

# Utility Arborist Newsline

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**FOCUS ON SAFETY**

## An Insider Look at Safety Culture

*By Maegan Mullinax, Business Development Manager, ACRT Services*

During unprecedented times, safety has been an amplified concern for us across the industry. How we dealt with crisis management became crucial while dealing with an increase of severe weather events, staffing and limited talent concerns, and a pandemic crippling our communities. We decided to check in with some utilities across the country to weigh in on these issues. In this two-part article, you will hear from Talquin Electric Cooperative (TEC), Sacramento Municipal Utility District (SMUD), Dickson Electric System (Dickson), San Miguel Power Association (SMPA), Florida Keys Electric Cooperative (FKEC), and Dyersburg Electric System (DES).

### SAFETY CHALLENGES ←

You cannot be successful in our industry without exercising safe practices daily. We asked everyone: what safety challenges has your organization faced recently?

TEC Vegetation Manager Chad Locke stated what all of us had on our minds this past year, which was the COVID-19 pandemic and the challenges it presents as related to member interaction.

Utility Forester Jason Richards (FKEC) noted that they are “Making safety a priority and developing a safety culture.”

Safety Director Doyle Totty and Elizabeth Kuhns, Assistant to the General Manager, (Dickson) said, “Every day, we balance our safety culture and best work practices with risk management to bring our employees home at the end of the day.”

Paul Enstrom, Safety and Regulatory Compliance Coordinator (SMPA), said, “Keeping safety as a core value and making safety the job, not just something we have

to do along with the job. It is a simple but powerful change in the way that you approach things. The mindset is that today we are going to work safely, and while we are working safely, we are also going to build this [insert task for the day here].”

Jake Weatherly, Electrical Engineer for DES, noted that, “The industry is constantly changing and growing when it comes to new technology and materials. We are always working to keep safety training and equipment up to the most current technology. We cannot just shut the doors and go to the house. We are providing a service that is needed more than ever, when people are now stuck at home so often. We had to find a way to keep things going.”

Darrell Daniel, Supervisor Vegetation Management-Grid Assets (SMUD), answered, “Implementing a new process that will base safety on performance management and trend analysis, while incorporating field visits into the trend analysis, as they had not been historically.”

# SAFER TOGETHER



## SAFETY IS MORE THAN JUST A NUMBER.

When we say safety is a value, it means more than spreadsheets and charts. It means coming together to ensure everyone goes home safe. From companywide training programs like Davey Performance Excellence to empowering crew level safety leadership, it means everyone has a role to play, and every day is a #safetyday.

[daveyutilitysolutions.com/safety](http://daveyutilitysolutions.com/safety)



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### **WHAT KEEPS YOU UP?**

We wanted to know, beyond the everyday worries, what keeps you up at night? It is no surprise that injury—and worse, fatalities—were at the top of everyone's list.

From FKEC, Richards stated, "The thought of an employee error resulting in an injury." For Daniel at SMUD, it was, "Contractor incidents/fatalities due to insufficient training." For TEC, Locke said, "Fear that all of our vegetation management (VM) contract crews don't have the tools and equipment to perform all jobs safely and efficiently."

At Dickson, Totty and Kuhns commented, "The extent of the danger that our staff faces every day is a tough thing to forget. Risk—oftentimes with fatal consequences—is always present and will never be completely eliminated. We can identify hazards, assess risks, try to mitigate external factors and distractions, and do our best to effectively control the hazards and risks, but when it comes down to it, one missed step, one error in judgment, or distracting thought can bring devastating consequences. We do our best to keep our employees focused and vigilant, but something can still go wrong."

Complacency was a fear for SMPA and Enstrom stressed that they're trying to overcome the axioms and beliefs like "We've always done it this way" and "Humans are creatures of habit and not all habits are good," but some old habits are extremely difficult to overcome. At DES, Weatherly wondered, "If all the information that is needed to safely complete an assigned task has been given and fully understood, then are all of the hazards recognized and accounted for?"

### **SURPRISES**

Was there anything that surprised them regarding safety? Answers often involved people, the innovation that they bring to the job, and the varying degrees of adopting a safety culture on a personal level.

Daniel (SMUD) applauded the innovation in tools in the last ten years. Similarly, Locke (TEC) said he was amazed at "the innovative equipment and technology that this industry has seen."

For FKEC, Richards commented that it was the "employees' willingness to accept change." While Enstrom (SMPA) said, "It was how some people you would have never expected would stand up for safety while others, who have every reason to be safety advocates, take repeatedly unnecessary risks." DES was surprised that "safety methods do not fit every task perfectly."

At Dickson, the surprise was, "Seeing employees embrace and 'buy-in' to safety protocols without question. I believe this reality is the result of our effort to create a value-driven safety culture where our employees are allowed to take ownership



## PRESIDENT'S MESSAGE

By Paul Hurysz

*If you see a risk that others take,  
That puts their health or life at stake,  
The question asked or things you say  
Could help them live another day.*

*—Don Merrell's  
I Could Have Saved A Life That Day*

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Greetings to my fellow UAA members out there! I hope you are all well during these unprecedented times. We have taken a lot of time to rethink, repurpose, and reenvision how the UAA will define success for itself for years to come. I am excited for our organization's maturity path and journey into the future. As we continue to share our talents with one another, develop new opportunities for added membership value, and grow our organization, the UAA will be in a stronger position to live up to its recently refreshed vision.

This May/June issue of the *Newsline* is focused on safety and I highly encourage you to read it from cover to cover. It is hopefully apparent that I, encouraged by many of you out there, have a sincere passion for safety. Many years ago, when I started my career in this industry, safety wasn't my concern but my contractors' concern. And to be honest with you, most of the contractors I worked with preferred it that way. They really didn't want me sticking my nose in their business too much. So, as an industry—outside of Occupational Safety and Health Administration (OSHA) standards—there were not many expectations around safety unless they were self-imposed. Most of us were more concerned with building a better mouse trap and doing more for less. "Safety First" might have been the motto, but it was treated as a priority which would change based on the needs and objectives of the day, week, or month.

Today, 30 years later, a lot of our ideas, ideals, priorities, and values have changed for the better, not just as an organization, but also as individuals, companies, and professionals. Now, safety is a constant 24/7 priority for us. It is a value that we put on a pedestal, much like some of the other values we hold close to our hearts, like family, faith, and friends. No longer do we allow safety to be dependent on other obligations; it's now an ingrained and never-ending focus from work to home and back again. And when we falter—as humans do—we lean on a culture of safety to help us correct complacency and eliminate drift. When organizations purposely choose to encourage open communication, it intentionally helps us reclaim our focus to align with our values—what some call "actively caring" or, simply, a culture of safety.

Two things I have learned over the years that substantially contribute to a culture of safety are: (1) leadership and (2) feedback. A couple of years ago, the UAA Safety Committee, of which I am a member, tasked ourselves with helping individuals, groups, teams, and even companies self-assess their culture of safety—culture being a challenging thing to measure. It took nearly two years of deliberations until we finally settled on what we are calling the "Creating a Culture of Safety: Self-Assessment Metric." The metric is on the UAA website ([gotouaa.org](http://gotouaa.org)) for members and non-members. Where safety is concerned, we felt that all should have access to this assessment—UAA member or not. Safety tools and ideas should not have barriers to keep people from using them.

In general, any company culture is comprised of many attributes—some of which can be largely considered best management practices (BMPs). The UAA self-assessment metric allows users to self-identify these attributes by categorizing them by color: green for industry leading, red for weaknesses, or yellow for somewhere in between. The simplicity allows you to track opportunities for improvement and maturity over time. Best of all, the results of your assessment belong to you and won't sit in someone else's database.

Half of the attributes in this assessment are associated with leadership, which

plays a significant role in developing a strong culture of safety. My favorite self-assessment questions are:

- Does leadership support and encourage open and free communication?
- Do senior leaders take credit for team successes?
- As a leader, can you make things simple or do you have to be the smartest person in the room?

We strongly believe in the value that our safety tool has to offer. I challenge you to review it, offer suggestions for how it can be improved, and give us feedback about how you have improved as individuals, teams, or companies by using this tool.

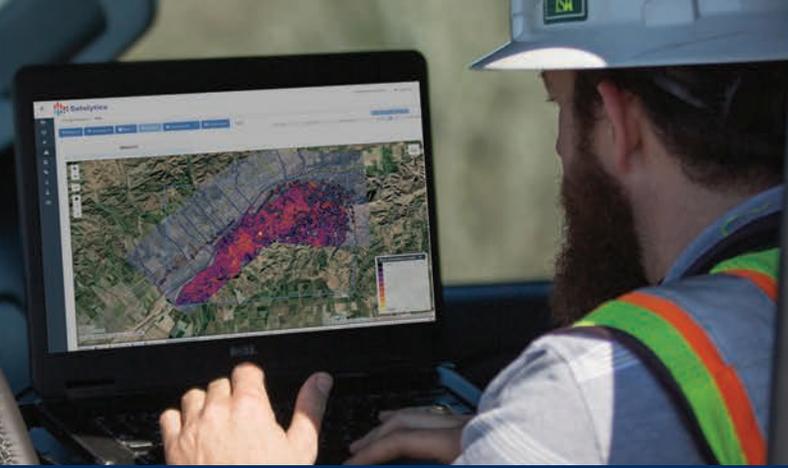
Lastly, I want to emphasize the importance of observations and feedback when creating a culture of safety. You might be the most talented individual, but if you are unable to share observations and give feedback, then that talent—meant to be shared to enlighten others—will be wasted. I strongly recommend looking up Don Merrell's poem, *I Could Have Saved A Life That Day*. It echoes my belief that feedback is a gift; you may not like what you hear or want to hear it, but it is a gift that could save a life.

The beauty of working with others is that we all have different biases, experiences, and viewpoints. Remember to never allow your biases to inhibit your judgment. Whether it is from a giving or receiving perspective, you could miss out on experiences or opportunities that could change, or even save, a life.

So, the next time you get the chance to provide feedback to someone, don't be afraid to give the gift of your knowledge and help that individual or team understand the "why" behind your words and shared experiences. Wishing you all the best!

**Take care and stay well. ■**

# INCREASE SAFETY WITH GEOSPATIAL ANALYTICS



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offer geospatial analytics to the utility industry. As the first UVM organization to provide this solution, our family of companies is able to take our safety efforts further for you than ever before while reducing program costs, prioritizing work planning, and providing in-depth system data.

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## EXECUTIVE DIRECTOR COMMENTS

By Phil Charlton

In the last quarter of 2020, the UAA made some operational changes to improve alignment and collaboration among the committees responsible for implementing our strategic plan. Leadership teams were formed and committee leaders worked together to share plans, tackle problems, and coordinate their work.

While those teams worked on the organization's current focus, others began planning for the future. A professional marketing group surveyed our membership and industry leaders. The results revealed the value that leaders place in the role and services of the UAA, the support that membership gives the mission, values, and goals of the organization, and their appreciation of the services offered by the various committees. The survey revealed that our members would like to see more—more of the same services currently offered, more outreach to both internal and external stakeholders, and more of an effort to promote the utility vegetation management (UVM) industry and the careers it provides.

First, the UAA also wants to play a role in influencing those who impact UVM, whether they are upper managers making budgeting decisions, environmental departments interacting with the right-of-way (ROW) managers, or external stakeholders influencing or influenced by UVM. We want to help drive public awareness of the essential nature of our industry, the great profession that it is, and the fulfilling careers that it offers.

The Visioning Committee, consisting of present and past UAA Officers, reviewed the vision, mission, and core value statements. A consensus was that a few tweaks were in order, but the essence of the UAA—who we are and what we do—remains unchanged. Our rejuvenated principles are as follows.

**VISION:** We will be the leading organization for those who provide professional ROW vegetation management (VM) services in North America.

**MISSION:** We will drive excellence, innovation, and improvement in ROW VM through professional development, outreach, research, and the use of best practices.

**CORE VALUES:** A culture of safety, environmental sustainability, education, and operational excellence forms the foundation of our organization.

The vision statement now includes the words “in North America” in order to articulate boundaries for the organization. We recognize the value of engaging and exchanging information with other UVM managers from around the world and we hope to continue to do so. Our friends in Australia, the U.K., South America, and beyond are important to us and we hope that we can continue to support one another.

Realistically, however, the UAA has and will continue to focus its efforts close to home.

Most of our members are based in the U.S. Our Canadian members have long been an important part of our work, and we will strive to do an even better job of including and serving our members there. North America also includes Mexico. We want to learn ways to better serve, support, and learn from workers and utilities in Mexico.

The UAA emerged from 2020 in a much stronger financial position than we anticipated. We have grown and expanded our services and outreach. The Vision Committee plans to invest in the future by adding more resources to support this growth. Therefore, the UAA is creating new positions that will give appropriate attention to our expanded

**It's important that you know about our efforts for a bigger and better future for the UAA.**

outreach efforts and increase support to the volunteer teams that are implementing the strategic plan.

This year, we plan to clarify the roles and responsibilities of the Board of Directors, the Executive Committee, and the Executive Director. We are working to update the somewhat vague and contradictory language in our bylaws. The responsibilities of the Board of Directors, who are elected by the members, will remain unchanged:

- Determine our mission and purpose
- Guide organizational planning
- Monitor our organization
- Manage our financial resources on behalf of the membership

The Executive Committee (the Officers) will be providing oversight and guidance to the Executive Director for the day-to-day operations of the organization and represent the board. The Executive Director will continue to manage all staff and day-to-day operations and implement the approved budget.

Finally, the Vision Committee proposes that the UAA make a commitment to having a greater focus on diversity and inclusion, not only within UAA operations, but throughout the industry. It was great to see these efforts in the last edition of the *Newsline*. We want to continue to be more inclu-

sive, by asking that the Nominating Committee—who creates the final slate of board candidates—to ensure that leaders reflect the diversity of race, gender, nationality, and more.

It's important that you know about our efforts for a bigger and better future for the UAA. I want to turn your attention to one final point—safety. The marketing group of the UAA asked members to prioritize the seven strategic goals as stated within the strategic plan. The number one value for the UAA, as identified by the membership, is to “create a culture of safety within the UAA and throughout the UVM profession.” The Editorial and Safety Committees have collaborated on assembling another outstanding edition of the *Newsline*, which focuses on safety as its top priority. Please take time to read it cover to cover and then commit to helping the UAA succeed in achieving this goal. ■



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and have input when safety rules are created. Workers are much more likely to follow policies and recognize the value or necessity of them when they understand the underlying reasons behind the change in policy or new safety rule/requirement.”

→ **SAFETY SUCCESSES**

Employee engagement, technology, and open communication were some common successes. What is going well? Inwardly analyzing what is working, building on those programs, and creating feedback loops have laid the foundation for safety best practices for these various utilities.

From Dickson, Totty and Kuhns said:

“Engagement is the key to a successful safety program. Our safety team is made up of representatives across each department, from the office to the field, who face different risks and experience different challenges. This variety creates a platform for the employees to connect, better understand each other’s roles and duties, and have their voices heard regarding decisions and the direction of our safety program. Creating a team of engaged staff who takes ownership of their job duties and helps create change or develop guidelines will instill trust and grow their confidence. We believe it also improves morale because they aren’t simply being told what to do or how to do their job, but they get a chance to design the plan themselves.

Another practice that’s helped determine the success and direction of our program was facilitating honest anonymous feedback from all employees every few years through an employee survey. While it may be easy to assume what kind of safety culture we have, we realized the need for a proactive way to evaluate and track the progress of our safety program. The answer to this need was to create and implement a simple open-ended safety survey which was made available to all employees. The results of this survey gave us a more accurate, holistic glimpse into our safety culture.”

For SMPA, Enstrom said their success was, “Utilizing mobile technological resources to get the right forms and information in the hands of everyone, wherever they are. There is an abundance of information, training, and tools available to keep almost any safety program updated and working. The challenges come, not from the technology, but the people. Getting the right person in the right position so they can do what they are meant to do; working with your people, getting their buy-in, and giving them the training to be successful. These things will go farther to improve your safety program than throwing money at it.”

Daniel from SMUD praised the “increase to rigging and special equipment knowledge that has grown exponentially and is being improved upon regularly.” At DES, Weatherly acclaimed, “Weekly company safety meetings, led by personnel on the front lines, allowing for open communication for safety-related issues seen in the field.” And FKEC’s safety best practice was identifying leading indicators to prevent accidents and hazard mitigation.

**SAFETY TECHNOLOGY** ←

Innovation and technology are trending everywhere and using it for safety has been increasing over time. In a year where many could work from home, our industry was considered essential with our front-line employees dispersed, working through the pandemic. We asked: what technology do you use to help promote or keep your employees safe?

SMPA’s Enstrom remarked, “We use a program for mobile forms and information resources almost exclusively and have cut printed paper significantly. Nearly all have embraced this mobility and we have achieved a greater use and compliance in areas such as job briefings, driver vehicle inspection reports (DVIR), hazard reporting, etc.” Locke stated that TEC is seeing results with the company’s vehicle monitor system.

Richards commented that FKEC is using online training videos and the use of safety application for job site observations and vehicle inspections. SMUD uses two processes: (1) a behavior-based peer-to-peer safety program named SCORCH, and (2) their current in-progress evolution which is a safety management system that works as a database and an analytic tool to predict risk which can then be targeted.

Those at Dickson commented:

“During the COVID-19 pandemic, we found ourselves having to rely more on technology and turning to virtual safety meetings and training specific to our industry. Tennessee Job Training and Safety (JT&S) is a long-running partner to Dickson, and they were able to provide up-to-date, topical job and safety training videos for our staff to watch at their workspace or in a safe, socially distant environment. JT&S created this video-based training program to help us meet our training goals and give us a virtual platform to engage our staff while in-person training was suspended during the pandemic.

Over the last decade, we’ve seen several additional technologies implemented or improved at Dickson which has benefitted our safety focus and protected our workforce: our AMI and SCADA systems enable us to receive



At Dickson, “During the COVID-19 pandemic, we found ourselves having to rely more on technology and turning to virtual safety meetings and training specific to our industry.”

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an immediate notification of outages and issues and allows us to remotely try to troubleshoot problems which otherwise would require us to roll a truck. We have things like GPS tracking and backup cameras on every truck, and we provide hands-free Bluetooth wireless headsets to those in the field who will be using a cell phone while driving.

Our new IVR system has provided improved communications and helped us focus on restoring outages when they occur where we once had a lineman receiving customer calls on a cell phone after hours. We updated our relaying system to include a hot-line tag setting that protects our linemen working on energized lines.

Improvements to FR clothing to allow sweat wicking and providing a lighter, more comfortable uniform for outside employees has made Tennessee summer days a little more manageable. By implementing improved tools like better climbing equipment for fall protection and battery-operated tools for improved ergonomics have helped us to protect our workforce from serious accidents or long-term health issues."



**In a year where many could work from home, our industry was considered essential with our front-line employees dispersed, working through the pandemic.**

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## LEADERSHIP ←

Each organization is unique. To be successful, empowering your teams to embrace safety is key. Building a culture of safety requires each employee to not only be safe on the job but to embody it constantly. We asked: what approaches to leadership do you apply to safety?

Weatherly from DES declared, "You have to practice safety from the top down. The old saying 'You have to practice what you preach' applies to leadership." Richard at FKEC agreed that safety culture is "top driven."

TEC's Locke commented, "We want to make sure that everyone knows our expectations when it comes to safe work practices. Making sure that we lead by example."

At SMUD, Daniel said, "The primary approach that all utilities need to take is to be uplifting and lead by example. With poor leadership and leading by example, the contractors have less reinforcement that safety is critical."

SMPA's Enstrom stated, "Leaders, managers, and supervisors have a pivotal role in safety. They must enforce safety and set an example for all to follow. If a leader is not on board with safety, then no matter what I do as a safety manager, I will not be successful. If leaders are not doing it, it will not take long for those they lead to fall right in behind."

At Dickson, they said it's all about "trust and respect. Their spokesperson said, "I once heard a quote that stuck with me: 'No one cares what you know until they know that you care.' I try to live by that quote, both personally and professionally. When working with employees, we care for each other and look out for one another, and we strive to be better tomorrow than we were today through working safely."

## IN CONCLUSION ←

Safety is crucial to all of us, whether we are at home, driving to work, or on the job. It is something that you have to embrace, be passionate about, and share your commitment. Others will follow. When we see something that isn't right, we need to have the courage to speak up and do something about it. Read the next issue for part two, "An Insider Look at Crisis Management." ■



Each organization is unique. To be successful, empowering your teams to embrace safety is key. Building a culture of safety takes each employee to not only be safe on the job but to embody it 24/7/365.



# ENERGY EMPOWERED

## SPOTLIGHT ON THE STORIES OF WOMEN IN UTILITY SERVICES

The utility industry is benefiting from the knowledge and expertise of the women who are joining this trade in increasing numbers. We are proud to showcase just a few of the women on the Davey Utility Solutions team who are breaking the mold and inspiring shifts in workforce demographics.

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RESPONSE



ENVIRONMENTAL  
CONSULTING



COMMUNICATION  
CONSTRUCTION

# Success for Safety

By Scott B. Konikoff, General Counsel, Xylem Tree Experts

**A**t Xylem Tree Experts, we measure our success by the safety of our employees. A safe work environment is the product of a daily commitment to the well-being of our team members. To meet this challenge, we adhere to a multidimensional program dedicated to the four pillars of our Surrounded By Safety™ platform: (1) strong policy, (2) leading technology, (3) consistent communications, and (4) quality equipment.

## STRONG POLICY

A strong policy is the cornerstone of a successful safety program. It requires a commitment to educating and training team members in safe practices, addressing both quality and environmental health and safety. Our safety culture is rooted in a behavioral approach that spotlights the importance of safe practices in every aspect of our operations. Identifying causes and consequences of incidents reinforces preventative practices among employees. This includes regularly engaging in critical assessments that gauge the effectiveness of our training policies and then reporting on those assessment results. Strong policy ensures reliability and effectiveness of safety and overall quality of operations.

## LEADING TECHNOLOGY

Investing in leading technology allows us to harness the power of a data-driven safety program. Telematics and fleet tracking are two such technologies that support our ability to manage and analyze data in the field. These tools permit our supervisors and management team to monitor and respond to events in real time. Our analytics team then uses that data to track trends that shape and reinforce our safety policies. Generating actionable data from technology promotes operational improvement based upon team key-performance indicators.

## CONSISTENT COMMUNICATIONS

To effectuate these practices, we utilize a proprietary system that enables us to remain in constant communication with our team members in the field. Consistent communications to and from a job site foster confident decision-making with the support of safety professionals. It enables a collaboration among cross-functional team members and supports a closed-loop process through reporting and reactive feedback. This is the foundation of proactive risk management.

IDENTIFYING  
CAUSES AND  
CONSEQUENCES  
OF INCIDENTS  
REINFORCES  
PREVENTATIVE  
PRACTICES  
AMONG  
EMPLOYEES.

## SAFE VEGETATION MANAGEMENT WITH ARBORMETRICS

**I**n vegetation management (VM), safe production is the product, for you, your property, and your community. Safety is an ongoing journey—a top priority addressed via proactive mitigation, continual assessment, and consistent improvement. The goal remains as conditions, work types, and locations change. And at ARBORMETRICS, our employees are integral to the process and living our motto “Our people are our power.” They are out in the field ensuring safe delivery for you every day. And we’re always working tirelessly behind the scenes to keep it that way.

At ARBORMETRICS, we stress the importance of a safety culture that is built and reinforced through deep working relationships, in-person visits, and face-to-face meetings. With a formal and consistent structure, evaluation, and communication, this proactive approach demonstrates that employee well-being is our top priority and sets an overall company tone. Moreover, it ensures that our employees embrace and own their safety, as well as that of the larger community.

We infuse the science and discipline of the Project Management Institute® (PMI) into our safety program, monitoring compliance and participation, conducting audits, analyzing metrics, following up with team members, and ensuring remediation where necessary. The ARBORMETRICS safety program features the following:

- Mandatory one-on-one meetings between new hires and the safety department
- Weekly company-wide safety calls
- Industry-standard job briefings, conducted twice daily by single-person crews to assess and ensure worksite and equipment safety
- Digital and in-person training that is tracked, verified, and documented
- Continual audits, evaluations, and training of personal protective equipment (PPE) and work equipment
- A structured monitoring and feedback loop via proprietary dashboards

At ARBORMETRICS, our mission is to improve the effectiveness of VM through safe and efficient planning, scheduling, and reporting services. And employee and customer safety drives everything we do. Learn more by contacting (866) 685-1880 or [info@arbormetrics.com](mailto:info@arbormetrics.com). ■



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## QUALITY EQUIPMENT

An investment in quality equipment promotes pride and permits team members to focus on their operations without the distraction of repairs. Deploying new or advanced equipment creates efficiencies in performance that can enhance employee satisfaction and productivity. A well-maintained fleet establishes a strong identity and brand amongst team members and the community in which they serve. Investing in the readiness and utilization of quality personal protective equipment (PPE) is critical to an employee's safe practices and overall performance.

It is said that safety is the product of operational excellence. We attribute the operational success of our company to our unwavering commitment to safety. Today's challenges require a dynamic and multifaceted approach to safety through a synergy of people, processes, and technology. Xylem Tree Experts remains in constant pursuit of advances within these pillars to ensure the safety and success of our company and industry. ■



## WHAT UNCERTAINTY LOOKS LIKE

**H**ave you ever wondered about something and rested your hand under your chin or on your cheek? That can be a sign of uncertainty. Auguste Rodin's famous statue The Thinker demonstrates this well. If you're stroking your chin, you may be evaluating a situation or making a decision.

Our gestures can reveal when we are feeling uncertain. Related expressions may include a furrowed brow, scrunched up nose or forehead, widened eyes, or gaping mouth along with tightness in the chest or stomach and tense feelings.

There are also language cues that can suggest early signs of problems or uncertainty:

- *This is an easy tree/piece of cake*—letting your guard down
- *Last job then we can call it a day*—fatigued
- *The other contractor couldn't/wouldn't do it or I need your best crew*—high risk
- *This is a high priority*—pressured
- *There's no time for that*—rushed
- *I've never seen or I'm not sure*—inexperienced

Lastly, when you think or say, "It's probably just . . .," your mind is trying to reconcile uncertainty. Press pause and ask for a peer check, such as enlisting your team members to observe and share their ideas to do the work more safely.

When it comes to ensuring safety, knowing how to recognize the signs of uncertainty in yourself and fellow teammates is critical. It can trigger open dialog and healthy conversations about eliminating risks. When risk flags are seen or heard, we encourage you to take notice of what's happening and make the risk explicit by stating, "I hear risk."

When we teach our teams how to recognize risk flags or weak signals that indicate uncertainty, they can pause, reflect, and ask for one another's help. Join us in creating safety. ■





**LEWIS**

“What I love most about being a Safety Specialist at Lewis is being able to coach my team on how to work safely and seeing what I teach being practiced.”

-Joel Orta-Acevedo

# POWERED BY PEOPLE

Joel started at Lewis in 2014 as a Groundperson. He was originally afraid of heights and working with electricity but he overcame his fears. He is celebrating his one year anniversary of being a Safety Specialist.

**At Lewis, we create safety.** Our mission is to relentlessly pursue the success of our customers and employees through our commitment to safety, service, learning, and innovation. Safety is more than a word in our mission, it is in our DNA as we translate Human Performance and Resilience Engineering theories into practical actions.

Learn more about Joel's story at  
<http://bit.ly/3qs4GPm> or scan the QR code.



# UAA SAFETY COMMITTEE UPDATE



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## From Distancing to Collaboration

By Wesley Tregilgas, Safety Manager, Wright Tree Service, and Paul Hurysz, Manager of Contractor Resources, Duke Energy

The utility vegetation management (UVM) industry has overcome much in the last 12 months. It has been able to adjust and add protocols to continue strongly. COVID-19 simply became another line added to an already long list of hazards to mitigate every day. The hazards faced in performing utility arboriculture didn't lessen because of the virus; neither has the Safety Committee's drive to promote electrical safety to the greater arboriculture industry.

This year, one of the objectives of the committee is to be able to develop more education of electrical hazards to the jobsites of everyone who performs arboriculture activities—and primarily to the residential and commercial segments through partnerships with the ISA and new initiatives.

Last year, the Safety Committee had the goal to develop subcommittees to accomplish our planned objectives and allow more contributors to designate separate time for special committee interests rather than trying to accomplish it all in the general committee meeting. In addition, the past method of meeting via conference calls has moved to Microsoft Teams video calls, for subcommittee meetings as well. This has improved the engagement and the relationships on the committee, and we can see and collaborate more despite the usual distances between us all—just one of the positive changes in the industry during the past year. The Safety Committee now has four

subcommittees that are responsible for specific areas of focus: (1) education, (2) research, (3) collaboration, and (4) safety summits. With that said, other safety topics such as the Z133 update, a new Occupational Safety and Health Administration (OSHA) Tree Care Standard on the horizon, and a new federal commercial driver's license requirement beginning in 2022 are also staples for discussion purposes.

There are at least two active safety summits in development for this year with a new way of hosting them outdoors in order to continue the valuable education to your teams and have voices from those in the field heard at these great events. This is a great opportunity for you, whether you have previously attended a summit or not, to encourage high-performing, talented workers to get engaged with experts on topics of interest and develop a deeper understanding of what a culture of safety means from a value perspective. Keep watch for upcoming announcements about the 2021 safety summits.

Another subcommittee effort is the work that the collaboration team is focused on. Plans are underway to put together public service announcements (PSAs) for the ISA and media platforms that focus on the strengths of our

industry that can be shared with the other 90-percent of the tree care industry. Some of those strengths that are valuable to share with the rest of the industry include how to work around electrical hazards, how to perform storm restoration activities, and why giving effective feedback to a tree care professional can save lives, to name a few. If you have any ideas for additional PSA topics, please reach out to our Safety Committee.

Lastly, there is always room on the Safety Committee if you are willing to share your talent with others. If you are interested in joining the committee or a subcommittee, have an idea or solution that you would like to share, or have a concern or safety

research topic that you would like the committee to approach, reach out to the UAA office, listed on the UAA website, and get connected to one of the teams. There is plenty to do and creativity abounds when we have more professionals committed to a safe UVM industry.

May the rest of your year be free from harm, abundant in opportunity, and more productive than the past.

For information about upcoming safety summits or to contact the Safety Committee, visit [gotouaa.org](http://gotouaa.org). ■

May the rest of your year be free from harm, abundant in opportunity, and more productive than the past.



## THE PERFECT STORM:

### Excess Liability Insurance for Tree Servicers Explained

By Joseph Zuffelato, Director of Underwriting Referrals, NIP Group LLC

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**L**iability insurance is coverage that protects the insured against legal liability resulting from negligence, carelessness, or a failure to act that can lead to bodily injury, property damage, personal injury, or advertising injury to others. Oftentimes, an Excess Liability policy is obtained when coverage is needed above and beyond what is offered in a primary General Liability policy.

Due to the hazardous nature of tree services for arborists and utility line clearers, it is especially important to maintain adequate coverage for business risk exposures, which are most likely to require Excess Liability coverage. Unfortunately, tree care companies and similar businesses are currently experiencing significant difficulties finding the right coverage, especially tree services located in the western U.S. Many experts predict that these trends may continue for the next few years.

#### BATTEN DOWN THE HATCHES TO PROTECT AGAINST WILDFIRES

The current hard market for tree service liability insurance coverage is primarily attributed to an overall increase in severity, frequency, and intensity of wildfires. As the National Association of Insurance Commissioners (NAIC) states, “The frequency, size, and intensity of wildfires vary significantly by year, but many of the worst years for wildfires have been in the past decade. The total acreage burned only surpassed 9-million acres twice between 1960 and 2010. Since then, acres burned has surpassed 9-million acres in 2012, 2015, and 2017.”

While most states have experienced wildfires in the past 10 years, they are most common in the western U.S., particularly California. According to a recent study by the California Department of Insurance, 2017 to early 2018 mudslides and wildfires produced \$13.8 billion in insured losses in California alone.

#### INVERSE CONDEMNATION

Inverse condemnation is a complex legal doctrine that entitles property owners to just compensation if their property is damaged by public or private utility companies (e.g., PG&E). While most insurance companies will not cover any damages due to issues that originate outside of the home on homeowner policies, if the property is located in a state where inverse condemnation laws exist, such as California, homeowners may be able to sue a government entity (i.e., certain investor-owned utility companies located in California) found responsible for their damages.

Therefore, in these instances, the utility company is liable for costs associated with wildfire damages caused by the company or its equipment, including fire suppression, property damage, and litigation. Because any tree care servicers or other similar companies that are under contract with that utility company (e.g., landscapers, underground workers) are considered agents, they may also be liable for damages if fires are traced to what those contractors did—or failed to do.

#### WHEN IT RAINS, IT POURS: HIGHER LIMITS AND RISING COSTS FOR CONTRACTORS

Due to the increasing threat of wildfires and the rising associated liability costs, most utility companies are requiring much larger limits for their tree service companies. The higher the liability limits that a tree service maintains, the more likely it will be able to secure utility company business. Furthermore, insurance companies recognize the increased risks associated with utility company business, so they are more selective in the risks that they choose to insure—limiting coverage or simply canceling policies. In fact, many reinsurance companies have specific tree work exclusions that leave many insureds entirely exposed in the event of a wildfire. When Excess General Liability coverage is offered, many insurance companies are charging exponentially higher premiums. It is not uncommon for a policy that covers only \$5 million in liability to cost over \$700,000 today, compared to \$200,000 two years ago. When considering that \$35–40 million Excess Limits are required, the insurance costs associated with these types of projects can be unsurmountable for small businesses.

#### ARE YOU CHASING RAINBOWS TO FIND THE RIGHT COVERAGE?

It is all too important for tree care companies to find excess liability coverage that adequately covers risk exposures, especially when operating in states with an increased probability of wildfires, like California. The ability to meet those limits required by utility companies while also protecting the tree service against liability costs associated with wildfire liability, property damage, and legal defense may seem extremely expensive. Tree care servicers should choose coverage for excess General Liability as well as excess automobile (large fleet) coverage, which can also be a challenge to obtain.

Tree care business owners can obtain coverage that is specifically tailored to their business’ risks, with limits stacked separately for larger exposures, such as wildfire risks. Separate forms are offered to mitigate costs of the three major areas of wildfire liability, property damages, and litigation. It is entirely possible to find coverage that can cap costs for your business to meet utility company contractually required limits at an affordable cost—well worth it for everyone’s well-being. ■

# INJURY BIAS AND HOW IT FAILS TO PROTECT US

By Wes Tregilgas, Safety Manager, Wright Tree Service

During World War II, researchers at the Center for Naval Analysis were trying to solve a critical problem where many bombers were getting shot down over Germany. Following each mission, the surviving bombers were carefully combed over and all bullet data was recorded to determine where the patterns of vulnerabilities were.

As the data was collected, one thing was clear: most of the bullet hits were in the wings and fuselage of the plane.

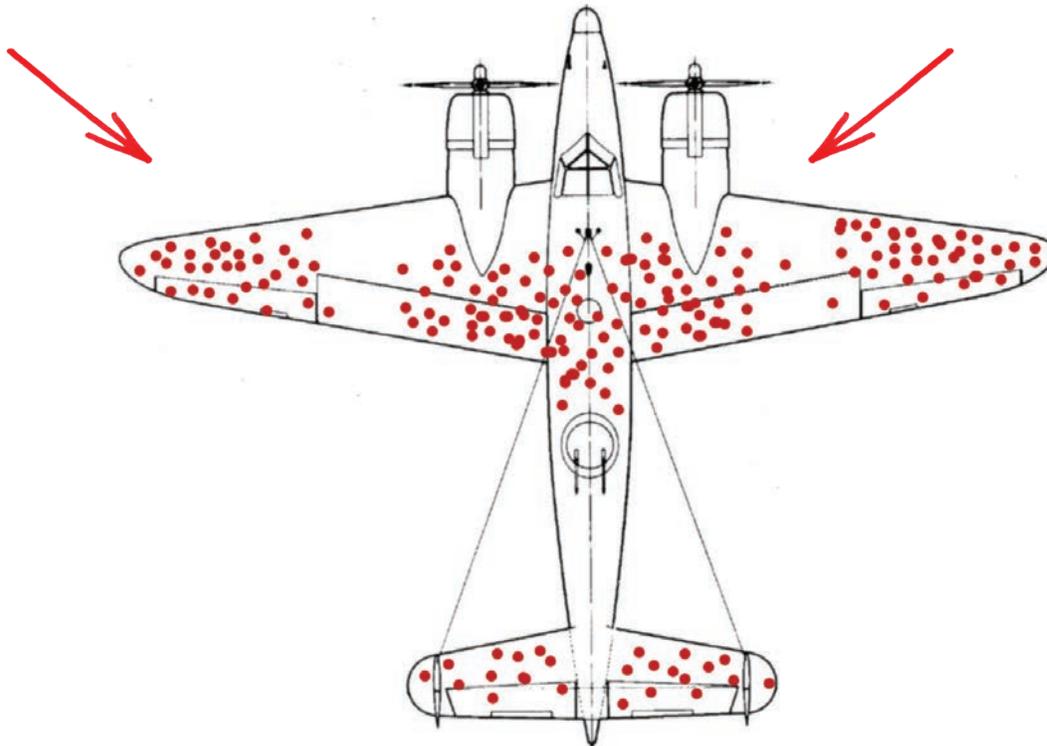
The plan was to add armor weight just to the most vulnerable parts of the plane so it could still be able to fly, yet be further protected. The trouble with this plan was that it was based on all the wrong data. A Hungarian-Jewish statistician named Abraham Wald was the one to point out the data failure.

Wald's review observed that the only data being looked at were of planes that had made it back safely. The significant data was from the areas of a bomber that could sustain the most damage and yet still survive, where researchers mapped the bullet hole data. Nearly all the surviving bombers had no damage to the cockpit, engines, and specific parts of the tail—not heavily armored but the most essential. Following Wald's review, the military began to reinforce these areas, resulting in fewer fatalities and greater success in all future bombing missions.

This story is a clear example of survivorship bias, where only the data from those who succeed is reviewed and failures are excluded. Today in the vegetation management (VM) industry, we find another commonly used faulty bias where only a few injuries have made it to the Occupational Safety and Health Administration (OSHA) recordable list

in a given year, which are reviewed with our utility customers at the close of the year. Often, someone will bring up a data interpretation like how the two OSHA recordable injuries of the previous year both occurred before noon involving foremen. Now, looking for similarities isn't a crime, but it becomes one when we build a whole plan of prevention around just two injuries without looking at the data pool they came from.

One of the two injuries was a fall from ground level on unstable and hilly terrain. The suggestion was to see why foremen were falling before noon and create a new rule or policy to prevent future injuries. The failure in this plan is that over the past year, at least 50 employees of the team lost footing and fell while working—it was just this specific foreman that had become injured to an OSHA-recordable level. I visited the area and found myself



McGeddon / CC BY-SA 4.0 Created: 12 November 2016

**X** *Creating a plan around selectively categorized injuries is a failed way to prevent subsequent injury.*

**✓** *The solution will only be as complete as the data being used.*

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stumbling or having controlled falling throughout the day while accessing the work locations. This told me that foremen weren't the cause of the falling, nor was the time of day.

Another challenge in analyzing data this way is that the foremen role only makes up 30% of all the staff that have the potential to fall and become an OSHA-recordable injury in this

particular area. This meant that the real issue was how they were falling, not who it was or when. True safety and risk reduction are not just the absence of an injury or claim, but rather the absence of the potential risk of an injury occurring.

Creating a plan around selectively categorized injuries is a failed way to prevent subsequent injury. This is

what I call injury bias. We assume to have all the necessary data for preventing damage from the claims submitted, but the solution will only be as complete as the data being used. In this particular case, formalized staff training on how to fall from ground level to prevent injury on unstable, hilly ground would reduce the risk of potential harm to all employees working in this environment. We can't remove the risk of the terrain on the jobsite, but the next layer of protection available is training and educating how to fall to avoid injury.

Understanding injury bias and how it can occur is essential to interpret safety data and create a plan. We must look at the whole story of our data pool, including the hidden information, to build effective safety mitigation plans. If we do this, we will be able to reinforce the areas where we are most vulnerable, resulting in a safer workplace for all. ■



# GREEN RUNS DEEP

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# SPOTLIGHT ON THE ENVIRONMENT

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By Sienna Malik, Manager of Content, Wildlife Habitat Council  
Wildlife Habitat Council is co-chair of the Environmental Stewardship Committee

**H**ow do we make conservation the standard? Look to occupational safety.

Given the links between environmental well-being and human health, it comes as no surprise that the history of occupational safety in the U.S. largely parallels the history of American environmentalism. Both movements arose in response to industrialization in the late 19th century. Both saw vacillating levels of support in the following decades before making strides throughout the 1960s. The Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) were established within months of each other, in December 1970 and April 1971, respectively.

Since then, workplace safety has become an unwavering tenant of doing business, whereas environmental stewardship is still often viewed as a peripheral concern. The question is now how do we make conservation the corporate standard? Here are four takeaways from occupational safety's trajectory that can inspire corporate conservation.

## 1 EXCHANGING IDEAS MAKES MAINSTREAMING POSSIBLE

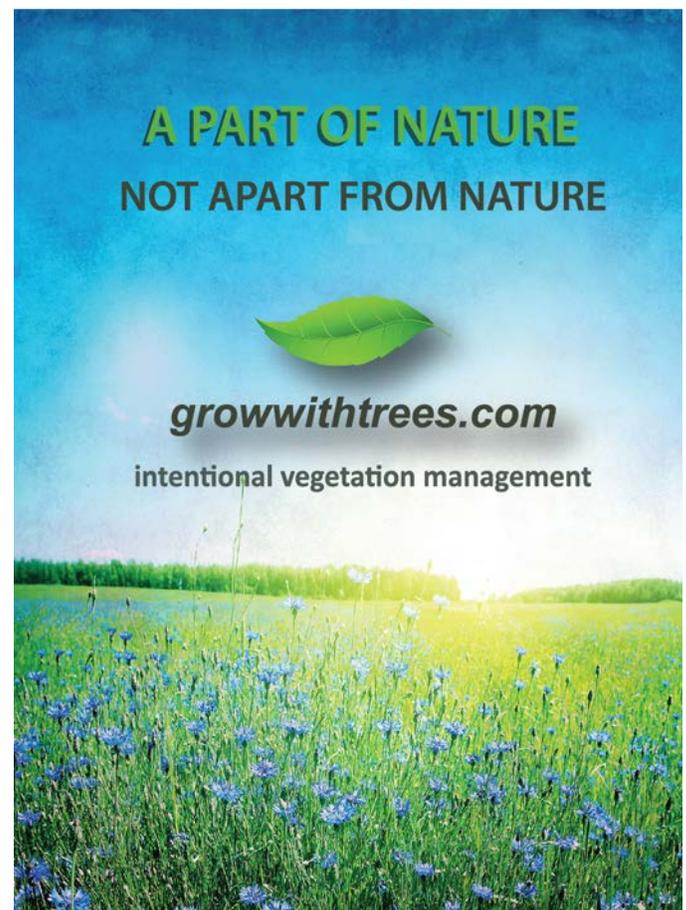
The railroad industry was one of the first to see requests for safety regulations. In 1873, Eli Janney patented a device that allowed cars to be connected without employees

needing to dangerously climb in between them. A leading trade group commended the invention but had a policy against endorsing patented technology. The patent holders waived their rights to a key design feature so that the device could become the industry standard. In 1912, when the health risks posed to workers who manufactured white phosphorus matches became well-known, the

WORKPLACE SAFETY HAS BECOME AN UNWAVERING TENANT OF DOING BUSINESS, WHEREAS ENVIRONMENTAL STEWARDSHIP IS STILL OFTEN VIEWED AS A PERIPHERAL CONCERN.

Diamond Match Company agreed to share their patented design for an alternative match formulation.

Likewise, with the adoption of integrated vegetation management (IVM) and other stewardship practices, many utility companies have committed to the sharing of concepts, recognizing that in order for sustainable development to flourish, it is crucial to approach new innovations as potential industry standards rather than opportunities for a competitive edge.



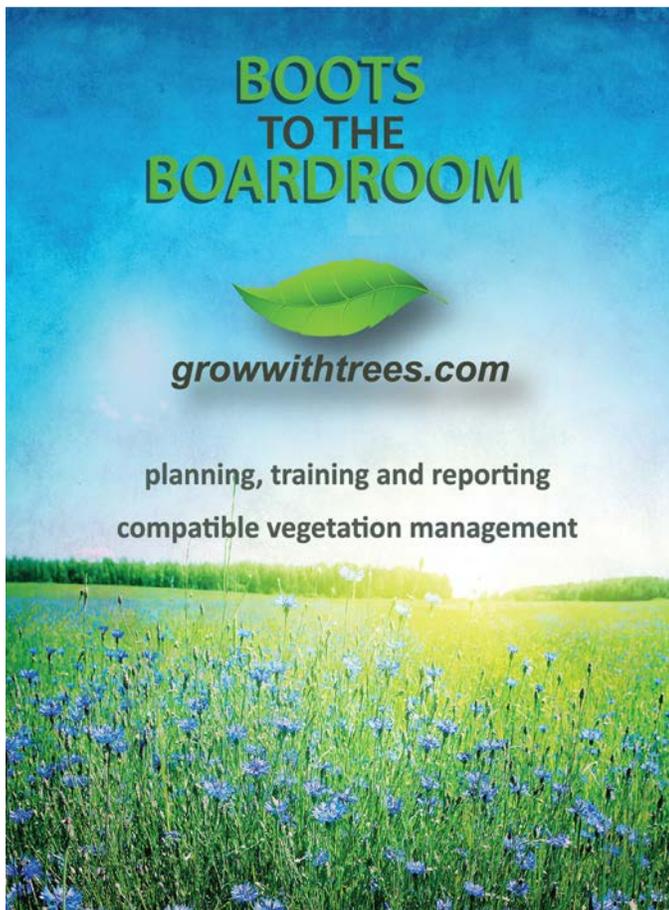
## 2 EMPLOYEE RETENTION CAN HELP DRIVE CORPORATE GOALS

Between 1913 (when the Department of Labor formed and started compiling data on workplace incidents) and with the establishment of OSHA in 1971, the rates of workplace injuries and fatalities fluctuated. During times with low employee turnover, there tended to be fewer injuries since employees were more familiar with their surroundings and the risks of their workplaces.

Similarly, corporate sustainability flourishes when companies retain the site employees performing on-the-ground conservation work, as veteran staff have a stronger relationship with the property and a greater appreciation of the wildlife it supports. This is especially true when a site's conservation work is voluntarily done by employees whose roles aren't related to sustainability. If these employees leave, there's no guarantee that their replacements will take the same interest in voluntary conservation work.

## 3 TODAY'S VOLUNTARY ACTIONS CAN SHAPE A COMPANY'S LEGACY

Though federal regulations were still decades away, by the first half of the 20th century, some operations had started enacting voluntary safety standards. Today, the companies and projects that remain (like the Golden Gate Bridge, whose engineering team mandated safety nets, hardhats, and respirators in the 1930s when regulations didn't) can boast of a long-standing commitment to employee well-being, providing inspiration for the modern-day businesses



IN THE DECADES TO COME, THE MAINSTREAMING OF CONSERVATION IS ATTAINABLE AND THE ADOPTION OF SAFETY AS A STANDARD PROVIDES A CLEAR ROADMAP FOR THE UTILITY INDUSTRY.

that aim to go above and beyond with their environmental stewardship. A hundred years from now, when corporate conservation is commonplace, these companies will likewise be recognized as early leaders and changemakers.

## 4 THE MAINSTREAMING OF CONSERVATION SHOULD BE PROACTIVE, NOT REACTIVE

Most advances in workplace safety have been prompted by large, well-known disasters, such as the 1911 Triangle Shirtwaist Factory fire or the 1967 revelation that uranium miners were disproportionately contracting lung cancer. During interim periods, there would be little action as new issues arose and less-publicized ones persisted. Identifying and acting on conservation opportunities now will generate immediate, unequivocal value for companies and the environment while also preempting future risk.

Before the establishment of OSHA, safety regulations were largely created and enforced at the state level. Rather than comply, companies would sometimes opt to move operations to a more lenient area, pulling jobs and services away from their former communities.

Conversely, many companies today are discovering the opportunities for land stewardship and community engagement that arise when they not only embrace environmental regulations but choose to go above and beyond. In the decades to come, the mainstreaming of conservation is attainable and the adoption of safety as a standard provides a clear roadmap for the utility industry. ■



**THE SHOW  
MUST GO ON...  
for Safety's Sake**

*By Lori Jones, Manager Maintenance Services, Salt River Project*

We have all heard the phrase “The show must go on.” However, its origin—speculated as P.T. Barnum, Lou Costello, guitarist Brian May from Queen, and many others—remains a mystery. One thing that is not a mystery is the Salt River Project’s (SRP) commitment to work safety, regardless of the pandemic or work conditions that have emerged since its discovery. SRP prides itself on working safely for our families, our health, and each other. From the top down, the message is clear: safety trumps production. And I take pride in knowing that my leaders and executives have my back when it comes to safe work practices and job performance.

As a Tree Line USA utility for 25 years, SRP vegetation management & maintenance (VM&M) prides itself on working safely, as well as providing annual worker training for our utility foresters, contact utility foresters, and tree crews. In addition to quarterly all-hands coordination meetings and field benchmarking sessions, VM&M and SRP’s Safety Services have hosted over three decades of annual electrical safety workshops at SRP’s PERA Conference and Training Center in Tempe, Arizona.

The Electrical Safety Workshop began as a collaborative effort between Arizona utilities. The educational forum was intended to provide safety awareness and keep tree workers and landscapers safe around overhead and underground utility lines. In the late 1990s, SRP took the workshop solo and continued the forum’s focus on safety.

In the early years, VM&M shouldered the event burden with responsibilities for all workshop logistics, including communication, registration, speaker engagement, facilities rental, food



services, public address systems, and Spanish translations. SRP’s Safety Services joined the efforts soon thereafter, and in 2016, SRP’s Event Marketing group took over planning, logistics, and promotion of the event. With the many logistics taken care of, VM&M had more time to work with Safety Services, our vegetation contractors, and other internal SRP business units to continually improve the workshop’s quality and content.

Fast-forwarding to 2020, the workshop’s target audience has expanded to include painters, scaffolding contractors, asphalt and paving contractors, and many other trades who routinely work in and around overhead and underground powerlines. If not for the cancellation of public venues to mitigate the spread of COVID-19, SRP would have hosted its 33rd annual in-person workshop on February 27th, 2021.

**THE TRADITIONAL VENUE**

The training workshop combined a conference room setting with outdoor demonstrations to keep the safety topics relevant, interesting, and applicable for the audience. The indoor conference sessions covered a variety of topics, including job briefing assessments, chainsaw safety and equipment checks, electrical step/touch potential, underground electrical hazard awareness, and Arizona 811. The outdoor demonstrations featured Hurt Man Bucket Truck Rescue, step-and-touch potential from a downed powerline on a vehicle, hazard recognition utilizing SRP’s Burn Risk Assessment Training trailer, and trench and underground safety. Historical guest attendance for the workshop has varied between 200–400 guests. Based upon current recommendations from the Center for Disease Control (CDC) as well as guidance and directives from local government to temporarily suspend large in-person gatherings, the workshop committee found itself with a whole new set of workshop objectives.

## THE VIRTUAL VENUE

Looking straight into the path of uncertainty, the workshop committee considered cancelling the 2021 workshop in favor of planning an in-person venue in 2022—thinking that the vaccinations proven to prevent infection would be available and administered, thus halting the pandemic. Instead, to preserve our safety culture, we decided that “the show must go on” and strategized the use of media that would appeal to the masses. We discussed possibilities like a drive-in theater presentation and staging presentations along a driving route for guests to drive by to experience live demonstrations.

To assure social distancing for the safety of the presenters, the committee opted to stage and record the field demonstrations that would otherwise have been delivered live. Scripts were developed, allowing narrators to describe the activities and work staged while the employees and contractors performed as actors in the video demonstrations. All the while, the committee was still marching toward the February 27, 2021 virtual workshop date.

However, the December of 2020 found Arizona amid the height of COVID-19 exposures across the globe, so SRP executives deemed January a “COVID Cooldown” month with even more stringent requirements for masking and social distancing. Video staging and production was postponed until February 2021 and the virtual workshop date was moved to late-March. When the videos are released for public consumption, participants who view each demonstration will have chances to win prizes by completing a brief quiz following each demo to assess the comprehension of each viewer.

## THE SILVER LINING

Various municipalities and private entities have requested that SRP conduct the safety workshop, or elements of it, for their workplace or business. With video presentations of the safety demonstrations recorded, taking the safety message “on the road” will be easier and even more economical than before. Additionally, the committee is looking for opportunities to put these training materials in the hands of the sole proprietors who might not otherwise know about the annual workshop. It will now be possible to digitally send the videos or put them online for individual guest viewing.

SRP continues to receive positive feedback from our Electrical Safety Workshop guests, and several guests are repeat attendees. We welcome engaged safety enthusiasts at SRP to join the workshop planning committee to assist with innovation and workshop improvement. To quote a February 2020 workshop guest, “This event just gets better every year.” ■



## WORKING TOGETHER TO TAKE SAFETY FURTHER

At ACRT and its sister companies under ACRT Services, our employees are working together day in and day out to improve our safety program, not only to ensure the well-being of our team but also to protect those we serve and help them achieve their goals.

As chair of the ACRT Safety Committee, Operations Manager Eric Morales is focused on collaborating on safety within our organization and throughout the utility vegetation management (UVM) industry.

“Safety is making an impact on the industry in a positive way,” said Morales. “Companies are coming together more and more to share and discuss safety topics and ideas. This transparency and collaboration are helping everyone strengthen their respective safety cultures.”

Morales believes that the best ways to foster this safety-focused collaboration are through his role on the ACRT Safety Committee and by actively engaging with employees to understand the challenges they face on a daily basis.

“I’m always looking for input—from field-level employees to our executive team—on how to improve our culture of safety. We take a team approach in all things. Information flows in both directions, demonstrating a high level of engagement in our culture at all levels. It has been rewarding to see their ideas put into action that will help keep us all safe,” said Morales.

While putting those ideas into action is essential to the success of the organization, Morales underscores the importance of having a genuine commitment to safety in all that we do. He said, “To have an excellent culture of safety, teams must be committed to practicing it, not just staying compliant. Our goal is to safely and efficiently get our jobs done and come home safe at the end of each day.”

Learn more about our safety philosophy at [acrt.com](http://acrt.com). ■

## Gauging Uncertainty

By Beth Lay, Director of Safety and Human Performance, Lewis Tree Service

What does it look like to relentlessly pursue the elimination of serious injuries? Among other things, it means treating incidents and close calls with serious injury potential, like fatalities, and conducting thorough investigations.

In August 2020, en route to investigate a serious incident, I recalled from *Workplace Fatalities: Failure to Predict* that “the things that kill workers are not the things with the highest perceived risk. The things that kill workers seem to be the things that are the most difficult to control.”

Over the past few years, Todd Conklin, a Senior Advisor at Los Alamos National Laboratory—one of the world’s foremost R&D laboratories in safety and human performance—has been spearheading the concept of reframing risk in terms of controllability. Although aware of this progressing concept, I hadn’t quite made the connection to vegetation management (VM).

Prior to that a-ha moment, our safety and human performance team was grappling with the high level of risk in our industry. We would repeatedly hear statements from our operations team confirming that everything we do in utility line clearance is high risk, second only to the special forces. In response, we created comprehensive risk assessments including a “See the Tree: Ground to Crown and All Around” tool which is focused on the properties and conditions of the tree. While this remains a helpful tool, in practice, we discovered two noteworthy items: (1) all trees, when evaluated, will contain some elements of risk, and (2) the assessment tool does not account for the skills and knowledge level of the saw operator.

This led us to adopt the adage “Risk is in the eye of the beholder.” As Conklin’s concept asserts, in a high-risk environment, risk may be defined as the degree to which a worker is facing uncertainty. Resilience engineers use uncertainty as a signal to pull out of “tunnel vision,” actively seek more information, and ask for others’ help.

During my trip assessing the incident, we used our GPS-based crew-locate system to show up unannounced at a job site. When we arrived, we saw an operator with his bucket fully extended aside a tall, dead tree. The tree had a large area of decay and a spot where lightning had seared the trunk. The operator had not yet begun working since the bucket could not reach the dead branches overhead.

Importantly for us, we could see clear signs of uncertainty (or “risk flags”) in the operator’s language and posture. We pressed pause to assess the situation more effectively and conducted a video risk assessment with one of our training and safety supervisors who is skilled in the risks associated with dead and decaying trees. As he began asking the crew questions, we realized that the key to assessing risk was in our ability to notice or recognize uncertainty within ourselves and others. And with that, the concept of our organization’s 10-point scale for gauging uncertainty was born: on a scale of 1–10 (1=highly certain and 10=extremely certain), how certain



**Crews must assess the risk level, using the 10-point scale, for removing a lightning-struck tree.**

are you that you can reasonably predict and control how this tree or limb will fall?

We now have the language and a human performance tool to gauge the degree of uncertainty in any given situation. Using this tool, we can ask one another, “What’s your number?” If the numbers among the team differ, it opens up a conversation about what each person notices and which of the different methods may work. At Lewis, our general forepersons are using the uncertainty gauge to let crews know when they want to be consulted (e.g., crews can call if the risk rates a five or higher). A low number in a high-risk situation may reveal a blind spot, a method that enables more control, or a higher risk tolerance that is not calibrated with where we want to be as a company.

Our working definition of risk tolerance is the level of risk a person or organization is willing to accept. Risk tolerance is not fixed. Rather, it is dependent on past experiences, context, biases, and social forces, including the culture of the workgroup.

Today, we supplement our 10-point scale with questions like, “How many trees have you walked away from?” If the answer is a low number, it raises a red flag that this crew or craftworker may have a higher risk tolerance than our organization desires. Other indicators that a crew might be at higher risk include never asking for help or input from others, having a poor relationship with their general foreperson, and using very few tools and methods (e.g., types of cuts).

We recommend asking some of these questions the next time you’re with a work group in the field. You may be surprised at the answers and conversations that arise.

**Let’s work together to create safety. ■**



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## Insights from the ACRT Pacific Safety Committee



**A** CRT Pacific Safety Committee Co-Chairs Nikki Stone and Zak Jansen share the goal of making safety in the industry an ongoing focus. Both recognize the role that safety plays in protecting our own people and helping our clients succeed.

For Stone, Assistant Operations Manager, her role on the committee has



*Nikki Stone*

more deeply involved her in safety initiatives and updating existing processes. “I use the experience I’ve gained at ACRT Pacific to think creatively with other like-minded people to develop safety initiatives,” Stone said. “The fact that my contributions help employees return home safely is a huge motivation.”

To ensure that her contributions do just that, Stone focuses on safety supporting our shifting needs and advocating that we put safety first in our daily efforts. She said, “A significant factor in the success of our safety program is having the ability to proactively accommodate the changing industry demands. We must all hold safety at the forefront of our

activities every day to avoid incidents that occur from complacency.”

Jansen—a professional services contractor and the first non-manager employee to co-chair the Safety Committee in company history—enjoys engaging employees on our safety program and discussing new ideas. “We rely on input from the field, our offices, and the organization as a whole to steer our direction. I enjoy facilitating discussions and voting on initiatives that benefit employee safety and improve performance,” Jansen said.

He also understands the impact of safety on our relationships and how people should evaluate prospective industry employers. “Without



*Zak Jansen and his family*

focusing on your safety culture, you can’t provide your important services and will eventually be replaced,” Jansen said. “It’s also critical because safety is a leading indicator of whether a company will be around in 10 years in an industry where safety is paramount.”

To learn more about our safety philosophy, visit [pacific.acrt.com](http://pacific.acrt.com). ■



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## 2020 PinE Award Recipients

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### BRONZE AWARD



# Managing Driving Hazards

By Bill Spencer, Safety Manager, CNUC

I'd venture to say that the most dangerous activity each of us perform every day is operating a motor vehicle. Driving has been present in America for more than a century. It's something that's part of our lives from the time we're placed into a child seat as a baby to when we anxiously walk into the DMV as a teenager to take the driving test. Because driving has become such a regular part of society, some dangers associated with it have become normalized.



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According to the U.S. Department of Labor, a motor vehicle crash occurs every five seconds, with someone dying every 12 minutes as a result of a crash. Can you think of another day-to-day activity that causes death and injury so frequently? Driving a vehicle is a complex task that involves dynamic situations, changing environments and conditions, and hazards of every kind. Whether you drive for work, convenience, or leisure, it's crucial to know how to manage risk when you're out on the open road.

Accepting the risk associated with this essential activity is inevitable, yet we as responsible drivers should take full consideration of the risk and not lull ourselves into a false sense of security while behind the wheel.

## ● REDUCE YOUR SPEED

This may seem obvious, but reducing speed is perhaps the most effective way to lower risk. Not only does traveling at a slower speed provide more reaction time, but it often eliminates the need for such reaction time in the first place. Even if a collision is unavoidable, less speed always means less damage done. In the long run, driving at a slower speed reduces maintenance costs, improves fuel efficiency, and extends the life of the vehicle.

On the flip side, not only is the act of speeding illegal and

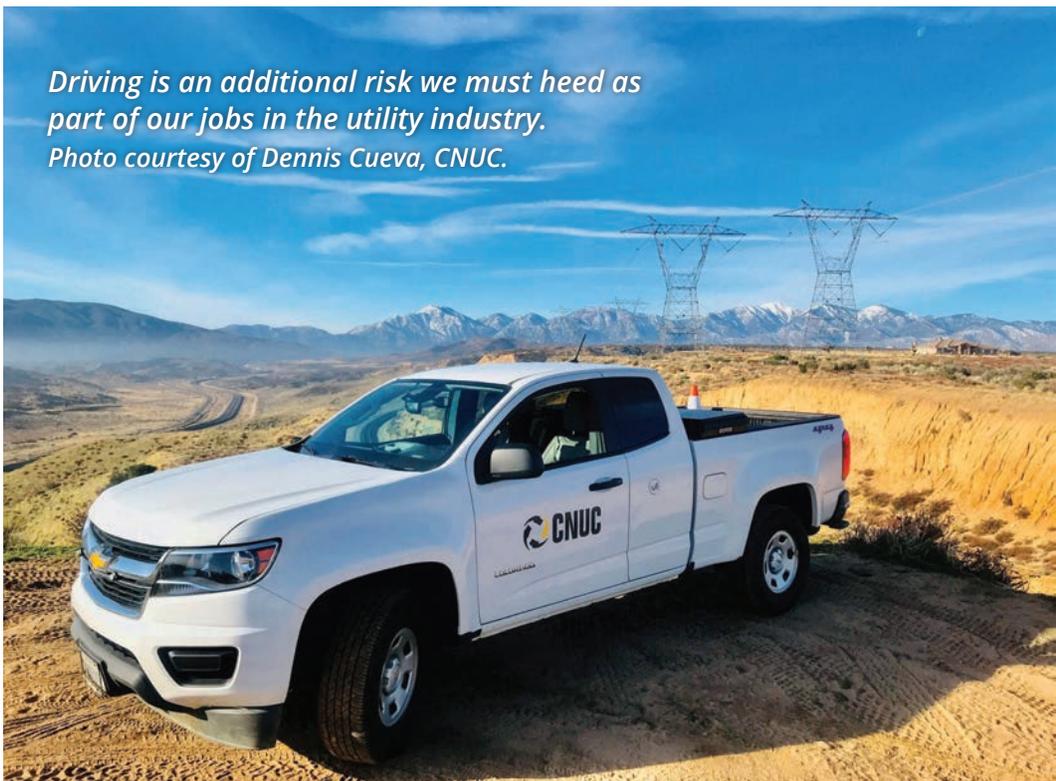
unsafe, but it also doesn't result in the time-saving measure that we expect, due to the very structure of the rules of the road. We've all witnessed someone speed past us in a hurry, only to be delayed by traffic a few minutes later—usually to our delight. The risk of even a slight increase in speed simply isn't worth the reward.

## ● AVOID DISTRACTIONS

Whether it's your cell phone, talking with passengers, or the general desire to multitask, driving while distracted is a serious safety hazard

in the modern age. With so many ways to break our focus, it's critical to keep distractions to a minimum and give our full attention to the task of driving. With respect to cell phones, the best advice here is to avoid looking at your phone and taking calls while driving altogether. Keep your phone silent and out of sight until you arrive at your destination. Take every opportunity to eliminate distractions *inside* your vehicle because many distractions will still occur *outside* your vehicle, which are seldom within your control.

*Driving is an additional risk we must heed as part of our jobs in the utility industry.*  
Photo courtesy of Dennis Cueva, CNUC.





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## ● PRACTICE BACKING UP

Backing incidents account for more than one-fourth of all vehicle-related incidents, even though backing occupies less than one percent of a driver's time behind the wheel. Driving in reverse should be avoided whenever possible. That said, backing is inevitable and practice is the only way to get better at it.

When backing is unavoidable, perform a 360-degree walk around the vehicle to identify any potential hazards. Use a passenger as a spotter when available. Make full use of mirrors and rear-vision camera systems to ensure the task is performed safely.

## ● KEEP A HEALTHY DRIVING MINDSET

Maintaining a positive headspace while driving is an often-overlooked component to minimizing exposure to hazards. Operating a motor vehicle requires coordination with fellow drivers, bicyclists, and pedestrians. It's

important to be alert, clearheaded, and empathetic with others while out on the road. As we all know, this is much easier said than done. Yes, it can be easy to get irritated when someone else commits an error in traffic, but most of us have made a mistake or two behind the wheel ourselves and tend to expect forgiveness when the shoe is on the other foot. Do your best to be polite and charitable towards others and always remember driving is a cooperative activity, not a competitive one.

The next time you get behind the wheel, keep in mind that you're not just going for a drive, you are operating a piece of heavy machinery that has the power to cause very serious harm if misused. Driving a vehicle has become ingrained in our day-to-day lives, but this doesn't mean that it's inherently free of risk. Driving is a task that can only be done safely by a commitment from everyone on the road to take the job seriously each and every time they step into a vehicle. ■

MAINTAINING A POSITIVE HEADSPACE WHILE DRIVING IS AN OFTEN-OVERLOOKED COMPONENT TO MINIMIZING EXPOSURE TO HAZARDS.



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## ► Using Incident Data as a Valuable Tool

By Hari Vasudevan, CEO, and RL Grubbs, Safety Manager, Think Power Solutions

Safety is an integral part of doing business. During the Industrial Revolution, businesses had to adapt to new ways of protecting their assets, including employees. Machines were used in large-scale manufacturing and the new sources of power to run those machines presented new hazards to employees and new challenges to the companies that employed them.

The impact of World War I and II made it clear there was not an inexhaustible supply of workers. With the passage of the Williams-Steiger Occupational Safety and Health Act in 1970, the Occupational Safety and Health Administration (OSHA) required companies to “provide a workplace free of recognized hazards.” Now, requirements such as those mandated by OSHA, Bureau of Labor Statistics (BLS), and Experience Modification Rates (EMR) require companies to paint a detailed picture of their involvement in the safety of employees.

Government-mandated regulatory requirements aside, it is good business to protect employees. According to a recent BLS report, nearly one million employees per year lose time from work due to injury. Taking into account the loss in productivity and the associated increases of insurance premiums, the financial impact of workplace injuries becomes obvious. Whether driven by regulatory compliance or financial or moral motivations, businesses are presented with the challenge of constantly improving safety programs.

The source of the most traumatic injuries is usually obvious and it’s easy to focus only on this type of event. Falls, electrical hazards, and cutting and chipping equipment are all identified as obvious hazards. They also come with rules, practices, and guards that are easily compromised.

Herbert William Heinrich introduced the accident triangle in 1936 (Figure 1). He was an assistant superintendent for an insurance company. Due to limited available data, his research consisted of company records and interviews with personnel involved in various

types of incidents. His book, *Industrial Accident Prevention: A Scientific Approach* indicated that there is one major accident to every 29 minor injuries, to three hundred non-injury incidents.

### ► THE HEINRICH ACCIDENT TRIANGLE

His results were later reproduced in 1969 with better data by Frank E. Bird of the Insurance Company of North America. As you can see in Figure 2,

there was little change in his findings. These theories have often been contested. While there will be variations among different industries and certainly across individual companies, we can make the idea work for our industry. Although the ratios and shape of the triangle for your company may vary, the concept remains the same.

### ► BIRD’S ACCIDENT TRIANGLE

Developing a company-specific triangle can provide insight into the effectiveness of various worker-safety initiatives. The easiest numbers to find are the most serious ones, such as fatalities. How much time between these incidents? Let’s say, as an example, the business suffers a fatal injury every two years. Look at the lost work days and restricted duty days in that two-year period; those

### ► COLLECTING BETTER INCIDENT DATA

While most companies that perform work in the utility industry have some form of near-miss reporting, many wildly underreport these types of events. An accident triangle that is very narrow is an indication of under-reported incidents. It may be due to the lack of importance placed on incident reporting, a fear of drawing attention to a situation or condition, a

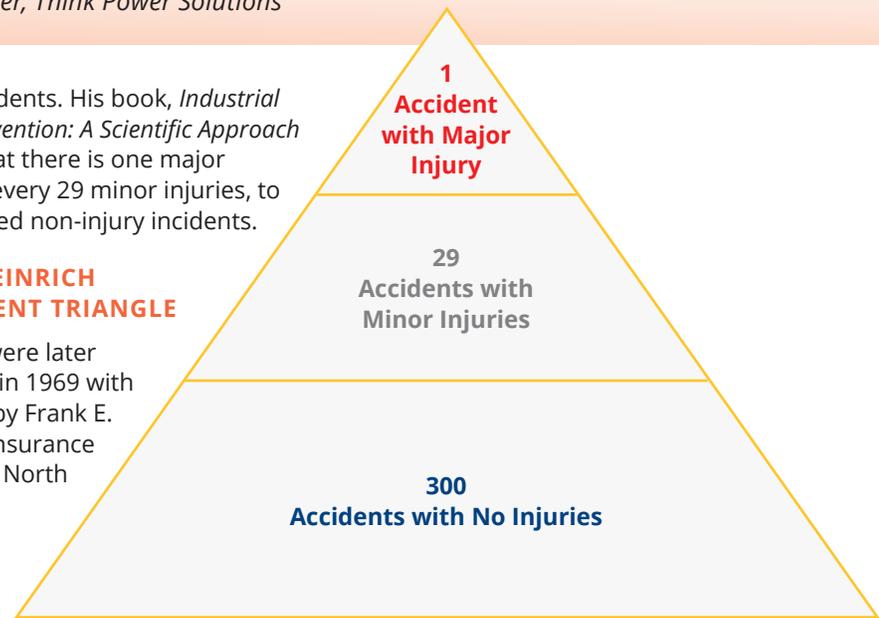


Figure 1. The Heinrich Accident Triangle

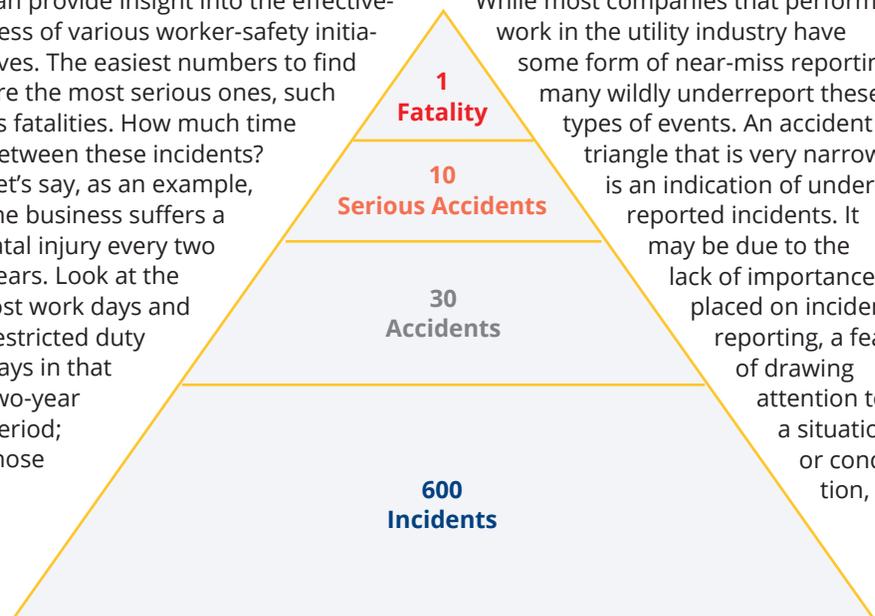


Figure 2. The Bird Triangle

production-focused mindset, or simply because it is difficult or time consuming. Think Power Solutions performs contract field services in addition to software and technology services for utilities. The goal is to improve the quality of our field services and support our employee protection efforts. We incorporate what we learn from our field efforts—including matters of employee safety—into the software products.

One way to remedy underreporting is to simplify the process for reporting near misses. Nearly every employee in the U.S. has a smartphone with a camera, the ability to text, and an internet connection. Whether you develop your own tool or use one of the many available incident-reporting apps, reporting near misses is quicker than ever and right at your fingertips. Gone are the days of reaching into the glovebox for paperwork and a disposable camera. We now track incidents or near misses in real time and the data is

processed relative to location, weather, time of day, and uses any other set of factors that may help reveal trends that can be reversed before developing into serious injuries.

▶ **ENCOURAGING MORE REPORTING**

A desire to improve safety performance should be rooted in a genuine concern for the well-being of those around us. It should not matter whether the affected person is an employee of your company, someone working for another company, or a member of the general public; the concern is for all who have the potential to be affected by the work conducted on a public utility.

▶ **A THINK POWER SOLUTIONS “SHARABLE MOMENT”**

Some time ago, our company began the process of adopting prevention techniques based on Human Performance (HP). This is greater than accident

avoidance as it includes all errors. The core principles of HP are that:

1. People are fallible, and even the best people make mistakes.
2. Situations resulting from error are predictable, manageable, and preventable.
3. Individual behavior is influenced by organizational processes and values.
4. People achieve high levels of performance largely because of the encouragement and reinforcement received from leaders, peers, and subordinates.
5. Events can be avoided by understanding the reasons that the mistakes occur and applying the lessons learned from past events or errors.

In the spirit of these principles, there has been an attempt to remove the fear or stigma of reporting undesirable occurrences in the field or blaming someone because the goal is to learn from them and ultimately

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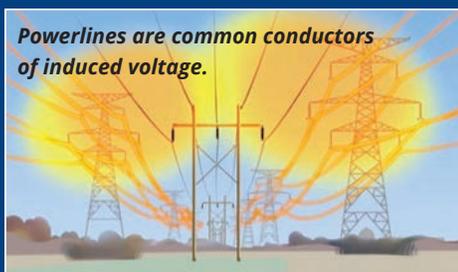
SILVER LEVEL

## The Hidden Danger of Induced Voltage



With safety as one of our core values, FirstEnergy is committed to identifying potential risks. Electrical hazards can pose a danger to line clearance arborists around the country. Knowing the voltage, operating conditions, and presence of grounds or electrical isolation equipment is essential to working safely around power lines. We must remain cognizant of lines that have been removed from service but could inadvertently be energized by induced voltage.

Induced voltage is voltage that has



been electromagnetically or electrostatically introduced onto a conductor. Unlike static voltage, induced voltage has the potential to create significant currents through conductors in a common right-of-way (ROW), which can be lethal. Induced voltage may be present when conductors are near other energized lines, like when low-voltage cables are run close to energized conductors or when conductors cross or are crossed by energized lines. Other metal objects in the ROW, like fences, streetlights, and metal structures, may also have the potential to become energized.

Certain variables can increase the risk of exposure to induced voltage. The risk is highest when:

- The nearby conductor’s operating voltage is high
- The distance between the energized and a deenergized conductor is small
- Two conductors run parallel to each other for a long distance

Workers must always remember that these conditions may be out of sight elsewhere on the circuit, even if they are not observed at the jobsite.

Remember, less than one ampere of current can stop the heart. To protect yourself and others, follow FirstEnergy’s mantra of *Stop. Look. Live*:

1. **Stop**—verify the absence of voltage on the line
2. **Look**—ensure that affected conductors are grounded or isolated from the circuit
3. **Live**—never make direct contact with conductors, for the sake of your life and the lives of others

Contact your local utility partners with questions about induced voltage. For more tips on staying safe, visit [firstenergycorp.com/publicsafety](http://firstenergycorp.com/publicsafety). ■

**safety share**  **THINK POWER SOLUTIONS** 

### MISLABELED EQUIPMENT

**Date:** December 2020  
**Summary:** A contractor was tasked with energizing a single phase pad mounted transformer to a 23 kV circuit after the transformer had been set in place. The contract workers discovered that the voltage rating on the name plate inside the transformer was different from the voltage rating on the transformer compartment door/ hood.

They stopped work and did not proceed. The compartment door/ hood was stenciled "13.2". A 13.2 kV single phase transformer is intended for 23 kV circuits. The nameplate indicated that this was a single phase 7.2 kV transformer which is intended for 12 kV circuits.

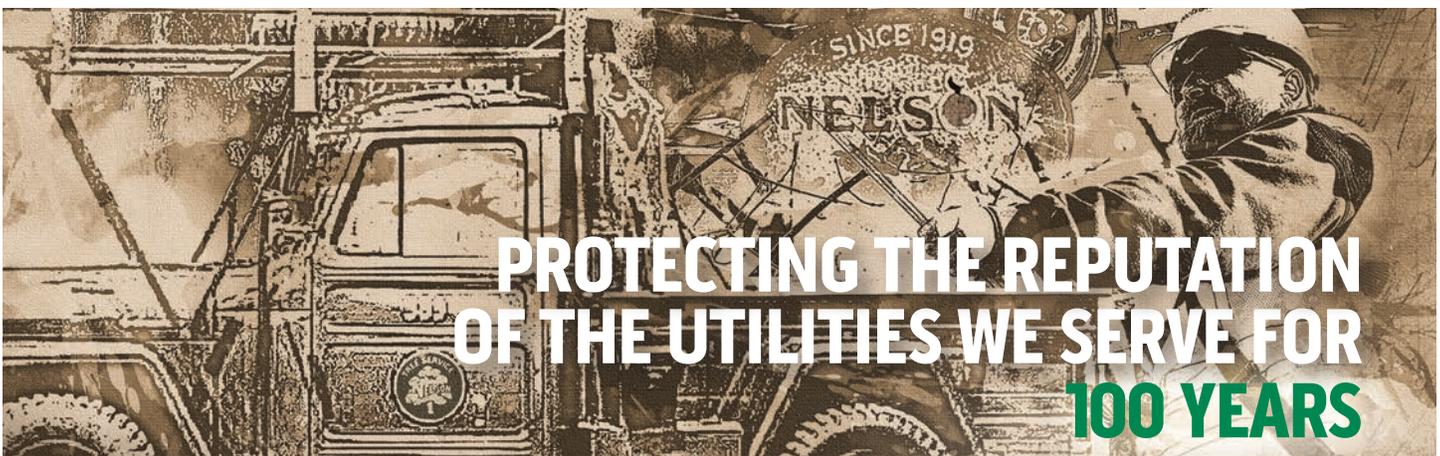
Had the 7.2 kV transformer been energized on a 23 kV circuit it would have been subjected to higher voltage than designed or rated for and catastrophic failure could have occurred.



prevent serious injury. Think Power Solutions refers to this reporting process as "sharable moments" (some companies use phrases like "near-miss incident" or "good catch"). While this includes the traditional concept of a near miss, the definition has been broadened to encourage sharing other learning opportunities with the entire organization. Even ways of improving the process can be shared. Some examples might include the time a non-functioning guard was discovered, the use of inadequate or outdated PPE, improper work area protection, or giving a lacking pre-job briefing. Incorporating events such as these can help tailor the triangle for your company and provide a more realistic number for the base of the triangle.

**▶ BEYOND REQUIREMENTS**

Companies are required to follow the OSHA 300 report, recording all reportable injuries and illnesses that occur in the workplace for the year, such as days away from work, restricted work, transfer to another job, medical treatment beyond first aid, loss of consciousness, significant injury, or illness diagnosed by a physician or death. The purpose of this report is to track any trending serious incidents at a company. In 1970, there was a limited ability to track



**IT'S PART OF OUR JOB**

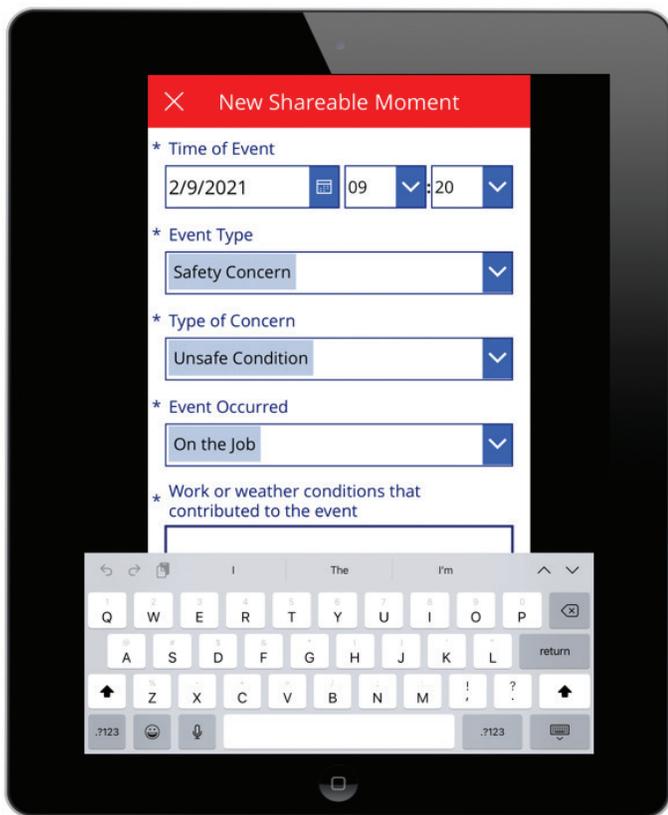
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this information, but now, with modern mobile technology and advanced data analytics, we can track useful data that exceeds the requirements on the OSHA 300. Armed with this additional data and using business intelligence software systems, advanced data processing, and even artificial intelligence (AI), we can profile and predict the next injury based on the age of the injured, time of day, type of work performed, hours worked, weather, and the nature of the injury.

In the 1980s, less serious or “almost” injuries were not given a great deal of consideration. The greatest advancement over the years has been the renewed focus on the bottom of the triangle. Working on leading indicators at the bottom began pushing the top of the triangle to longer periods between incidents. The two-year example used

earlier moved to three years between fatalities, and continued to lengthen. By taking advantage of technology and looking at records and data not simply as a regulatory obligation but as a valuable tool to make genuine improvements, it became possible to make far more informed decisions on accident avoidance. This benefits our companies, the utilities we work for, and most importantly, the individuals who go home every night injury free.

**WE CAN PROFILE AND PREDICT THE NEXT INJURY BASED ON THE AGE OF THE INJURED, TIME OF DAY, TYPE OF WORK PERFORMED, HOURS WORKED, WEATHER, AND THE NATURE OF THE INJURY.**

**AUTHOR BIOS**

**Hari Vasudevan  
Founder and CEO, Think Power Solutions**

Vasudevan advances and maintains key utility client relationships and ensures client satisfaction. He has a bachelor’s and master’s degree in civil engineering and is a registered Professional Engineer in multiple states. With over a decade in the industry, he has established, led, and managed program teams that provide all engineering, environmental, construction, O&M, asset management, and program management services and support on transmission, distribution, and substation projects across the U.S. Vasudevan led the identification, bid, capital program management, and execution of the Texas Competitive Renewable Energy Zones (CREZ) program for several utilities—a capital investment of more than \$7 billion in a two-year period. As Vice Chair and Strategic Advisor of Edison Electric Institute’s (EEI) Transmission Subject Area Committee (TSAC), he partners with other industry leaders to help shape the industry’s thinking, technology, and future.



**Rayford “RL” Grubbs  
Safety Manager, Think Power Solutions**

With more than four decades in the industry, Grubbs has seen myriad positive changes in the evolution of health and safety. In 1982, Grubbs was invited to be involved in a safety project to keep employees protected from significant injuries. He quickly realized that there was much more to safety, so he attended night school to pursue an education in Occupational Safety and Health. With a passion for improving the health and safety culture of the workplace, Grubbs is a Certified Utility Safety Professional and an OSHA Outreach Trainer. He is certified to teach OSHA 10 and OSHA 30 and enjoys standing in front of a group, discussing how to safely complete their assigned tasks. Grubbs is a life-long Texan and a decorated veteran of foreign wars. He and his wife have two children, five grandchildren, and six great grandchildren. ■



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## RIGHT-OF-WAY SAFETY TAKEN TO NEW HEIGHTS WITH GEOSPATIAL ANALYTICS

Identification and removal of vegetation in a timely manner are vexing problems for electric power utilities, gas utilities, and their contractors.

By Sean Donegan, President and CEO, Sateletics, and Troy Ross, EVP of Operations, ACRT Services

### A DAUNTING CHALLENGE

A Northern California power utility operates 28,000 miles of electric power lines in high fire-threat districts (HFTDs). Similarly, a Southern California utility operates a comparable number of lines in HFTDs. East coast power utilities operate mileage, in areas not as prone to wildfires but more prone to asset damages whenever a hurricane strikes. Power utilities across the nation spend enormous amounts of financial and staffing resources to ensure that vegetation near power lines does not create problems for the company, its customers, or the environment. Gas utility providers are concerned with gas leaks that can lead to loss of product, infrastructure failure, and—in the worst cases—explosions.

Standard practice for these utilities and their contractors is to use every available means of gathering information to direct vegetation management (VM) and leak mitigation efforts. This often means sending scouting and forestry personnel into rugged areas far from civilization to gather information, prioritize their next steps, execute all VM plans, and provide documentation of the completed actions. Utilities are using all technology available to them to help identify issues and collect actionable intelligence, including:

- Boots on the ground, used by most utilities
- LiDAR (Light Detection and Ranging) technology, used by many utilities
- Drone technology, some utilities are beginning to trial

But these merely address the data-collection piece of the puzzle. The real power lies in the timely and

accurate analysis of that data, yielding actionable alerts to off-nominal issues.

Still, in these vast areas of high fire threat and high vulnerability to weather events, individual encroachments can be present or missed during routine maintenance. That can lead—and has led—to wildfires and infrastructure destruction that threaten not only the invaluable forestland around these lines, but also lives, personal property, and the very financial viability of the utility.

### A NEW APPROACH

A new approach to surveillance of a utility's entire asset infrastructure and the directing of risk mitigation efforts has started making its way into the utilities' collective tool belt. Utilities can now partner with companies that leverage satellite imagery and geospatial analytics. These companies can then use the results of this combination to get actionable alerts that can be used to mitigate safety hazards, reduce risk, and help restore service faster after the event has happened. This article focuses on a pair of companies that have come together to develop a suite of algorithms designed to help utilities deliver safe, reliable service at the lowest possible cost.

ACRT Services and Sateletics have recently teamed to harness the power of geospatial analytics to target specific and timely mitigation efforts that will help prevent forest fires caused by vegetation encroachment on power lines, determine likely failure points across a system, and pinpoint gas leaks.

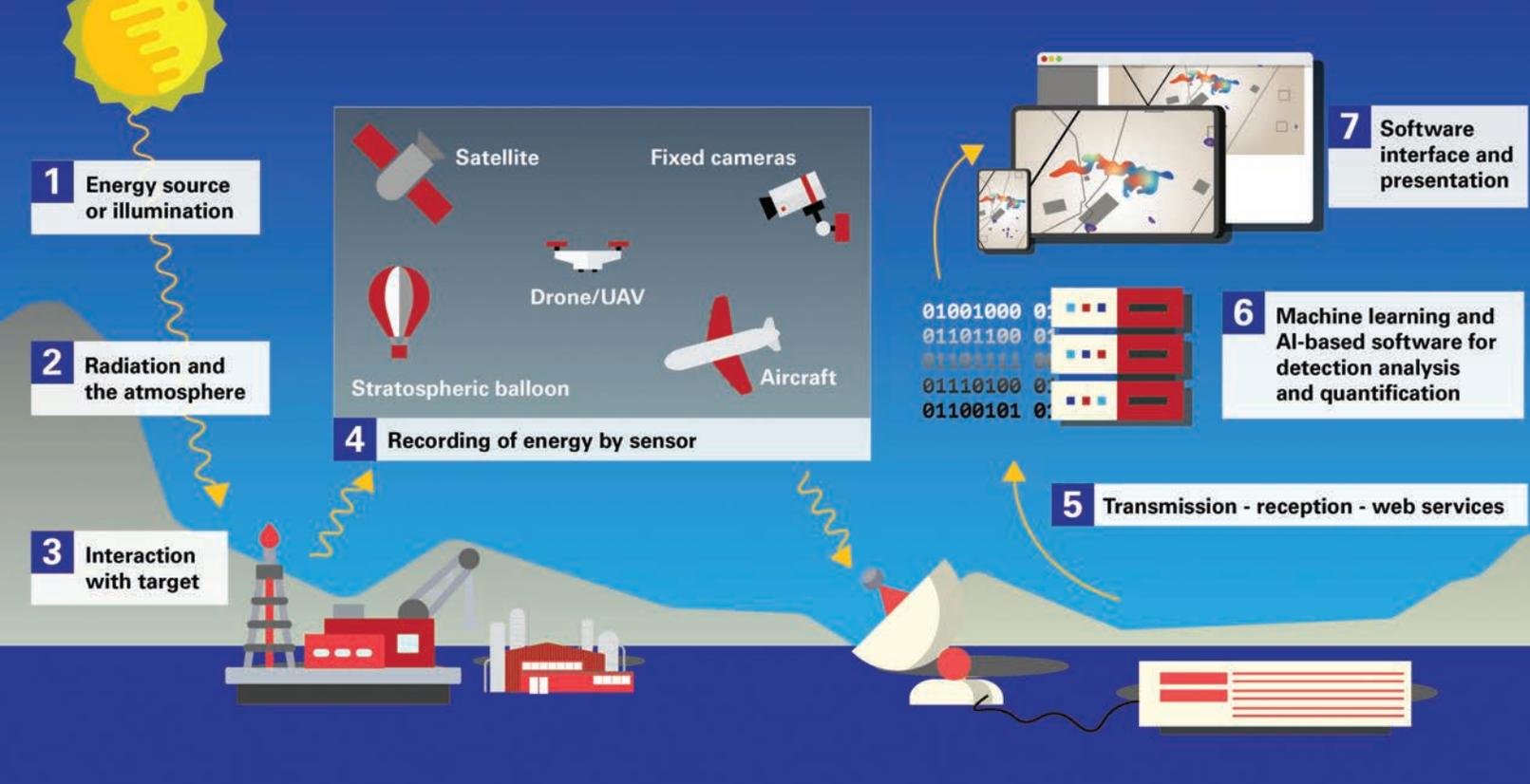
Sateletics is a software company that offers cloud-based geospatial analytics for the energy sector. Multispectral

and hyperspectral imagery is gathered from satellites, unmanned aerial vehicles (UAV), planes, stratospheric balloons, and fixed cameras, then is analyzed to provide both alerts and qualitative results for customers. The analysis interprets spectral signatures in sunlight reflected off objects, features, and gas emissions on or near the Earth's surface. These spectral signatures are like human DNA in that they provide specific information about features of interest (e.g., vegetation health, vegetation speciation, chemical constituents present in soil and water, land movements, gas emissions, encroachments on transmission corridors, etc.). Where other remote-sensing approaches essentially deliver photography and shape identification, the geospatial analytics approach allows companies to wring much more information from the imagery.

Today, more than 90% of the data is obtained from satellites because they provide the broadest areal coverage for the least cost, and at the greatest frequency. With satellites, data can be gathered daily and results can be sent to customers within hours. This timely analysis of petabytes of data is made possible by artificial intelligence (AI) algorithms and cloud computing, which afford infinite data storage and computing power.

Included in these automated results are the specific problem, location, magnitude, and detailed qualitative information.

The oil, gas, and water/wastewater markets have already employed this geospatial analytics approach. They have recently incorporated the technology as a staple of their safety and environmental programs. Oil, gas, and water/wastewater companies have been using the technology for monitoring revegetation programs after buried pipeline installation, monitoring for pipeline leaks, spotting wastewater effluent impacts to surrounding bodies of water, and identifying algal blooms that threaten freshwater intakes. Sateletics is currently focusing tremendous attention on the electric power utility industry because many of these same algorithms can be adapted for use in the electric utility, forestry, rail, mining, and specialty chemical markets.



## EARLY ADOPTERS CAPITALIZING ON NEW OPPORTUNITY

ACRT saw an opportunity to employ this technology to help the company provide extremely timely and efficient VM services to its electric utility customers. This timely information would help the utilities mitigate risk and create value for their customers. Utilities budget hundreds of millions of dollars annually for VM. Geospatial analytics wielded as a tool can effectively direct the efforts of field workers, making workers more efficient. Instead of sending crews out to look for problems, the software automatically identifies VM problems and directs field crews to specific locations, prioritizing those that need immediate attention—preventing potential disasters—keeping crews safer in the process. The software then provides automated documentation of actions taken by field crews, thus increasing the safety of utility operations, demonstrating regulatory compliance by the utilities, and reducing overall costs for the utilities.

Some of the most compelling features of the new technology are algorithms that determine tree height, measure tree health, determine the encroachment of trees and other vegetation on rights-of-way (ROW)/corridors, and even determine specific tree

speciation. The latter allows utilities and their contractors to put special focus on notoriously problematic species that result in additional risk. This information provides a powerful toolbox that increases the safety of operations for their utility customers.

These new geospatial analytics tools will help deliver value and certainty to the industry.

## GEOSPATIAL ANALYTICS ROLLOUT PLAN

ACRT is now employing the Satelytics software to provide solutions to specific pain points expressed by utilities. Some of the current uses are listed below:

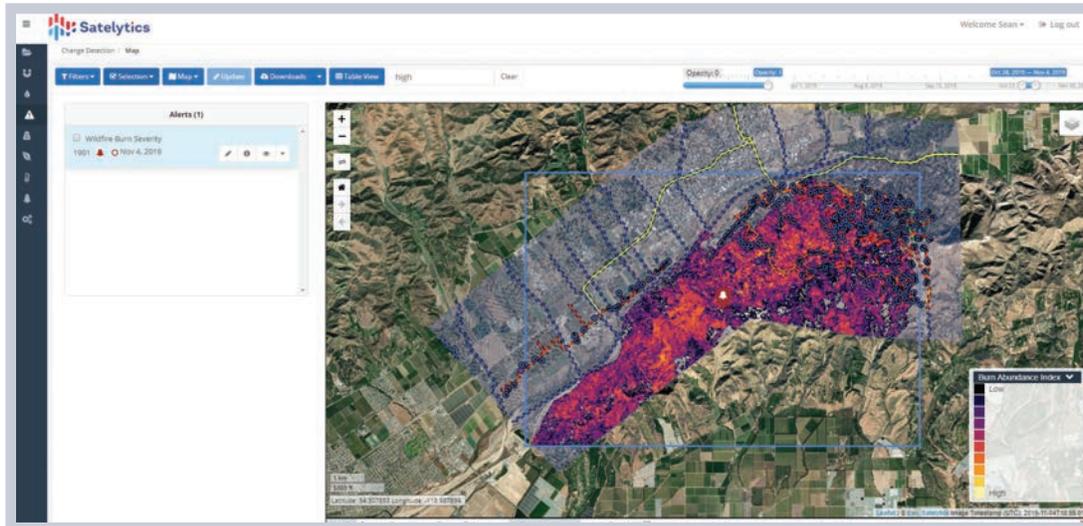
- Identifying trees to be worked (trimmed or removed to prevent encroachment on utility corridors)
- Documenting trees that have been worked
- Helping utilities to narrow their work zones
- Counting and tracking dead and dying trees
- Improving the efficacy of VM programs
- Improving the financial efficiency of VM programs

Vegetation survey tasks that would normally take weeks, months, or quarters to complete with field crews can now be accomplished in hours and

days with the assistance of algorithms. The application of this technology frees field crews to travel directly to the problem location, address the problem, and get back safely with less time spent in-field or even in harm's way. The data analysis portion is accomplished in literally just a few hours—not months of post-processing or integration. The results are delivered into the hands of the users quickly to facilitate intervention before the situation changes or disaster strikes.

## SECONDARY IMPACT AND FUTURE EXPANSION OF THE TECHNOLOGY

The consequences of wildfires (whether caused by VM or not) continue long after the fires are extinguished. A lesser-known effect of wildfires is the permanent impact that can change watershed areas. These impacts can include land movements, loss of sediment-filtering vegetation, and unwanted ash production. Ash swept into tributaries and reservoirs can feed algae responsible for the production of cyanobacteria. Officials in Oregon expect last year's unprecedented wildfires to cause turbidity problems for local utilities, as well as increased source water temperature, both of which are known causes for harmful algal blooms.



**Wildfire-impacted areas identified by Satelytics.**

After a wildfire has moved through a watershed, spring rains or snowmelt can carry uncovered soils, ash, and associated nutrients into tributaries and reservoirs, sometimes months after the disaster. Larger objects and debris are also loosened by fires and can damage reservoir infrastructure. These actions will likely drive numerous remediation projects for water managers who maintain reservoirs for recreational users and the populations reliant upon them for drinking water. Algorithms can identify point sources of sedimentation, nutrient load, and even metals, allowing for focused remediation at the earliest possible moment to combat long-term consequences. Land measurements can focus on

revegetation programs and identify subsidence around a waterbody.

**CONCLUSION**

Safety, reliability, and value are the primary drivers of the utility vegetation management (UVM) industry. Geospatial analytics are not going to solve all the industry's problems, but they can be a powerful tool that can direct rapid decisions and subsequent field efforts. With each day that goes by, more tools are being added to VM managers' tool belts. Some of these tools are even coming from space. That is out of this world—literally. ■

**SPONSOR SPOTLIGHT**



**Synchronizing with First Responders for Aerial Rescues**

At Lucas Tree Experts, one of our employees expressed a concern about the trend of fatalities in our industry due to long-response times with an aerial rescue. Due to the technical nature of many aerial rescues, arborists were succumbing to injuries that may have been survivable had the victim been reached sooner. Residential Services Manager Jon Hanisko reached out to the Portland Fire Department and began planning and coordinating a joint effort to develop standing operating procedures (SOPs) in the event of an aerial rescue.

We discovered from speaking to first responders that much of our gear and techniques overlapped with our respective industries, despite the slightly differing terminology. Additionally, the two-day collaborative training gave us the opportunity to learn one another's procedures, improve



**SILVER LEVEL**

*A training group in 2019 going over operating procedures for an aerial rescue scenario. Photo courtesy of John Hanisko from Lucas Tree.*

understanding, and reduce response time to get the arborist to the ground sooner. The result was the framework for a combined SOP that could reduce response times in aerial rescue events and save lives.

There is more work yet to be done, but this was a great first step that resulted from the recommendation and concern of one of our arborists. This exercise highlighted the importance of having a relationship with local first responders to be better prepared to handle an aerial rescue event. Not all departments have first responders trained in the type of aerial rescue that arborists may sometimes need. Communicating and training with first responders prior to needing an aerial rescue is a great opportunity to connect with the community and ensure that we can all go home safely at the end of the day. ■



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## Training for Safety

By Dale Brown, Regional Safety Supervisor, Progressive Solutions

Safety programs have evolved tremendously in the last 20 years. The days of safety being a sidebar subject to production are long gone. Overwhelmingly, utility companies and firms that provide utility vegetation management (UVM) services outline the topic of safety on the landing pages of their websites. This first-page attention shows the commitment to safety for employees, potential employees, clients, and future clients. But what is the truth behind the commitment to safety? How does that work operationally? And how do we successfully measure a successful safety program?

Established in 1972, ANSI Z133 for Arboricultural Operations—Safety Requirements provides the “shoulds” and “shalls” for arborists and their employers. Many times, the sections and subsections of the Z133 were developed following tragic events that often resulted in injuries and/or equipment damages. As safety evolved—even before Z133—many employers experienced such expenses and included remedies within their written company policies and procedures. As Z133 evolved, employers have adapted and revised their own policies to comply with its requirements.

Z133 is to be utilized as a reference and framework for the development of a corporate safety program. It is unreasonable to hand a copy of the Z133 to an employee—especially a newcomer to the industry—and call it a safety program.

Fortunately, today there are many third-party companies that can offer off-the-shelf safety policies and in-person training to reduce the kinds of incidents that have transpired in companies in the past. The expectations and goals of any safety program protect employees from harm so that when the day's work is done, they can go home in the same condition as they arrived at the start of the day. Safe employees respect themselves, property, facilities, and equipment. This respect leads to a reduction in incidents where equipment, property, or a person is harmed. All of this can be accomplished while improving efficiency and workflow productivity.

### ● EMPLOYEE TO SAFE EMPLOYEE

Even with the best policies and procedures in place—whether from a third party or in-house—implementation and follow-through can make or break a safety program. You can have pages and pages of checklists, but if the company does not follow through with repetition and assessment, the initial training becomes worthless. Supervisor and management engagement in a safety program is the top

indicator of the program's success or failure. Safety programs should not be thought of as a burden, but rather as a critical part of an efficient and productive workplace. If management views safety programs as burdensome and inefficient, then the employees will have the same attitude and views. Jocko Willink and Leif Babin, authors of *Extreme Ownership: How U.S. Navy SEALs Lead and Win*, wrote, “It is not what you preach, it is what you tolerate.” This can be the very core of a successful safety program. Management can develop and implement any number of safety policies, but if noncompliant behavior is observed, then it must be immediately corrected. Anything less will erode the engagement and success of the safety program.

### ● BELIEF IN A SYSTEM

At Progressive Solutions, the very nature of our business is quite seasonal. We provide herbicide application services for gas, electric, and municipal utilities. For most of the U.S., these applications don't occur year-round. During the time of year when vegetation is dormant, much of our equipment sits idle and is not deployed or used by our employees. We do make some dormant applications, but the majority of the work is completed during the growing season. Once the growing season starts to kick off, so do our training sessions.

Every year, about 15 percent of our workforce is new to herbicide applications, the rest being seasoned employees returning for another season. Each year, all employees—no matter how seasoned—attend a 40-hour orientation session in one of our three training centers. During a typical year, these orientation sessions are comprised of 50 to more than 100 employees. The orientation consists of hiring through the E-Verify system and company photo IDs (vetted through our facial recognition system), video demonstrations, and PowerPoint training presentations. The standard training, including the components of the safety program, takes 40 hours to complete. Documentation of completed modules has a paperwork component that is scanned and uploaded to maintain quality control over the program.



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After completing the classroom orientation, hands-on training—arguably the most important component—is conducted the following week. Many of our employees are tactile learners; tactile learners need to touch and feel how to perform a task or operate a piece of equipment to fully absorb the lesson. By providing these hands-on components, supervisors can fully observe the employee who is completing the task and correct any unsafe behavior in a safe, controlled scenario rather than on the right-of-way (ROW).

Additionally, all modules are presented in a bilingual format. We have many employees whose first language is Spanish. Even though they may understand and speak some English, providing all of our training for the weeklong orientation session in Spanish shows that the commitment to safety comes from all levels. By providing training in Spanish, we can further engage all employees and encourage an open dialogue about safety, not only during the orientation sessions but as the season progresses. Investing in bilingual training affirms that the

employee safety training is not burdensome or an afterthought. The message delivered sets the expectation that all employees need to engage in the safety program.

● COVID-19

Despite the challenges presented by COVID-19, we had a successful herbicide season in 2020. One major challenge involved our weeklong orientation sessions. There could be no wavering in our full completion for every employee. These sessions needed to be completed in their entirety, regardless of the circumstances. To keep our employees safe from the virus and to comply with state mandates, we had to make several changes to the procedures. One example is that we had to drastically trim class sizes at the training centers and keep our employees in “family pods.” These pods completed orientation together and worked together during the herbicide season. We are continuing with similar COVID-19 measures throughout 2021. We found that the family pods and smaller class sizes provided for more

intimate training and orientation sessions. Employees were speaking up more, asking more questions, offering operational experience, and had an overall higher engagement. Evaluation and consideration for using family pods is underway for future orientation sessions.

A successful safety program is not a static, never-to-be-touched set of policies and procedures. There are too many variables for a safety program to be set in stone. There could be new equipment, new techniques, or even changes to industry standards and regulations that require a safety program to be fluid. If there is an opportunity for improvement, it should be implemented to adapt to changing environments. When a safety program needs to be adjusted, the upfront investment in a training program allows for these fluid changes. When employees see management believing in a system and engaging when a component is changed or added, those changes can be incorporated while maintaining safety and efficiency in the workplace. ■

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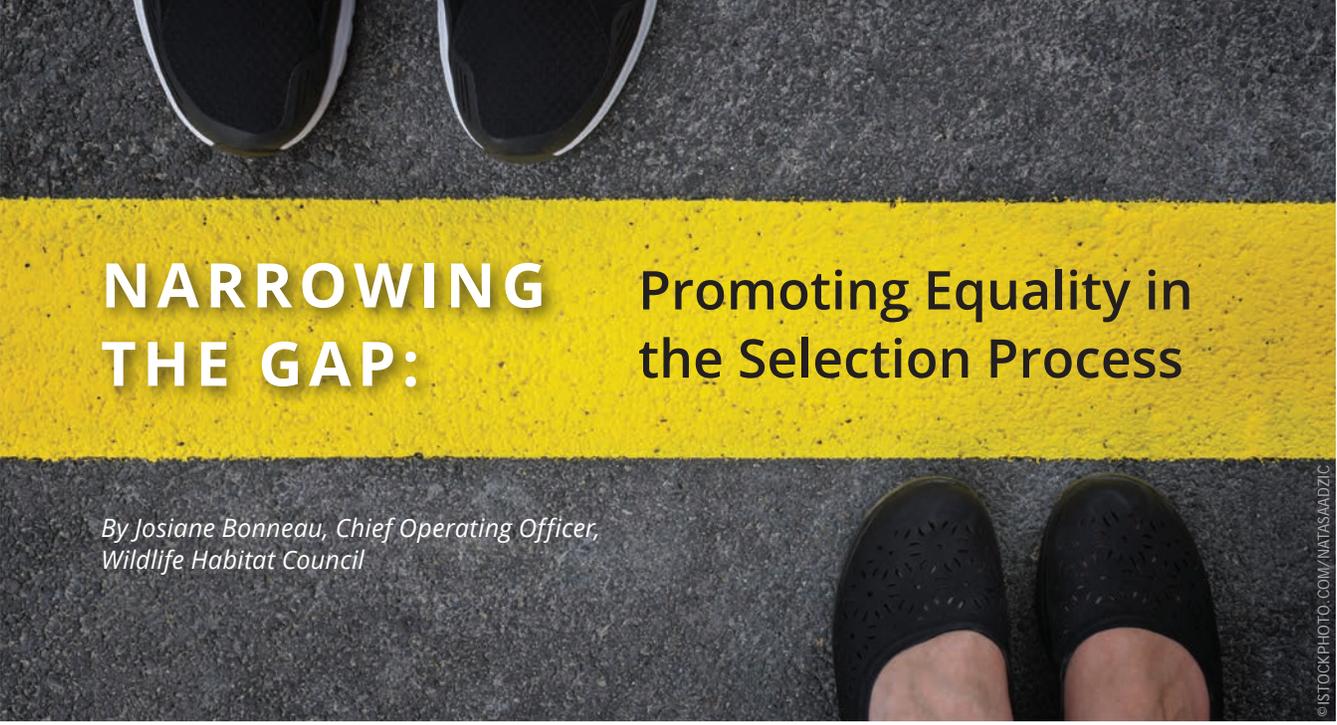
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# NARROWING THE GAP:

# Promoting Equality in the Selection Process

By Josiane Bonneau, Chief Operating Officer,  
Wildlife Habitat Council

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In the last issue of the *Newsline*, I explored strategies for attracting a more diverse pool of applicants to open positions in the utility vegetation management (UVM) field. That first installment of “Narrowing the Gap” discussed best practices for inclusive job descriptions, such as speaking to company culture and including transparent salary information. I also discussed how gendered word choices in postings can evoke bias—for example, use of the masculine-coded term “competitive” over the more neutral “motivated” may inadvertently cause female applicants to scroll past your company’s job opportunities. Inclusivity, however, doesn’t stop at the recruitment stage. Best practices extend to the selection process, which in the utility industry typically entails narrowing down the pool of applicants and conducting interviews.

## WHAT’S IN A RESUME?

A resume, of course, directly speaks to a candidate’s qualifications, but it may also hint at the applicant’s gender, ethnicity, social stature, or family structure. This between-the-lines information can trigger unconscious biases, causing hiring managers to walk into interviews with preconceived ideas about candidates. At best, this detracts from the neutrality of the hiring process, and at worst can create an early preference for the candidates who are most like the decision-maker(s).

## COMBATting UNCONSCIOUS BIAS

Everyone has demonstrated some degree of unconscious bias (also known as implicit bias) at some point. Luckily, these biases are becoming less prevalent in the workplace and there are several hiring practices that help foster diversity without adversely impacting candidates who fit a more traditional profile. Such practices not only improve company culture but can also help an organization’s bottom line. Gender-diverse companies are 15 percent more likely to have a financial performance above the industry mean.

Best hiring practices can be adopted at two levels: organizational and hiring managers/teams. Organization-driven practices have the potential for greater impact, but are also harder to enact, as hiring managers may have little influence on high-level policies. Both approaches can make meaningful changes to diversity. There are many common-practice strategies for making these changes happen.

## HIRING MANAGER-LEVEL STRATEGIES

**Blind Preselection.** Because unconscious bias is unconscious, one option is to eliminate the information that can trigger biases. It is becoming increasingly routine for such information to be redacted from resumes before they are reviewed.

HR staff sometimes manually redacts this information, but larger organizations often have online platforms that automate the task.

Names are the most commonly redacted field, as they can act as gender markers, but it’s now common to remove other information as well. Some progressive workplaces eschew start and end years for previous positions, instead aggregating an applicant’s years of experience and working with those figures. This addresses biases against candidates (overwhelmingly women) who have paused their careers to serve as caretakers.

It’s also a growing trend to present hiring managers with the degree(s) that candidates received, while hiding the institution name. Doing so eliminates biases triggered by the prestige of certain schools, as well as demographic information implied by schools that primarily serve students of a certain culture and/or gender. It also keeps managers from making snap judgments about candidates with an allegiance to their alma maters’ football rivals!

**Diverse Hiring Committees.** It's been demonstrated that when panels—not individuals—conduct interviews, candidates are more likely to be neutrally compared to one another. Conversely, one-on-one sessions can result in the judgement of individual candidates based on the interviewer's biases. For maximum impact, at least one interviewer should be a woman and committee members can be recruited from different departments to provide additional perspectives. These practices draw from the group interview format which is a proven method for combatting bias, but uncommon in North America.

**Interview Standardization.**

Following a standard protocol for interviewees helps ensure that all candidates are given equal consideration. All candidates should be asked the same questions, and the responses should be evaluated uniformly using a scorecard or other selection tool. Having candidates complete a skills test or sample project adds an extra layer of standardization. It's even been suggested that small talk be standardized to neutral topics or be eliminated altogether—a candidate's preference for springtime

weather isn't likely to sway a decision but, again, their love of a sports rival could.

**ORGANIZATION-LEVEL STRATEGIES**

**Unconscious Bias Training.** This type of training has recently become popular, especially in large corporations. However, the effectiveness varies greatly, success being highly dependent on participants' interest level in addressing their biases, which can be an uncomfortable experience. Companies who are considering this strategy should carefully research best practices and be aware of the potential for unintended outcomes.

**Diversity Targets.** While it is not always possible to sway top-level policy, leadership being onboard and setting targets for applicant diversity can be impactful. This entails setting expectations that a candidate pool reaches a certain level of diversity before the job opening is closed. If at the end of a posting period the threshold isn't reached, the job gets reposted until the minimum representation is met. The U.S. mining industry provides a successful example of this. Over a decade ago,

industry leaders became early adopters of such practices by setting gender quotas for job openings. The commitment from the top was taken seriously and resulted in concerted efforts from HR and talent acquisition departments to build networks that reached more women. Because of support from leadership and HR, the thresholds were soon recognized not as an obstacle to hiring, but as a tool to broaden the strength of local teams.

**CHOOSING THE RIGHT STRATEGIES**

There are many approaches to increasing workplace diversity. I am optimistically inclined to suggest adopting as many of them as possible. While these practices are relatively new and impact metrics are not yet quantified, theoretical and applied research from HR and DE&I (diversity, equity, and inclusion) continues to help us, as managers, achieve our objectives. Tactics to encourage more women to join non-traditional environments frequently emerge, each strategy forwarding the goal of hiring and recognizing women in arboriculture. ■

**North American Training Solutions Promotes Karen Hauck to Chief Operating Officer**

**SPONSOR SPOTLIGHT**

**SILVER LEVEL**

North American Training Solutions (NATS) is pleased to announce the promotion of Karen Hauck to Chief Operating Officer. In her new role, Hauck provides strategic vision, leadership, and operational oversight in directing NATS business strategies to ensure that operational processes are in place for the efficient delivery of services to clients. She will also lead the daily operations in alignment with the NATS mission, in accordance with its strategic plan. As Chief Operating Officer, Hauck will also oversee the NATS site safety, marketing, and human resources departments.

Hauck joined NATS in 2016 as an Open Enrollment Coordinator, managing all of the company's open enrollment training, and then promoted to Director of Marketing and Partner Relations in 2018. She has 17 years of supervisory, leadership, and operational management experience in the green industry, in both government and non-profit sectors. Hauck holds a bachelor's degree in anthropology and a master's in sociology, both from Auburn University.

"Karen's strong business acumen, strategic thinking, and decision-making skills, along with her communication and leadership style, have thoroughly prepared her to fulfill this role," said NATS Chief Executive Officer Ed Carpenter.

The Chief Operating Officer role is part of a recently developed NATS Executive Team that also includes the Chief Executive Officer and Chief Financial Officer. The three-member team will work closely with the NATS Advisory Board and Leadership Team to continuously develop and implement a strategic plan that ensures that all operations are in alignment with the organization's mission, vision, values, and purpose.

When asked what Hauck enjoys most about her work with NATS and the arboriculture industry, she said, "Our industry is full of passionate, committed, inspiring individuals who constantly provide support and encouragement to their peers. I am honored to be part of this community and part of an effort to move our industry forward." ■



*Karen Hauck*



## PUC Services Interview on Safety and the Formation of 17 Trees

Chris Kelly from Clearion met with Rob Brewer from PUC Services, Inc. to discuss current dynamics of the utility industry, safety in vegetation management (VM), and the formation of a joint-utility venture, 17 Trees.

**KELLY.** I'm here with President and CEO Rob Brewer of PUC in Sault Ste. Marie, Ontario, talking about safety in their VM. Rob, to kick things off, tell us a bit about your current role and your work experience in VM.

**BREWER.** I'm president and CEO of the PUC group of companies, which includes PUC Services, PUC Distribution, and PUC Commission. We're an electric and water utility in northeastern Ontario. Prior to this role, I was heavily involved in VM. For almost two decades, I was president of Wilderness Environmental Services, a company that performs line clearance services and herbicide spraying on railroads and utility rights-of-ways (ROW). In addition to my leadership role, I am an ISA Certified Arborist and Certified Utility Arborist through the Ontario trades program. I'm a tradesperson as well as a management employee.

**KELLY.** You've spent the bulk of your career in Ontario. For readers outside of Canada who might not be familiar with your approach, tell us what the training and certification looks like north of the border.

**BREWER.** Approximately 15–16 years ago, there was loose criteria governing utility line clearance in Ontario. Individuals could become ISA Certified Utility Specialists through the ISA and join the UAA, however, there wasn't a provincial governing body for contractors. Certification for other trades, such as electricians and plumbers, was already established and our utilities were asking for a similar stamp which recognized that each person on a line crew is appropriately certified to do the work. As one of the founders of the Ontario Certified Utility Arborist program, we went to our provincial government to leverage the traditional trades' training infrastructures to develop a fully certified trade for utility arborists.

In short, we created a new trade for utility arborists. It's a three-year trade, meaning it requires three years of apprenticeship. For each company-sponsored apprentice, the employer is responsible for training. However, apprentices also attend classroom-based training through government-approved programs at community colleges and trade

schools, conducted in two 12-week sessions, amounting to 24 weeks (about 6,000 hours) of in-school training as part of that three-year apprenticeship program.

It's quite involved. We believe that our program is best-in-class across North America in terms of the rigorous requirements for utility arborists and how they're trained. Given the hazardous work that utility arborists conduct, we think it's the right approach. It's difficult to engineer a tree; we can engineer a pole and it's the same every time, but trees don't follow that same pattern.

**KELLY.** Is this program specific to Ontario or has it spread beyond the province?

**BREWER.** We see different approaches across Canada but, in general, the Ontario model has been accepted by other provinces. British Columbia has a similar format but is a 4,000-hour, two-year program. Alberta also has an industry-led program. In other words, the qualifications for a certified utility arborist in Ontario are very consistent with those across the country.

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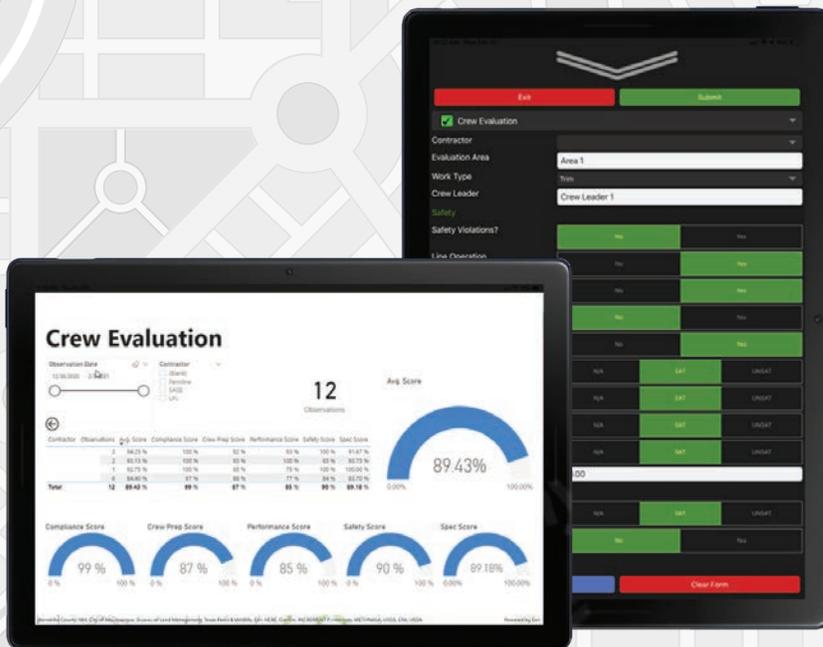
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**KELLY.** Speaking of launching new initiatives to meet industry challenges, let's shift gears and talk about 17 Trees. Why was it formed and what were some of the challenges that the industry faced at the time?

**BREWER.** One of the biggest challenges in traditional arboricultural work for utilities is the ability to retain key staff for the long term. That was the guiding principle when we created 17 Trees: to minimize the constant turnover of staff.

Through 17 Trees, a utility line clearance joint venture between PUC and two other utilities, we created an environment where we could provide stability for the staff. By joining forces, we established year-round work (versus seasonal). Together, we ensured that our wages were competitive and that we offered a strong benefits program including retirement plans. In short, we created a "destination" employer, and the result has borne fruit of seeing less turnover compared to traditional contractors.

Again, utility line clearance is a very hazardous environment and represents one of the highest-risk activities that we undertake as a utility. From a safety perspective, we cannot afford to have new people doing the work all the time; that model does not work for our immediate and long-term goals of being incident-free. From a consistency standpoint, we now have the same crew members performing work, acting much like our own staff if we hired internal VM crews, but we're still gaining the advantages of having a contracting entity where we can fluctuate work volumes and use the other utilities to balance things out. It's been extremely effective for all three utilities involved and has met our initial goals for achieving a safe workplace with a reliable work force. In the past 18 months since the company was formed, we have not had any major high-risk incidents. It's been fantastic.

**KELLY.** That's fantastic for sure. What role do you feel that leadership plays and how does that flow down to the frontline worker?

**BREWER.** As a board member, I certainly act as a field liaison because of my background. In terms of leadership and safety, one of my key tenets is that leadership must be present. You can't lead from your office. You have to put on the high visibility gear, boots, hard hat, and safety glasses and go out and show that you care about your staff. Importantly, you're in the field to be supportive and not to do an audit. If you see something, obviously point it out, but the real intent is to inquire if they have everything that they need to do the job safely. Have they thought about everything they need to do so? It's critical to support a safety culture from the top.

**KELLY.** That makes a lot of sense. Let's talk about the role you see technology playing when it comes to worker safety within the electric system that your organization manages.

**BREWER.** Since the pandemic hit, being front and center with crews is difficult. We've set up pods of workers to ensure continuity and consistency of labor. With limited exposure among crews, we retained the ability to conduct work even if we had a positive test within the company. With that, there have been a lot of changes that technology has supported. We can now do a number of things remotely,

including job plan audits and incident reports. We've adopted the Clearion software platform that allows us not only to dispatch work to the crews but also enables them to provide feedback to us when jobs are completed. Technology is minimizing the in-person contact we used to need.

Today, when we have leadership in the field, we maintain social distancing, yet we're able to review the data electronically and have relevant conversations. We don't have to pass paper-based job plans back and forth. While the pandemic forced us to migrate quickly, Clearion made it simple. It was the direction we were all headed regardless; the pandemic simply accelerated the process.

**KELLY.** It's incredible to think that last year, the notion that a virus could be a safety topic for utility vegetation management (UVM) was not on most people's radar. I do agree that, with the pandemic, there's been a real acceleration toward digital communication, adoption of technology, and going paperless. Post-pandemic, those process improvements are going to stick around.

If you look into your post-COVID crystal ball, is there something that you or your organization thinks about for long-term risk management that we should all consider addressing? Are there opportunities to be better prepared for future crises or trends?

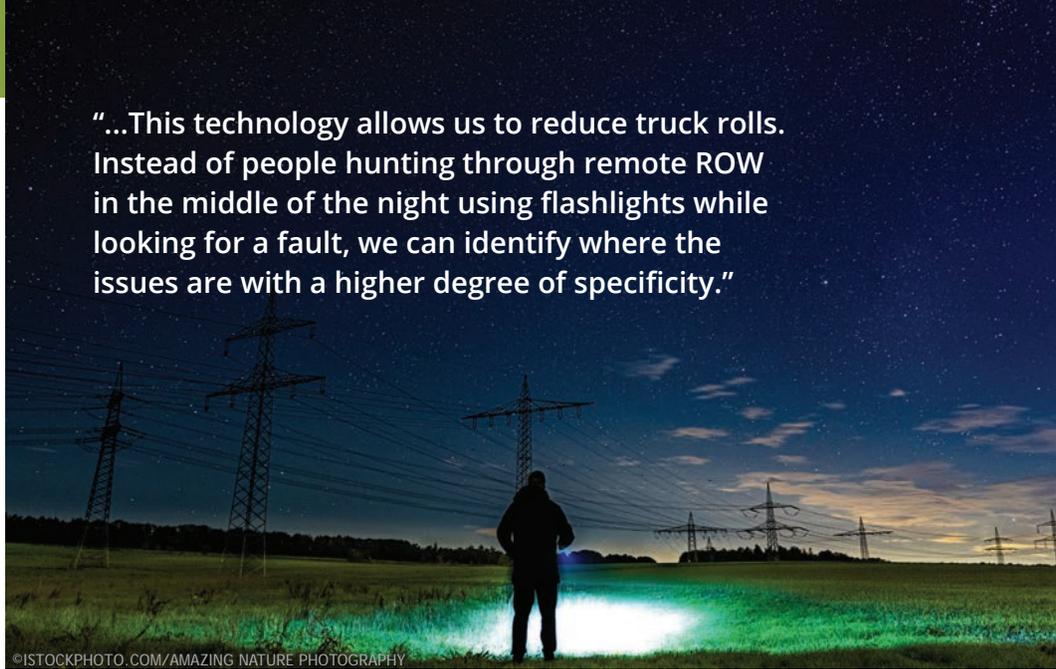
**BREWER.** Now there's a loaded question! There are a number of things that technology is opening up for us from unmanned aerial vehicles to a smarter grid. We're currently in the process of going through a regulatory application for a community-wide smart grid. That smart grid will allow us to isolate faults automatically and provide restoration to an estimated 90 percent of the people who would traditionally be affected by an outage. We can isolate faults much more narrowly through distribution automation. Not only do we have fewer properties with outages but also greater feedback about where we're seeing issues—not just per feeder but the

"SINCE THE PANDEMIC HIT, BEING FRONT AND CENTER WITH CREWS IS DIFFICULT. WE'VE SET UP PODS OF WORKERS TO ENSURE CONTINUITY AND CONSISTENCY OF LABOR."

specific infrastructure. Whether it's a tree issue or some sort of electrical infrastructure issue, we can target it. This allows us to target restoration services and/or preventative maintenance programs to those areas more effectively. At the end of the day, this really gives us a stronger relationship with our customers because we've proactively and significantly reduced the number of potential outages.

From a safety perspective, this technology also allows us to reduce truck rolls. Instead of people hunting through remote ROW in the middle of the night using flashlights while looking for a fault, we can identify where the issues are with a higher degree of specificity. The end result is that the safety of our workers has vastly improved.

Another example of how we're applying technology differently is the way we manage work. As we integrate technology into our work planning and work management, we once again can get much more specific about where and how work



**"...This technology allows us to reduce truck rolls. Instead of people hunting through remote ROW in the middle of the night using flashlights while looking for a fault, we can identify where the issues are with a higher degree of specificity."**

is happening, and whether there are better ways to manage it. For example, we may look at a tree crew who is trimming the same tree every couple of years and can determine a better course of action, hand-in-hand with the property owner. Perhaps we can remove the tree and replace it with another tree in a more favorable position that isn't under the utility line. This would

eliminate the need for our crews to enter the property every two years, thus reducing the homeowner's stress level.

In short, as we get more and more data from our work management process, it allows us to look for ways that we can be more efficient and provide a safer environment for our crews moving forward. ■

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Our world is filled with "smart" devices and products. There are smartphones, smart watches, smart vehicles, smart appliances, smart lights, and even smart toilets. Has our reliance on smart technology improved safety on the job? Can technology replace good decision-making and safe driving behaviors when behind the wheel?

Driving is one of the most dangerous aspects of our jobs. ECI employees drive over 7 million miles a year. Employees are exposed to many hazards while driving. Staying focused, aware, and driving safely can be a challenge with all the distractions in life.

Employees that demonstrate safe driving behaviors deserve to be recognized. ECI is in the

process of launching a new recognition and rewards program called "Drive Smart."

ECI's Drive Smart Rewards Program will encourage employees to drive safely, which will lower safety-related expenses, reduce the number of vehicle accidents and violations, and improve the overall safety culture of the company.

Employees are able to earn points based on five metrics and redeem their points for catalog merchandise.

We anticipate a 20 percent reduction of motor vehicle-related incidents with the implementation of a well-planned and organized safe driver program. ECI is empowering employees to "drive smart." ■

# SUCCESSFUL SAFETY CULTURE: Leadership, Extreme Ownership, and Continual Improvement

By Bud Branham, Director of Safety Programs, NRECA, and  
Amy Murray, Project Developer, Davey Resource Group

Achieving a culture of safety is the highest value in virtually every sector of the energy and utility industry. We evaluate our safety culture using both leading and lagging indicators. With all the safety jargon, acronyms, statistics, analysis, procedure compliance, and communication, we can easily lose sight of our organizational and industry culture. We may—as the saying goes—not be able to see the forest for the trees.

In this article, we present our perspective based on many decades of experience regarding the following:

- Obstacles that leaders face when promoting successful safety culture
- Leadership characteristic evaluation
- Metrics associated with successful safety culture
- Continual improvement of our teams' and our industry's safety culture, via actively contributing members of an organization or through a change agent

## Leading with Safety

In *The Dichotomy of Leadership*, authors Jocko Willink and Leif Babin wrote "...it is a combat leader's duty to care about his troops more than anything else in the world—and yet, at the same time, a leader must accomplish the mission."

As leaders, most of us completely agree with this philosophy. We visit many utility leaders who are very sincere and well intentioned about the safety of their employees. However, their employees sometimes see it much differently, saying things like "The leaders around here only give lip service to safety."

## Breaking Down the Dichotomy to Identify Obstacles

What causes this wide gap in perception, and how do leaders create a safety culture to bridge this gap? First, we need to recognize the obstacles, then we can begin to tackle them.

### ● Distractions

Most leaders tend to allocate their time based on urgent priorities and tasks aligned with their overall mission. However, they are constantly hit with outside distractions that divert their attention from what is most important.

This is when time allocated to safety begins to take a backseat. Safety always seems deferrable.

### ● Delegating Responsibility

If leaders are asked what their top priority at their utility is, the answer is almost always the same: safety. Yet some senior leaders may fully delegate the responsibility of safety to another subordinate leader. In their eyes, this seems like a prudent way of working, which affords them time to address other tasks in areas that they feel are mission critical. They also may not feel completely competent in safety, so delegating the responsibility feels safer.

Despite the different thought processes, where and how we invest our time is always viewed by employees as what we care about most. If we delegate the responsibility of safety, regardless of our intention, then safety performance and the associated safety culture supporting it will weaken.

### ● Blind Spots

Most organizations have blind spots in safety practices, with shortcuts occurring regularly that increase the risk of injury. If such actions are not identified and counter measures aren't deployed, incidents will continue and the

Scan this QR code to download the safety metric spreadsheet to assess your safety culture.



likelihood of serious incidents grows.

To identify blind spots, leaders must be involved and employees must be willing to speak up. This requires employees to trust their leaders. To develop this trust, a connection between employees and leaders is crucial.

## Create a Culture of Safety

How do leaders demonstrate care and help control the risks our employees face each day? We must find ways to be present in safety conversations and set safety expectations in a sincere way.

If we really care about the safety of our people, we must invest the personal time and effort necessary to create a culture of safety, just as we do for the other critical performing areas of our organization.

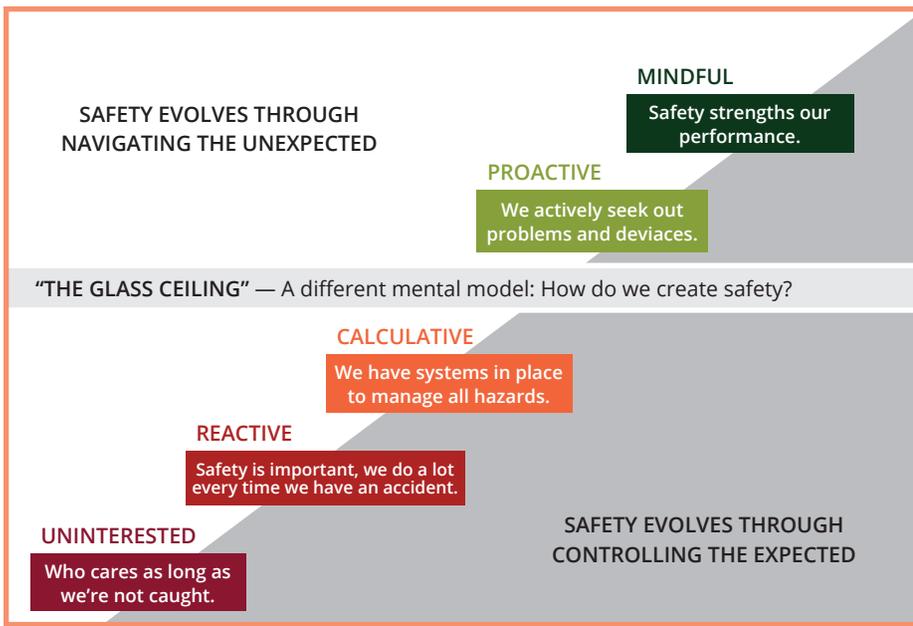
## "TOUCH" Investment

We call the goal of this time investment "TOUCH." When employees see their top leaders visibly involved in safety, their actions are impactful and "touch" their peers. Middle management will then be more actively engaged in safety which continues on to the frontline leaders focusing on safe work. This is how the organizational value of safety is realized by employees.

When leaders act on safety at every level, the commitment is authentic. It goes beyond words and impacts all employees. Over time, the trust and safety culture will strengthen.

Here are some specific actions that senior leaders can take to be more visibly involved:

- **Perform regular work observations.** Approach this with a goal of learning rather than placing blame. Look for areas of exposure to employees and provide coaching and feedback when necessary. Try



**Figure 1.** Safety culture maturity continuum.  
 Courtesy of Beth Lay, Director of Safety and Human Performance, Lewis Tree Service.

to increase the number of safety conversations. There is always more power in employees giving you feedback than the reverse.

- **Lead and participate in an incident review process.** All incidents above a certain level of severity should be reviewed. The goal is not to assign blame but to understand the incidents and the contributing factors. Ensure that a meaningful follow-up plan is in place to avoid recurrence.
- **Lead a safety steering committee.** Meet on a regular basis to review safety plans and to set and review safety expectations with direct reports. Review the latest inspection reports and work observations and ensure follow-up on employee hazard reports and suggestions.
- **Personally lead an effort to increase close-call reporting.** And continue to lead the associated follow-up action required.
- **Ask subordinate leaders to provide specific examples of employees going the extra mile to work safely.** This will allow you to follow-up and sincerely recognize each individual in their area of responsibility.

Earnestly performing such actions will show employees that you are invested and care about their well-being. What they hear matches what they see, building trust and allowing for open and honest conversations. Your safety culture will soon improve, you will better understand the risks that employees face, and you will be better equipped to work towards protecting them. You will TOUCH them.

### Safety Culture Self-Assessment

Overcoming obstacles for successful safety is our responsibility, regardless of our position or our organization's current safety program or culture. As our maturity progresses, we become compelled to not only overcome our own problems but to extend our sense of ownership and grow our influence in safety. Willink and Babin have labeled this attitude "extreme ownership."

### Understand and Evaluate the Continuum of Safety Culture Maturity

The continuum ranges from a low end—uninterested and reactive—to a high level where safety capacity is proactively built, protected, and believed in to strengthen

performance (Figure 1). Once you begin viewing work and interactions through this lens, it is quite clear where a safety culture sits on the continuum. If you or your team are on the low end, begin right where you are and watch the ripple effect begin to improve your safety culture. Adopt a continual improvement mindset with a watchful eye on upward movement along the safety culture continuum.

### Be Specific in Measuring and Setting Goals

The UAA Safety Committee, composed of tenured leaders of utility vegetation management (UVM) programs, created an intentionally brief and simple yet broadly applicable tool for safety culture self-assessment.

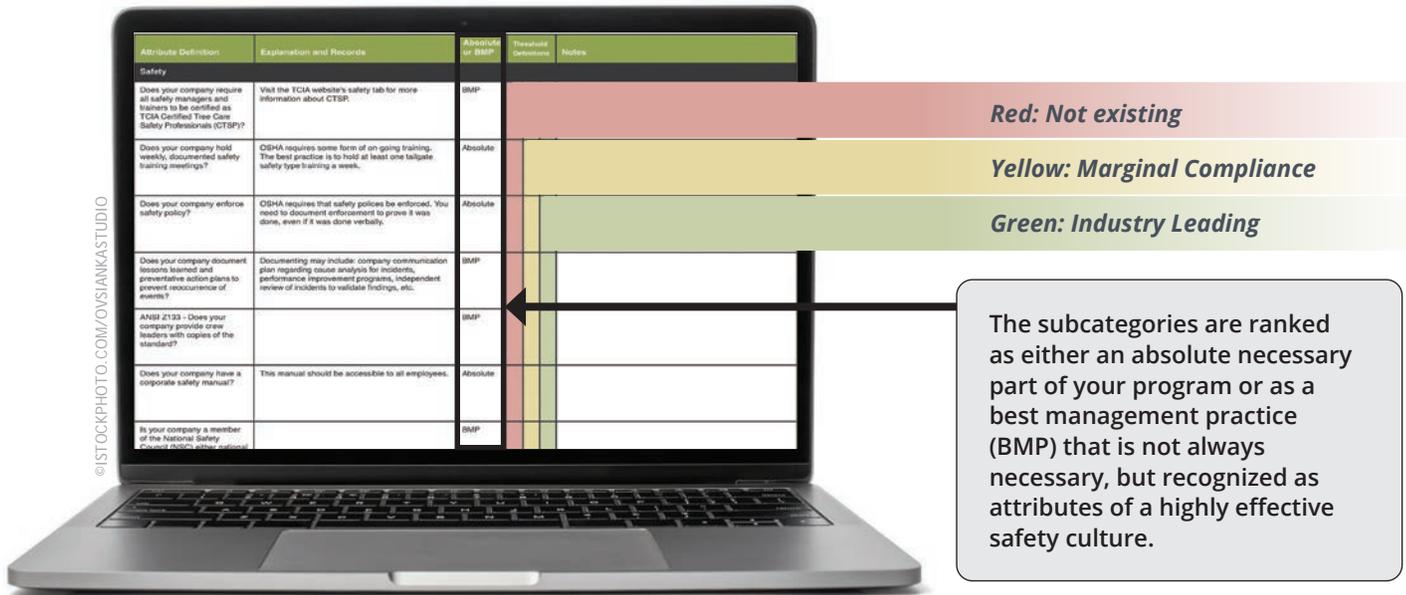
The assessment includes 28 questions (i.e., metrics) that are grouped into three categories: (1) leadership, (2) quality control, and (3) safety compliance. Users rank each question or metric to a culture of safety by color (Figure 2):

- **Red**—not existing
- **Yellow**—marginal compliance
- **Green**—industry leading

To continually improve, use the assessment snapshot to set goals, assign a date or trigger for reevaluation, and make it your intention to reduce the number of reds and increase the number of greens in your next self-assessment.

Along with the fundamental red, yellow, and green rankings, each question is labeled as an "absolute" requirement or a "BMP" (best management practice) for a highly effective safety culture. Thus, in prioritizing targets after the self-assessment, reds and yellows in the "absolute" rows may need the most attention for improvement.

The UAA safety culture self-assessment, along with other open-access or customized tools, are meant to evaluate, benchmark, set goals, create dialogue, and increase trust and safety presence. They provide quantitative, visual, and time-adjusted reflection of where our safety culture is on the continuum each time we go through the questions.



**Figure 2.** The assessment has color rankings to give you an honest and visual evaluation of your organization's safety compliance, in addition to subcategories.

**Conclusion**

Awareness of leadership's impact on safety, the concept of extreme ownership, and a constant improvement model are the building blocks to improving your organization's safety culture. Translating your awareness into action is the first important step. Applying leadership principles, honestly

evaluating your safety culture maturity, and implementing an improvement plan will forge the strongest and most sustaining impacts on safety performance metrics over time. As leaders, we have the obligation to create and improve safety culture for the troops who rely on us to sustain low-injury rates so everyone can return home safely after the mission is done. ■

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## DIGITAL CORRIDOR MANAGEMENT: THE MODERN SOLUTION TO REMOTELY IDENTIFYING ASSET AND VEGETATION ROW CONDITIONS

Using a unique combination of Digital and Field-based Inspections, ECI's three-part Digital Corridor Management (DCM) system leverages advanced remote sensing and software tools to remotely identify areas at risk of wildfires along with other threats to electric reliability and worker safety.

### 1. DCM: PLAN

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- › Creation of Digital Vegetation Management Work Plans Utilizing:
  - LiDAR-based Measurement and Identification
  - Oblique & Orthographic Imagery
  - Trained Digital and Field Validation Inspectors
  - Mobile Work Orders

### 2. DCM: INSPECT

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- › Creation of Digital Asset Health Work Plans Leveraging:
  - Digital Image Analysis to Accurately Identify Asset Defects like Broken Insulators, Missing Hardware, Structural Defects, Contamination
  - Mobile Work Orders
  - Integration With Enterprise Asset Health Applications

### 3. DCM: AUDIT

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- › Validation of Vegetation Management Work Completion Ensuring:
  - Regulatory and Utility Vegetation Compliance
  - Asset Maintenance/Construction Validation
  - Accurate and complete Digital Archive of ROW Conditions

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Since 1972 ECI has helped hundreds of clients in North America realize dramatic improvements in public & employee safety, service reliability, cost savings, risk, regulatory compliance, and overall operational effectiveness while improving the public's perception of utility vegetation management.

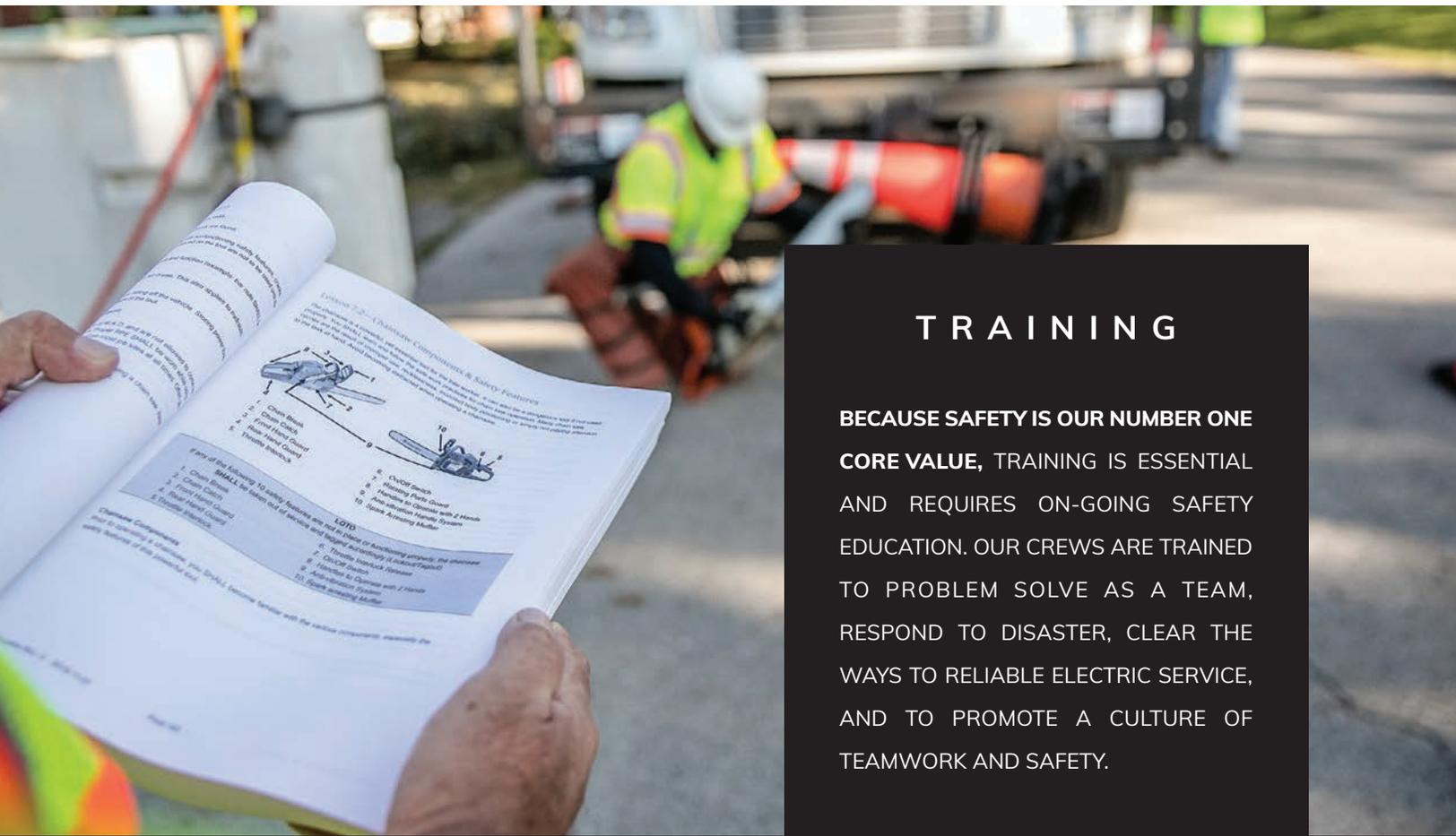
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