

# The Current *flow*

June 2018



A NEWS AND INFORMATION PUBLICATION OF THE CREA SAFETY AND LOSS CONTROL DEPARTMENT

## REGISTER NOW!



### Colorado Rural Electric Association **LOSS CONTROL SEMINAR** July 17 - 18, 2018 — Tri-State G&T — Westminister

Registration is open for CREA's July 17-18 Loss Control Seminar. The safety and loss control department will sponsor the event at Tri-State Generation and Transmission headquarters in Westminister for general managers and CEOs, safety personnel, operations managers and other safety-minded co-op employees.

To register, contact Angelea Meyer at [ameyer@coloradorea.org](mailto:ameyer@coloradorea.org).

The tentative agenda, with a strong emphasis on safety for lineworkers, is as follows:

#### July 17

- 8-8:15 a.m.** Welcome
- 8:15-9:30 a.m.** Promoting Leadership
- 9:45-11a.m.** Speaker Ronnie Hindsman: Looking Back at a Contact
- 11a.m.-12:15 p.m.** Speaker Bryon Stilly: Improving the Safety Culture After a Contact
- 12:15-1:30 p.m.** Lunch/Vendor Show
- 1:30-2:45 p.m.** Speaker Kenny Greener: Reversing a Poor Safety Culture
- 3:00-4:15 p.m.** Mitch Majeski: Learning Leadership Skills

#### July 18

- 8-10 a.m.** Federated Insurance: Commitment to Zero Contacts and S.A.F.E. app
- 10:00-10:15 a.m.** Break
- 10:15-10:45 a.m.** Awards
- 10:45-end** Roundtable discussion

## Commitment to Zero Contacts

NRECA and Federated Rural Electric Exchange are pleased to introduce the Commitment to Zero Contacts initiative. This initiative provides



cooperative CEOs, senior leaders and field personnel with recommendations and resources needed to eliminate injuries by electrical contact. The goals of this initiative are:

1. Reaffirm life saving rules and address work-load issues that restrict supervisory time in the field.
2. Look for inconsistencies between crews
3. Occasionally observe after hours work
4. Provide supportive feedback to crews in a timely manner
5. Crew observers need to avoid a "safety cop" approach and try to implement a "coaching" attitude when providing feedback
6. Verify that proper job planning is taking place, especially with routine jobs, as this is the area with the largest amount of exposure and where a lot of contacts occur.
7. Reinforce the mindset of slowing down and being thorough when planning and executing the work to be performed
8. Encourage employees to speak up when unsafe acts are witnessed and when jobs are reviewed

For more information, visit [cooperative.com](http://cooperative.com) to access the Commitment to Zero Initiative.

# Co-ops Select Team to Electrify Guatemala

The seven Colorado co-op volunteers, who will work to bring electricity to Guatemalan villages September 16-October 6, have been named along with two alternates.

The lineworkers were selected from those submitting applications for the Colorado Rural Electric Association international trip being planning in cooperation with electric co-ops in Oklahoma and the National Rural Electric Cooperative Association's International Foundation.

Following a review and interview process, the following men were selected: Dale Kishbaugh, CREA director of safety and loss control; Christian Baker, Holy Cross Energy, Glenwood Springs; Kris Barbee, Southeast



Colorado Power Association, La Junta; Ben Ludington, Poudre Valley Rural Electric Association, Fort Collins; Kelly Snow, United Power, Brighton; Chet Stickler, Holy Cross, Glenwood Springs; and Nate Towne, Mountain Parks Electric, Granby. Alternates are Chris Stanworth, White River Electric; and Baker McKonly, La Plata Electric Association, Durango.

These men will join eight lineworkers from co-ops in Oklahoma in building power lines in the village of Pie del Cerro and, potentially, in neighboring Tierra Blanca Salinas. Both communities are located near a rain forest in the Ixcán region, close to the Mexican border. Collectively, the communities have about 100 households, five churches, two elementary schools and two health centers — all without access to reliable and affordable electricity.

The project will consist of 130 poles and two transformers on 4.34 miles of primary line and 3.86 miles of secondary line. Most of the terrain will be flat, but about 1 mile of line will be built through dense rain forest growth. Each home will receive at least two lightbulbs and two electrical outlets.

The Colorado team returned June 27 from a team-building exercise with the Oklahoma contingent at the headquarters of the Oklahoma Association of Electric Cooperatives in Oklahoma City. They will leave for Guatemala September 16.

## REPORTING Close Calls/Near Misses

CREA has launched a Close Call/Near Miss reporting function on the CREA website. This initiative is 100 percent anonymous and is intended to collect data to prevent accidents from happening.

The definition of a close call/near miss is an undesired event where no property was damaged and no personal injuries were sustained; a slight shift in time or position, damage and/or injury could have occurred. By inputting these scenarios, CREA can trend root causes and develop training for the co-ops to help eliminate accidents from occurring.

To input a close call or near miss, visit [www.crea.coop](http://www.crea.coop), and under the Safety and Loss Control tab, select Close Call Near Miss Reporting.



## S.A.F.E. (Stop And Focus Everyday)

Federated created S.A.F.E., a job-planning app, to elevate the focus on work that requires entrance within Minimum Approach Distance (MAD). The purpose of the app is to direct line personnel's attention to the life-saving rules used to help build and reinforce safe habits. More features will be added to the app including: hazard recognition, near-miss reporting and vehicle inspection.

The S.A.F.E. App is available for both iPhone and Android. Simply search "Federated S.A.F.E." on the Apple App Store or the Google® Play Store. To set up a password, please contact [safetyinfo@federatedrural.com](mailto:safetyinfo@federatedrural.com). Visit <https://bit.ly/2IDF6kC> for more information on "How to use the S.A.F.E. Job-Briefing App".

## Federated Strategy Labs

Federated has been conducting Culture of Safety Strategy Labs in various states across the country since 2007. These reports provide summaries of our findings and outline some of the best practices as determined by participant feedback.

Federated will conduct a Safety Strategy Lab for Colorado starting July 10. Participating in the culture study will be CEOs, safety personnel, operations managers and lineworkers.

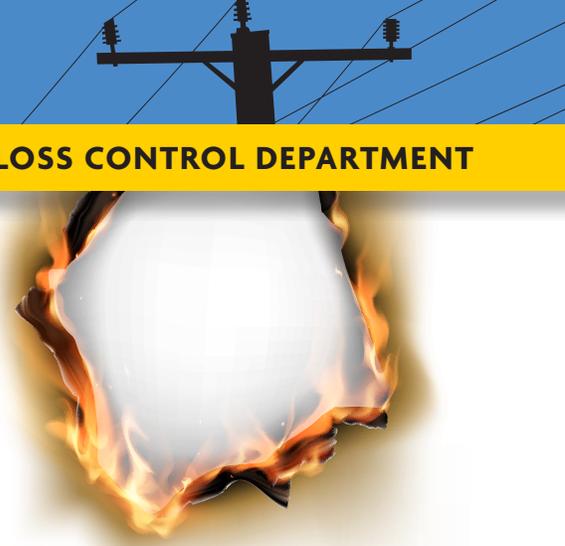


FEDERATED RURAL ELECTRIC  
INSURANCE EXCHANGE

The lab will be a weeklong effort and is focused on three approaches and phases:

1. A benchmarking study to compare the safety performance of co-ops with industry averages.
2. A series of qualitative sessions with co-op people to get their input and perspective.
3. Finding and applying "best practices" from those organizations that have the best safety performances

# HOT TOPIC: HAZARD IDENTIFICATION AND ASSESSMENT



One of the "root causes" of workplace injuries, illnesses, and incidents is the failure to identify or recognize hazards that are present, or that could have been anticipated. A critical element of any effective safety and health program is a proactive, ongoing process to identify and assess such hazards. To identify and assess hazards, employers and workers:

- Collect and review information about the hazards present or likely to be present in the workplace.
- Conduct initial and periodic workplace inspections of the workplace to identify new or recurring hazards.
- Investigate injuries, illnesses, incidents, and close calls/near misses to determine the underlying hazards, their causes, and safety and health program shortcomings.
- Group similar incidents and identify trends in injuries, illnesses, and hazards reported.
- Consider hazards associated with emergency or nonroutine situations.
- Determine the severity and likelihood of incidents that could result for each hazard identified, and use this information to prioritize corrective actions.

## Action item 1: Collect existing information about workplace hazards

Information on workplace hazards may already be available to employers and workers, from both internal and external sources. Collect, organize, and review information with workers to determine what types of hazards may be present and which workers may be exposed or potentially exposed. Information available in the workplace may include:

- Equipment and machinery operating manuals.
- Safety Data Sheets (SDS) provided by chemical manufacturers.

- Self-inspection reports and inspection reports from insurance carriers, government agencies, and consultants.
- Records of previous injuries and illnesses, such as OSHA 300 and 301 logs and reports of incident investigations.
- Workers' compensation records and reports.
- Patterns of frequently-occurring injuries and illnesses.
- Exposure monitoring results, industrial hygiene assessments, and medical records (appropriately redacted to ensure patient/worker privacy).
- Existing safety and health programs (lockout/tagout, confined spaces, process safety management, personal protective equipment, etc.).
- Input from workers, including surveys or minutes from safety and health committee meetings.
- Results of job hazard analyses, also known as job safety analyses.

Information about hazards may be available from outside sources, such as:

- OSHA, National Institute for Occupational Safety and Health (NIOSH), and Centers for Disease Control and Prevention (CDC) websites, publications, and alerts.
- Trade associations.
- Labor unions, state and local occupational safety and health committees/coalitions ("COSH groups"), and worker advocacy groups.
- Safety and health consultants.

## Action item 2: Inspect the workplace for safety hazards

Hazards can be introduced over time as workstations and processes change, equipment or tools become worn, maintenance is neglected, or housekeeping practices decline. Setting aside time to

regularly inspect the workplace for hazards can help identify shortcomings so that they can be addressed before an incident occurs.

- Conduct regular inspections of all operations, equipment, work areas and facilities.
- Be sure to document inspections so you can later verify that hazardous conditions are corrected.
- Include all areas and activities in these inspections, such as storage and warehousing, facility and equipment maintenance, purchasing and office functions, pole yards, and the activities of on-site contractors, subcontractors, and temporary employees.
- Regularly inspect both co-op equipment (e.g., forklifts, powered industrial trucks) and transportation vehicles.
- Use checklists that highlight things to look for. Typical hazards fall into several major categories, such as those listed below; each workplace will have its own list:
  - General housekeeping
  - Slip, trip, and fall hazards
  - Electrical hazards
  - Equipment operation
  - Equipment maintenance
  - Fire protection
  - Work organization and process flow (including staffing and scheduling)
  - Work practices
  - Workplace violence
  - Ergonomic problems
  - Lack of emergency procedures

## Action item 3: Identify health hazards

Identifying workers' exposure to health hazards is typically more complex than identifying physical safety hazards. For example, gases and vapors may be invisible, often have no odor, and may not have an

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immediately noticeable harmful health effect. Health hazards include chemical hazards (solvents, adhesives, paints, toxic dusts, etc.), physical hazards (noise, radiation, heat, etc.), biological hazards (infectious diseases), and ergonomic risk factors (heavy lifting, repetitive motions, vibration). Reviewing workers' medical records (appropriately redacted to ensure patient/worker privacy) can be useful in identifying health hazards associated with workplace exposures.

- Identify chemical hazards –review SDS and product labels to identify chemicals in your workplace that have low exposure limits, are highly volatile, or are used in large quantities or in unventilated spaces. Identify activities that may result in skin exposure to chemicals.
- Identify physical hazards –identify any exposures to excessive noise (areas where you must raise your voice to be heard by others), elevated heat (indoor and outdoor), or sources of radiation (radioactive materials, X-rays, or radiofrequency radiation).
- Identify biological hazards –determine whether workers may be exposed to sources of infectious diseases, molds, toxic or poisonous plants, or animal materials (fur or scat) capable of causing allergic reactions or occupational asthma.
- Identify ergonomic risk factors – examine work activities that require heavy lifting, work above shoulder height, repetitive motions, or tasks with significant vibration.
- Conduct quantitative exposure assessments –when possible, using air sampling or direct reading instruments.
- Review medical records –to identify cases of musculoskeletal injuries, skin irritation or dermatitis, hearing loss, or lung disease that may be related to workplace exposures.

### Action item 4: Conduct incident investigations

Workplace incidents –including injuries, illnesses, close calls/near misses, and reports of other concerns– provide a clear indication of where hazards exist. By thoroughly

investigating incidents and reports, you will identify hazards that are likely to cause future harm. The purpose of an investigation must always be to identify the root causes (and there is often more than one) of the incident or concern, in order to prevent future occurrences.

- Develop a clear plan and procedure for conducting incident investigations, so that an investigation can begin immediately when an incident occurs. The plan should cover items such as:
  - Who will be involved
  - Lines of communication
  - Materials, equipment, and supplies needed
  - Reporting forms and templates
- Train investigative teams on incident investigation techniques, emphasizing objectivity and open-mindedness throughout the investigation process.
- Conduct investigations with a trained team that includes representatives of both management and workers.
- Investigate close calls/near misses.
- Identify and analyze root causes to address underlying program shortcomings that allowed the incidents to happen.
- Communicate the results of the investigation to managers, supervisors, and workers to prevent recurrence.

Effective incident investigations do not stop at identifying a single factor that triggered an incident. They ask the questions "Why?" and "What led to the failure?" For example, if a piece of equipment fails, a good investigation asks: "Why did it fail?" "Was it maintained properly?" "Was it beyond its service life?" and "How could this failure have been prevented?" Similarly, a good incident investigation does not stop when it concludes that a worker made an error. It asks such questions as: "Was the worker provided with appropriate tools and time to do the work?" "Was the worker adequately trained?" and "Was the worker properly supervised?"

### Action item 5: Identify hazards associated with emergency and nonroutine situations

Emergencies present hazards that need to be recognized and understood. Nonroutine

or infrequent tasks, including maintenance and startup/shutdown activities, also present potential hazards. Plans and procedures need to be developed for responding appropriately and safely to hazards associated with foreseeable emergency scenarios and nonroutine situations.

- Identify foreseeable emergency scenarios and nonroutine tasks, taking into account the types of material and equipment in use and the location within the facility. Scenarios such as the following may be foreseeable:
  - Fires and explosions
  - Chemical releases
  - Hazardous material spills
  - Startups after planned or unplanned equipment shutdowns
  - Nonroutine tasks, such as infrequently performed maintenance activities
  - Structural collapse
  - Disease outbreaks
  - Weather emergencies and natural disasters
  - Medical emergencies
  - Workplace violence

### Action item 6: Characterize the nature of identified hazards, identify interim control measures, and prioritize the hazards for control

The next step is to assess and understand the hazards identified and the types of incidents that could result from worker exposure to those hazards. This information can be used to develop interim controls and to prioritize hazards for permanent control.

- Evaluate each hazard by considering the severity of potential outcomes, the likelihood that an event or exposure will occur, and the number of workers who might be exposed.
- Use interim control measures to protect workers until more permanent solutions can be implemented.
- Prioritize the hazards so that those presenting the greatest risk are addressed first. Note, however, that employers have an ongoing obligation to control all serious recognized hazards and to protect workers.

# Unauthorized electrical grounding to Xcel Energy natural gas meters



In order to maintain the integrity of Xcel Energy's natural gas system, it is important that electricians, plumbers, cable companies, and all utility services understand that it is against the national and electrical code, and the National Fire Protection Association code to install electrical grounding to certain parts of Xcel Energy owned gas meters. In general, the recommendation is that utilities should use an independent ground rod, not a gas meter.

Recently there has been a steady increase in grounding attachments to Xcel Energy gas meters, and more specifically, attached to the gas supply side of the meter. (See image) This type of attachment negatively impacts the cathodic protection system on the gas system that is intended to prevent corrosion and leaks on natural gas pipelines.

Xcel Energy must comply with the Department of Transportation Pipeline Safety Regulations, which require maintaining electrical isolation for the underground natural gas pipeline system from all foreign underground and aboveground metallic structures. If electrical grounding is improperly attached to an Xcel Energy gas meter, the natural gas system is no longer provided with corrosion control.

**Please refer to the following:**

- National Electrical Code Article 250 - Grounding and Bonding
- 250.104 Bonding of Piping Systems and Exposed Structural Metal.
- (B) Other Metal Piping.

(Please note that Xcel gas piping to Xcel gas meter set is NOT likely to become energized and should NEVER be bonded to the grounding system.)

National Fire Protection Association Article 780 - Standard for the Installation of Lightning Protection Systems 4.14.1 General.

(Please note that Xcel Energy piping and facilities cannot assist in providing a path for lightning currents in or on a structure and therefore should never be interconnected to the lightning protection system.)

Xcel Energy employees have been instructed to remove any unauthorized grounding and to notify the customer who will in turn need to contact the utility that improperly attached the ground to the gas meter. In order to avoid inconveniences for all parties it is critical that grounding be attached to an independent rod or attached to the customer piping side of the gas meter.

Xcel Energy may bill the responsible parties for costs we incur to troubleshoot and determine the grounding locations, as well as for any damage found to have been caused to our gas facilities for the unauthorized grounding to Xcel Energy's gas piping.

