWER MEASUREMENT FORM
ASPLUNDH INCIDENT 7/9/2015
NEAR 39 DONNA CT - FLATWOODS, KY

MEASUREMENTS FORM (Other then UG)

INVESTIGATOR GREGORY BELL **DATE** 8/3/2015

LINE MEASUREMENTS

1. Height of contacted line at each span 36'6" @ pole # 1123-642 & 27'11" @ pole # 1123-511

2. Length of span from pole to pole 134.5 ft

3. Distance on line from point of contact to nearest pole 50'10" (pole #642)

4. Height of line from ground at point of contact 25'3"

5. Height of lowest point in span from line to ground 24'1"

6. Location of line with respect to (1) public road(s) and (2) private property:

   Name of public road(s) SR 693 (CAROLINE RD)
   Address of private property 39 DONNA CT
   City FLATWOODS County GREENUP

7. Voltage on the line 7.2 KV

8. Distance from building or structure:

   Identify Building or structure and point where measurements taken

   Distance (linear) of line from building

   Distance (height) of line from roof (above) building

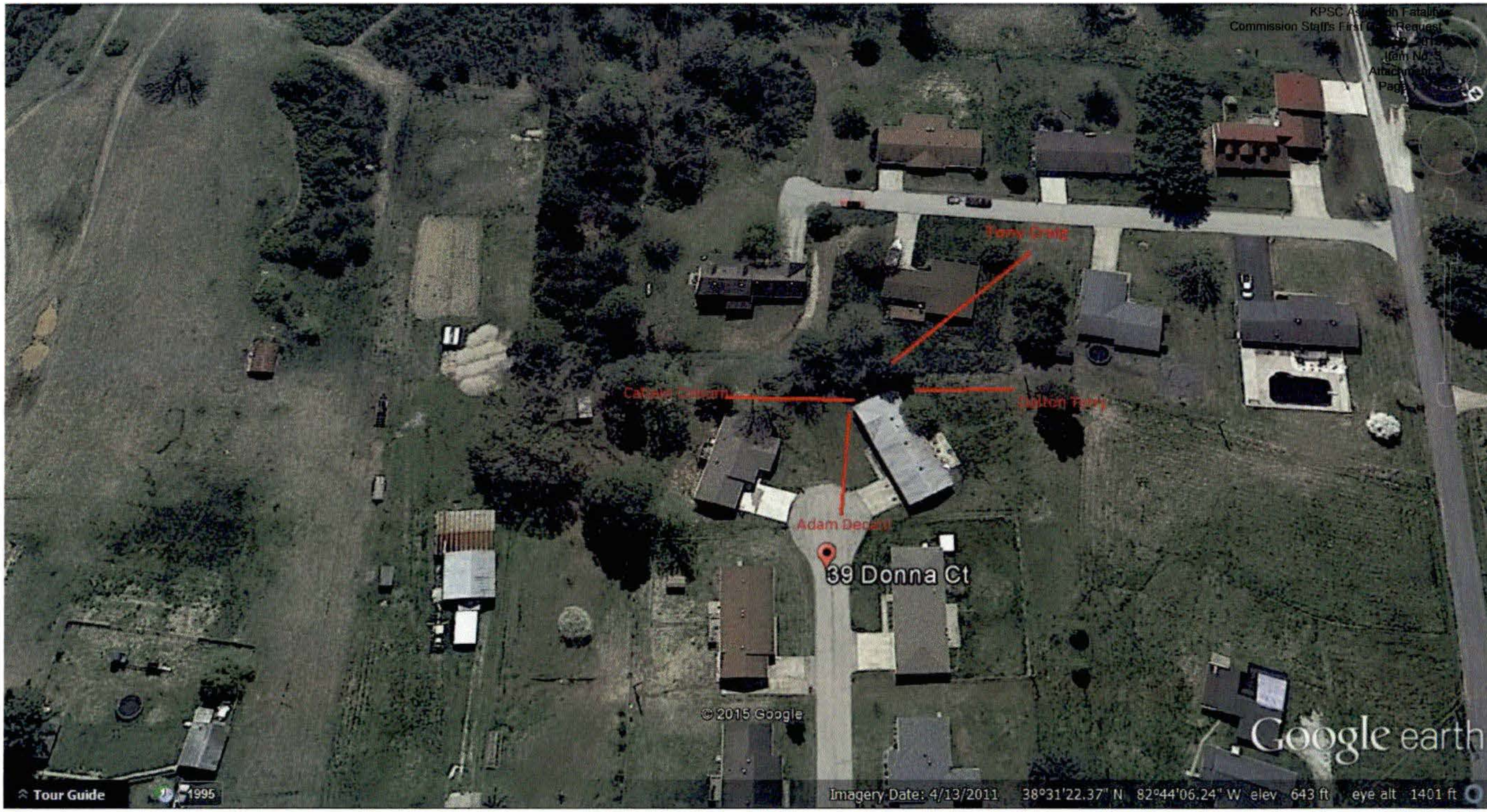
BURN MARKS ON EQUIPMENT – Be sure to photograph all burn marks.

1. Identify equipment including owner, name, serial or model numbers, size, etc.:

2. Describe the burn mark – size, location, etc.

American Electric Power – Revised July 2006

HEIGHT OF REMAINING LIMB FROM GROUND 29'11"


39 Donna Ct
© 2015 Google
Google earth
Tour Guide
1995
Imagery Date: 4/13/2011 38°31'22.37" N 82°44'06.24" W elev 643 ft eye alt 1401 ft

I Roger Bailey wrote this witness Report for Catlain Coburn

Foreperson, Crewmember, Witness Report

Crew #: 443-003 **Crew Type:** Back Yard Bucket

Name of Crew Foreperson: Dalton Terry **Name of General Foreperson:** Roger Bailey

Witness (Print) Name: Catlain Coburn **Job Title:** A Trimmer **Phone #:** 606/473-3767) Home 606(225-6655) Cell

1. **Did you see the incident *(Circle)*?:** YES (NO)
2. **Other possible witnesses:** Dalton Terry Adam Decent
3. **What did you see and hear?** when he was taking the harness off he heard Dalton yelling and looked up an seen Tony holding the limb and the limb was in the wire Then seen Dalton pull on the Rope so he went over to help I was pulling on then Dalton told me to put on the gear so I got the gear and handed the phone to Adam and told him to call 911 & Roger when I put my spurs in the tree it sounded like I heard Tony more when I was putting the gear on Dalton Already was up in the tree ~~Dalton~~ other side
4. **Names of those injured, describe nature of injuries and part(s) of the body injured.** Tony Craig Indirect contact
5. **Where were you and what were you doing at the time the incident occurred?** I handed Adam the ~~wire~~ Pruner pole and took of the harness getting ready to move the bucket before I could do that. Dalton yelled for the pruner
6. **Witness Signature:** Catlain Coburn **Date:** 7-10-15

TO CORPORATE LEGAL DEPARTMENT

THIS REPORT IS PREPARED FOR YOU AT YOUR REQUEST AS OUR LEGAL REPRESENTATIVE IN LITIGATION, WHICH WE ANTICIPATE OSHA OR AN APPLICABLE STATE OSHA AGENCY OR PRIVATE INDIVIDUAL OR OTHER THIRD PARTY MAY BRING AGAINST THE COMPANY IN CONNECTION WITH THE INCIDENT DESCRIBED ABOVE. THIS REPORT IS TO ASSIST YOU IN PREPARING FOR OUR REPRESENTATION IN SUCH PROCEEDINGS AND MUST BE MAINTAINED BY YOU ON A STRICTLY CONFIDENTIAL BASIS.

DISTRIBUTION (Photocopies will be accepted): **White** - Field Copy, **Yellow** - Safety Department, **Pink** - Risk Management Department

Form XX-310A 2013.2.13

21586 STATE ROUTE 784
GARRISON. K.Y. 41141

Remeber hearing Dalton Saying heary I was going up the tree to get to him when Roger showed up when I got to the top I tryed to Raise Terry up I handed Dalton my knife and he cut the Rope and Roger and Adam lowed him down

Foreperson, Crewmember, Witness Report

Crew #: 443003 **Crew Type:** Backyard

Name of Crew Foreperson: Dalton Terry **Name of General Foreperson:** Rogar Bailey 606-473-0325

Witness (Print) Name: Adam Decant **Job Title:** Groundsman **Phone #:** 606-541-7417

1. **Did you see the incident *(Circle)*?:** (YES) NO
2. **Other possible witnesses:** Dalton Terry Catlain Coborn
3. **What did you see and hear?** Herd Tony Screeming and come running He was hanning not moving. Dalton and Catlin Went up to try to get him down I called 911 and Rogar. Rogar showed up and He and I lowered tony out of the tree And I Layed him down and we put him on his Side. the The EMT Arrived
4. **Names of those injured, describe nature of injuries and part(s) of the body injured.** Tony Craig Electrocution Throug indirct contact, Left Hand
5. **Where were you and what were you doing at the time the incident occurred?** I was on the Back Side of a pine tree Cleaning Brush
6. **Witness Signature:** Adam Decant **Date:** 7-10-15

TO CORPORATE LEGAL DEPARTMENT

THIS REPORT IS PREPARED FOR YOU AT YOUR REQUEST AS OUR LEGAL REPRESENTATIVE IN LITIGATION, WHICH WE ANTICIPATE OSHA OR AN APPLICABLE STATE OSHA AGENCY OR PRIVATE INDIVIDUAL OR OTHER THIRD PARTY MAY BRING AGAINST THE COMPANY IN CONNECTION WITH THE INCIDENT DESCRIBED ABOVE. THIS REPORT IS TO ASSIST YOU IN PREPARING FOR OUR REPRESENTATION IN SUCH PROCEEDINGS AND MUST BE MAINTAINED BY YOU ON A STRICTLY CONFIDENTIAL BASIS.

DISTRIBUTION (Photocopies will be accepted): **White** - Field Copy, **Yellow** - Safety Department, **Pink** - Risk Management Department

Form XX-310A 2013.2.13

731 Buckner Hollow
Garrison, 41141

Foreperson, Crewmember, Witness Report

Crew #: 443-003 **Crew Type:** Backyard Bucket Crew

Name of Crew Foreperson: Dalton Terry **Name of General Foreperson:** Roger Bailey

Witness (Print) Name: Dalton Terry **Job Title:** Foreman **Phone #:** 606-585-2463

1. **Did you see the incident *(Circle)*?:** (YES) NO
2. **Other possible witnesses:** Caitlin Coburn or Adam decant
3. **What did you see and hear?** I was on the ground below tony watching him trim tree. I instructed him to not cut it where he was going to but to reach out on it and pull the limb up. I then seen tony make a cut then swing out and grab the limb and swing back to the tree but on his way back to the base of the tree he pulled limb into primary line of Single phase. I saw him make indirect contact and heard him Screaming. I Knew I had to break contact and did so and ascended tree.
4. **Names of those injured, describe nature of injuries and part(s) of the body injured.** Tony Craig Electrocution
5. **Where were you and what were you doing at the time the incident occurred?** right underneath the tree watching and instructing tony
6. **Witness Signature:** Dalton Terry **Date:** 7-10-15

TO CORPORATE LEGAL DEPARTMENT

THIS REPORT IS PREPARED FOR YOU AT YOUR REQUEST AS OUR LEGAL REPRESENTATIVE IN LITIGATION, WHICH WE ANTICIPATE OSHA OR AN APPLICABLE STATE OSHA AGENCY OR PRIVATE INDIVIDUAL OR OTHER THIRD PARTY MAY BRING AGAINST THE COMPANY IN CONNECTION WITH THE INCIDENT DESCRIBED ABOVE. THIS REPORT IS TO ASSIST YOU IN PREPARING FOR OUR REPRESENTATION IN SUCH PROCEEDINGS AND MUST BE MAINTAINED BY YOU ON A STRICTLY CONFIDENTIAL BASIS.

DISTRIBUTION (Photocopies will be accepted): **White** - Field Copy, **Yellow** - Safety Department, **Pink** - Risk Management Department

Form XX-310A 2013.2.13

359 Teague Dr
Greenup, Ky 41144

General Foreperson Incident Investigation
SUMMARY SHEET

1. **Describe the Incident *(What Was Being Done And What Happened?)*:**
when I got here Tony was unconcous and upside down. Dalton Was in the tree trying to get him out of the tree and on the grounel Thats when the Emts got here and took over

2. **Consequences (Describe type or extent of injury/property damage value):**
Tony Craig got electricuted thery was nt any property damage

3. **What object or substance directly harmed the employee:**
A Pine limb come in contact with the power line

4. **If the employee died: Date of Death:**

7-9-15

ATTACHMENT C

From: Moore, Jeffrey C (PSC)
To: "Gregory A Bell"
Subject: RE: AEP/Kentucky Power Right-of-Way Contractor Incident (Asplundh)
Date: Monday, September 28, 2015 8:08:00 AM

Greg,
Please see the additional information request and questions.

1. Provide a copy of Asplundh's contract with AEP/KPco, and the safety manual used by Asplundh.
2. Was a job briefing performed and documented?
3. If yes, provide a copy of the job briefing prior to the incident.
4. Should the employee have been performing this type of work above an energized conductor without protective equipment?
5. If no, give a detailed description of the work procedures required near and above energized conductors.

From: Gregory A Bell [mailto:gabell@aep.com]
Sent: Wednesday, July 29, 2015 12:35 PM
To: Moore, Jeffrey C (PSC)
Cc: moverstreet@stites.com; Debra A Lemaster; Gina E Mazzei-Smith; Marilyn M Willis
Subject: RE: AEP/Kentucky Power Right-of-Way Contractor Incident (Asplundh)

Jeff

I received your email and will forward the responses when complete.

Thanks
Gregory A. Bell
Region Support Manager

Cell: (606) 465-7449
Office: (606) 929-1464
Audinet: 600-1464

From: Moore, Jeffrey C (PSC) [mailto:JeffreyC.Moore@ky.gov]
Sent: Wednesday, July 29, 2015 10:39 AM
To: Gregory A Bell
Subject: RE: AEP/Kentucky Power Right-of-Way Contractor Incident (Asplundh)

Greg,
Per our phone conversation about a possible site visit, at this time we will not be making a site visit. I've gone through the information sent on the Asplundh employee incident. I have some questions and information request about the incident.

-

Note: Only need to send one copy on the information below.
Just want to clarify this, when requesting additional time on a summary report, a letter addressed to the Executive Director of the commission showing good cause for the extension of time is all that's needed. Requesting a deviation (as stated in the summary report) is not needed for an extension of time to submit a summary report.

1. Did Kentucky Power and Asplundh conduct an incident investigation?
2. If yes, please submit the incident investigation report(s) as an addendum to Kentucky Power's summary report.
3. Are additional photos of the incident site available (from Kentucky Power's or Asplundh's investigation) that would better describe the measurements taken (proximity of the limb to the primary conductor) at the incident site?
4. If yes, please submit all photos of the incident site as an addendum to the summary report.
5. What was the proximity of other Asplundh employees when the incident occurred?
6. Was the person in charge overseeing the work or performing work when the incident occurred?
7. What are the required work and safety procedures when clearing vegetation near and/or above energized conductors?
8. Could the Backyard Bucket have been used to clear vegetation above the primary conductor?
9. What was the result of the interrogation of the upstream electronic recloser?
10. Did anyone witness the incident?
11. If yes, does Kentucky Power or Asplundh have a record of any statements made about the incident?
12. Were any safety or code violations identified and addressed?
13. If yes, what corrective actions has Kentucky Power or Asplundh implemented as a result of any violations.

Additional information may be requested based on the responses from the information provided above.

From: Gregory A Bell [mailto:gabell@aep.com]
Sent: Thursday, July 09, 2015 8:29 PM
To: Moore, Jeffrey C (PSC); PSC - Utility Electric Notifications
Cc: Michael A Williams; Lloyd M Rayburn JR.; Debra A Lemaster; Marilyn M Willis; Ranie K Wohnhas; Mark E Jackson; Jason C Bradshaw
Subject: RE: AEP/Kentucky Power Right-of-Way Contractor Incident (Asplundh)

Preliminary Information from incident

The incident below has turned into a fatality. Tony Craig, an Asplundh employee, was clearing right-of-way near 39 Donna Dr in Flatwoods, Kentucky. He was working in the side yard of a single phase lateral (7.2 kV) on the Highland/Russell Circuit. He had climbed a pine tree and was cutting a branch

that got away from him and made contact with the energized distribution conductor. It is believed the individual reached out to possible stop the limb from hitting the conductor which caused the indirect contact to occur. The voltage entered the hand and exited the knee. The employee was rescued from the tree and transported to Bellefonte Hospital where he was pronounced dead. Asplundh's investigation is underway and a summary written report will follow.

Gregory A. Bell
Region Support Manager
Kentucky Power Company
606-929-1464 office
606-465-7449 cell

From: Moore, Jeffrey C (PSC) [mailto:JeffreyC.Moore@ky.gov]
Sent: Thursday, July 09, 2015 3:38 PM
To: PSC - Utility Electric Notifications
Cc: Michael A Williams; Gregory A Bell
Subject: AEP/KP Right-of-Way Contractor Incident (Asplundh)

I received a call at 3:25 pm from Mike Williams with AEP/KP reporting an electrical contact (approximately 2:49 pm today) of a Asplundh Tree Service employee. All they know at this time is he did receive a shock and has gone to the hospital. AEP/KP personnel are headed to the site near Russell, KY, and will send additional information about the incident.
Summary written report will follow.

Jeff Moore
Utility Regulatory & Safety Investigator
EEC/Public Service Commission
Office: 502-564-3940
Cell: 502-352-0767
jeffreyc.moore@ky.gov

AEP
KENTUCKY POWER
A unit of American Electric Power

Kentucky Power
101A Enterprise Drive
P O Box 5190
Frankfort, KY 40602-5190
KentuckyPower.com

Hand Delivered

October 19, 2015

Jeffrey Moore
Kentucky Public Service Commission
P.O. Box 615
211Sower Blvd.
Frankfort, KY 40602-0615

Dear Mr. Moore,

Please see enclosed email notification stating your system was unable to accept electronically filed KPCO responses to your second request for information regarding the Asplundh employee fatality. Therefore, I will hand deliver those documents which include the data requests, company responses, Item 1a Attachment2; Attachment3; Attachment4; Item No. 1b Attachment1; Attachment2; Attachment3 and Item No. 3 Attachment1.

If you have any questions, please let me know.

Sincerely,

John A. Rogness III
Director - Regulatory Services
AEP Kentucky Power Company
101 Enterprise Dr.
Frankfort, KY 40601
Phone (502) 696-7010

Judy K Rosquist

From: John A Rogness III
Sent: Monday, October 19, 2015 3:58 PM
To: Judy K Rosquist
Subject: FW: KPSC Data Request - Asplundh Fatality

From: Mail Delivery Subsystem [mailto:MAILER-DAEMON@aep.com]
Sent: Friday, October 16, 2015 3:52 PM
To: John A Rogness III
Subject: Undeliverable: KPSC Data Request - Asplundh Fatality

Delivery has failed to these recipients or groups:

JeffreyC.Moore@ky.gov
The recipient's mailbox is full and can't accept messages now. Please try resending this message later, or contact the recipient directly.

The following organization rejected your message: mail1.state.ky.us.

Diagnostic information for administrators:

Generating server: mail10.aep.com

JeffreyC.Moore@ky.gov
mail1.state.ky.us #<mail1.state.ky.us #5.2.2 SMTP; 552 Message exceeds permitted size.> #SMTP#

Original message headers:

Return-Path: <prvs=5731dd128b=jarogness@aep.com>
Received: from pps.filterd (mail10.aep.com [127.0.0.1]) by mail10.aep.com
(8.15.0.59/8.15.0.59) with SMTP id t9GJkvsI030756; Fri, 16 Oct 2015 14:47:43
-0400
Received: from email.aep.com ([10.127.175.13])by mail10.aep.com with ESMTP id
[illegible]8861-1 (version=TLSv1/SSLv3 cipher=AES128-SHA bits=128 verify=NOT);
Fri, 16 Oct 2015 14:47:31 -0500
Received: from VMAEPHQMS005.corp.aepsc.com ([169.254.7.239]) by
VMAEPHQMS002.corp.aepsc.com ([10.92.123.52]) with mapi id 14.03.0224.002;
Fri, 16 Oct 2015 15:47:28 -0400
From: John A Rogness III <jarogness@aep.com>
To: "JeffreyC.Moore@ky.gov" <JeffreyC.Moore@ky.gov>
CC: "Moverstreet, Mark R." <MOVERSTREET@stites.com>, Judy K Rosquist

<jkrosquist@aep.com>
Subject: KPSC Data Request - Asplundh Fatality
Thread-Topic: KPSC Data Request - Asplundh Fatality
Thread-Index: AdEfSWvrxagfiN8sSZSfBOhqAWPprA==
Date: Fri, 16 Oct 2015 19:47:26 +0000
Message-ID: <8CB8494F3B84814582EE75D4EDD797B77AA15F0E@VMAEPHQMS005.corp.aepsc.com
Accept-Language: en-US
Content-Language: en-US
X-MS-Has-Attach: yes
X-MS-TNEF-Correlator:
Originating-ip: [10.92.123.4]
Content-Type: multipart/mixed;
boundary="_011_8CB8494F3B84814582EE75D4EDD797B77AA15F0EVMAEPHQMS005cor_"
MIME-Version: 1.0
X-Forefront-Antivirus-Version: vendor=fsecure engine=2.50.10432:, definitions=2015-10-16_15:,
X-Antivirus-Status: 0

Question No: 1

Provide a copy of Asplundh's contract with AEP/KPCo, and the safety manual used by Asplundh.

a. Attach a copy of the Contract

b. Attach copy of LCQS over view

Answer:

1a. Please see attachments KPCO_2_1a_Attachment 1_Redacted.pdf through KPCO_2_1a_Attachment 4.pdf for a copy of the contract. Because of its size prohibits delivery by e-mail, KPCO_2_1a_Attachment 1_Redacted.pdf is being delivered by hand.

1b Please see attachments KPCO_2_1b_Attachment1.pdf through KPCO_2_1b_Attachment3.pdf for copies of Asplundh's Safety Program Outline, Groundperson / Trainee manual outline and an Overview & Summary Line Clearance Qualification Standard (LCQS). Because of its size prohibits delivery by e-mail, a copy of KPCO_2_1b_Attachment4, Asplundh's safety manual is being delivered by hand.

Question No: 2

Was a job briefing performed and documented?

Answer:

Yes. Asplundh has informed the Company that a job briefing was performed and documented.

If yes, provide a copy of the job briefing prior to the incident.

Question No: 3

If yes, provide a copy of the job briefing prior o the incident.

Answer:

Please see KPCO_2_3_Attachment1.pdf for a copy of the job briefing documentation.

Question No: 4

Should the employee have been performing this type of work above an energized conductor without protective equipment?

Answer:

Asplundh informs Kentucky Power that protective equipment was available to the employee, who was trained, equipped, and able to work in and from that location with the protective equipment available to him.

Question No: 5

If no, give a detailed description of the work procedures required near and above energized conductors.

Answer:

Not applicable. Please see the response to question 4.

AEP AMERICAN ELECTRIC POWER

CONFIDENTIAL

Contract Routing Slip

ROUTING	Purpose	Initials	Date Signed
Terri Rings	Review	DS TMR	8/26/2014 | 10:03 AM ET
Walter Sherry	Review	DS WLS	8/26/2014 | 10:06 AM ET
Mark Jackson	Review / Signature	DS mj	8/26/2014 | 10:25 AM ET

Date: August 26, 2014

Company: Kentucky Power Company

Contractor Name: Asplundh Tree Expert Co.

Contract Number/Amendment: 02574631X110, Amendment No. 2

Contract Administrator: Sonia Pickens

Contract Value: no change to current value

Description of Amendment: Amendment is updating the key performance incentive plan for the contract, effective July 1, 2014.

SECOND AMENDMENT TO CONTRACT NO. 02574631X110

This Second Amendment to Contract No. 02574631X110 ("Second Amendment"), executed to be effective as of July 1, 2014 ("Second Amendment Effective Date"), is entered into by and between **Kentucky Power Company** ("Owner" or "KPCO") and **Asplundh Tree Expert Co.** ("Contractor").

WHEREAS, Contractor and Owner entered into Contract No. 02574631X110 with an Effective Date of September 5, 2012, whereby Contractor is to perform vegetation management services as further defined in the Contract. All terms not defined herein are as defined in the Contract.

WHEREAS, Contractor and Owner desire to modify the Contract as set forth below.

NOW THEREFORE, the Parties hereby agree as follows:

1. In order to update the key performance incentives for the Contract, in Exhibit D, remove the AEP Asplundh 2012/2013 Key Performance Incentive Plan Guidelines – AEP Kentucky and replace with the AEP – Asplundh 2014 Key Performance Incentive Plan Guidelines – Kentucky Power Company Distribution, attached hereto, incorporated herein and effective as of the Second Amendment Effective Date.

2. Except as amended by this Second Amendment, all provisions, terms and conditions of the Contract shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties hereto have caused this Second Amendment to be signed by their respective duly authorized representatives on the dates set forth below to be effective as of the Second Amendment Effective Date.

Kentucky Power Company

DocuSigned by:
By: Mark Jackson
6087C70E7D65488...

Name: Mark Jackson

Title: Supervisor, Region Forestry

Date: 8/26/2014 | 10:25 AM ET

Asplundh Tree Expert Co.

DocuSigned by:
By: Brent D. Asplundh
9ADE80B20A884E0...

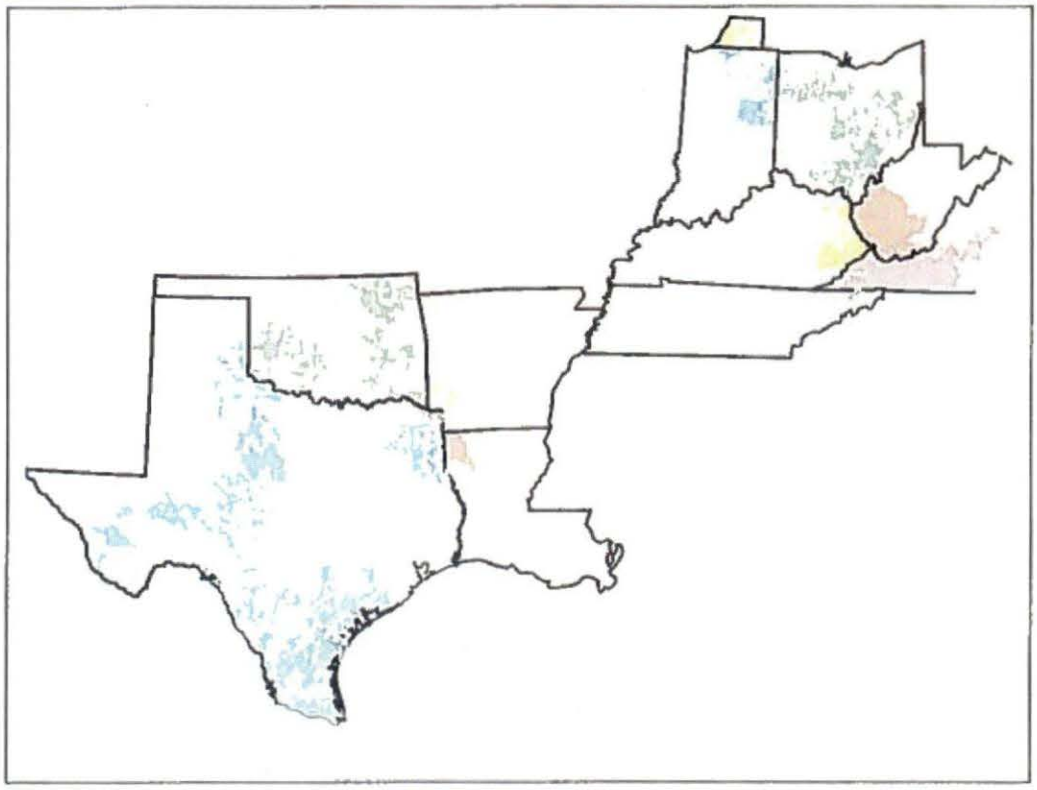
Name: Brent D. Asplundh

Title: Executive Vice President

Date: 8/28/2014 | 10:49 AM ET

AEP – ASPLUNDH 2014 KEY PERFORMANCE INCENTIVE PLAN GUIDELINES

KENTUCKY POWER COMPANY (KPCO) DISTRIBUTION



2014 Kentucky Power Company - Asplundh Key Performance Incentive Plan

This document describes the 2014 Kentucky Power Company - Asplundh Key Performance Incentive ("KPI") Plan and explains how payouts will be determined for Asplundh contract employees working on the AEP Distribution system. The KPI has been developed for the purpose of improving the safety, efficiency, and effectiveness of the work performed by Asplundh under their AEP vegetation management contract(s), resulting in improved service and value to our customers. The KPI Plan's performance measures provide a "line of sight" for AEP Forestry Management and Asplundh contract employees so that performance expectations associated with vegetation management are communicated and understood. The KPI will work in conjunction with each of the Operating Company's Corporate Key Performance Indicator ("CKPI") Plans by meeting or exceeding the performance factor targets on a quarterly basis under safety and efficiency.

In 2014, the KPI will be based on the general performance categories of:

- Safety
- Efficiency
- Effectiveness

The safety performance category contains the injury severity rate, the key performance measure for the plan, which is the "gatekeeper" for the KPI Plan. The injury severity rate has an established threshold that must be met or exceeded in order for a payment to be made under the KPI Plan. This threshold is the 3-year average, aggregate severity rate of all AEP Operating Companies and must be met by each Asplundh Operating Company Unit ("Unit") of vegetation management contractors working for AEP in order for that Unit to receive payment. If the threshold is exceeded by any Unit in a quarter, AEP and Asplundh will mutually develop a plan designed to improve the injury severity rate for that Unit to at or below the threshold. If an Asplundh contract employee is fatally injured during the course of work under the contract(s) covered by this plan, the Unit sustaining the fatality will not be eligible for a KPI Plan payout in the quarter in which the fatality occurred. The payout for all Units outside the Unit incurring the fatality will be reduced by any earned payouts in the safety portion of their KPI Plan during that same quarter. An exception may be made if, after a thorough review, AEP determines the fatality occurred through "no fault" of the Asplundh contract employee.

Each general performance category contains specific performance measures with targets specific to each of the Units. The targets have been developed using performance data from each of the Operating Companies, and are shown on the Quarterly KPI Target Worksheet attached on the last page of this document. These measures provide an alignment with the Operating

Companies' goals and improve the ability to determine fair, challenging targets, which incorporate local operating issues, regulatory requirements, etc.

The 2014 Kentucky Power Company - Asplundh KPI Plan has six (6) Safety Performance Measures that carry a 35% weighting, four (4) Efficiency Performance Measures that carry a 35% weighting, and two (2) Effectiveness Performance Measures that carry a 30% weighting. Each performance measure has a weighting factor assigned to it with the sum of the weighting factors equaling one. Each Unit earns a performance factor of 0.0 – 1.0 for each performance measure in the KPI Plan. The performance factor earned is based on the Unit's quarterly results. Each performance measure's weighting factor is multiplied by its earned performance factor to obtain its weighted performance factor. The sum of the weighted performance factors for all the performance measures results in the Unit's aggregate performance factor. The quarterly KPI Plan pot allocated for each Unit is 5% of the Unit's Asplundh labor, with mark-ups, invoiced that quarter for the classifications of General Foreman and below. To determine the Unit's KPI Plan payout, its aggregate performance factor is multiplied by its quarterly KPI Plan pot allocated.

Within a given Unit, if the total calculated KPI Plan payout for the quarter falls at or below 50% of the allocated KPI Plan pot, then there will be no KPI Plan payout for that specific quarter.

For internal accounting purposes: The total KPI Plan payout will be allocated between Capital and Operation & Maintenance (O&M) expenses in accordance with the Operating Company's actual outside services labor expenditures for the quarter.

Operating Company Unit Example:
[(First Performance Factor x Weighting) + (Second Performance Factor x Weighting) +…+ (Last Performance Factor x Weighting)] x (Quarterly KPI Plan Pot) = Unit's KPI Plan Payout

Asplundh will be responsible for allocating each Unit's KPI Plan payout to the employees working within the Unit. There is no one "best practice" for allocating the payout, so allocation methods may vary by Unit to provide the best motivation for performance improvement. Asplundh management (Regional VP or Manager) and AEP Operating Company management (Forestry Supervisor, Operations or Reliability Manager, and VP of Operations) must be in agreement on the allocation plan.

Descriptions of the various performance categories, performance measures, and objectives that are used in the KPI plan are outlined below.

❖ PERFORMANCE CATEGORY: SAFETY

The performance measures under the safety performance category apply only when work, including service restoration work, is being performed in an AEP Operating Company and includes all Asplundh contract employees covered by an AEP contract(s) that includes this KPI Plan. For recording against any performance measures in the KPI Plan, regardless of the AEP location where the accident occurs, it is charged to the Asplundh contract employee's "home" Unit.

- **Performance Measure: Severity Rate**

- **Objective: Reduce the accident severity rate for the quarter by 10% of the previous 3-year average.**

  Included in the accident severity rate are the days away from work and restricted duty days for injuries that are required to be recorded on the Contractor's OSHA 300 log. Days away from work are commonly referred to as "lost time". Restricted duty days are defined as the days the injured employee is restricted from performing the duties of his regular occupation by his doctor but is assigned alternate work or restricted duties within his occupation. All days between the first lost or restricted day and the day the restrictions are lifted by the doctor are included. Severity days will continue to count into the next quarter if need be. No single OSHA recordable incident shall accumulate more than 180 calendar days of lost time or restricted duty.

  The quarterly accident severity rate is calculated per the following formula:

  (# of Days Away from Work + Restricted + Transfer Days) x 200,000 / (Hours Worked in Qtr)

- **Performance Measure: Incident Rate**

- **Objective: Reduce the accident incident rate for the quarter by 10% of the previous 3-year average.**

  Included in the incident rate is the total number of injuries, illnesses, and lost work cases that are required to be recorded on the Contractor's OSHA 300 log. An injury or illness is an abnormal condition or disorder. Injuries include cases such as, but not limited to, a cut, fracture, sprain, strain, or amputation. Illnesses include both acute and chronic, such as, but not limited to, a skin disease, respiratory disorder, or poisoning.

The quarterly accident incident rate is calculated per the following formula:

(# of OSHA Recordable Incidents x 200,000) / (Hours Worked in Qtr)

- **Performance Measure: Days Away, Restricted, or Transferred Cases (DART) Rate**

- **Objective: Reduce the number of cases that have days away, restricted, or transferred days for the quarter by 10% of the previous 3-year average.**

  The DART rate includes the total number of cases involving days away from work, restricted work activity, and transfers to another job. These are required to be recorded on the Contractor's OSHA 300 log. Days away from work are commonly referred to as "lost time". Restricted duty days are defined as the days the injured employee is restricted from performing the duties of his regular occupation by his doctor but is assigned alternate work or restricted duties within his occupation. Transfers to another job include but are not limited to being able to perform "light" duty with restrictions. All days between the first lost, restricted, or job transfer day, and the day the restrictions are lifted by the doctor are included.

  The quarterly DART rate is calculated per the following formula:

  (# OSHA Recordable Lost Time + Restricted + Job Transfer Cases) x 200,000 / (Hours Worked in Qtr)

- **Performance Measure: Outages**

- **Objective: Reduce the number of "at fault/negligent" crew caused outages, flashes, and operations for the quarter by 10% of the previous 3-year average.**

  Interruptions to the Distribution system can be very serious. A contractor caused interruption (outages, flashes, and operations) may easily result in personal injuries to the employees involved. It also has the potential to effect large numbers of customers and large blocks of load. An interruption is defined as any tree contact, human error, or foreign object that disrupts the normal operation of the circuit whether momentary or for a sustained period of time. An exception may be made, if after a thorough review, AEP determines that there was no fault caused by the contractor.

  "At fault/negligent" crew causes outages will be calculated on a quarterly basis.

- **Performance Measure: Vehicle Accidents**

- **Objective: Reduce the number of "at fault" vehicle accidents for the quarter by 10% of the previous 3-year average.**

  All vehicle accidents should be reviewed by AEP and Asplundh management to determine if they are "at fault". The following definitions may be used as a guideline:

  "AT FAULT" VEHICLE ACCIDENT DEFINITION
  A motor vehicle accident in which the Asplundh driver/operator involved was the major cause of the accident (i.e., disregarding traffic signals, backing into fixed objects, excessive speed, etc.).

  NOT AT FAULT VEHICLE ACCIDENT DEFINITION
  A motor vehicle accident in which the actions of the Asplundh driver/operator involved was not the casual factor of the accident. However, there can be circumstances in which the accident could have been avoided had the Asplundh driver/operator taken defensive measures (i.e., braking suddenly and being struck in the rear, or being struck by a merging vehicle).

  Quarterly vehicle accident rates are calculated per the following formula:

  (# of "At Fault" Vehicle Accidents x 200,000) / (Hours Worked in Qtr)

  If the calculated "at fault" vehicle accident rate is above the 3-year average and only one (1) incident has occurred during the quarter, then the 0.25 performance factor will apply.

- **Performance Measure: Field Safety Observations**

- **Objective: Monitor and improve crew safety performance to achieve a 99.5% pass rate of field safety observations.**

  Individual crew safety observations will be performed throughout each quarter. As noted in the detailed criteria listed on the *AEP Forestry Contract (KPI) Crew Audit* form, the auditor will score the crew based on a pass/fail system. A "fail" rating will result from not meeting one of the first seven (7) criteria. A "fail" rating can also result when one of the last three (3) items is scored as "unacceptable" and the auditor believes the magnitude or frequency of the unacceptable element warrants the "fail" rating. The auditor will document the reason for the "fail" or "unacceptable" ratings in the comments section of the form.

❖ PERFORMANCE CATEGORY: EFFICIENCY

The performance measures under the efficiency performance category provide a "line of sight" reference to the crews in the field and provide the AEP Operating Company and Asplundh management the opportunity to implement best practices in crew management. Target levels will be set quarterly to compensate for seasonal variations. These target levels will be based on historic data for each Operating Company Unit unless otherwise agreed to by AEP and Asplundh management.

Accurate reporting of work units completed is required for efficiency measures to be viable. Reported work units will be verified through field audits of completed work. Variances will be addressed with local Asplundh management. During the quarterly performance period, if the variance between the completed work units reported and the completed work units audited is greater than 5% for trims and removals and greater than 10% for Brush Cut, the performance factor applied to this performance measure will be zero (0).

- **Performance Measure: Hours Per Tree Trim (Non-Mechanical)**

- **Objective: Increase the efficiency of crews performing tree trimming by 3% over the previous 3-year average.**

  Hours per tree trimmed will be collected quarterly through RWM for crews working on base and reliability capital and maintenance. Crew types and RWM work types included in this performance measure will be agreed upon by the AEP Operating Company and Asplundh management.

- **Performance Measure: Hours Per Tree Removal (Non-Mechanical)**

- **Objective: Increase the efficiency of crews performing tree removal by 3% over the previous 3-year average.**

  Hours per tree removed will be collected quarterly through RWM for crews working on base and reliability capital and maintenance. Crew types and RWM work types included in this performance measure will be agreed upon by the AEP Operating Company and Asplundh management.

- **Performance Measure: Hours Per Unit of Brush Cut (Non-Mechanical)**

Objective: Increase the efficiency of crews performing brush clearing by 3% over the previous 3-year average.

Hours per unit of brush cut will be collected quarterly through RWM for crews working on base and reliability capital and maintenance. Crew types and RWM work types included in this performance measure will be agreed upon by the AEP Operating Company and Asplundh management.

- **Performance Measure: Operation & Maintenance (O&M) Hours Per Mile of Overhead Primary for Full Circuit Reclearing**

- **Objective: Reduce the Operation & Maintenance (O&M) hours per overhead primary mile for full circuit reclearing by 7% over the previous 3-year average.**

  The overhead primary miles completed for full circuit reclearing will be collected on a quarterly basis by a Kentucky Power Company Forestry representative. The Operation & Maintenance (O&M) hours will be collected on a quarterly basis via a data pull from the Right of Way Maintenance (RWM) system for full circuit reclearing utilizing the DMC work type. The quarterly hours worked will be divided by the quarterly miles to achieve the calculation.

❖ PERFORMANCE CATEGORY: EFFECTIVENESS

The performance measures under the effectiveness performance category provide the AEP Operating Company and Asplundh management a measure of assurance that the crews are clearing to the best practice standards as outlined in the *AEP Forestry: Instructions for Forestry Contract Crew Audits*. Each AEP Operating Company may also provide specific standards for vegetation clearing that the contractor will be measured against. These standards may include but are not limited to ROW width, danger trees, pole base clearing, debris handling, and pruning compliance.

- **Performance Measure: Work Quality – Clearance to Operating Company Standards**

- **Objective: A minimum of 98% or more of the spans maintained have conductor to vegetation clearances meeting or exceeding the Operating Company's specifications.**

  AEP will sample maintained spans and conduct field audits of span line clearance to determine if the work was completed to Operating Company standards. The *AEP Forestry Contract (KPI) Crew Audits* form will be

used for these audits. Any defect found on any audit will be a "failed" audit unless an AEP Operating Company Forestry representative approves a variance. The percentage of passed audits will determine the performance factor.

- **Performance Measure: Work Quality – Trimming to arboricultural industry standards and AEP specifications.**

- **Objective: A minimum of 98% or more of the spans maintained had vegetation managed per arboricultural industry standards and AEP specifications.**

  AEP will sample maintained spans and conduct field audits to determine if the work was completed to industry standards and AEP specifications. The *AEP Forestry Contract (KPI) Crew Audits* form will be used for these audits. Any defect found on any audit will be a "failed" audit unless an AEP Operating Company Forestry representative approves a variance. The percentage of passed audits will determine the performance factor.

SAMPLE QUARTERLY KPI TARGET SHEET

	Asplundh - Kentucky Power Co				
	Measure		Definition	1.0 Target	Weighting
1	SAFETY (35%)	Severity Rate (KPI Gatekeeper 24.67)	# of OSHA Recordable Lost Work Days + Restricted Duty Days X 200,000/Total Man Hours	10% Improvement Over 3 year ATE - KYCO Average	0%
2		OSHA Incident Rate	# of Actual OSHA Recordable Cases X 200,000/Total Man Hours Worked Per Quarter	10% Improvement over 3 year ATE - KPCO Average	0%
3		DART Rate	# of OSHA Recordable Lost Time & Restricted Cases X 200,000/Total Man Hours Worked Per Quarter	10% Improvement Over 3 Year ATE - KPCO Average	20%
4		Outages	# of "At Fault/Negligent" Crew Caused Outages, Flashes, & Operations	10% Improvement Over 3 Year ATE - KPCO Average	5%
5		Vehicle Accident Rate	# of "At Fault" Vehicle Cases X 200,000/Total Man Hours Worked Per Quarter	10% Improvement Over 3 Year ATE - KPCO Average	5%
6		Field Safety Observations	Individual Pass/Fail Using Crew Safety Inspections	99.5% Pass/Fail by OpCO	5%
7	EFFICIENCY (35%)	Per Unit Measure (Reporting Accuracy Var < 5%)	Hours Per Tree Trimmed (Manual Crews Only)	3% Improvement Over 3 Year Avgerage (Target Varies by Qtr)	4%
8		Per Unit Measure (Reporting Accuracy Var < 5%)	Hours Per Tree Removed (Manual Crews Only)	3% Improvement Over 3 Year Average (Target Varies by Qtr)	4%
9		Per Unit Measure (Reporting Accuracy Var < 10%)	Hours Per Unit Brush Cut (Manual Crews Only)	3% Improvement Over 3 Year Average (Target Varies by Qtr)	4%
10		Full Circuit Reclearing Productivity	O&M Hours Per Overhead Primary Mile for Full Circuit Reclearing	7% Improvement over 3 Year Average	23%
11	EFFECTIVENESS (30%)	Work Quality	Field Audit of Span Line Clearance Per OpCo Standards	>=98% Compliant for random spans audited (Clearance Standard by OpCo)	15%
12			Field audit of spans trimmed per industry standards	>=98% Compliant for random spans audited (Work Quality by OpCo)	15%
	Was KPI Performance Goals Achieved at or above 51%?		YES NO		100%

DocuSign

Certificate of Completion

Envelope Number: AD8FB7BF28F84B15A8F9C1EE6E5F5445
Status: Completed
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Source Envelope:
Document Pages: 12
Signatures: 2
Certificate Pages: 3
Initials: 3
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EnvelopeId Stamping: Enabled

Envelope Originator:
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Walter A. Sherry washerry@aep.com Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Accepted: 7/1/2014 7:08:14 PM ET ID: ca043d9b-eaab-40e4-bee5-8c449d93d309	DS WAS Using IP Address: 167.239.222.239	Sent: 8/26/2014 10:03:41 AM ET Viewed: 8/26/2014 10:04 59 AM ET Signed: 8/26/2014 10:06:05 AM ET
Mark Jackson mejackson@aep.com Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Accepted: 8/26/2014 10:14:58 AM ET ID: 70e98bb9-232f-4ee9-9c44-73b086d37525	DocuSigned by: Mark Jackson 6087C70E7D65488... Using IP Address: 167.239.222.233	Sent: 8/26/2014 10:06 06 AM ET Viewed: 8/26/2014 10:14:58 AM ET Signed: 8/26/2014 10:25:30 AM ET
Brent Asplundh brent@asplundh.com Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Accepted: 8/28/2014 10:46:05 AM ET ID: 1e748200-e9dc-45db-b084-a43ef41dac3e	DocuSigned by: [signature] 8ADE80820AB84E9... Using IP Address: 12.54.91.130	Sent: 8/26/2014 10:25:32 AM ET Viewed: 8/28/2014 9:04:55 AM ET Signed: 8/28/2014 10:49:22 AM ET
In Person Signer Events	**Signature**	**Timestamp**
Editor Delivery Events	**Status**	**Timestamp**
Agent Delivery Events	**Status**	**Timestamp**
Intermediary Delivery Events	**Status**	**Timestamp**
Certified Delivery Events	**Status**	**Timestamp**

Carbon Copy Events	Status	Timestamp
Kevin B. Patton kbpatton@aep.com Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Accepted: 8/5/2014 2:08:35 PM ET ID: 20140860-36ee-4e18-bfad-d47f5e6a2409	COPIED	Sent: 8/26/2014 9:43:29 AM ET Viewed: 8/27/2014 11:19:26 AM ET
Vicki Conner vaconner@aep.com DocuSign Ink Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Accepted: 8/5/2014 2:44:57 PM ET ID: 7d366383-51ce-4fee-a533-7c5095922064	COPIED	Sent: 8/26/2014 9:43:29 AM ET Viewed: 8/26/2014 9:46:29 AM ET

Notary Events	Timestamp

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	8/26/2014 10:25:32 AM ET
Certified Delivered	Security Checked	8/28/2014 9:04:55 AM ET
Signing Complete	Security Checked	8/28/2014 10:49:22 AM ET
Completed	Security Checked	8/28/2014 10:49:22 AM ET

Electronic Record and Signature Disclosure

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

Each party agrees that the electronic signatures, whether digital or encrypted, of the parties included in this Agreement are intended to authenticate this writing and to have the same force and effect as manual signatures. Electronic signature means any electronic sound, symbol or process attached to or logically associated with a record and executed and adopted by a party with the intent to sign such record.

Please confirm your agreement by clicking the 'I agree' button at the bottom of this document.

FIRST AMENDMENT TO CONTRACT NO. 02574631X110

This First Amendment to Contract No. 02574631X110 ("First Amendment") executed to be effective January 6, 2014 ("First Amendment Effective Date"), is entered into by and between **Kentucky Power Company**, a Kentucky corporation ("Owner" or "KPCO") and **Asplundh Tree Expert Co.**, a Pennsylvania corporation ("Contractor").

WHEREAS, Contractor and Owner entered into Contract No. 02574631X110 with an Effective Date of September 5, 2012, whereby Contractor is to perform vegetation management services as defined in the Contract. All terms not defined herein are as defined in the Contract.

WHEREAS, Contractor and Owner desire to modify the terms and conditions of the Contract as set forth below.

NOW THEREFORE, in consideration of the foregoing premises, the covenants and agreements herein contained, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto, hereby agree as follows:

1. In Exhibit C, the existing Rate Sheets dated April 1, 2012 shall be removed and replaced with the Contractor's Rates for KPCO (Ashland, Hazard & Pikeville) all dated January 6, 2014 (the "Rate Sheets"). Contractor's Rate Sheets shall be held firm through May 31, 2015;

2. In the Contract Letter, Section 5, Pricing, delete the third paragraph and replace with the following:

   "Beginning June 1, 2015, and on June 1st each year thereafter, Contractor's labor rates will be adjusted using the Bureau of Labor Statistics, U.S. Department of Labor, Employment Cost Index (ECI) for Wages and Salaries (not seasonally adjusted), for Private Industry Workers, Construction, Extraction, Farming, Fishing and Forestry. The percent change for the 12-months ended in March of the year of the adjustment will be multiplied by the current labor rates to determine the adjusted labor rates.

   All other rates in Contractor's Rate Sheet may be revised annually, beginning in 2015. Proposed changes must be submitted by February 15th and, if accepted by Owner, shall become effective on June 1st of that year.";

3. In the Contract Letter, Section 10, Notices and Operation Contacts, delete Georgiana Sullivan and associated information and replace with the following:

Role	Name	E-mail	Phone	Address
Contract Analyst	Sonia Vaughan Pickens	srvaughan@aep.com	614.716.1357	1 Riverside Plaza, 9th fl., Columbus, OH 43215

4. Except as amended by this First Amendment, all provisions, terms and conditions of the Contract shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this First Amendment to be signed by their respective representatives thereunto duly authorized on the dates set forth below to be effective as of the First Amendment Effective Date.

Kentucky Power Company

Mark Jackson
Supervisor, Region Forestry

12/11/13
date

Asplundh Tree Expert Co.

Brent D. Asplundh
Executive Vice President

12/9/2013
date

THIRD AMENDMENT TO CONTRACT NO. 02574631X110

This Third Amendment to Contract No. 02574631X110 ("Third Amendment"), executed to be effective as of April 1, 2015 ("Third Amendment Effective Date"), is entered into by and between **Kentucky Power Company** ("Owner" or "KPCO") and **Asplundh Tree Expert Co.** ("Contractor").

WHEREAS, Contractor and Owner entered into Contract No. 02574631X110 with an Effective Date of September 5, 2012, whereby Contractor is to perform vegetation management services as further defined in the Contract. All terms not defined herein are as defined in the Contract.

WHEREAS, Contractor and Owner desire to modify the Contract as set forth below.

NOW THEREFORE, the Parties hereby agree as follows:

1. In order to update the key performance incentives for the Contract, in Exhibit D, remove the AEP Asplundh 2014 Key Performance Incentive Plan Guidelines – AEP Kentucky and replace with the AEP – Asplundh 2015 Key Performance Incentive Plan Guidelines – Kentucky Power Company Distribution, attached hereto, incorporated herein and effective as of the Third Amendment Effective Date.

2. Except as amended by this Third Amendment, all provisions, terms and conditions of the Contract shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties hereto have caused this Third Amendment to be signed by their respective duly authorized representatives on the dates set forth below to be effective as of the Third Amendment Effective Date.

Kentucky Power Company

DocuSigned by:
By: Mark Jackson
6087C70E7D85488...

Name: Mark Jackson

Title: Supervisor, Region Forestry

Date: 5/26/2015 | 8:23 AM ET

Asplundh Tree Expert Co.

DocuSigned by:
By: [signature]
F857B8314F334F0...

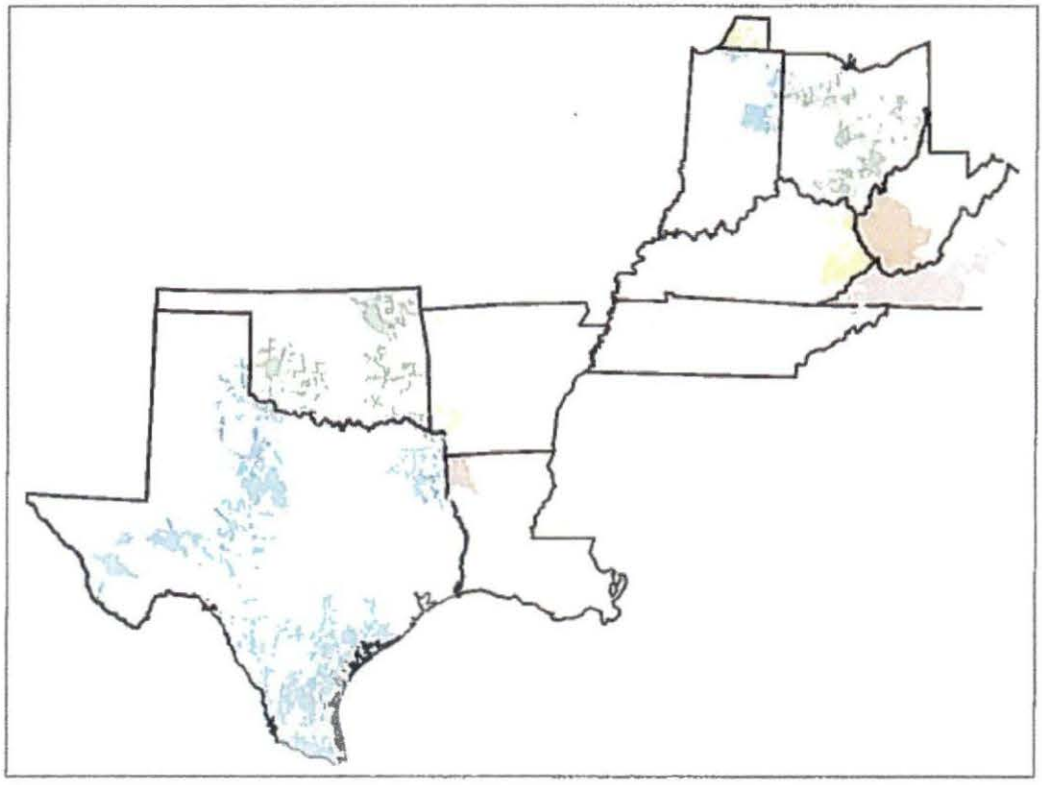
Name: Brent D. Asplundh

Title: Executive Vice President

Date: 6/2/2015 | 10:38 AM ET

AEP – ASPLUNDH 2015 KEY PERFORMANCE INCENTIVE PLAN GUIDELINES

KENTUCKY POWER COMPANY (KPCO) DISTRIBUTION



2015 Kentucky Power Company - Asplundh Key Performance Incentive Plan

This document describes the 2015 Kentucky Power Company - Asplundh Key Performance Incentive ("KPI") Plan and explains how payouts will be determined for Asplundh contract employees working on the AEP Distribution system. The KPI has been developed for the purpose of improving the safety, efficiency, and effectiveness of the work performed by Asplundh under their AEP vegetation management contract(s), resulting in improved service and value to our customers. The KPI Plan's performance measures provide a "line of sight" for AEP Forestry Management, Asplundh management, and Asplundh contract employees so that performance expectations associated with vegetation management are communicated and understood. The KPI will work in conjunction with each of the Operating Company's Corporate Key Performance Indicator ("CKPI") Plans by meeting or exceeding the performance factor targets on a quarterly basis under safety and efficiency.

In 2015, the KPI will be based on the general performance categories of:

- Safety
- Efficiency
- Effectiveness

The safety performance category contains the injury severity rate, the key performance measure for the plan, which is the "gatekeeper" for the KPI. The injury severity rate has an established threshold that must be met in order for a payout to be made under the KPI Plan. If the gatekeeper threshold is exceeded, then there will be no payout for the KPI in that specific quarter. This threshold is the 3-year average, aggregate severity rate of all AEP Operating Companies and must be met by each Asplundh Operating Company Unit ("Unit") of vegetation management contractors working for AEP in order for that Unit to receive a payout. If the threshold is exceeded by any Unit in a quarter, AEP and Asplundh will mutually develop, a plan designed to improve the injury severity rate for that Unit to at or below the threshold. If an Asplundh contract employee is fatally injured during the course of work under the contract(s) covered by this plan, the Unit sustaining the fatality will not be eligible for a KPI Plan payout in the quarter in which the fatality occurred. Any Units outside the Unit incurring the fatality will have their payout reduced to zero under the safety portion of their KPI Plan in the quarter in which the fatality occurred. An exception may be made if, after a thorough review, AEP determines the fatality occurred through "no fault" of the Asplundh contract employee.

Each general performance category contains specific performance measures with targets specific to each of the Units. The targets have been developed using performance data from each of the Operating Companies, and are shown on the Quarterly KPI Target Worksheet attached on the last page of this document. These measures provide an alignment with the Operating

Companies' goals and improve the ability to determine fair, challenging targets, which incorporate local operating issues, regulatory requirements, etc.

The 2015 Kentucky Power Company - Asplundh KPI Plan has six (6) Safety Performance Measures that carry a 35% weighting, four (4) Efficiency Performance Measures that carry a 35% weighting, and two (2) Effectiveness Performance Measures that carry a 30% weighting. Each performance measure has a weighting factor assigned to it with the sum of the weighting factors equaling one. Each Unit earns a performance factor of 0.0 – 1.0 for each performance measure in the KPI Plan. The performance factor earned is based on the Unit's quarterly results. Each performance measure's weighting factor is multiplied by its earned performance factor to obtain its weighted performance factor. The sum of the weighted performance factors for all the performance measures results in the Unit's aggregate performance factor. The quarterly KPI Plan pot allocated for each Unit is 5% of the Unit's Asplundh labor, with mark-ups, invoiced that quarter for the classifications of General Foreman and below. To determine the Unit's KPI Plan payout, its aggregate performance factor is multiplied by its quarterly KPI Plan pot allocated.

Within a given Unit, if the total calculated KPI Plan payout for the quarter falls at or below 50% of the allocated KPI Plan pot, then there will be no KPI Plan payout for that specific quarter.

For internal accounting purposes: The total KPI Plan payout will be allocated between Capital and Operations & Maintenance (O&M) expenses in accordance with the Operating Company's actual outside services labor expenditures for the quarter.

Operating Company Unit Example:
[(First Performance Factor x Weighting) + (Second Performance Factor x Weighting) +…+ (Last Performance Factor x Weighting)] x (Quarterly KPI Plan Pot) = Unit's KPI Plan Payout

Asplundh will be responsible for allocating each Unit's KPI Plan payout to the employees working within the Unit. There is no one "best practice" for allocating the payout, so allocation methods may vary by Unit to provide the best motivation for performance improvement. Asplundh management (Manager or Regional VP), AEP Operating Company management (Forestry Supervisor, Operations/Reliability Manager, and VP of Operations) must be in agreement on the allocation plan.

Descriptions of the various performance categories, performance measures, and objectives that are used in the KPI plan are outlined below.

❖ PERFORMANCE CATEGORY: SAFETY

The performance measures under the safety performance category apply only when work, including service restoration work, is being performed in an AEP Operating Company and includes all Asplundh contract employees covered by an AEP contract(s) that includes this KPI Plan. For recording against any performance measures in the KPI Plan, regardless of the AEP location where the accident occurs, it is charged to the Asplundh contract employee's "home" Unit.

- **Performance Measure: Severity Rate**

- **Objective: Reduce the injury severity rate for the quarter by 10% of the previous 3-year average.**

  Included in the injury severity rate are the days away from work and restricted duty days for injuries that are required to be recorded on the contractor's OSHA Form 300 log. Days away from work are commonly referred to as "lost time". Restricted duty days are defined as the days the injured employee is restricted from performing the duties of his regular occupation by his doctor but is assigned alternate work or restricted duties within his occupation. All days between the first lost or restricted day and the day the restrictions are lifted by the doctor are included. Severity days will continue to count into the next quarter if need be. No single OSHA recordable incident shall accumulate more than 180 calendar days of lost time or restricted duty.

  The quarterly injury severity rate is calculated per the following formula:

  (# of Days Away from Work + Restricted + Transfer Days) x 200,000 / (Hours Worked in Qtr)

- **Performance Measure: Incident Rate**

- **Objective: Reduce the injury incident rate for the quarter by 10% of the previous 3-year average.**

  Included in the injury incident rate is the total number of injuries, illnesses, and lost work cases that are required to be recorded on the contractor's OSHA Form 300 log. An injury or illness is an abnormal condition or disorder. Injuries include cases such as, but not limited to, a cut, fracture, sprain, strain, or amputation. Illnesses include both acute and chronic, such as, but not limited to, a skin disease, respiratory disorder, or poisoning.

The quarterly injury incident rate is calculated per the following formula:

(# of OSHA Recordable Incidents x 200,000) / (Hours Worked in Qtr)

- **Performance Measure: Days Away, Restricted, or Transferred Cases (DART) Rate**

- **Objective: Reduce the number of cases that have days away, restricted, or transferred days for the quarter by 10% of the previous 3-year average.**

The DART rate includes the total number of cases involving days away from work, restricted work activity, and transfers to another job. These are required to be recorded on the contractor's OSHA Form 300 log. Days away from work are commonly referred to as "lost time". Restricted duty days are defined as the days the injured employee is restricted from performing the duties of his regular occupation by his doctor but is assigned alternate work or restricted duties within his occupation. Transfers to another job include but are not limited to being able to perform "light" duty with restrictions. All days between the first lost, restricted, or job transfer day, and the day the restrictions are lifted by the doctor are included.

The quarterly DART rate is calculated per the following formula:

(# OSHA Recordable Lost Time + Restricted + Job Transfer Cases) x 200,000 / (Hours Worked in Qtr)

- **Performance Measure: Outages**

- **Objective: Reduce the number of "at fault/negligent" crew caused outages, flashes, and operations for the quarter by 10% of the previous 3-year average.**

Interruptions to the Distribution system can be very serious. A contractor caused interruption (outages, flashes, and operations) may easily result in personal injuries to the employees involved. It also has the potential to effect large numbers of customers and large blocks of load. An interruption is defined as any tree contact, human error, or foreign object that disrupts the normal operation of the circuit whether momentary or for a sustained period of time. An exception may be made, if after a thorough review, AEP determines that there was no fault caused by the contractor. "At fault/negligent" crew caused outages will be calculated on a quarterly basis.

- **Performance Measure: Vehicle Accidents**

- **Objective: Reduce the number of "at fault" vehicle accidents for the quarter by 10% of the previous 3-year average.**

  All vehicle accidents should be reviewed by AEP and Asplundh management to determine if they are "at fault". The following definitions may be used as a guideline:

  "AT FAULT" VEHICLE ACCIDENT DEFINITION
  A motor vehicle accident in which the Asplundh driver/operator involved was the major cause of the accident (i.e., disregarding traffic signals, backing into fixed objects, excessive speed, etc.).

  NOT AT FAULT VEHICLE ACCIDENT DEFINITION
  A motor vehicle accident in which the actions of the Asplundh driver/operator involved was not the casual factor of the accident. However, there can be circumstances in which the accident could have been avoided had the Asplundh driver/operator taken defensive measures (i.e., braking suddenly and being struck in the rear, or being struck by a merging vehicle).

  The quarterly vehicle accident rate is calculated per the following formula:

  (# of "At Fault" Vehicle Accidents x 200,000) / (Hours Worked in Qtr)

  If the calculated "at fault" vehicle accident rate is above the 3-year average and only one (1) incident has occurred during the quarter, then the 0.25 performance factor will apply.

- **Performance Measure: Field Safety Observations**

- **Objective: Monitor and improve crew safety performance to achieve a 99.5% pass rate of field safety observations.**

  Individual crew safety observations will be performed throughout each quarter. As noted in the detailed criteria listed on the *AEP Forestry Contract (KPI) Crew Audit* form, the auditor will score the crew based on a pass/fail system. A "fail" rating will result from not meeting one of the first seven (7) criteria. A "fail" rating can also result when one of the last three (3) items is scored as "unacceptable" and the auditor believes the magnitude or frequency of the unacceptable element warrants the "fail" rating. The auditor will document the reason for the "fail" or "unacceptable" ratings in the comments section of the form.

❖ PERFORMANCE CATEGORY: EFFICIENCY

The performance measures under the efficiency performance category provide a "line of sight" reference to the crews in the field and provide the AEP Operating Company and Asplundh management the opportunity to implement best practices in crew management. Target levels will be set quarterly to compensate for seasonal variations. These target levels will be based on historic data for each Operating Company Unit unless otherwise agreed to by AEP and Asplundh management.

Accurate reporting of work units completed is required for efficiency measures to be viable. Reported work units will be verified through field audits of completed work. Variances will be addressed with local Asplundh management. During the quarterly performance period, if the variance between the completed work units reported and the completed work units audited is greater than 5% for trims and removals and greater than 10% for Brush Cut, the performance factor applied to this performance measure will be zero (0).

- **Performance Measure: Hours Per Tree Trim (Non-Mechanical)**

- **Objective: Increase the efficiency of crews performing tree trimming by 3% over the previous 3-year average.**

  Hours per tree trimmed will be collected quarterly through the forestry work management system for crews working on base and reliability capital and maintenance. Crew types and work types included in this performance measure will be agreed upon by the AEP Operating Company and Asplundh management.

- **Performance Measure: Hours Per Tree Removal (Non-Mechanical)**

- **Objective: Increase the efficiency of crews performing tree removal by 3% over the previous 3-year average.**

  Hours per tree removed will be collected quarterly through the forestry work management system for crews working on base and reliability capital and maintenance. Crew types and work types included in this performance measure will be agreed upon by the AEP Operating Company and Asplundh management.

- **Performance Measure: Hours Per Unit of Brush Cut (Non-Mechanical)**

  Objective: Increase the efficiency of crews performing brush clearing by 3% over the previous 3-year average.

  Hours per unit of brush cut will be collected quarterly through the forestry management work system for crews working on base and reliability capital and maintenance. Crew types and work types included in this performance measure will be agreed upon by the AEP Operating Company and Asplundh management.

- **Performance Measure: Operations & Maintenance (O&M) Hours Per Mile of Overhead Primary for Full Circuit Reclearing**

- **Objective: Reduce the Operations & Maintenance (O&M) hours per overhead primary mile for full circuit reclearing by 10% over the previous 3-year average.**

  The overhead primary miles completed for full circuit reclearing will be collected on a quarterly basis by a Kentucky Power Company Forestry representative. The Operations & Maintenance (O&M) hours will be collected on a quarterly basis via a data pull from the forestry work management system for full circuit reclearing utilizing the DMC work type. The quarterly hours worked will be divided by the quarterly miles to achieve the calculation.

❖ PERFORMANCE CATEGORY: EFFECTIVENESS

The performance measures under the effectiveness performance category provide the AEP Operating Company and Asplundh management a measure of assurance that the crews are clearing to the best practice standards as outlined in the *AEP Forestry: Instructions for Forestry Contract Crew Audits.* Each AEP Operating Company may also provide specific standards for vegetation clearing that the contractor will be measured against. These standards may include but are not limited to ROW width, danger trees, pole base clearing, debris handling, and pruning compliance.

- **Performance Measure: Work Quality – Clearance to Operating Company Standards**

- **Objective: A minimum of 98% or more of the spans maintained have conductor to vegetation clearances meeting or exceeding the Operating Company's specifications.**

  AEP will sample maintained spans and conduct field audits of span line clearance to determine if the work was completed to Operating Company standards. The *AEP Forestry Contract (KPI) Crew Audits* form will be used for these audits. Any defect found on any audit will be a "failed" audit unless an AEP Operating Company Forestry representative approves a variance. The percentage of passed audits will determine the performance factor.

- **Performance Measure: Work Quality – Trimming to arboricultural industry standards and AEP specifications.**

- **Objective: A minimum of 98% or more of the spans maintained had vegetation managed per arboricultural industry standards and AEP specifications.**

  AEP will sample maintained spans and conduct field audits to determine if the work was completed to industry standards and AEP specifications. The *AEP Forestry Contract (KPI) Crew Audits* form will be used for these audits. Any defect found on any audit will be a "failed" audit unless an AEP Operating Company Forestry representative approves a variance. The percentage of passed audits will determine the performance factor.

SAMPLE QUARTERLY KPI TARGET WORKSHEET

	Asplundh - Kentucky Power Co				
	Measure		Definition	1.0 Target	Weighting
1	SAFETY (35%)	Severity Rate (KPI Gatekeeper 22.40)	# of OSHA Recordable Lost Work Days + Restricted Duty Days X 200,000/Total Man Hours Worked Per Quarter	10% Improvement Over 3 year ATE - KYCO Average	0%
2		OSHA Incident Rate	# of Actual OSHA Recordable Cases X 200,000/Total Man Hours Worked Per Quarter	10% Improvement over 3 year ATE - KPCO Average	0%
3		DART Rate	# of OSHA Recordable Lost Time & Restricted Cases X 200,000/Total Man Hours Worked Per Quarter	10% Improvement Over 3 Year ATE - KPCO Average	20%
4		Outages	# of "At Fault/Negligent" Crew Caused Outages, Flashes, & Operations	10% Improvement Over 3 Year ATE - KPCO Average	5%
5		Vehicle Accident Rate	# of "At Fault" Vehicle Cases X 200,000/Total Man Hours Worked Per Quarter	10% Improvement Over 3 Year ATE - KPCO Average	5%
6		Field Safety Observations	Individual Pass/Fail Using Crew Safety Inspections	99.5% Pass/Fail by OpCO	5%
7	EFFICIENCY (35%)	Per Unit Measure (Reporting Accuracy Var < 5%)	Hours Per Tree Trimmed (Manual Crews Only)	3% Improvement Over 3 Year Avgerage (Target Varies by Qtr)	4%
8		Per Unit Measure (Reporting Accuracy Var < 5%)	Hours Per Tree Removed (Manual Crews Only)	3% Improvement Over 3 Year Average (Target Varies by Qtr)	4%
9		Per Unit Measure (Reporting Accuracy Var < 10%)	Hours Per Unit Brush Cut (Manual Crews Only)	3% Improvement Over 3 Year Average (Target Varies by Qtr)	4%
10		Full Circuit Reclearing Productivity	O&M Hours Per Overhead Primary Mile for Full Circuit Reclearing	10% Improvement over 3 Year Average	23%
11	EFFECTIVENESS (30%)	Work Quality	Field Audit of Span Line Clearance Per OpCo Standards	>=98% Compliant for random spans audited (Clearance Standard by OpCo)	15%
12			Field audit of spans trimmed per industry standards	>=98% Compliant for random spans audited (Work Quality by OpCo)	15%
	Was KPI Performance Goals Achieved at or above 51%?		YES NO		100%

AEP AMERICAN ELECTRIC POWER

CONFIDENTIAL
Contract Routing Slip

Please route to the next person on the list after reviewing and/or signing the documents.
Please return to the Originator when routing is complete.

ROUTING	Purpose	Initials	Date Signed
Sonia Pickens	For your review	DS SP	5/21/2015 | 1:40 PM ET
Terri Rings	For your review	DS TMR	5/21/2015 | 2:20 PM ET
Walter Sherry	For your review	DS WAS	5/25/2015 | 5:10 PM ET
Mark Jackson	Review and Signature on Agreement	DS MJ	5/26/2015 | 8:23 AM ET
AEP Audit	Copy		
Christopher Sabo	Document in File	NR	NR

Date: May 21, 2015

Company: Kentucky Power Company

Contractor Name: Asplundh Tree Expert Co.

Contract Number/Amendment: 025746311x110 Amd #3

Estimated Spend: no change

Description of Service/Work: Update key performance incentive plan for the contract, effective April 1, 2015.

Certificate of Completion

Envelope Number: A696F9274C5240AC9F9CADCA64800B1B
Subject: AEP Contract Amendment No. 02574631x110 Amendment#3; Asplundh Tree Expert Co.
Source Envelope:
Document Pages: 12
Certificate Pages: 3
AutoNav: Enabled
EnvelopeId Stamping: Enabled

Signatures: 2
Initials: 4

Status: Completed

Envelope Originator:
Christopher E. Sabo
1 Riverside Plz FL 9
Columbus, OH 43215
cesabo@aep.com
IP Address: 167.239.222 234

Record Tracking

Status: Original
5/21/2015 1:12:43 PM ET

Holder: Christopher E. Sabo
cesabo@aep.com

Location: DocuSign

Signer Events	Signature	Timestamp
Sonia Pickens srvaughan@aep.com Category Mgr American Electric Power Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered ID:	DS SP Using IP Address: 167.239.222.237	Sent: 5/21/2015 1:39:16 PM ET Viewed: 5/21/2015 1:39:36 PM ET Signed: 5/21/2015 1:40:16 PM ET
Terri Rings tmrings@aep.com Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Accepted: 8/26/2014 10:02:28 AM ET ID: 1b2adf3b-dead-4554-945c-835b329ec474	DS THR Using IP Address: 167.239.222.235	Sent: 5/21/2015 1:40:18 PM ET Viewed: 5/21/2015 2:18:56 PM ET Signed: 5/21/2015 2:20:19 PM ET
Waller A. Sherry washerry@aep.com Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Accepted: 7/1/2014 7:08:14 PM ET ID: ca043d9b-eaab-40e4-bee5-8c449d93d309	DS WAS Using IP Address: 167.239.222.240	Sent: 5/21/2015 2:20:21 PM ET Viewed: 5/25/2015 5:09:34 PM ET Signed: 5/25/2015 5:10:31 PM ET
Mark Jackson mejackson@aep.com Forestry Supervisor Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Accepted: 5/26/2015 7:45:50 AM ET ID: 980c27a6-5c76-445f-bd50-e9ab0b12ffd4	DocuSigned by: Mark Jackson 8087C70E7D65486... Using IP Address: 167.239.222.233	Sent: 5/25/2015 5:10:33 PM ET Viewed: 5/26/2015 7:45:50 AM ET Signed: 5/26/2015 8:23:46 AM ET

Signer Events	Signature	Timestamp
Matt Asplundh matt@asplundh.com Executive Vice President Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Accepted: 6/2/2015 10:37:05 AM ET ID: 8a9ecfdd-7e3a-449b-a106-32e5ca99bd62	DocuSigned by:  F857D8314F334FD... Using IP Address: 12.54.91.130 Signed using mobile	Sent: 5/26/2015 8:23:49 AM ET Resent: 5/28/2015 7:35:34 AM ET Viewed: 5/28/2015 8:56:33 AM ET Signed: 6/2/2015 10:38:59 AM ET
In Person Signer Events	**Signature**	**Timestamp**
Editor Delivery Events	**Status**	**Timestamp**
Agent Delivery Events	**Status**	**Timestamp**
Intermediary Delivery Events	**Status**	**Timestamp**
Certified Delivery Events	**Status**	**Timestamp**
Carbon Copy Events	**Status**	**Timestamp**
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Notary Events		**Timestamp**

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	6/2/2015 10:39:02 AM ET
Certified Delivered	Security Checked	6/2/2015 10:39:02 AM ET
Signing Complete	Security Checked	6/2/2015 10:39:02 AM ET
Completed	Security Checked	6/2/2015 10:39:02 AM ET

Electronic Record and Signature Disclosure

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

Each party agrees that the electronic signatures, whether digital or encrypted, of the parties included in this Agreement are intended to authenticate this writing and to have the same force and effect as manual signatures. Electronic signature means any electronic sound, symbol or process attached to or logically associated with a record and executed and adopted by a party with the intent to sign such record.

Please confirm your agreement by clicking the 'I agree' button at the bottom of this document.

ASPLUNDH TREE EXPERT CO.

ASPLUNDH

SAFETY PROGRAM OUTLINE

SafeProduction

GENERAL

Asplundh Tree Expert Co. has provided Electric Power Line Construction, Line Clearance, Vegetation Management and numerous other services for the Electric Utility Industry in the United States during the past 80 years, as well as operations in Australia, New Zealand, four (4) provinces of Canada, the Virgin Islands and Europe. Our safety and training programs are multi faceted and very comprehensive in nature. They include employee pre-hire screening, thorough orientation programs for new employees, closely monitored on the job training conducted by highly qualified General Foreperson and Crew Foreperson and detailed training documentation which culminates in the qualification of each employee. This qualification indicates that they have achieved the knowledge and skills required for the performance of their work assignments.

The development of Asplundh safety and training programs is the direct responsibility of our Director & Corporate Safety Officer who directs a team of corporate safety management personnel that are responsible for overseeing and auditing field operations for compliance and assisting with the implementation of program requirements. Field evaluation results are documented and distributed to executives of the Company who oversee our various field operations.

Field management personnel (*Region Managers, Supervisors, Safety Superintendents, and General Forepersons*) manage the program implementation and conduct frequent work site inspections to ensure that employees are thoroughly trained and working in compliance with our policies. Documentation of this activity is maintained for verification purposes. Company policy and Federal (OSHA) regulations require training certification.

SAFETY VISION, POLICY & PRINCIPLES

VISION

SAFETY FIRST... NO ONE GETS HURT!

POLICY

TO PROVIDE EACH EMPLOYEE WITH A SAFE PLACE TO WORK,
FREE FROM ALL RECOGNIZED HAZARDS.

PRINCIPLES

- All injuries are preventable.
- No job or activity is worth risking injury.
- Working safely is a condition of employment.
- Management is responsible for providing the environment for everyone to work safely.
- Each individual shares in the responsibility for the safety of themselves and others.
- We believe prevention of injuries is good business.
- We promote off-the-job safety for our employees.
- Safety is led by senior management, implemented by line management, with each level accountable to the one above and responsible for the one below.
- We design and integrate safety into our management decisions.

The Asplundh Tree Expert Co. recognizes that our employees have made us the number one Company of our kind in the world. The Company places its number one value on the safety of our people. Therefore, it is strict Asplundh policy to provide each employee with a safe and healthy place to work, free from all recognized hazards. Asplundh requires compliance with the Occupational Safety and Health Act Regulations, the American National Standard Institute Standards, and the Asplundh Foreperson's Manual and training publications distributed by the Company.

This booklet has been prepared to share the dramatic changes of the Asplundh Tree Expert Co. (ATE) regarding safety improvement initiatives over the past several years. The following is a listing in chronological order:

A. Implemented an employee reward incentive-based program. *(Jan 02)*
B. Required all employees who drive company vehicles to enroll in a 4-hour defensive driving course sponsored by Liberty Mutual Insurance Company. *(Apr 03)*
C. Redesigned the Safety Department that added 75 Regional Safety Superintendents (RSS's). *(Beginning of 2004)*
D. Separated Safety Department from Risk Management. *(Apr 04)*
E. Implemented "800 How's My Driving" decals on every company vehicle. This program is administered by a 3rd party firm – SafetyFirst. *(May 04)*
F. Contracted with DuPont Safety Resources (DSR) with a three-year term contract to assess the entire organization to discover its weaknesses and then help Asplundh and its subsidiaries implement new safety processes. *(May 04)*
G. Mandated and tracked bi-monthly conference calls between Sponsors & VP/Managers as well as between VP/Managers and General Forepersons. *(Oct 04)*
H. Acquired a new Director & Corporate Safety Officer who reports directly to the President. *(Jan 05)*
I. Mandated and tracked nationally a new requirement that each General Foreperson perform at least one observation and issue a Performance Notice each week. *(Jan 05)*
J. Created DVD/video training for new employee orientation, how to conduct a job briefing and how to conduct a weekly safety meeting. *(Feb 05)*
K. Implemented a formal behavior approach aimed at observing working crews and providing immediate documented feedback about safety and at-risk behaviors (JBO's). *(May 05)*
L. Improved and provided training to all management personnel regarding incident investigation and analysis. *(May 05)*
M. Implemented "Life Saving Rules" that if violated will result in immediate discharge. *(Dec 05)*
N. Designed & implemented a unique approach to Safety Management and process evaluations. *(Apr 06)*
O. Developed and implemented the Work Zone Safety initiative that included training, easy to understand booklets and posters for each truck. *(Apr 06)*
P. Designed & initiated three mobile training vans with live-line demos and videos. *(May 06)*
Q. Instituted written job briefings and policies that are more comprehensive. *(May 06)*
R. Redesigned the training program for line clearance tree trimmers and implemented the Line Clearance Qualification Standard (LCQS). *(Aug 2008)*

Our vision of "Safety First ... No One Get's Hurt" will help us get even better by helping ensure our employees go home the same way they came to work.

The following is a comprehensive description of the chronological listing:

A. Implemented an employee reward incentive-based program. *(Jan 02)*
- *1 to 4% of an employee's pay is withheld and rewarded back on a quarterly basis for safety performance.*
- *Designed & implemented proactive safety activities that are measured and rewarded based on performance.*
- *More than 60% of North American Operations have implemented this process.*

B. Required all employees who drive company vehicles to enroll in a 4-hour defensive driving course sponsored by Liberty Mutual Insurance Company. *(Apr 03)*
- *It is company policy that before any employee drives any company vehicle on the road they complete a 3-4 hour instructor-lead course that includes on the road critiquing to ensure all aspects of the training have taken place.*
- *Additionally, each year, the Regions are required to perform a self-assessment of their training program; a few Regions undergo a comprehensive audit performed by Liberty Mutual.*

C. Redesigned the Safety Department that added 75 Regional Safety Superintendents (RSS's). *(Beginning of 2004)*
- *A new position was created in each Region which reports to the Regional Manager and "dotted lined" to the Director of Safety.*
- *Majority of time spent in Field.*
- *Primary duties include incident investigation & analysis, conducting job site inspections (JBO's) GF orientation, safety training, and assisting with all safety-related issues for the Regional Manager.*

D. Separated Safety Department from Risk Management. *(Apr 04)*

E. Implemented "800 How's My Driving" decals on every company vehicle. This is administered by a 3rd party firm – SafetyFirst. *(May 04)*
- *Number of vehicles is approximately 18,000.*
- *Vehicle incidents have decreased 25% over the last two years.*
- *Administered by a third party firm named SafetyFirst.*
- *Periodic detailed reports published that detail specific driving behaviors and trend analysis.*

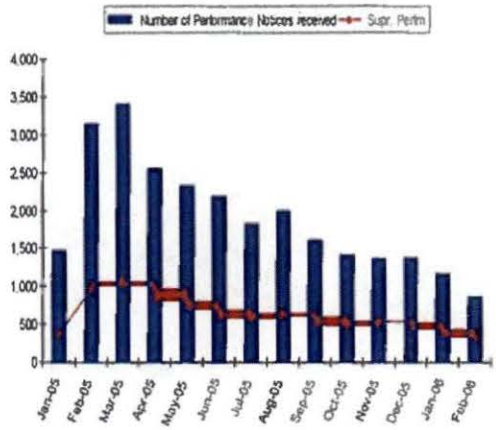
F. Contracted with DuPont Safety Resources (DSR) with a three-year term contract to assess the entire organization to discover its weaknesses and then help ATE and its subsidiaries implement new safety processes. *(May 04)*
- *Three-year contract.*
- *12 consultants.*
- *Assists with the integration of a new comprehensive safety management system to include safety behavior auditing, incident investigation, communications and performance metrics (Safety Dashboard).*

G. Mandated and track bi-monthly conference calls between Sponsors & VP/Managers as well as between VP/Managers and General Forepersons. *(Oct 04)*
   - *Mandatory, at least monthly, safety conference calls (recent incidents, near misses, JBO's and observation trends, etc.)*
   - *Safety Director and Risk Management Director involvement.*

H. Acquired a new Director & Corporate Safety Officer who reports directly to the President. *(Jan 05)*
   - *Board certified in Safety & Health with Masters Degree in Occupational Safety.*
   - *100% responsible to develop, direct, and implement safety & training policies for the company.*
   - *Assists the President and Senior Executives with implementation and accountability of SMP.*

I. Mandated and tracked nationally a requirement that each General Foreperson perform at least one observation. *Example:*

Performance Notice (PN) Program
Vegetation



MOST COMMON
(Past 14 Months):

	Count
• PPE	6,133
• Job Site Setup	4,769
• Leadership	2,681
• Power Tool Use	1,792
• Tree Felling	1,693
• Driving	1,666
• Job Briefing	1,376
• Inspection	1,254
• Tree Climbing	1,011
• Chipper Operations	980
• Bucket Operations	830

J. Created DVD video training program for new employee orientation, including how to conduct a job briefing and how to conduct a weekly safety meeting. *(Feb 05)*
   - *English and Spanish versions 12 minutes each.*
   - *Designed to ensure consistency with new employee orientation, job briefings and safety meeting planning and presentations.*

K. Implemented a formal behavior approach aimed at observing working crews and providing immediate documented feedback about safety and at-risk behaviors (JBO's). *(May 05)*

- *Formal process is called Job Behavior Observation (JBO) process.*
- *JBO observers are trained on observation and feedback techniques.*
- *Management is held accountable for performing a required number of observations per month.*
- *Data is collected, evaluated and corrective actions put in place for trends of at-risk behavior.*

L. Improved training for all management personnel regarding incident investigation and analysis. *(May 05)*

- *Streamlined the process by reducing the number of forms required for each type of incident.*
- *Developed & implemented analysis tools to consistently determine the causal and root factors.*
- *Communicate incidents throughout the entire company to ensure increased awareness.*

M. Implemented "Life Saving Rules" that if violated will result in immediate discharge. *(Dec 05)*

Life Saving Rules

Violation of any of the following Safety Rules will result in MY termination of employment with Asplundh Tree Expert Co.

1. Wearing a seat belt in a company or leased vehicle while it is in motion.
2. Operating or allowing the operation of a company vehicle by an unqualified and/or unauthorized person.
3. 100% tie-in when manually climbing a tree or aloft in a bucket.
4. Violating the danger zone during tree felling.
5. Violating minimum separation (minimum approach distance) of any conductor (energized or not) with any part of your body or conductive object.

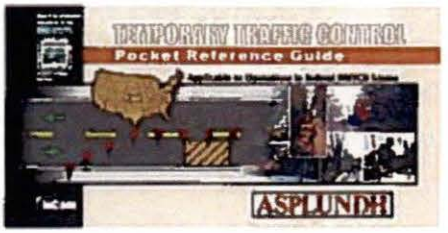
N. Designed & implemented a unique approach to Safety Management and process evaluations – called the Safety Management Process (SMP). *(Apr 06)*

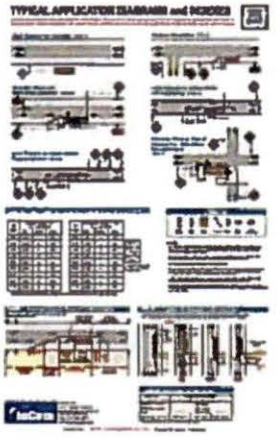
- *The SMP is simply a management tool that provides clear direction for managing safety at all levels of the organization! It is comprised of 10 Elements that describe the most current "state-of-the-art" safety processes that make up the basic components of a World Class Safety Organization!*
- *Essentially, the SMP is nothing new except for the way that "safety" is managed and incorporated into the BIG PICTURE of everyday operations. Each Region is allowed (and encouraged) to make it their own by designing unique aspects of each element as long as they AT LEAST comply with the minimum expectations as mandated by the SMP.*
- *Evaluations performed by Corporate Safety Staff for each Region.*
- *Evaluation reviews entire Safety Management Process (SMP).*
- *Score is integrated into Regional Worker's Comp rates to ensure accountability.*

O. Developed and implemented the Work Zone Safety initiative that included training, easy to understand booklets and posters for each truck. *(Apr 06)*

- *Company-specific booklets and placards (posters) for each truck.*
- *Train-the-Trainer training for safety staff and select other Region employees.*
- *State-specific booklets & training also provided.*
- *Assistance provided by a third-party firm named InCom.*

Traffic Safety





...and

Train-the-Trainer Programs

P. Designed & initiated three mobile training vans with live-line demos and videos. *(May 06)*

- *40-foot custom designed and built.*
- *20 + employees at one time.*
- *Qualified instructors throughout the entire country.*

Q. Instituted written job briefings and policies that are more comprehensive. *(May 06)*
- *Must be written.*
- *Comprehensive policy mandates at least the following:*
  - ✓ *Once in the morning;*
  - ✓ *Once after a major rest period (i.e. lunch);*
  - ✓ *When a significant part of the job changes; and*
  - ✓ *Before each new job*
- *Training includes the understanding of a job safety analysis (JSA).*

R. Redesigned the training program for line clearance tree trimmers and implemented the Line Clearance Qualification Standard (LCQS). (Aug 2008)
- *Five (5) qualification levels – each with its own training materials.*
- *Provides improved direction for the General Foreperson regarding administration.*
- *Communicates clearer responsibility for the Foreperson – the primary trainer.*
- *Fosters ground-level employee ownership.*
- *Presents a step-by-step and methodical approach to teaching and learning.*
- *Affords greater distribution of training material*

HIRING PRACTICES

Effective June 1, 2012 each job applicant who receives an offer of employment completes an on-line employment packet which includes:.

- Employment Information Form
- Employment Eligibility Verification (I-9)
- Conditional Employment Agreement
- Pre-Employment Drug Test Acknowledge & Consent Form
- Request for Motor Vehicle Report
- Direct Deposit Information Letter and Authorization Form
- Authorization for Payroll Deduction of Local Wage Taxes
- Policy Sign-off Forms:
  - Anti Harassment
  - Workplace Violence
  - Private Work
  - Electronic Communications
  - Distracted Driving

Plus "New Employee Safety Orientation Program" is completed (*see Training Section for program outline*).

TRAINING PROCESS SUMMARY

Field Management personnel implement the Company's safety and training programs while ensuring that Foreperson and Crewmembers are properly trained in Company policies, the proper use of hand and power tools, equipment, and proper work techniques. Our training program is very comprehensive and multi faceted in nature. The core program element is our Line Clearance Qualification Standard (LCQS) Training Program, which all employees must participate in. This program consists of several training modules (*called Critical Tasks*), which cover numerous safety rules and work practices that address each employee's job assignment. The program is administered by Field Management including General Foreperson and Forepersons who are qualified experienced workers. Each employee must demonstrate proficiency in each category of job assigned responsibilities prior to becoming qualified at different levels in the LCQS. Other training processes include pre-employment job screening, new employee orientation process, on- the-job (OJT) training conducted by Forepersons and General Forepersons, participation in weekly safety tail gate meetings, participation in daily job briefings, and training in other areas such as first aid/CPR, Hazard Communication Program requirements, Temporary Traffic Control, etc.

EMPLOYEE SKILLS TRAINING PROGRAM

The LCQS Training Program referenced above is directed specifically at developing employee's skills in compliance with the requirements of OSHA regulations, company policies and work practices. The key requirement to becoming qualified is the employee's ability to demonstrate proficiency in the skills needed to perform their job tasks before FINAL Proficiencies evaluations are administered for each of the job classifications covered by the LCQS.

Training publications are distributed on a weekly, bi-monthly and monthly basis. These publications are reviewed with each employee by the Foreperson as part of our OJT training process. This process is monitored by supervision to ensure to the greatest degree possible that training is uniform and consistent.

General Forepersons make frequent visits to crew work site locations for the purposes of observing and appraising work in process, evaluating on-the-job training, routine inspection of tools and equipment and to insure that all employees are working in compliance with Company policies and safe work practices.

Daily tailgate meetings are required for every field employee and are conducted on the crew work site.

The Company publishes, distributes to, and trains each employee in safe work practices and continually updates these practices based on Company experience, industry experience, incident analysis, OSHA and NIOSH publications and proposals.

NEW EMPLOYEE SAFETY ORIENTATION PROGRAM OUTLINE

- Pre-Employment Application
- Job Description Signed by the Employee
- Driver's License Check (Photocopy for File)
- Substance Abuse Policy
- Drug Screen
- OSHA Poster Review
- Region Policy Manual Review
- Foreperson Training Responsibilities (LCQS Program, Weekly Safety Meetings, Hap Hazard Posters, Special Bulletins, etc.)
- Divisional/Corporate Safety Incentive Program
- Line Clearance Qualification Standard (LCQS) Booklet
- Employee Handbook
- New Employee Safety Orientation (Video)

Our Corporate Safety Policy describes the details of our safety program. There are a variety of manuals and other material used to administer the program such as:

- Corporate Safety Policy
- Line Clearance Qualification Standard (LCQS) Program
- Incident Investigation Process
- Job Behavior Observation Program
- General Foreperson Monthly Guide
- General Foreperson Monthly Training Guide
- Hazard Communication Program
- Employee Handbook
- Equipment Manuals
- Weekly Safety Meeting Letters
- Special / Safety Bulletins
- Employment Application & Pre-Application
- OSHA Poster
- Vehicle Loss Prevention Program
- Safe Work Practice Performance Notices

QUARTERLY ASSURANCE & PRODUCTION

Crew Audits and Job Behavior Observations are conducted routinely and documented by the General Forepersons, Regional Safety Superintendents, and our Corporate Safety Supervisors to ensure that we are in compliance with Federal, State, Local, and Customer Contract requirements. On-site inspections as well as tailgate meetings are held to further emphasis Safety and OSHA compliance. Discipline procedures for failure to adhere to Company policy are strictly enforced.

CHECKLISTS

- ☐ General Foreperson's Production Report
- ☐ File Documentation Audit Checklist
- ☐ Safety Audit Checklist
- ☐ Job Behavioral Observations
- ☐ Job Briefing
- ☐ Safety Hazards Checklist
- ☐ Employee Safety Knowledge Checklist
- ☐ Equipment Condition Checklist
- ☐ Vehicle Condition Checklist
- ☐ Lift Truck Inspection Checklist
- ☐ Shop Inspection Checklist
- ☐ Monthly Training Checklist
- ☐ Incident Investigation Forms

REQUEST FOR INFORMATION

This document has been prepared by the Corporate Safety Department. Copies of all of the above referenced material will be provided for your review on request.

Considering the scope of our program activities and the numerous documents that are part of the program, we would be happy to review the information in more detail with interested parties if necessary.

Groundperson / Trainee

Bucket Operator / Trimmer
Contents

Climber Trimmer

Section Page

LESSON 10.7—REMOVING A VICTIM FROM AERIAL DEVICE

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Appendix B—FINAL Proficiency Forms

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LESSON 1.2—OSHA & ANSI
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LESSON 2.3—PERFORMING A DETAILED HAZARD ASSESSMENT
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Specialized Equipment Operator

Critical Task 1
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Lesson Topics

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LESSON 1.4—JOB BRIEFINGS

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Lesson Topics

Critical Task 3
Tree ID

Lesson Topics

Critical Task 4
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Lesson Topics

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LESSON 4.2—UTILITY STRUCTURES & HARDWARE

LESSON 4.3—CIRCUITS & CONDUCTORS

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LESSON 5.4—STEP 2: TREE LEAN

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LESSON 5.6—STEP 4: THE NOTCH CUT *(Part One of the Hinge)*

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LESSON 6.6—NUT & BOLT TIGHTENING

LESSON 6.7—FUELING

LESSON 6.8—COOLING SYSTEMS

LESSON 6.9—GREASING

LESSON 6.10—HYDRAULIC SYSTEMS

LESSON 6.11—WELDING AND GRINDING

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Mobilization

Lesson Topics

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LESSON 7.3—VEHICLE SECURITY

LESSON 7.4—HOUSEKEEPING

LESSON 7.5—SPECIAL PRECAUTIONS

LESSON 7.6—PRINCIPLES OF DECISION DRIVING

LESSON 7.7—ADJUSTING MIRRORS

LESSON 7.8—TRAILER HOOK-UP

LESSON 7.9—COUPLING AND UNCOUPLING (*FIFTH WHEEL*)

LESSON 7.10—AIR BRAKES

LESSON 7.11—LOADING TECHNIQUES

LESSON 7.12—TIE DOWN AND CHAINING PROCEDURES

LESSON 7.13—OVERSIZE, OVER HEIGHT AND OVERWEIGHT

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Off-Road Equipment

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LESSON 8.3—EXCAVATOR, FELLER-BUNCHERS

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LESSON 8.5—STUMP GRINDER

LESSON 8.6—CRAWLERS/DOZERS AND LOADERS

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LESSON 8.8—CRANES & BOOMS

LESSON 8.9—LOG LOADER TRUCKS

LESSON 8.10—BOOM SAW OPERATION

LESSON 8.11—SPECIALIZED CHIPPERS

LESSON 8.12—TUB GRINDERS

Critical Task 9
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Operation & Equipment
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LESSON 9.3—PREPARATION
LESSON 9.4—MAINTENANCE
LESSON 9.5—WORKSITE ASSESSMENT
LESSON 9.6—BEST PRACTICES
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LESSON 10.3—RAIL EQUIPMENT INSPECTIONS & MAINTENANCE
LESSON 10.4—RAIL GEAR COMPONENTS
LESSON 10.5—TRACK SAFETY AND EQUIPMENT OPERATION
LESSON 10.6—INTERACTION WITH RAILROAD PERSONNEL
LESSON 10.7—TRAIN SAFETY OPERATIONS

Critical Task 11
Off-Road Aerial Devices
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LESSON 12.2—PRE TRIP INSPECTION, STARTING & MAINTENANCE
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LESSON 12.4—HILLS AND ATV/UTVS
LESSON 12.5—MANEUVERING DRILLS FOR ATV/UTVS
LESSON 12.6—WATER SAFETY
LESSON 12.7—HELICOPTER SAFETY
LESSON 12.8—SNOWMOBILE SAFETY

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Overview & Summary

Line Clearance Qualification Standard (LCQS)

Asplundh Tree Expert Co.

March 2009

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Asplundh's Training Philosophy

Classroom-based training is presented at one pace for everyone, regardless of what type of learner they are—and no matter how much experience they've had in the past. Asplundh's philosophy breaks from the traditional classroom-based training and has adopted a more direct, hands-on training methodology. This methodology is based on blending operational work practices with knowledge and safety while on the job.

Our Company philosophy is driven on the basis that an individual's proficiency, both in skill and knowledge, is a better measure of success than time spent in class. Today, 90% of the Company's training occurs in the field at the work site while the employee is on the job.

Asplundh, along with its partners, has developed the Line Clearance Qualification Standard Program that is directed specifically at developing an employee's skills in compliance with Company policies and work practices, as well as OSHA rules and regulations. The key requirement to becoming qualified in any job class is the employee's ability to demonstrate proficiency in the skills needed to perform their job tasks.

Common work practices are not acceptable when working in the field of vegetation management unless they have proven themselves to be the *right* work practice. Every work practice has been reviewed and analyzed and now incorporates "safety-first" practice(s) interwoven with the *correct* work practice(s) for a specific task, and together they create the Company's and our industry's best practices, all which are aligned to OSHA and NIOSH regulations.

Asplundh's training approach has measurable goals and proven results:

- Substantially improving an employee's knowledge and skill
- Dramatically increasing employee productivity
- Significantly reducing the number of on-the-job injuries
- Tangible saving, both in on-the-job injury loss of productivity, as well as all associated costs
- Reduced amount of time off the job sitting in classroom-based training
- Significant reduction in employee turnover
- Improved employee job satisfaction
- Reduced need for constant direct employee supervision
- Rewards long-term employees
- Aids in the recruiting process

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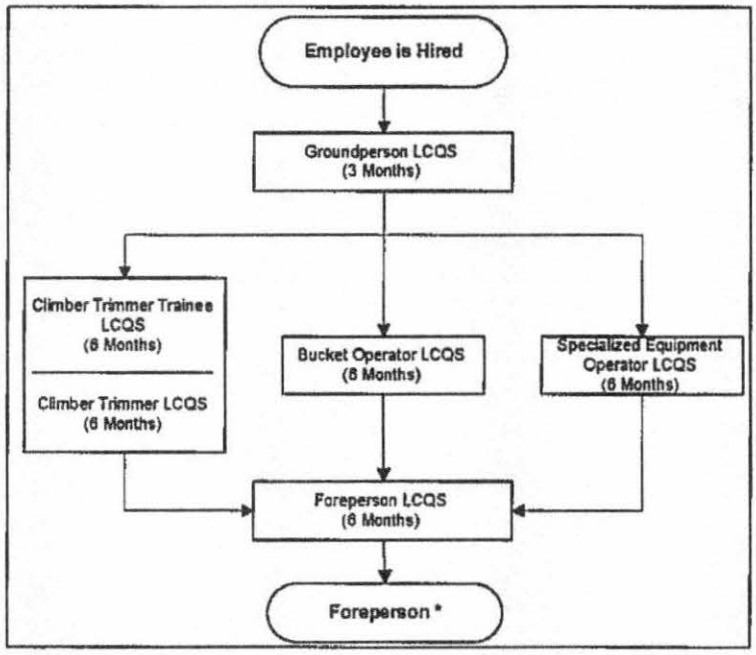
Asplundh's Training Canvas

Our training program is very comprehensive and multi-faceted in nature. The core program element is our ***Line Clearance Qualification Standard (LCQS) Training Program***, which all field employees must participate in.

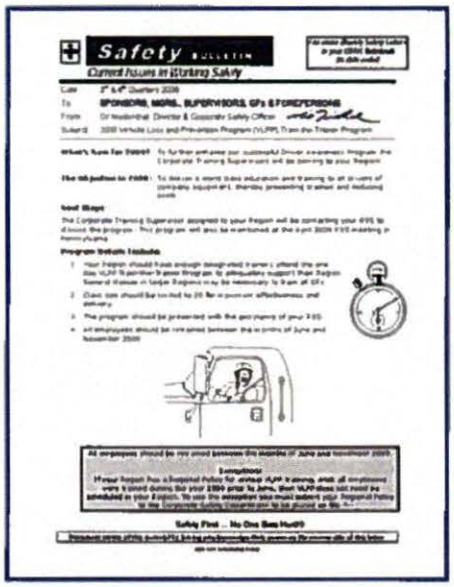


The *LCQS Training Program* is the backbone of the Company's training program. The program is directed exclusively at developing an employee's skills in a specific job class. Those job classes include Groundperson/Trainee, Climber Trimmer, Bucket Operator, Specialized Equipment Operator, and Foreperson. The LCQS Training Program is a graduated training program based on an employee's anticipated career lifecycle in the field of vegetation management. The program incorporates Company policies and procedures, best safe work practices, as well as OSHA rules and regulations.

Each job class training program consists of several training modules (called Critical Tasks), which cover numerous safety rules and work practices that address each employee's job assignment. Each employee must demonstrate proficiency in each category of job assigned responsibilities prior to becoming qualified at different levels in the LCQS. FINAL Proficiencies evaluations are administered for each of the five (5) job classification covered by the LCQS.

Other preliminary employment training assessment processes include pre-employment job screening and the new employee orientation process.

Additionally there are numerous other supported training activities not covered in the LCQS program, for example: on-the-job (OJT) training conducted by Forepersons and General Forepersons; mandatory participation in weekly safety tail gate meetings; mandatory participation in daily job briefings; safety bulletins; and training in areas such as first aid/CPR, Hazard Communication Program requirements, Temporary Traffic Control, as well as other targeted training campaigns delivered at both the regional and corporate level.


Safety BULLETIN
Current Issues in Working Safely

Training Methods & Delivery

Training is administered by Field Management including General Foreperson and Forepersons who are qualified experienced workers. Field Management personnel implement the Company's safety and training programs while ensuring that Forepersons and Crewmembers are properly trained in Company policies and procedures, the proper use of tools and equipment and proper work techniques.


CORPORATE SAFETY DEPARTMENT

The Company publishes, distributes to, and trains each employee in safe work practices and continually updates these practices based on Company experience, industry experience, incident analysis, OSHA and NIOSH publications and proposals.

Training publications are distributed on a weekly, bi-monthly and monthly basis. These publications are reviewed with each employee by the Foreperson as part of our OJT training process. This process is monitored by supervision to ensure - to the greatest degree possible - that training is uniform and consistent.

Daily tailgate meetings are required for every field employee and are conducted on the crew work site.

General Forepersons make frequent visits to crew work site locations for the purposes of observing and appraising work in process, evaluating on-the-job

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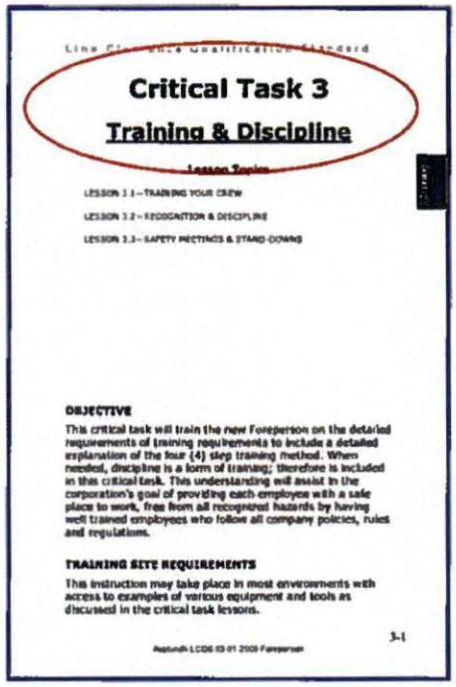
training, routine inspection of tools and equipment and to insure that all employees are working in compliance with Company policies and safe work practices.

The LCQS in More Detail . . .

The Line Clearance Qualification Standard has been prepared in five training booklets: Groundperson/Trainee, Climber Trimmer, Bucket Operator, Specialized Equipment Operator, and Foreperson. Each booklet contains the critical tasks and proficiencies that serve as a guide for both the trainer and trainee.


Line Clearance Qualification Standard

Critical Task 3

Training & Discipline

Lesson Topics

LESSON 3.1 – TRAINING YOUR CREW

LESSON 3.2 – RECOGNITION & DISCIPLINE

LESSON 3.3 – SAFETY MEETINGS & STAND-DOWNS

OBJECTIVE

This critical task will train the new Foreperson on the detailed requirements of training requirements to include a detailed explanation of the four (4) step training method. When needed, discipline is a form of training; therefore is included in this critical task. This understanding will assist in the corporation's goal of providing each employee with a safe place to work, free from all recognized hazards by having well trained employees who follow all company policies, rules and regulations.

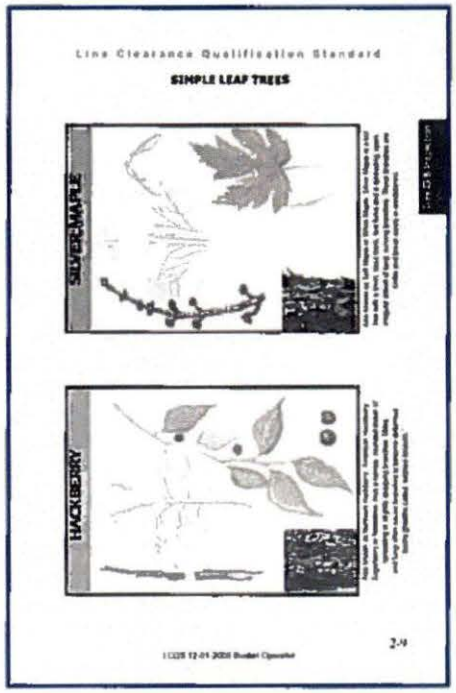
TRAINING SITE REQUIREMENTS

This instruction may take place in most environments with access to examples of various equipment and tools as discussed in the critical task lessons.

3-1

Asplundh LCQS 03-01 2008 Foreperson

Illustrations and graphics have been used throughout each LCQS booklet for a consistent approach to enhance the dissemination of information accurately, and with ease of comprehension. Visuals are also used to accommodate all learning styles. The graphics and illustrations interact with the text, making it clean and simple to understand. The use of illustrations and graphics is a 'training made visible' approach. The LCQS booklets make use of graphics and illustrations to display information in a means of visual explanations.


Line Clearance Qualification Standard

SIMPLE LEAF TREES

SILVER MAPLE

HACKBERRY

2-9

LCQS 12-01 2008 Bucket Operator

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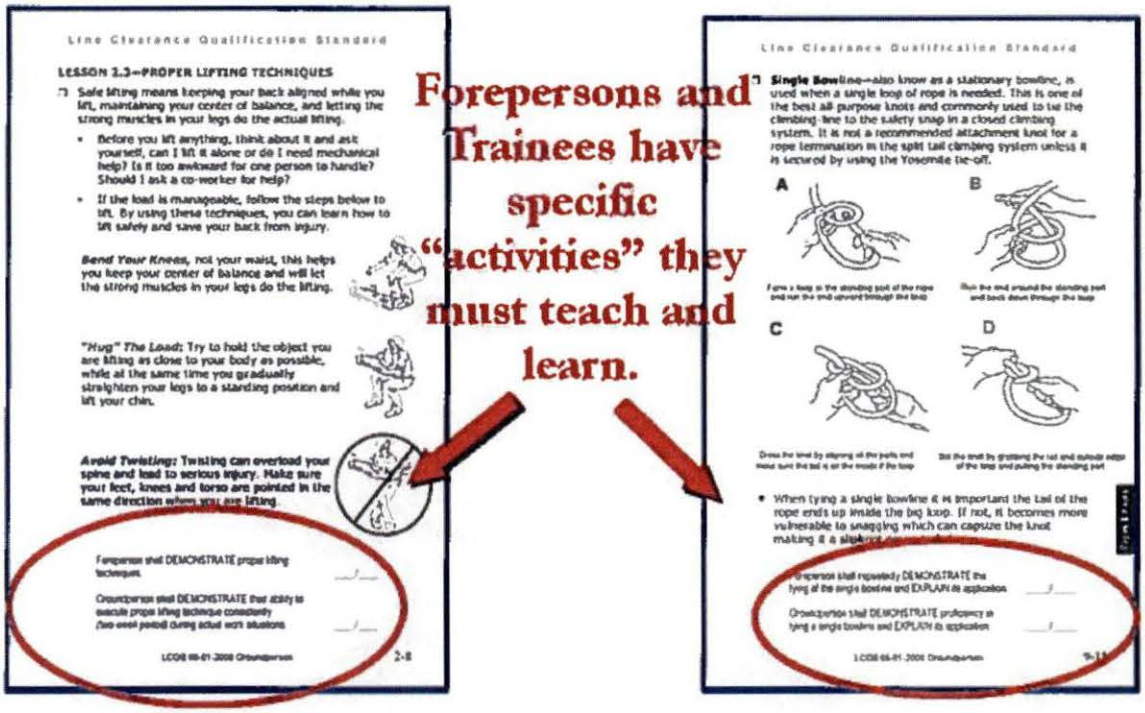
Training Proficiencies

There are two different levels of proficiencies in each training booklet: **OJTs** and **FINAL**.



☐ OJT Proficiency Activities

Note: Proficiency is defined as a thorough competence derived from training and practice. Depending on the activity, the trainee shall be able to describe or demonstrate they know and understand the task.

- On-the-Job (OJT) Proficiency Activities are designed to provide a step-by-step approach to what the Foreperson is required to teach and what the trainee is required to know.
- The individual lessons of each critical task have the OJT Proficiency sign-off blocks located directly within the lesson.
- A critical task is defined as a work activity that requires a specific skill or knowledge in order for an employee to be proficient for a particular job class. The critical tasks are the job activities that have shown, if not performed correctly, are the main reason for injuries in our industry.
- As the lessons of each critical task are being covered with the trainee and he or she demonstrates they are proficient in the material covered, the Foreperson must initial and date each specific OJT Proficiency Activity within the lesson.

Sample: KF / 8/14/08

- Critical Task OJT Proficiencies shall remain in the Training Booklet and are not required to be signed off by the GF, but shall be reviewed prior to FINAL Qualification.
- Forepersons are responsible for the training of all new employees. It is understood however, other qualified employees of a crew may instruct someone of lesser qualifications.
- Once a training program lesson is completed and the employee has demonstrated they are proficient in the job requirements, the GF may review and sign off on a corresponding "spot-check" proficiency on the Final Proficiency.
- Employees with previous experience as line clearance workers shall follow the guidelines described in Appendix A.

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☐ Skills Training for OJTs (4-Step Method)

The Foreperson utilizes the basic 4-step training method in all Critical Tasks.

Step 1 – Tell

- Get specific. What is the Critical Task to be learned, why it is important and what are the hazards? Tell your trainees what you are going to teach, where it fits into the total job and the steps and key points involved to do each task correctly and safely.
- Review the task description and diagrams in the lessons of the Critical Task.
- If Safety Bulletins exist for the subject being instructed, have the trainees read them.

Step 2 – Show

- This is where you show the trainee how to do the particular critical task. Position the trainee where they can observe from the same angle as you.
- Go slowly, and give the person plenty of time to ask questions.
- Explain why things are done in a certain manner, and stress the key points and the safe work practices. Make sure you repeat your demonstrations until you feel confident that each step is clearly understood by the trainee.

Step 3 – Try Out

- This is hands-on practice.
- The trainee must "instruct" you (the trainer) on how to do the job. The trainee should instruct you on what to do and they should talk you through the actual job performance. If the trainee's instructions are complete and correct, then they should be allowed to perform the work while you continue to observe and question them.
- Mistakes must be corrected immediately. Do not give poor techniques a chance to become a habit. Be patient and encouraging.

Step 4 – Check and Follow Up

- Once the trainee has demonstrated their job knowledge and skills are sufficient, allow the trainee to work on their own. Check the actual methods frequently enough to ensure continued safe, high quality and high production work.

Overview of tCQS 2010-04-16

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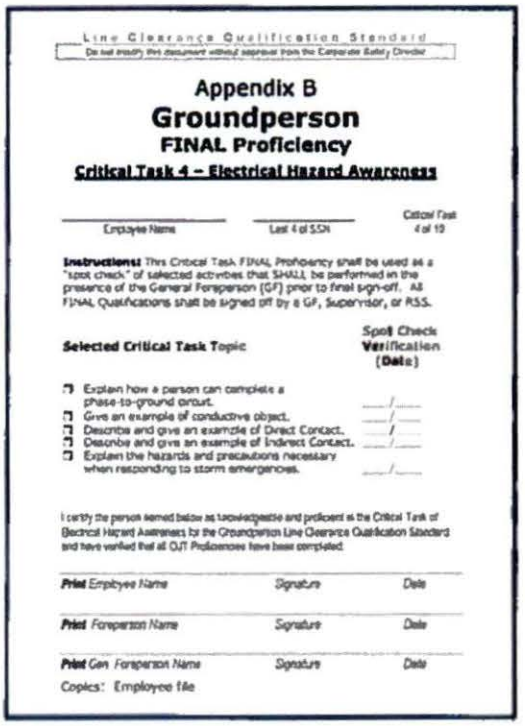
☐ FINAL Proficiencies



Line Clearance Qualification Standard
Do not modify this document without approval from the Corporate Safety Director

Appendix B
Groundperson
FINAL Proficiency
Critical Task 4 – Electrical Hazard Awareness

Employee Name | Last 4 of SSN | Critical Task 4 of 19

Instructions: This Critical Task FINAL Proficiency shall be used as a "spot check" of selected activities that SHALL be performed in the presence of the General Foreperson (GF) prior to final sign-off. All FINAL Qualifications shall be signed off by a GF, Supervisor, or RSS.

Selected Critical Task Topic	Spot Check Verification (Date)
☐ Explain how a person can complete a phase-to-ground circuit.	___/___
☐ Give an example of conductive object.	___/___
☐ Describe and give an example of Direct Contact.	___/___
☐ Describe and give an example of Indirect Contact.	___/___
☐ Explain the hazards and precautions necessary when responding to storm emergencies.	___/___

I certify the person named below as knowledgeable and proficient in the Critical Task of Electrical Hazard Awareness for the Groundperson Line Clearance Qualification Standard and have verified that all OJT Proficiencies have been completed.

Print *Employee Name*	*Signature*	*Date*
Print *Foreperson Name*	*Signature*	*Date*
Print *Gen Foreperson Name*	*Signature*	*Date*

Copies: Employee file

Each Final Proficiency is performed one at a time observed by a GF.

This record becomes part of the employee file and demonstrates compliance.

- FINAL Proficiency Forms are located in each booklet as Appendix B. They have been designed to serve as the final verification that an employee is fully qualified to perform a particular critical task.
- FINAL Proficiency Forms shall be reviewed and initialed. The forms should be reviewed by the assigned GF of the qualifying employee; however, it is acceptable for any GF, Supervisor, Regional Safety Superintendent (RSS), Training Supervisor, or Corporate Safety Supervisor (CSS) to sign off Final Proficiency Forms.
- The management employee administering the Final Proficiency shall :
  1. Personally review and confirm that each OJT Proficiency Activity has been completed for the Critical Task being qualified.
  2. Perform the "spot check" proficiencies included on the FINAL Proficiency Form that pertain to the employee's level of completed training *(i.e. Groundperson, Climber Trimmer, etc.)*
- The GF does not need to confirm "spot check" proficiencies all at once (*in one setting*). The individual "spot check" proficiencies may be signed off one at a time as the OJT Proficiency Activity has been confirmed completed for the Critical Task being qualified.
- Completed and signed FINAL Proficiency Forms shall be removed from the LCQS Booklet and placed in the employee's regional personnel file.

training, routine inspection of tools and equipment and to insure that all employees are working in compliance with Company policies and safe work practices.

The LCQS in More Detail . . .

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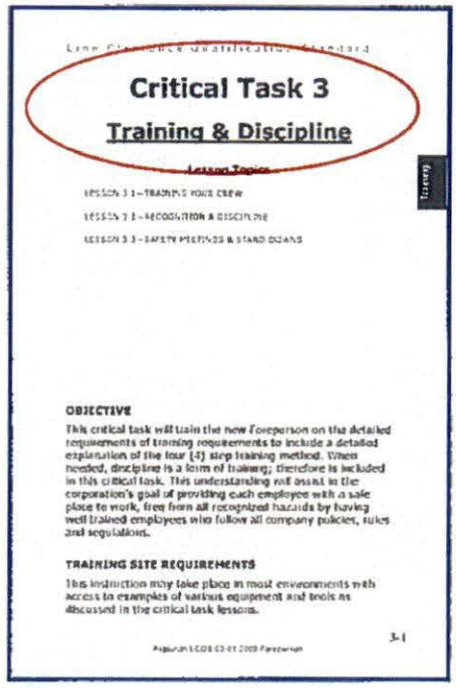
Critical Task 3

Training & Discipline

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TRAINING SITE REQUIREMENTS

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3-1

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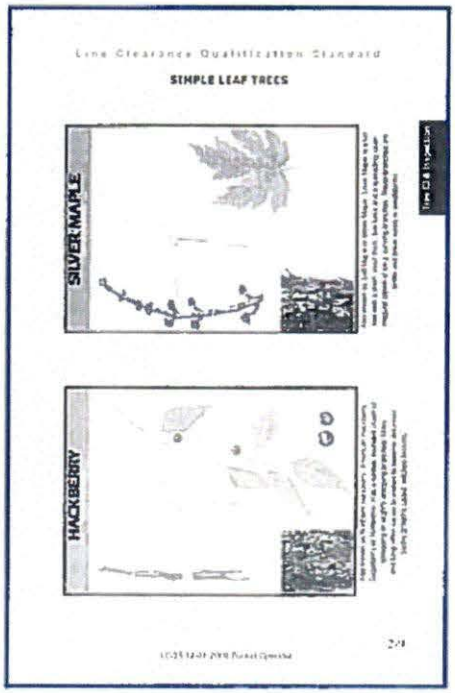

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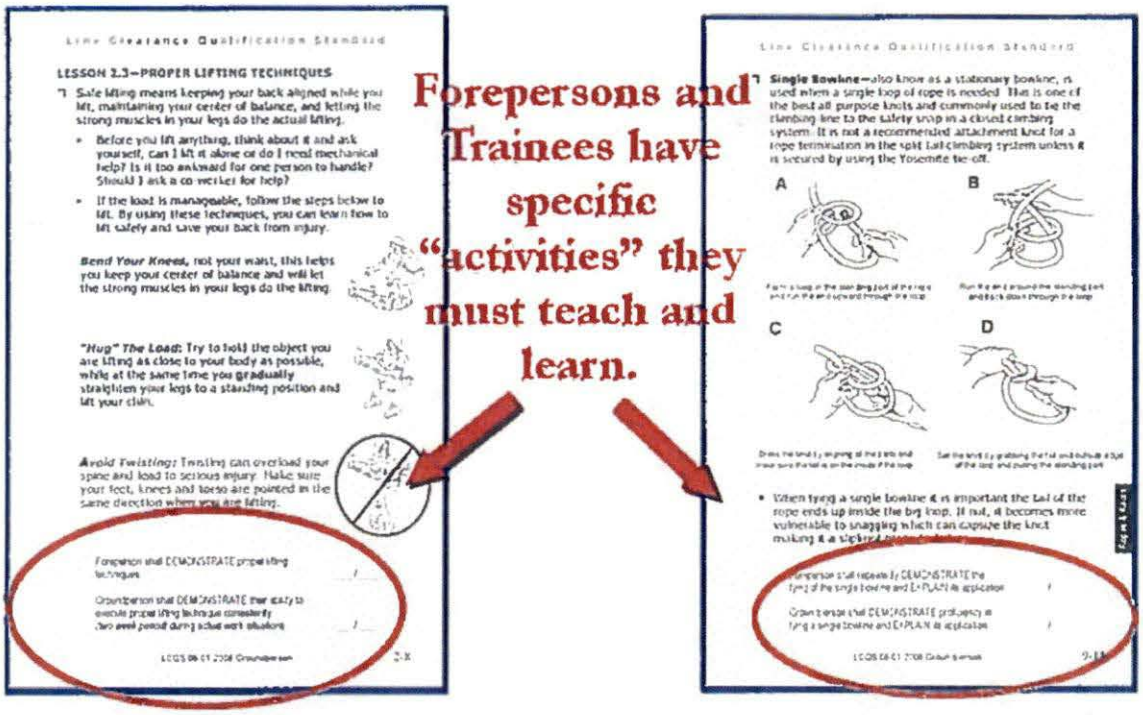

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- On-the-Job (OJT) Proficiency Activities are designed to provide a step-by-step approach to what the Foreperson is required to teach and what the trainee is required to know.
- The individual lessons of each critical task have the OJT Proficiency sign-off blocks located directly within the lesson.
- A critical task is defined as a work activity that requires a specific skill or knowledge in order for an employee to be proficient for a particular job class. The critical tasks are the job activities that have shown, if not performed correctly, are the main reason for injuries in our industry.
- As the lessons of each critical task are being covered with the trainee and he or she demonstrates they are proficient in the material covered, the Foreperson must initial and date each specific OJT Proficiency Activity within the lesson.

Sample: KT / 8/14/08

- Critical Task OJT Proficiencies shall remain in the Training Booklet and are not required to be signed off by the GF, but shall be reviewed prior to FINAL Qualification.

- Forepersons are responsible for the training of all new employees. It is understood however, other qualified employees of a crew may instruct someone of lesser qualifications.

- Once a training program lesson is completed and the employee has demonstrated they are proficient in the job requirements, the GF may review and sign off on a corresponding "spot-check" proficiency on the Final Proficiency.

- Employees with previous experience as line clearance workers shall follow the guidelines described in Appendix A.

Asplundh Tree Expert Co.

March 2009

❒ Skills Training for OJTs (4-Step Method)

The Foreperson utilizes the basic 4-step training method in all Critical Tasks.

Step 1 – Tell

- Get specific. What is the Critical Task to be learned, why it is important and what are the hazards? Tell your trainees what you are going to teach, where it fits into the total job and the steps and key points involved to do each task correctly and safely.
- Review the task description and diagrams in the lessons of the Critical Task.
- If Safety Bulletins exist for the subject being instructed, have the trainees read them.

Step 2 – Show

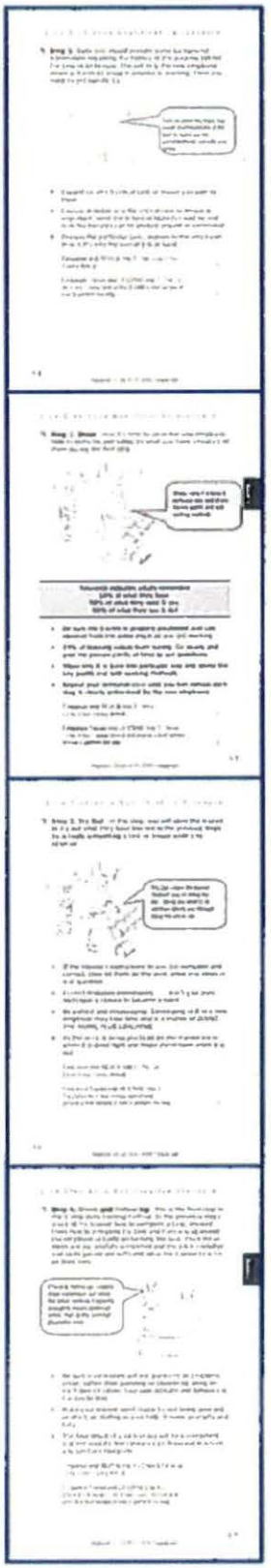
- This is where you show the trainee how to do the particular critical task. Position the trainee where they can observe from the same angle as you.
- Go slowly, and give the person plenty of time to ask questions.
- Explain why things are done in a certain manner, and stress the key points and the safe work practices. Make sure you repeat your demonstrations until you feel confident that each step is clearly understood by the trainee.

Step 3 – Try Out

- This is hands-on practice.
- The trainee must "instruct" you (the trainer) on how to do the job. The trainee should instruct you on what to do and they should talk you through the actual job performance. If the trainee's instructions are complete and correct, then they should be allowed to perform the work while you continue to observe and question them.
- Mistakes must be corrected immediately. Do not give poor techniques a chance to become a habit. Be patient and encouraging.

Step 4 – Check and Follow Up

- Once the trainee has demonstrated their job knowledge and skills are sufficient, allow the trainee to work on their own. Check the actual methods frequently enough to ensure continued safe, high quality and high production work.



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FINAL Proficiencies

Line Clearance Qualification Standard
Do not modify this document without approval from the Corporate Safety Director

Appendix B
Groundperson
FINAL Proficiency
Critical Task 4 – Electrical Hazard Awareness

Employee Name _____ Last 4 of SSN _____ Critical Task 4 of 12

Instructions: This Critical Task FINAL Proficiency shall be used as a "spot check" of selected activities that SHALL be performed in the presence of the General Foreperson (GF) prior to final sign-off. All FINAL Qualifications shall be signed off by a GF, Supervisor, or RSS.

Selected Critical Task Topic	Spot Check Verification (Date)
☐ Explain how a person can complete a phase-to-ground circuit.	/
☐ Give an example of conductive object.	/
☐ Describe and give an example of Direct Contact.	/
☐ Describe and give an example of Indirect Contact.	/
☐ Explain the hazards and precautions necessary when responding to storm emergencies.	/

I certify the person named below as knowledgeable and proficient in the Critical Task of Electrical Hazard Awareness for the Groundperson Line Clearance Qualification Standard and have verified that all OJT Proficiencies have been completed.

Print Employee Name _____ Signature _____ Date _____

Print Foreperson Name _____ Signature _____ Date _____

Print Gen. Foreperson Name _____ Signature _____ Date _____

Copies: Employee file

Each Final Proficiency is performed one at a time observed by a GF.

This record becomes part of the employee file and demonstrates compliance.

- FINAL Proficiency Forms are located in each booklet as Appendix B. They have been designed to serve as the final verification that an employee is fully qualified to perform a particular critical task.
- FINAL Proficiency Forms shall be reviewed and initialed. The forms should be reviewed by the assigned GF of the qualifying employee; however, it is acceptable for any GF, Supervisor, Regional Safety Superintendent (RSS), Training Supervisor, or Corporate Safety Supervisor (CSS) to sign off Final Proficiency Forms.
- The management employee administering the Final Proficiency shall :
  1. Personally review and confirm that each OJT Proficiency Activity has been completed for the Critical Task being qualified.
  2. Perform the "spot check" proficiencies included on the FINAL Proficiency Form that pertain to the employee's level of completed training *(i.e. Groundperson, Climber Trimmer, etc.)*
- The GF does not need to confirm "spot check" proficiencies all at once (*in one setting*). The individual "spot check" proficiencies may be signed off one at a time as the OJT Proficiency Activity has been confirmed completed for the Critical Task being qualified.
- Completed and signed FINAL Proficiency Forms shall be removed from the LCQS Booklet and placed in the employee's regional personnel file.

DATE 7-9-15

Single Day - Job Briefing

CREW LOCATION(S) - LIST ALL LOCATIONS WHERE JOB IS BEING PERFORMED

1) Caroline Rd, Flatwoods, Ky 2) Downey Court, Flatwoods, Ky 3) _____
4) _____ 5) _____ 6) _____

NOTE: IS THE CREW ABLE TO PERFORM THE TASK AT HAND YES ☑ NO ☐

STEP 1 – HAZARDS (Check or Write) Step heads, holes, ditches, loose rock, vines, dead trees, tree parts inside MAD, wet grass

- ☒ 1 Electricity
- ☐ 2 Utility Components
- ☒ 3 Tree Touching Conductors
- ☒ 4 Tree Part Inside Minimum Approach Distance
- ☒ 5 Tree Condition
- ☒ 6 Included Bark
- ☒ 7 Overhangs/Dead Wood/Tree
- ☒ 8 Crotch Selection
- ☒ 9 Traffic
- ☒ 10 Ground Condition
- ☐ 11 Equipment/Tools in Use
- ☐ 12 Weather
- ☒ 13 Wildlife (bugs, insects, bees, etc.)
- ☒ 14 Poisonous Plants
- ☒ 15 Sun Glare
- ☐ 16 Sagging Conductors
- ☐ 17 Railroads
- ☐ 18 Water
- ☒ 19 Dogs
- ☒ 20 Fences
- ☐ 21 Leaking Equipment
- ☒ 22 Wood Under Tension
- ☐ 23 Other _____
- ☐ 24 Other _____

STEP 2 - ENERGY SOURCE CONTROLS (Check and/or Write) 36 Kv Single phase, 3-wire Secondary telephone and cable

- ☒ 1 Voltage 36 Kv
- ☒ 2 Minimum Approach Distance 2'9"
- ☐ 3 Outage – Scheduled _____
- ☐ 4 Outage – Emergency _____
- ☐ 5 Storm Work _____
- ☐ 6 Other _____
- ☐ 7 Other _____

STEP 3 - WORK PROCEDURES (Check and/or Write) Set up jobsite with signs and cones, cut and trim trees to specs, Dalton and Catlain trimming, Tony spotting, Adam dragging and chipping brush

- ☒ 1 Temporary Traffic Control TAD# 2 Rd Speed 35 MPH
- ☒ 2 Job Setup
- ☒ 3 Routine Trimming
- ☒ 4 Distribution Work
- ☐ 5 Transmission Work
- ☒ 6 Tree Felling
- ☒ 7 Non-Conductive Tool(s)
- ☒ 8 Aerial Lift
- ☒ 9 Specialized Equipment
- ☒ 10 Manual Climbing
- ☒ 11 Bucking and Limbing
- ☐ 12 Spraying
- ☒ 13 Dragging Brush
- ☐ 14 Storm Work
- ☒ 15 Rigging/Roping
- ☒ 16 Lifting
- ☒ 17 Chipping Brush
- ☐ 18 Other _____
- ☐ 19 Other _____

STEP 4 - SPECIAL PRECAUTIONS(Check and/or Write) Avoid all slips, trips, falls, stay out of danger zone, stay focused on task at hand

- ☒ 1 Equipment safety (key from ignition)
- ☒ 2 Emergency Medical Services CONTACT # 911 LOCATION OLBH
- ☒ 3 On Site First Aid and CPR
- ☒ 4 Fire Suppression
- ☐ 5 Water Safety
- ☐ 6 Railroad Safety
- ☐ 7 Water Ways and Wetlands
- ☐ 8 Chemical Handling
- ☒ 9 Outriggers Placement
- ☒ 10 Cribbing for Leveling
- ☐ 11 Lighting for Night Time Work
- ☒ 12 Load Securement
- ☒ 13 Weather Precautions
- ☐ 14 Flashing Lights
- ☐ 15 School Zones
- ☐ 16 Pedestrians
- ☒ 17 Equipment Inspection
- ☒ 18 Climbing Gear Inspection
- ☒ 19 Powered Tool Inspection
- ☐ 20 Migratory Bird Protection
- ☐ 21 Wild Life Protected Areas
- ☒ 22 Pre-existing Prop. Damage
- ☐ 23 Other _____
- ☐ 24 Other _____

STEP 5 - PERSONAL PROTECTIVE EQUIPMENT (Check and/or Write) Check and wear all PPE

- ☒ 1 Hard Hat
- ☒ 2 Safety Glasses
- ☒ 3 Work Boots
- ☒ 4.Reflective Safety Vest
- ☒ 5 Hearing Protection
- ☒ 6 Chaps
- ☒ 7 Gloves
- ☐ 8 Other _____
- ☐ 9 Other _____

Foreperson: (Sign) 1st Dalton Tony **Crew Member-1:** (initial) 1st CC **Crew Member-2:** (initial) 1st TC **Other:** (initial) 1st AD

Foreperson: (Sign) 2nd Dalton Tony **Crew Member-1:** (initial) 2nd CC **Crew Member-2:** (initial) 2nd TC **Other:** (initial) 2nd AD

If the job cannot be performed safely — STOP THE JOB — and ask for assistance!
Sign again after 2nd review or if new briefing is required. Briefing should take 5 - 7 minutes to review thoroughly

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