



TO:

**All parties in interest**

**Via: E-Mail Transmission**

DATE

09/26/2022

RE:

**Notice of Joint Safety  
Committee Meeting for 2022**

E-MAIL: [JWEAVER@WESTERNLINENECA.ORG](mailto:JWEAVER@WESTERNLINENECA.ORG)

FYI this is a notice that our next **Quarterly Red-Book Safety Meeting** has been rescheduled to:

- **Thursday, September 29, 2022, at 10:30am** at our **Cal-Nevada JATC's Training Center in Riverside, CA.**

**The remaining 2022 Quarterly Red-Book Safety Meeting Dates and Locations:**

- **Wednesday, December 7, 2022, at 1:00pm** at Cal-Nevada JATC's Training Center in Woodland, CA - 565 Santa Anita Drive, Woodland, CA

**Note:**

The **Minutes** of the June 15, 2022, Quarterly Red-Book Safety Meeting are available for download on our **Chapter Website.**

Thanks, and stay safe!

Jules W. Weaver  
Chapter Manager

**MEETING MINUTES**  
**IBEW 47-1245 / WLCC-NECA JOINT SAFETY COMMITTEE**  
**June 15, 2022**  
**Cal-Nevada JATC – Woodland Training Center**

**Present:**

**Mgmt:**

James Stapp  
AJ Zartman  
Lon Peterson  
Raul Guardado  
Kelly Whittemore  
Jeremy Aitchison  
Leto Wilkins  
Clayton Loback  
Jeff Emerson  
Chris Larson  
Jeff Anderson  
David Crow  
Mike Hernandez  
Zach Zuelner  
Neal Brown  
Cory Pederson  
Chris Burt  
Jason Alipio  
Travis Core  
Cheyna Cochran  
Casey Wilson  
Chris Mills  
Jake Christensen  
Daniel Howry  
Darren Perina  
Joe Brock  
Clifford Ryan  
Scott Manly  
Chris Hess  
Ed Antillon  
Sonny Mendez  
Jeff Emerson  
Shawn Howard  
Jules Weaver - Secretary

**IBEW:**

Ralph Armstrong – Chairman  
Ralph Kenyon  
Ethan Stonecipher  
Ben Contreras  
Casey Lavin  
Rod Peterson  
Arnold Trevino  
Jeremy Newman

Cal-NEV  
JATC/Guest:

Don Jamison, Cal-Nevada JATC - Director  
Will Monzingo, Cal-Nevada JATC

*Meeting called to order by Chairman Armstrong at 1:05pm.*

Chairman Armstrong welcomed the group and had everyone introduce themselves.

**Previous Minutes:**

*M/S/C to approve the Meeting Minutes of the Joint Safety Committee Meeting held on March 2, 2022.*

**Review of Accidents & Incidents:**

The updated **Accident & Incident Reports** is attached hereto as **Exhibit A**.

**Local 1245 - Northern California:** as reported by Chairman Armstrong and he noted that he has no additional accidents/incidents to report beyond the accidents or incidents that will be reported on today and included in the Accident & Incident Report attached hereto as **Exhibit A**.

**Local 47 - Southern California:** as reported by Mr. Rod Peterson, he noted that they had no accidents/incidents to report beyond those accidents or incidents that will be reported on today and those are included in the Accident & Incident Report attached hereto as **Exhibit A**.

**Contractor's Reports:**

The Contractors present reported on the accidents and incidents in the attached **Exhibit A** and some additional incidents or near misses. The following contractors noted they had no accidents or incidents to discuss: Intren and Veteran Power.

**JATC Reports:** Director Jamison noted he had no addition apprentice accidents or incidents to discuss beyond those discussed today and set forth in **Exhibit A**.

**Observations:** Once again it was noted that there are way too many vehicle/equipment accidents that are occurring on highways and on the right-of-way, a general discussion followed. Additional discussion was held regarding overall focus on safety and keeping your head in the game.

**Exhibits attached hereto:**

**Exhibit B** – Various Safety Bulletins from SCE

**Exhibit C** – Various Contractor Safety Talks from SDG&E

**Old Business:**

1. Chairman Armstrong noted that the Red Safety Book Subcommittee will be getting together to review and discuss some cleanup and proposed edits to the Red Safety Book prior to our next quarterly meeting. In addition, Chairman Armstrong noted that if you have any proposed changes or clarifications to the current Red Book language, please forward them to Secretary Weaver at: [jweaver@westernlineneca.org](mailto:jweaver@westernlineneca.org).
2. Secretary Weaver gave a quick update on EICA’s Sexual Harassment and DOL Harassment Training Courses available through the Safety Wallet platform and sponsored by the Cal-Nevada JATC program. In addition, the Safety Wallet text-based certifications tracking system was discussed and he also gave an update on EICA’s crane certification program.
3. For the record, the **Red Book Subcommittee** is composed of the following 8 individuals from Labor and Management:

**Labor**

Ralph Armstrong  
Rod Peterson  
Ralph Kenyon  
Arnold Trevino

**Management**

Chris Larson  
Walter Posey  
Chris Burt  
Clifford Ryan

It was noted for the record that the **8 - IBEW /NECA Safety Committee** members per the California Outside Line Construction Agreement are as follows:

**Labor Representatives**

Ralph Armstrong  
Ralph Kenyon  
Rod Peterson  
Arnold Trevino

**Management Representatives**

Jim Stapp  
AJ Zartman  
Walt Posey  
Jules Weaver

**New Business:**

1. Mr. Jim Stapp announced that Mr. Chris Burt with Diversified Utility Services and Mr. Clifford Ryan with Hampton Tedder Electric will be Managements 2 new representatives on the Red Book Subcommittee as set forth above.

**Next Meeting Date and Location:**

Thursday– September 29, 2022, at 10:30am at the Cal-Nevada JATC Training Center located in Riverside, CA.

*Meeting adjourned at 2:45pm*

### 3rd Quarter 2022 Accident/Incident Reports

Date Of Incident	Occupation	Type of Incident	Body Part / Root Cause	Description
<b>Contractor Significant Accidents</b>				
1/1/2022	Outside Crew	Serious Injury	Face & Neck Burns	<b>Serious Injury - January 1, 2022</b> , On Saturday, January 1st, 2022 at approximately 06:30 AM, a three-man crew consisting of a journeyman lineman, a groundman, and an electrical crew foreman was working on a primary wire down emergent call. One of the three phases was down. The work included replacing ~200 of 1/0 ACSR pole-to-pole with street access. The wire was cut in the clear and isolators were installed west of the pole. The crew replaced the wire and went to make up taps. The foreman and the lineman were in the bucket and successfully made up taps on two phases. As they were making up the taps on the third phase, a flash occurred. It was later discovered that there was wire down at another location that was downstream of the crew's work location. They immediately boomed down and the groundman applied burn gel to the lineman's face and neck area while the foreman contacted emergency services and notified the Distribution Operations Center. The lineman is currently awaiting surgery.
2/7/2022	Outside Crew	Injury	Bruising	<b>Injury - February 7, 2022</b> , As part of pole replacement work, two linemen working from a bucket were positioning a 10-foot crossarm to support conductors. They were using the jib of the bucket truck to support the weight of the crossarm, when the winch line back-reeled on itself and inadvertently caused the line to pay-up rather than pay-down. Consequently, the winch line hook got pulled into the sheave of the jib and broke the winch line. Then, the crossarm dropped about four feet and struck one of the linemen working in the bucket. The linemen were able to secure the crossarm and brought it safely to the ground. The crew rendered first-aid to the injured lineman and made proper notifications. The injured lineman was taken to a medical facility for evaluation and released the same day with minor bruising to the shoulder and ribs.
2/7/2022	Outside Crew	Injury	Head Stitches	<b>Injury - February 7, 2022</b> , A line crew was tasked to reframe a structure and replace a buried anchor. When hand-digging a new hole for the anchor, they encountered a metal object/piece of debris and applied rigging to it so they could try to dislodge it. As they started to put tension on the rigging, a lineman looked into the hole and at that moment, the rigging slipped and struck the lineman in the head. The injured lineman was taken to a nearby hospital, where he received several stitches and was released.
2/10/2022	Outside Crew	Injury	Crushing Ring Finger	<b>Injury - February 10, 2022</b> , Gas Distribution Crew was in the process of relocating a stack of six slide shields that were 15'x2' steel that weighed 530lbs each. The stack was placed on skids below overhead powerlines by the sub-contractor at the direction of the Foreman. The Foreman designated the lay down area due to the restricted workspace. The operator of the excavator and the laborer discussed the overhead electrical hazard and the need to relocate the stack. The laborer then began to set up the lifting chain by sliding the chain under the stack, midway. The chain did not extend completely under the stack to the other side. The laborer proceeded to place himself on the stack with both knees, removing feet off the ground and onto the stack, with their hand on the right side to brace themselves. The bottom five slide shields were stacked correctly. The sixth (top slide shield) had a rigging shackle installed at the long end through a lifting eye hole, which in turn caused the top slide shield to be raised on one end. The action caused by the shackle created the top slide shield to become unstable, allowing the top slide to rock back and forth. When the laborer shifted his body weight to reach for the chain, the slide shield rocked to one side crushing the right-hand ring finger between the two shields.
2/15/2022	Underground Crew	Vehicle Accident	Fatality	<b>Fatality - February 15, 2022</b> , Traveling southbound on HWY 1, an Underground line crew was mobilizing to a project location at Fort Ord when the driver of an Underground bucket truck, careened into the northbound lane of HWY 1, and significantly impacted two vehicles. Preliminary findings indicate the driver of the bucket truck veered off the roadway (southbound lane) onto the shoulder and to regain control, the driver apparently overcorrected and sent the bucket truck into the northbound lane; ultimately leading to the tragic event. A third-party fatality has been reported and two other third-party motorists involved in the MVI have been hospitalized. The driver of the bucket truck sustained no physical injuries.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
2/23/2022	Outside Crew	Serious Injury	Fractured Finger	<b>Serious Injury - February 23, 2022,</b> After working approximately 14 ½ hours on a scheduled pole replacement project, an 11-person line crew was tasked with the emergent work of replacing a guy stub structure that was struck by a third-party vehicle. The groundman removed the pole stand from the material truck with the intent of having it ready when the pole was off-loaded from the trailer, but since the trailer was not yet in position for the pole to be off-loaded, he placed the pole stand back in the material trailer temporarily. As he placed the pole stand back in the trailer, his finger got caught between the stand and the edge of the trailer, which caused a laceration to his left-hand ring finger. A nearby crew member noticed the groundman was in discomfort and asked if he was all right. The groundman indicated he needed to go to the hospital, the foreman was notified, and another crew member drove the groundman to the local hospital. The groundman sustained three fractures to his left-hand ring finger and received seven stitches and a splint. He was released with a scheduled follow-up appointment to further assess his injuries
2/24/2022	Outside Crew	Serious Injury	Broken Ankle and Leg	<b>Serious Injury - February 24, 2022,</b> A worker was tasked to recertify hot-sticks at a work location. The weather that morning was 12 degrees and icy. After he recertified the hot sticks, he received a call from a foreman who asked him to check for conductor at the location. The worker drove to the conductor area, walked the area, found the reel of conductor, and started to walk back to his vehicle. While taking a step, his right foot slipped forward, which shifted his body into doing the splits, and his left leg twisted and buckled underneath him. He heard a pop, assumed something broke, and immediately called the work location supervisor for help. Although in extreme pain and having trouble speaking, he told the supervisor what happened and that he thought he broke his ankle. The supervisor stayed on the line with the worker while his own manager made proper notifications to local management. Local management assisted the worker in the parking lot, called 911, and stayed with the worker until the ambulance arrived and transported him to the local hospital. The worker sustained a broken left ankle and leg, below the knee.
3/7/2022	Outside Crew	Injury	Laceration	<b>Injury - March 7, 2022,</b> When a line crew foreman in a helicopter landing zone pulled a sling and shackle from the fly bag, he felt a puncture/cut of his left thumb. As required during air operations, a plastic zip tie was used to secure the pin from backing out of the shackle. In this incident, the zip tie end was cut short and at an angle, which created a sharp, pointed edge that cut the foreman's thumb. The foreman made proper notifications, received immediate first-aid on-site followed by stitches at a local urgent care, then returned to the jobsite and continued working.
3/7/2022	Outside Crew	Injury	Contusions	<b>Injury - March 7, 2022,</b> A worker was making repairs to a cooling tower and began descending the ladder from elevation. The ladder top was resting on an unsecured two-by-four and the climbing movement caused the two-by-four to give way, so the ladder slid to the side. As a result, the worker fell off the ladder approximately eight feet to the concrete floor. All work was stopped, the worker's supervisor was notified, the worker received an ice pack for contusions, and the crew had a safety stand down to discuss the incident.
3/7/2022	Outside Crew	Injury	Lacerated Foot	<b>Injury - March 7, 2022,</b> A worker was on a building roof replacing existing braces. He was cutting a two-inch square steel tube with a small grinder fitted with a cut-off wheel and when the wheelblade was about to pass through the tube to complete the cut, the material pinched the blade and caused the grinder to kickback. The crew member lost control of the tool and dropped it on his foot, where it cut through his boot and lacerated his foot. The crew stopped work, left the work area, and inspected the worker's injury. The worker went to a local urgent care for further evaluation and treatment.
3/9/2022	Street Light Crew	Injury	Fall	<b>Injury - March 9, 2022,</b> A street light repairman working in a residential neighborhood, stopped his vehicle on an incline, facing uphill, next to the curb, directly in front of the light being worked on. The repairman did not place the truck in P (PARK) or set the parking brake. When he exited the cab of the truck he did not notice or respond to the audible and visual alarm telling him the truck was still in D (DRIVE). He also did not deploy his wheel chocks once out of the cab. Once he entered the bucket and attached his safety harness, he could not get the boom to operate, he concluded the Power Take-Off (PTO) needed to be reset. He exited the bucket and as he did so, he realized the truck was starting to roll backwards. He jumped from the rear steps of the truck, landed on his feet and fell forward injuring himself. The truck continued to roll backwards down the street, coming to rest on the opposite end of the street against a slight incline. Residents called 911 and Fire and Sheriff's Office responded. The repairman was transported to hospital and is recovering.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
3/9/2022	Street Light Crew	Injury	Face, Mouth, and Heels	<b>Injury - March 9, 2022,</b> A street light repairman was tasked to troubleshoot and make repairs to a marble light in a residential neighborhood. He parked his vehicle (facing uphill) next to the curb directly in front of the light, exited the vehicle, donned his safety harness, and climbed into the bucket. The bucket would not operate, so the repairman believed that the power take-off (PTO) switch in the truck cab needed to be shut off and turned back on. While exiting the bucket, he noticed the vehicle began to roll backwards and was picking up speed, so he jumped off the vehicle from the back rear steps. He landed on his feet on the pavement, then fell forward due to the momentum of exiting the moving vehicle. The vehicle continued to roll backwards down the road approximately 200 feet until coming to a stop on a grassy slope. Residents called 911, the repairman was transported to a local hospital by ambulance, and emergency services secured the stopped vehicle when they arrived on-site. The repairman sustained minor injuries to his face, mouth, and heels.
3/10/2022	Outside Crew	Injury	Struck by Wire/Fall	<b>Injury - March 10, 2022,</b> A line crew was working in a residential area to replace a 12 kV single-phase pole with secondaries. It was their second pole replacement of the day. Without incident, the crew unloaded the new pole and framed it on the ground, dug the new pole hole, applied protective cover to the line, and transferred the conductor to hot arms (temporary fiberglass crossarm extensions). The new pole had been staged close to the new hole but was blocking a customer's driveway. Just before the pole set, the homeowner approached the crew to ask if the pole could be moved so the homeowner could get out of their driveway. The crew agreed and the foreman operated the boom to move the pole. During the process, the boom inadvertently contacted the outside phase of the 12 kV, which caused the wire to part and fall to the ground. The crew secured the area and the foreman started to make appropriate notifications. Approximately 30 minutes later, the groundman reported to the foreman that he was struck by the wire as it fell. Emergency services was contacted and the groundman was transported to a medical facility for evaluation, then released later that evening.
3/14/2022	Tree Crew	Injury	Punctured Hand	<b>Injury - March 14, 2022,</b> While working aloft performing compliance tree trimming in a residential backyard, a worker lost control of his pole pruner and attempted to catch it rather than letting it fall to the ground. The hook of the pole pruner struck and punctured his right hand. The worker descended the tree and the crew stopped work, cleaned up the jobsite, returned to the yard, and made proper notifications. After the injured worker's phone consultation with a nurse, the general foreman accompanied the worker to the hospital and stayed until he was discharged.
3/18/2022	Outside Crew	Significant Injury	Torn Thumb Tendon	<b>Injury - March 18, 2022,</b> As part of a collaborative, large-scale 12 kV reconductor project involving air operations, distribution, transmission, regional, and civil crews, a formal tailboard at the landing zone was given to all crews involved. Two groundmen were to stay back at the landing zone to help wherever needed. One groundman was to strip the ends of the covered conductor that would be needed after lunch. He began his work without hesitation but was unable to find the approved stripping tool(s) at the time he went to perform the task. Instead, he used a folding knife and cut himself on the outside of his left thumb. As information is still preliminary, it is unclear how the incident occurred (e.g., position of his hands, knife, conductor). Supervision was already on-site after attending the tailboard and took the groundman to urgent care. The groundman received immediate treatment for the wound in urgent care, then met with a hand specialist the next day. It was determined the groundman sustained a torn tendon, and he was scheduled for surgery.
3/18/2022	Outside Crew	Injury	Thumb Laceration	<b>Injury - March 18, 2022, Final:</b> A Saddleback District groundman, working a large reconductor project, was tasked with prepping tails on a covered conductor. The groundman was instructed to use a stripping tool designed for use with a covered conductor. The field supervisor advised the groundman that there was a stripping tool at the landing zone and that he would need to locate it and use it. The groundman could not easily locate the stripping tool and attempted to use his knife to skin/strip a portion of the covered conductor. In doing so, he lacerated his left thumb and required medical care.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
3/21/2022	Outside Crew	Injury	Foot Laceration	<b>Injury - March 21, 2022,</b> A line crew was tasked with setting a 45-foot pole. One crew member was operating the boom and an apprentice and lineman were on the ground guiding the pole into position —the apprentice pushing the pole butt uphill and the lineman pulling. The apprentice signaled to the operator to lower the pole once it was over the hole, and as the pole was being lowered, the apprentice lost his footing on gravel that was on the road. The pole swung forward, and as it swung, it pinched the lineman's foot between the pole butt and the asphalt. The lineman yelled, the operator winched-up immediately, and the lineman was able to pull his foot away. After the pole was set, the lineman removed his boot to see the injury and reported it to his foreman. The lineman was taken to a nearby medical facility where he was treated with stitches and released back to work.
3/28/2022	Outside Crew	Injury	Sprained Finger	<b>Injury - March 28, 2022,</b> A line crew was working on a covered conductor installation job in a residential area, and when one of the linemen attempted to maneuver over a chain link fence, he injured his finger. Appropriate notifications were made, and the lineman was transported to a nearby hospital for evaluation. The lineman sustained a sprained finger.
4/8/2022	Outside Crew	Injury	Ankle Injury	<b>Injury - April 8, 2022,</b> A four-man line crew replaced a deteriorated crossarm on a 12 kV line without incident. After the work was concluded, one of the journeyman linemen was securing the bucket cover onto the cradled bucket when the cover strap broke and the lineman lost his balance, then fell approximately nine feet to the ground. The crew called an all-stop and assisted their crew member. The lineman felt discomfort around his ankle but did not want to call emergency services. As a precaution, the field supervisor transported the lineman to a hospital where he was treated and later released.
4/8/2022	Outside Crew	Injury	Fractured Heel and Ankle	<b>Injury - April 8, 2022, Final</b> a four man distribution crew from Whittier District was tasked to replace a damaged primary crossarm with a similar crossarm resulting from an inspection driven preventive maintenance effort located at Poner Street and Alicante Road, in the City of La Mirada. After the successful completion of the work order, journeyman lineman #1 covered the opening of the bucket successfully. However, when cinching the bucket cover down, using the latch which was directly in front of him, the strap broke. This caused journeyman lineman #1 to lose balance. Journeyman lineman #1 reacted by jumping off the truck and landed on the ground. Most of his weight was focused on the left foot where it was later determined that he suffered a fractured heel and ankle.
4/27/2022	Outside Crew	Injury	Fractured Finger	<b>Injury - April 27, 2022,</b> A worker was driving a bucket truck pulling a woodchipper in a rural area. While descending a steep grade, the bucket truck brakes failed and caused the vehicle to gain speed uncontrollably. The driver observed an incline on the opposite side of the road and when he drove the truck onto the incline, the truck tipped onto its side and slid to a stop. The driver experienced pain in one hand and was taken to a local emergency room. He sustained a fractured finger and was treated and released.
4/30/2022	Tree Crew	Significant Injury	Fracture's of Leg	<b>Significant Injury - April 30, 2022,</b> Without incident, a tree crew trimmed several trees while working from a ladder. To remove a stuck climb line* from a tree, the foreman stood on loose gravel, leaned back, and pulled with a significant amount of force. When the climb line released from the tree, the foreman fell to the ground and was injured. The foreman sustained two bone breaks, above his ankle and below his knee. *A climb line (rope) stabilizes a worker when working from a ladder by creating three points of contact so the worker can make cuts.
5/9/2022	Outside Crew	Injury	Dislocated Shoulder	<b>Injury - May 9, 2022, Preliminary</b> A district meter and service crew (upgrade foreman and journeyman lineman) were removing temporary underground service (UG). The upgrade entered the truck to get a yellow tool bag. He retrieved the bag and exited the truck facing outward on the ladder/stairs. While descending he slipped and fell, landing on his feet. His left shirt sleeve snagged on the truck and wrenched his shoulder. He reported the injury and contacted Injury Assistance Program (IAP). IAP recommended treatment. The upgrade followed the recommendations and continued to work with discomfort in his shoulder up to 5/19/22. On 5/19/22 he contacted IAP to set up a Workers Comp doctor appointment. An x-ray determined that he dislocated his left shoulder. The doctor referred him to a local hospital for immediate attention. The hospital treated the injury, and he was released.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
5/9/2022	Survey Crew	3rd Party Vehicle Accident	Fatality	<b>Injury - May 9, 2022, Final:</b> At approximately 1410 hours, crew members finished surveyor work being conducted on a state route and walked back to the rear of the crew truck to go over notes from their job. The survey technician stood at the left-side rear area of the truck (facing southwest) and was able to see traffic traveling northeast. The rodman/ instrument technician stood at the right-side rear area of the truck (facing northeast) and was able to see traffic traveling southwest. A motorist driving a pick-up truck traveling southwest in the #1 (fast lane), entered the median for unknown reasons, and first collided into and seriously injured the rodman/instrument technician. Then, the motorist collided into the crew truck, where the rodman/instrument technician had been standing. Local fire department paramedic personnel immediately responded to the scene and rendered treatment to the injured technician. They transported him to a medical center, where he passed away from his injuries.
5/16/2022	Tree Crew	Injury	Multiple Bee Stings	<b>Injury - May 16, 2022,</b> A tree crew foreman was going to perform compliance tree trimming working from a ladder. When he had reached the ladder landing point and was going to tie-off to the tree, bees emerged from a hidden cavity covered by ivy inside the tree and stung the foreman multiple times. The foreman descended the ladder, but the bees continued to pursue and sting him. The crew member spotting the foreman from the ground helped remove bees from the foreman and at the foreman's request, used a hose on him to spray off remaining attacking bees. The crew member then continued to get all bees off the foreman, and the homeowner offered to help the foreman. The crew member requested the homeowner to call 911 and the safety representative arrived on-site as this was happening. The crew member told the safety representative to call 911 and when he called, the line was busy. So, the safety representative checked the crew's emergency plan and saw the nearest clinic/emergency room was about five minutes away. The safety representative brought the foreman to his vehicle, gave him an antihistamine from the first-aid kit, then drove him to the emergency room, where the foreman received medical assistance.
5/20/2022	Outside Crew	Injury	Head Strike	<b>Injury - May 20, 2022, Preliminary:</b> On Friday, May 20, 2022, at approximately 6:00 p.m., a transmission crew was tasked with changing out the yoke plates on a 500kV tower. During the tailboard, the drop zone was discussed, but a marked dropped zone was not designated. The weather at the beginning of the job was calm. At approximately 1:30 a.m., heavy fog and strong winds started, and the foreman decided to stop the job due to the inclement weather. At approximately 3:30 a.m., during the journeyman's descent from the tower, the re-direct rope bag carabiner got caught on a piece of steel and the rope bag became free from the journeyman's tower harness. An apprentice lineman standing on the ground, was struck by the re-direct rope bag on the top of his hard hat, which knocked him to the ground, and he temporarily lost consciousness. The foreman decided that everyone would report back to the yard and be further evaluated. The apprentice lineman was driven home. The apprentice lineman later decided to go to emergency room, and upon evaluation was released with no restriction to return to work
5/25/2022	Outside Crew	Injury	Strike to the face	<b>Injury - May 25, 2022, Preliminary:</b> At approximately 22:00, a five-man crew was working on a car hit pole in a rural location. While in the process of removing a nail securing the bird guard, the lineman in the bucket lost control of the hammer and the hammer fell. The lineman yelled "headache", and the groundman got small by tucking under his hard hat. The hammer slid down the alley arm brace, struck the alley arm brace step bolt, bounced off the pole at approximately the communications level, and hit the groundman, who was outside of the delineated drop zone, in the face as he looked up before the hammer hit the ground.
5/30/2022	Outside Crew	Injury	Pinched Thumb	<b>Injury - May 30, 2022,</b> When a groundman was signaling to the boom operator to position the auger over the pole hole so they could clean out the hole with the auger, the groundman placed his right thumb on top of the three-inch conduit, not realizing it was a pinch point. As the boom was being lowered to the edge of the hole, the groundman's right thumb was pinched by the auger. The injured groundman signaled to the boom operator to boom up and notified his foreman that his thumb had been pinched by the auger. An all-stop was called, first-aid was rendered to the injured groundman, and the foreman drove him to the nearest medical facility for treatment. The foreman notified supervision and all appropriate notifications were made.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
5/30/2022	Fielder	Injury	Dog Bite Calf	<b>Injury - May 30, 2022,</b> A fielder performing a pole inspection was taking a picture of the pole and earlier had noticed a dog barking across the street in a fenced-in yard. When the fielder stepped back to take a better picture of the pole, he felt a dog bite him from behind on his right calf. The fielder immediately turned around and the dog ran off back into its yard—the dog had gotten out of the yard by going under the fence. The fielder got into his car, called his supervisor, and cleaned off the wound. Then, he drove himself to a nearby clinic for medical treatment.
6/6/2022	Tree Crew	Injury	Cut Chin	<b>Injury - June 6, 2022,</b> A tree crew foreman completed compliance tree trimming of a twenty-foot tree without incident, and as he descended the tree, he bumped a wooden pruner pole hanging in the tree. As the pruner fell, the blade contacted and cut the tip of the foreman’s chin. The injured foreman was driven by a safety representative to a nearby healthcare facility for treatment, where he received stitches and was released. Appropriate notifications were made.
6/6/2022	Tree Crew	Injury	Fingertips Cuts	<b>Injury - June 6, 2022,</b> While working aloft, a tree crew foreman reached for the branch he was cutting without engaging the brake on the chainsaw, and his left hand struck the chainsaw. The foreman sustained minor cuts on three of his fingertips.
6/11/2022	Meter Technician	Injury	Electric Shock	<b>Injury - June 11, 2022, Final</b> On Saturday (6/11/22) at approximately 8:05AM a meter technician (MT) received an electrical shock from a GA50 (test device). The MT was working a Trouble Report on a 480V 3WD service. After completing his test runs, he stopped to write down the results, when he noticed the Full Load/Light Load (FL/LL) switch was still in the Full Load position. As he moved the switch to the Off position, he felt an electric shock to his finger, and afterward experienced some pain. He was examined at a hospital emergency room and released later that day without serious injury
6/13/2022	Outside Crew	Injury	Minor Bruising	<b>Injury - June 13, 2022,</b> As part of a reconstruction job in a remote area with rugged terrain managed by the US Forest Service, in the afternoon an equipment operator was driving a skid-steer loader to the material laydown yard to secure it for the night. For an unknown reason, the driver left the dirt road he was travelling on, and the skid-steer rolled over. The injured operator was driven down the mountain by a construction site representative worker, who called 911 during transport. Fire responders met the injured operator at the US Forest Service gate and believed he was experiencing trauma, so he was air lifted to a hospital. The equipment operator was released from the hospital that night in good spirits and with only minor bruising. The next day the contract company held a safety stand down to discuss the event with remaining workers on the job. Another stand down was held the next day to discuss the event again and reiterate the safety protocol for emergency transport of workers off the mountain.
7/5/2022	Outside Crew	Injury	Sprained Ankle	<b>Injury - July 5, 2022,</b> When working along a bridge, a worker stepped off the top of a pipe onto uneven ground (approximately one foot away) and rolled his ankle. The injured worker informed his foreman, and his foreman and two other crew members assisted the injured worker to the truck, where he elevated his ankle and applied ice to the area. Only the Edison Representative was notified.
7/11/2022	Outside Crew	Injury	Concussion	<b>Injury - July 11, 2022,</b> A groundman was driving a digger derrick truck as part of a crew caravan on a winding, two-lane road in a national forest. The groundman was following the foreman’s truck and another crew member was traveling behind the groundman. While traveling, the groundman experienced oncoming motorists in the other lane cross over into his lane of travel on several blind curves. Approaching a hairpin curve, the groundman started looking ahead in anticipation of potential motorists coming into his lane. By looking ahead, his focus was taken off his own path of travel, the digger derrick truck drifted to the right, and the right front tire struck a large boulder. The impact blew out the right front and rear tires, which disabled the truck, and jolted the groundman inside the truck cab. Although the groundman wore his seatbelt and traveled the speed limit (25 mph), the collision jolted him enough that he hit his head. Also, his leg struck something in the truck cab, which gave him a “charliehorse” sensation in his leg that wouldn’t subside. The crew stopped to render aid and notified their general foreman who then made appropriate notifications once cell service was available. The crew transported the groundman to a nearby emergency room for evaluation where he was diagnosed with a concussion then released back to work without restrictions.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
7/18/2022	Inspector	Injury	Body Part: Puncture Foot	<b>Injury - July 18, 2022</b> , At approximately 18:00 a contractor employee was working by himself performing inspections in Upland. The employee was walking to a pole on a customer-owned property with leaves and overgrown vegetation near the pole. As the employee was walking, he didn't see a partially covered piece of old lumber with a nail still attached to it. The nail perforated the sole of his work boot and the skin of his left foot. The employee pulled the nail out of this work boot, called his supervisor to report the incident and drove home as it was the end of his shift. The following morning Work Care was called and instructed the employee to go into urgent care for a tetanus shot and antibiotics. He was released from the clinic the same day and continued working.
7/18/2022	Outside Crew	Injury	Heat Exhaustion	<b>Injury - July 18, 2022</b> , An employee was working on the SC-6 upper capacitor platform (A&B) when he became overheated due to the high temperatures and humidity. It rained during the early morning hours and there was high humidity in the area. The employee was brought down to the ground, was checked by Fire Pro, and went to the Urgent Care facility for further follow-up.
7/25/2022	Civil Crew	Injury	Foot Injury	<b>Injury - July 25, 2022</b> , A digging crew was in the process of setting up for a hole dig. A groundman was handing a jackhammer to another groundman out of the back of the truck. The groundman failed to ensure that the latch holding the bit was locked, causing it to slide out and fall approximately three feet, striking the other groundman's foot just behind his steel toe. The force of the jackhammer bit caused some swelling and a small contusion. Management and SCE were notified. A GF took the groundman to the hospital for evaluation. The groundman was X-rayed and released with no fractures. Worker was requested to stay off foot for two days.
7/27/2022	Outside Crew	Injury	Foot Injury	<b>Injury - July 27, 2022, Preliminary</b> The job scope included installing new fiber optics between two tower locations. A thorough tailboard was conducted. The crew spun fiber from two towers. Four (4) Edison Employee's (EE's) were at tower #1. Upon completion of that span, there was one employee on tower #1 with an equipment bag to be extracted. While being picked from tower #1, EE hooked his bag up to the helicopter long-line and then hooked himself up, he then gave the "up" head signal to the pilot. He was worried the bag might get snagged. He did not give the "stop" hand signal once the bag was lifted. This had not been discussed earlier, the pilot was expecting one move. While trying to stow his safety strap, as he was being lifted his pants got caught on a piece of steel. As his pants became free of entanglement, his boot was lodged between two pieces of steel as the helicopter was still pulling up. EE then shook his leg until his foot came out of his boot, (slip-on wellington style boot) leaving his boot to fall to the ground. EE was offered IAP and a ride to urgent care which he declined. EE mentioned his foot was a bit sore and has since called IAP but has not sought medical attention.
8/1/2022	Outside Crew	Injury	Sprain Ankle	<b>Injury - August 1, 2022</b> , A groundman was hooking up a sling to the hook on a long-line from the helicopter to transport a piece of Sonotube to the pole set. When he was unable to reach and grab the long-line hook, he stood on top of the Sonotube. As he did this, the downwash from the helicopter caused the groundman to lose his balance, fall to the ground, and sprain his right ankle. The groundman declined to seek treatment, so they called the company's in-house emergency medical technician (EMT) to evaluate the injury and give care instructions. The next morning the injured groundman asked to be evaluated by a doctor and was seen at a local hospital, diagnosed with a mild ankle sprain, and released back to full duty the same day
8/1/2022	Outside Crew	Injury	Smashed Finger	<b>Injury - August 1, 2022</b> , A crew arrived at a service center to pick up their work assignment for the day. They set up their boom truck to offload a reel of underground cable from the wire and material trailer. Once the wire reel was rigged and ready to be lifted, the foreman was positioned in the bed of the trailer to help control the reel. As the boom operator began the lift, the reel did not come up smoothly. Instead, it popped up, turned counterclockwise, and made contact with the foreman's left hand. The boom operator noticed the foreman holding his left hand and stopped the lift to attend to him. The crew immediately rendered first-aid and the foreman was taken to a nearby emergency room for medical care. The foreman sustained injuries to his left and middle finger and was treated and released the same day.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
8/1/2022	Outside Crew	Injury	Smashed Finger	<b>Injury - August 1, 2022,</b> An apprentice was tasked with building a double dead-end crossarm and as he was finishing the framing of the crossarm, he placed his finger on the 4x4 washer to keep it in place while tightening the insulator pin. As a result, his finger was caught in between the washer and the insulator pin, smashing it along the nail bed portion of the left middle finger. The apprentice freed his finger and immediately reported the injury to his foreman. The foreman called an all-stop, rendered first aid to the apprentice, and made appropriate notifications. The apprentice was transported to a local clinic for evaluation and released back to full duty after receiving first-aid
8/8/2022	Outside Crew	Injury	Cut Shin	<b>Injury - August 8, 2022,</b> An apprentice lineman was on a residential roof, in a crouched position, skinning the existing leads of a weather head to replace it, when the skinning knife slipped off the insulation and cut his upper right shin. The apprentice immediately stopped the task and came down from the roof. The foreman was already at the base of the ladder when the apprentice was coming down, and the foreman and apprentice applied first-aid to the apprentice's wound and determined stiches would be needed. The apprentice was wearing all required personal protective equipment (PPE). Appropriate notifications were made, and the general foreman arrived on-site and took the apprentice to a nearby urgent care where he received eight stitches and was cleared to return to work with no restrictions.
8/8/2022	Tree Crew	Injury	Upper Lip	<b>Injury - August 8, 2022,</b> After line clearance tree trimming, an apprentice climber was feeding debris into the woodchipper. When a dead branch (about four inches in diameter) came in contact with the chipper blade, the blade kicked back shattered debris and a piece of the debris (about two inches in diameter) struck and lacerated the climber's upper lip. The crew immediately discontinued chipping operations, applied first-aid, and made appropriate notifications. The general foreman arrived on-site and drove the apprentice to a nearby clinic for treatment. The apprentice climber was wearing all PPE and was positioned on the curb-side of the woodchipper.
8/9/2022	Civil Crew	Injury	Abrasions to Hand	<b>Injury - August 9, 2022,</b> A civil contractor held a tailboard at a substation, and the crew working on excavating new drainage swales split into different areas along the trench excavation, leaving one spotter and operator working in tandem. The spotter and operator were challenged with preserving an existing 4/0 ground that ran parallel with the trench wall during continued excavation activities. At some point, the 4/0 ground began to impede the excavation progress and the spotter grabbed the ground to pull it out of the way of the excavator bucket. Immediately after he grabbed the 4/0 ground, the bucket swung, made contact with the spotter's hand, and pinned it against the soil on the trench wall. Work was stopped and appropriate notifications were made. The worker was transported to the local medical facility and, after evaluation, was released with no significant injuries. He sustained abrasions to his left hand.
8/15/2022	Outside Crew	Injury	Finger Laceration	<b>Injury - August 15, 2022,</b> When a worker reached into his vest pocket to retrieve a multi-tool, the blade lacerated the inside (palm-side) of his right-hand middle finger. The blade on the multi-tool had been exposed when the tool was folded. The crew immediately stopped work, administered first-aid, and made proper notifications. The worker contacted his company's telehealth service.
8/15/2022	Outside Crew	Injury	Finger Cut	<b>Injury - August 15, 2022,</b> A blaster foreman was media blasting miscellaneous deck plate hardware that was brought down from the pier. He was working in a containment that was set up on the ground. As he was media blasting, he lost control of the blast hose and was hit on the left index finger. The media ripped through the foreman's glove and cut into the skin of his finger. First-aid was administered on-site, the wound was covered, and the foreman returned to work. The foreman was not wearing media blasting-approved gloves at the time of the incident. Proper PPE was worn for further blasting operations and a reminder to always wear proper PPE for the task at-hand will be incorporated into all further safety meetings.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
8/29/2022	Outside Crew	Injury	Heat Exhaustion	<b>Injury - August 29, 2022,</b> A line crew was reframing a property line pole when the groundman became over-heated and fatigued due to working in high temperatures. The crew recognized something was wrong with the groundman and set him up in the cab of the foreman's truck. They administered water, food, and an additional hydrating drink. The job was completed, the groundman felt much better, and the crew drove back to the yard. Once back in the yard, the crew noticed the groundman became weak and disoriented so they immediately called 911 then made appropriate notifications.
9/5/2022	Outside Crew	Injury	Hand Injury	<b>Injury - September 5, 2022,</b> As part of a helicopter pole set, a line crew was to replace a double dead-end, single-phase pole with tangent communication line. Without incident, the crew removed the existing single-phase primary conductor, they lowered the communication line to the ground, and the helicopter removed the old pole and set the new pole. The crew installed wire rollers on the pole crossarm for the new wire pull and rigged a handline to raise the communication line so it could be attached to the new pole; one of the linemen worked from the pole. The handline was rigged to the front end of the foreman's pickup and when raising the communication line, the tension created by the rigging exceeded the load rating of the handline, which caused the line hook to straighten out and fail. One

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
<b>Contractor Circuit Interruption Incidents</b>				
1/10/2022	Outside Crew	CCII	Operator Error	<b>CCII - January 10, 2022</b> , As part of a job to replace a remote-control switch (RCS) on a 16 kV line, a four-man line crew would remove the old switch from the pole top and install a new load-break switch. A section of the 16 kV line was to be switched out, de-energized, and grounded so the old switch could be worked safely. In the process of opening taps (detaching wire connection points) on a pole to de-energize the section of line, the knuckle of the bucket truck made contact with the energized line. Contact with the bucket truck caused the 16 kV line to relay, lock-out, and burn down one phase of wire. The foreman called an all-stop, made sure all his crew members were all right, and made appropriate notifications. The crew re-tailboarded, made repairs, energized the section of 16 kV line, and completed the remainder of the job without further incident.
1/10/2022	Outside Crew	CCII	Operator Error	<b>CCII - January 10, 2022</b> , When performing a construction cutover in a substation, a wireman foreman started old equipment demolition after lunch, without requesting assistance from the Test department to confirm the line was de-energized. The wiring foreman assumed the old transformer secondary wiring was cut in the clear on both ends. The old unit's sudden-pressure relay cable was deteriorated in a collapsed conduit and broke during the removal. When the wire broke, it caused the wire to make contact, which triggered the old sudden-pressure and lock-out relays to operate. The lockout relay was still connected to a 16 kV circuit breaker trip scheme and tripped the breaker, which caused a 16 kV bus outage.
1/24/2022	Outside Crew	CCII	Operator Error	<b>CCII - January 24, 2022</b> , A five-man line crew was tasked with replacing a guy stub (support pole) that supported three span guys attached to a dead-end pole with transformer bank and three 16 kV phases. To support the dead-end pole while the guy stub was being replaced, the crew attached a temporary guy wire to the pole then began detaching the three span guys. As the top span guy was being slacked and the top of the pole leaned over, the north 16 kV phase sagged down into a streetlight mast arm. The 16 kV line relayed and one phase burnt down. The crew held no-test orders (NTO) on the circuit. The circuit was restored by a troubleman and the substation, and the decision was made to not put the north phase back up due to the streetlight mast arm encroachment.
1/31/2022	Outside Crew	CCII	Operator Error	<b>CCII - January 31, 2021</b> , A tree-trimming crew rigged a 110-foot by 29-inch diameter breast height* (DBH) tree for removal, using a rope placed 3/4 of the way up in the tree canopy, and secured that rope to other rigging/rope anchored thru a strap outside of the dangerzone. After slack had been removed from the rigging, the feller (worker cutting the tree) made a face-cut, then the back-cut. As the tree fell, it took an unintended direction and struck two primary power lines and brought the lines to the ground.
1/31/2022	Outside Crew	CCII	Operator Error	<b>CCII - January 31, 2021</b> , A switching program called for opening taps (detaching wire connection points) to de-energize a section of line from a designated pole structure. However, the foreman did not follow the program and opened a branch-line fuse** at a different structure instead, which resulted in an unplanned outage on six transformers beyond the scope of the original work/outage. Prior to performing the work, the general foreman had asked the foreman if the switching program called to open the branch-line fuse and the foreman confirmed it did. When the foreman realized he had de-energized from the wrong point, he notified the general foreman of the switching error and indicated he had already notified the distribution operations center and substation. Unfortunately, it was discovered the foreman did not pay attention to detail, double-check the switching program, or make the proper notifications, and he was not truthful with the general foreman.
2/7/2022	Outside Crew	CCII	Operator Error	<b>CCII - February 7, 2022</b> , A crew was using a mini excavator to bore a hole for a fence in the existing fence hole/location. Using the auger attachment with a one-foot bit, the crew was digging where the plans called to dig but hit conduit and a power cable, which resulted in an arc flash and smoke. The crew immediately stopped work, secured the area, and made proper notifications. No injuries.
2/9/2022	Outside Crew	CCII	Operator Error	<b>CCII - February 9, 2022</b> , On Wednesday, February 9, 2022 at approximately 2300 hours, an Electric Operations Troublemán opened a 3-phase gang-operated switch on a parallel circuit. The Troublemán felt no resistance to the switch when operating the switch handle, which was approximately 10 feet below the cross arm. As soon as he operated the handle to the open position, an arc flash started on the roadside phase and continued for a short period of time, raining down molten metal from the device until the circuit locked out. The Troublemán covered up inside of the bucket he was in to protect himself from the arc flash until the circuit locked out.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
2/14/2022	Outside Crew	CCII	Operator Error	<b>CCII - February 14, 2021</b> , A five-man line crew was replacing a deteriorated transmission pole on the shoulder of a rural road. The pole had a tangent 66 kV circuit and 12 kV underbuild. The two road-side 12 kV phases had been placed on an insulated hot arm*and protective cover installed on all three phases on both sides of the hot arm. The new pole was to be framed on the ground and had been off-loaded and set onto the framing jack stand, directly under and in-line with the overhead conductors. Rather than manually lifting and setting the new crossarm onto the pole, the two linemen framing the pole opted to use the winch line of the digger derrick truck. One lineman operated and swung the boom into position over the crossarm and the other hooked the crossarm to the winch line. The lineman operating the boom moved it to position the crossarm directly over the pole, and when the crossarm was nearly in position, the boom made contact withthe road-side phaseof the energized 12 kV and locked out the circuit. No injuries.
2/28/2022	Outside Crew	CCII	Communication Failure	<b>CCII February 28, 2022</b> , Two linecrews were tasked with performing work on a 12 kV circuit and held independent tailboards before starting their work. Crew 1 was tasked with replacing branch-line fuses (BLF) while the branch line remained energized. Crew 2 was to de-energize the adjacent branch line by opening and replacing the BLFs, then replace crossarms, guy wires, etc. downstream. When crew 2 began to set up their work location, they tested the line and realized the line that should have been de-energized was still energized. This was due to miscommunication between the crews about tasks and which BLFs would remain energized and which would be de-energized
3/7/2022	Outside Crew	CCII	Operator Error	<b>CCII March 7, 2022</b> , A line crew was tasked with replacing a set of crossarms. The crew applied protective cover to the energized 12 kV conductors and proceeded to install one of the new bonded, fully-framed crossarms, but noticed a piece of cover had broken loose. They stopped and resecured the cover. After resecuring the cover, they began to place the arm in position and the cover came loose again. When the lineman placed the arm on the permanent bolt position, the arm twisted, which allowed bolts on the crossarm to make a phase-to-phase contact of the energized circuit. The foreman called an all-stop, made sure all crew members were all right, and made appropriate notifications. After receiving approval, the foreman re-energized the line. No injuries.
3/7/2022	Outside Crew	CCII	Improper Transformer Hookup	<b>CCII March 7, 2022</b> , Without incident, three linecrews completed a project on a 4 kV line, which involved a span reconductor of primary wire and the reframing of six poles. They removed their grounds and re-energized the tap line, then received a call from the substation that the circuit had relayed. After inspection, it was identified that one of the crews had inadvertently banked transformers together (connected them together). The crew made proper notifications, unbanked the transformers, and the circuit was re-energized without further incident
3/21/2022	Tree Crew	CCII	Unsecured Branch	<b>CCII March 21, 2022</b> , A foreman working aloft was performing routine line clearance tree trimming, when an unsecured branch hanging on a lower limb fell onto the primary connection to the transformer below. The foreman descended to the ground and securedthe area, and proper notifications were made. A troublemanarrived on-site and power was restored. No injuries.
3/28/2022	Outside Crew	CCII	Operator Error	<b>CCII March 28, 2022</b> , A line crew was tasked to replace a pole and a switch on an energized 12 kV line. The crew took no-test orders (NTO) and without incident a journeymen lineman and an apprentice lineman applied cover to all primary phases, removed bonding and idle hardware, and used hoists, grips, and insulated link sticks to secure the phases to a spreader arm. The foreman and another apprentice observed from the ground. Once the conductors were secure, the crew began to raise the conductors. While raising the road-side phase, the strap hoist (covered by a black primary insulating blanket) made contact with the roadside switch mounting bracket hardwareand caused the 12 kV circuit to lockout.
3/28/2022	Outside Crew	CCII	Pole Control	<b>CCII March 28, 2022</b> , A line crew was tasked to replace a 40-foot pole with a 45-foot pole. Withoutincident, the crew dug the pole hole, spread the single phase energized 12 kV, lifted the new pole between the phases, and set the pole in the hole. Once the pole was in the hole, the crew lowered the set chain to the ground to remove it once the pole was tamped into place. The crew then attempted to install a pole key* per the work orderbut the hole was not wide enough, so the pole key could not be installed. The crew raised the pole out of the holeto widen itbut did not adjust the set chain. So as the pole was raised, the pole butt cleared the holeand the pole grabbers on the line truck (used to stabilize the pole) came open due to the extra weight. The sudden loss of control of the pole caused it to flip and it made contact with one phase and broke the line, which resulted in a fuse opening down the line. An all-stop was called and proper notifications were made. The foreman ensured crew members were safe and uninjured, and assessed for property damage. The crew retailboardedand made repairs to the linewithout further incident.
4/4/2022	Civil Crew	CCII	Dig-In	<b>CCII April 4, 2022</b> , Unsafe Act, Crew-Caused Circuit Interruption, Unplanned Outage, Property Damage – A civil crew was tasked to dig a hole for a new pole set in a residential backyard. When hand-digging with a post hole digger, a worker struck a cable-in-conduit electrical line three feet below-grade. This resulted in an outage, and the foreman stopped work, secured the site, and made proper notifications. No injuries.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
4/11/2022	Outside Crew	CCII	Wire Control	<b>CCII April 11, 2022</b> , A line crew was tasked to replace nine spans of bare wire with covered conductor on a 12 kV circuit. The bare wire to be replaced was a combination of two different size wires, and to replace it the crew used the old wire to pull in the new. Instead of using the required pulling socks, swivels, and steel slings to connect the two sections of bare wire together for the pull, the crew took a shortcut and used preforms, and square and bowline knotstied from old 5/8" blue underground rope. During the pull, the tied preforms broke under tension and the old wire whipped up into the energized 115 kV line, which relayed the line.
4/18/2022	Outside Crew	CCII	Operator Error	<b>CCII April 18, 2022</b> , Without incident, a line crew replaced a dead-end pole and capacitor bank on a de-energized 16 kV line during a nighttime outage. The new capacitor bank vacuum switches were operated manually on the ground into the open position. After the new capacitor bank was successfully in place, a troubleman and crew energized the line and went to perform the final step of end-point testing the new capacitor bank. However, the foreman was told that after-hours end-point testing was not available and that the crew would need to come back to complete the testing. As instructed by the foreman, the lineman verified the vacuum switches were still open and closed the three fuse cutouts. The third fuse (outside field-side phase) did not make good contact with the top of the housing when the fuse cutout door was closed, and the fuse door inadvertently came open and created an electrical arc. The arc made contact with the adjacent cutout and caused a circuit interruption.
6/6/2022	Outside Crew	CCII	Wire Control	<b>CCII June 6, 2022</b> , Without incident a line crew performed work from a bucket on two structures then moved to a third structure to replace a double wood crossarm with a single composite crossarm on a tangent pole. The third structure did not have bucket access, so the crew climbed the pole, applied proper cover to second points of contact, and installed the new composite arm without incident. Using live-line tools to transfer the lines to the new composite crossarm, the two journeymen maintained minimum approach distances but lost control of the field-side phase, which made contact with the center phase and caused a circuit interruption. The foreman called an all-stop, confirmed no crew members were injured, and made appropriate notifications. Once the crew was given the "OK" by a troubleman, the crew retailboarded and completed the job without further incident.
6/13/2022	Outside Crew	CCII	Tool Failure	<b>CCII June 13, 2022</b> , A line crew was tasked to replace a pole as part of a planned outage from branch line fusing to the end of the section of line. When the crew used a load drop tool to open the outside-phase cutout, the load drop tool failed, and the arc from the tool failure reached the center-phase cutout and locked out the 12 kV line. Appropriate notifications were made. No injuries, structure, or equipment damage. The crew replaced the damaged cutouts and completed the remainder of the job without further incident.
8/1/2022	Outside Crew	CCII	Operator Error	<b>CCII August 1, 2022</b> , Two line crews were tasked with removing and replacing three poles. While unloading a transmission pole from a digger derrick truck, the operator contacted the outside phase of a 16 kV line with the synthetic winch line of the truck, which resulted in a circuit relay. An immediate all-stop was called. No injuries or property damage. Appropriate notifications were made. The crew resumed work and completed the job without further incident.
8/8/2022	Outside Crew	CCII	Wire Control	<b>CCII August 8, 2022</b> , A line crew was tasked with replacing a pole. When the SCE troubleman arrived and gave the crew the go-ahead to break parallel, a journeyman and apprentice went up in the bucket to begin opening the isolators and start the process of breaking parallel. They used the loadbreak tool on the west and center-phase jumpers without incident. Then, they repositioned the bucket for the third and final phase on the east side (closest to the bucket truck), which positioned them on the outside of the circuit (opposite side of the first two phases). They used the load-break tool to open the jumper and fold it back. When the apprentice pulled the open jumper in the clear and reached for tape to secure the jumper to the line, the movement caused the jumper to roll into the center phase and make contact, which relayed the circuit. The foreman immediately called an all-stop and confirmed all crew members were safe, then made appropriate notifications. Once the crew was given the go-ahead by the SCE troubleman to proceed, crew and SCE management held a safety stand-down on-site with the foreman and crew, the crew retailboarded, and they completed the job without further incident.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
8/15/2022	Outside Crew	CCII	Operator Error	<b>CCII August 15, 2022</b> , A line crew was starting a series of deteriorated pole changeouts on a 12 kV circuit. The crew identified a pole up the road and two apprentice linemen moved the digger derrick truck and pole trailer around the corner to prepare for a pole transfer from the pole trailer to the digger derrick. Before the foreman and journeyman linemen arrived at the site, the apprentices decided to transfer the pole, not realizing another 12 kV circuit was crossing the road above them. Apprentice 1 began lifting the pole off the trailer when the boom contacted the 12 kV circuit above, which caused a phase-to-ground circuit interruption. When apprentice 2 heard the contact made by the boom, he told apprentice 1 to boom down, so he set the pole back on the pole trailer and vacated the digger derrick truck. The foreman and journeyman lineman arrived on scene, and the foreman cleared the area and made appropriate notifications. Lines were re-energized quickly and very few customers were affected by the circuit interruption since the incident occurred in a rural area.
8/15/2022	Outside Crew	CCII	Improper Jackhammer	<b>CCII August 15, 2022</b> , A hole-digging crew consisting of two groundmen was tasked to finish digging a pole hole for a line crew that was going to be replacing the pole that same day. The hole had been started several days prior, dug to approximately three and a half feet deep. Along with the slurry duct bank, the pole was up against a cinder block wall. The groundmen were instructed to use a jackhammer to break the concrete and slurry to make room for the new pole. When they began to jackhammer the slurry, they damaged conduit with 4kV cable, which caused the circuit to relay and lock-out. When the groundman realized they had damaged the conduit and cable, they immediately called their foreman, who made appropriate notifications. The crew's management, SCE management, and an SCE troubleman arrived on-site, discussed how to proceed, and held a new tailboard. The crew completed the repairs without further incident. No injuries.
9/5/2022	Outside Crew	CCII	Wire Control	<b>CCII September 5, 2022</b> , A line crew was tasked with a roadside deteriorated pole replacement in a residential area. The crew implemented a traffic control plan with traffic control personnel and, without incident, the crew de-energized the transformer to start the outage, and a two-man crew (journeyman and apprentice) de-energized the capacitor bank (on another structure). Then, the journeyman and apprentice installed all the isolators, repositioned themselves to the field-side phase and cut-in the first isolator, then proceeded to cut-in the isolator on the road-side phase. When the crew cut open the isolator and folded back the conductor "tail" on the West side, the tail to the East slid out of the suspension shoe. The conductor dropped onto a tree and communication line below, which locked-out the circuit. The foreman called an all-stop, the two-man crew descended in the bucket, the area was secured, and the foreman confirmed all line and traffic control crew members were safe and uninjured. Appropriate notifications were made and after a troubleman arrived on-site, the crew was given the "go ahead" to proceed. The crew retailboarded and completed the remainder of the job without incident.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
<b>Contractor Other Incidents</b>				
10/21/2021	Outside Crew	Property Damage	Operator Error	<b>Property Damage - October 21, 2021 FINAL</b> , A four (4) man distribution crew was in the process of maneuvering a 1,000 kVa three-phase padmount transformer from behind the Terex Digger to the side of the truck so it could be loaded onto the truck bed, when the truck tipped over on its side. All crew members were a safe distance away from the truck when it tipped. The truck was positioned so that the distance from the center of the boom turret to the pick location was approximately 15 feet, and the second and third sections of the boom were extended. The Terex Digger truck has a zoned load chart, which means the load capacity changes based on which zone the load is in. It was determined the truck's stability was compromised when the load rating exceeded the truck's capability as the load was swung from the rear of the truck to the side of the truck (from one zone to the other).
1/3/2022	Outside Crew	Vehicle Incident	Operator Error	<b>Vehicle Incident - January 3, 2022</b> , A line crew completed work for the day, left the remote jobsite, and was returning to the laydown yard to unload poles and material. An apprentice was driving the digger derrick truck with trailer, followed by a journeyman lineman and apprentice in the bucket truck. The crew foreman had left ahead of the crew to gather materials for the next day's work. Approximately 10-15 minutes into the drive, the apprentice driving the digger derrick truck fell asleep and the vehicle drifted off the edge of the road, into a section of soft sand. The apprentice was startled when he felt the truck drive onto the sand and overcorrected the vehicle, which caused it to tip onto its side. (Figure 1) No injuries or third-party damage. Initial inquiries determined the crew had an approximately 13-hour rest period between shifts and vehicles were traveling at an appropriate rate of speed.
1/10/2022	Inspection Crew	Weapon Discharge	Civilian Firing Weapon	<b>Weapon Discharge, January 10, 2022</b> , An inspection team door-knocked three residences and a trailer associated with their next group of assets to inspect. The crew followed notification standard operating procedure (SOP) to "knock, announce, knock, and announce" at each residence. The crew was also wearing high-visibility yellow and orange personal protective equipment (PPE) and were clearly visible from all residences in the area. Only one resident answered their door, mentioned they had been notified SCE would be conducting inspections, and granted the inspection team access to their property. The team began their inspection work of the asset, which was located on the adjacent property that had been door-knocked but did not answer. The asset was clearly visible from both the road and the adjacent property, and a drone could safely be flown for the inspection per SOP. As the team was completing the final portion of their inspection, they heard a shotgun blast. The team took cover and began to bring the drone home. A few seconds after the weapon discharge, the team saw a woman with a shotgun on the adjacent property approaching them. While the pilot was flying the drone back home, one of the team members tried to get the woman's attention, but she turned around and began walking back to her residence.
1/10/2022	Civil Crew	Property Damage	Improper Procedure	<b>Property Damage - January 1, 2022</b> , A civil crew conducted their pre-excavation walk of the site to identify all Underground Service Alert (USA) markings and any potential conflicts (marked utilities). During their job walk, the crew acknowledged marks on the street for a damaged fiber line. Then, they began excavating with a backhoe utilizing a designated spotter when they damaged the one-inch conduit housing of the fiber service line. The crew had failed to properly pothole (hand-dig an excavation hole) to confirm a utility was present.
1/10/2022	Tree Crew	Close Call	Unsafe Act	<b>Close Call - January 10, 2022</b> , A compliance tree trimming crew tied a rope 15 feet from the top of a 50-foot palm tree they were going to cut and then rigged the rope to an adjacent palm tree. The rope was to hold and lower the top section of the palm once it was cut. However, the weight of the cut-section of palm was too heavy and fell onto the adjacent palm tree. Under too much weight to withstand and maintain an upright, unbent condition, the tree bent toward the power lines. The cut section was lowered to the ground. At least three of the crew members were standing underneath the power lines next to the bucket truck as the cut was being made. The power line or tree could have fallen upon them and the surveyor visiting the site. After the incident, the crew confirmed no injuries or damage occurred and completed the remaining work without incident.
1/17/2022	Outside Crew	Property Damage	Unsafe Act	<b>Property Damage - January 17, 2022</b> , A gas service was present near a secondary pole that was to be replaced in the same hole, so a digging crew hand-dug and exposed the gas service the day prior to the pole replacement. Before replacing the pole, a lineman on the crew determined the hole needed widening and believed there was enough room. When using a 24-inch auger to widen the hole, the auger struck the gas service. The crew called an all-stop, immediately vacated the area, called 911, and made proper notifications. The fire department arrived on scene to pinch the line and the gas company was called to make repairs.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
1/24/2022	Outside Crew	Close Call	Flash	<b>Close Call - January 24, 2022</b> , In a substation next to a transformer bank, a test box had two existing conduits entering through the bottom, the 240V conduit feeding the test outlet and a smaller (1-1/4 inch) conduit adjacent to it. The test box with existing wiring was part of the original substation infrastructure and was energized, as it was put into service earlier in the project as part of the cut-overs. The cable was already tagged-out and prepared for removal. As the foreman was pulling out the smaller conduit, one of the wires terminated inside the test plug came loose and arced against the side of the box. The foreman quickly secured the loose wire, taped off the end, and immediately notified the checker, site representative, and on-site testing crew. The testing crew checked the breaker feeding the test outlet to confirm it had not tripped during the low-voltage arc, they turned the breaker off, and checked the wiring and equipment for damage. Additional proper notifications were made. No injuries or property damage.
1/31/2022	Outside Crew	Property Damage	Loss of Control	<b>Property Damage - January 31, 2022</b> , A crew used a reach-lift with fork attachment to unload a delivery of cabinets —one crew member operated the lift, and two other crew members were spotters. When transporting one of the cabinets, one of the spotters signaled for the operator to tilt the forks on the lift and when the forks tilted, the cabinet's balance shifted, and it tipped over. The crew stopped work and made appropriate notifications.
1/31/2022	Outside Crew	Property Damage	Collision Avoidance	<b>Property Damage - January 31, 2022</b> , A two-man crew driving to their first work location of the day was traveling approximately 15-20 mph in traffic due to construction on the side of road. The driver's view of traffic ahead was obstructed by semi-trucks, and when traffic suddenly stopped, the driver rear-ended the third-party vehicle in its path.
1/31/2022	Outside Crew	Property Damage	Operator Error	<b>Property Damage - January 31, 2022</b> , A line crew was tasked to replace the existing plate anchor rod on a pole and noted the sloping terrain and Underground Service Alert (USA) location markings around the structure's location. After the crew potholed (dug an excavation hole using hand tools) approximately three-four feet to expose potential underground utilities, the crew used the auger to dig the remaining depth of the hole needed to install the plate anchor rod. The foreman climbed onto the digger derrick truck and operated the auger and a journeyman lineman positioned himself near the auger as a spotter. After some digging, the auger was lifted out of the hole to have dirt cleaned off it, and crew members communicated they smelled natural gas. The foreman immediately called an all-stop and shut down all equipment, and the lineman spotting the auger evacuated the area to a safe position with other crew members.
2/28/2022	Outside Crew	Property Damage	Operator Error	<b>Property Damage - February 28, 2022</b> , A line crew was tasked with reconductoring 13,000 feet of conductor on a 220 kV line. At the beginning of the pull to remove the existing static line, the crew noticed higher than normal tension. The crew immediately stopped the pull and discovered a safety was left attached to the static line at one of the tower structures. Upon inspection of the lattice tower, they found two steel braces had bent due to the strain. The crew retailboarded, made adjustments to the work plan, and finished the pull without further incident.
2/28/2022	Civil Crew	Property Damage	Dig In	<b>Property Damage - February 28, 2022</b> , A civil crew was replacing a switch enclosure and when a crew member was digging, the edge of the shovel came in contact with secondary cable. This tripped the breaker of the generator being used to temporarily power the switch, caused a spark, and resulted in a burn mark on the shovel.
3/7/2022	Outside Crew	Property Damage	Vehicle Accident	<b>Vehicle Accident - March 7, 2022</b> , A tree crew general foreman was driving home from work and stopped at an intersection. When the light turned green, he accelerated and reached to grab a tablet falling from the seat when the truck in front of him suddenly stopped. The foreman was unable to stop in time and hit the third-party vehicle in front of him. No injuries.
3/7/2022	Civil Crew	Property Damage	Wire Control	<b>Property Damage - March 7, 2022</b> , As part of work to replace a deteriorated pole on a 66 kV line, the crew detached a communication line from the pole and tied it-off to a concrete streetlight for temporary support. The crew observed several semi-trucks pass under the tied-off communication line without issue and moved to their next task. A short time later, the load of a semi-truck and trailer snagged the communication line, which pulled down an adjacent pole on a 12 kV circuit. The crew attempted to stop the semi-truck driver, but the driver fled the scene. The crew used their on-site traffic control to stop traffic in all directions until it was safe for vehicles to proceed. Once the area was secured, the foreman made appropriate notifications.
3/14/2022	Outside Crew	Property Damage	Speed-Driver Error	<b>Property Damage - March 14, 2022</b> , A worker was driving a crane and when he attempted to make a right turn at an unsafe speed, the crane tipped over. Proper notifications were made, and California Highway Patrol and other emergency services arrived on-site. No reported injuries.
4/4/2022	Civil Crew	Property Damage	Dig-In	<b>Property Damage - April 4, 2022</b> , A civil crew was tasked to install conduit for a new electrical system. The crew identified marked utilities within their proposed excavation area on private property. When potholing* with a round point shovel, a worker struck and damaged a half-inch gas service. Work was immediately stopped, the area was secured, and proper notifications were made. No injuries.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
4/25/2022	Outside Crew	Vehicle Incident	No Spotter	<b>Vehicle Incident-Property Damage - April 25, 2022</b> , When a line worker went to move his truck and trailer to a different location, he assessed there was insufficient room to pull forward and maneuver around an adjacent crew vehicle. So, without a spotter, he backed-up his truck and trailer, and backed into a private party vehicle parked directly behind him.
5/9/2022	Civil Crew	Fire	Equipment Sparking	<b>Fire - May 9, 2022</b> , A crewmember was using a chop saw to cut a steel plate with hot work permit requirements in place. While performing this task, a spark was carried by the wind onto a near embankment, causing a small brush fire. Crew immediately took steps to eliminate the fire with a fire extinguisher and fire tools that were onsite.
5/9/2022	Outside Crew	Fire	Fallen Wire	<b>Fire - May 9, 2022</b> , A contractor crew was in the high fire threat district working on a reconductor project and a brush fire started prior to work beginning due to a fallen wire. SDG&E Fire Coordination showed up to assist and when inspecting the contractors crew trucks, they found that some of the trucks were out of compliance and did not have the proper fire tools on hand.
5/9/2022	Outside Crew	Near Miss	Lack of Testing	<b>Near Miss - May 9, 2022</b> , Crew was in the process of rebuilding the 650 line for Liberty Utilities. The crew was tasked with getting wire from str 2 to the substation portal 650 line. The crew had wire setup at str 3, they pulled conductor through str 2 and down to the ground outside the substation fence, where the bucket was setup. They installed the pistol grip dead end shoe and the DE insulator on the wire. The JL at that point flew the Dead end up in the bucket truck to pin to the A-frame. On the A frame there was a vertical switch that was closed with a jumper going to a underhung aresstor on the top arm. From the bottom of the switch was a jumper going to a CT and from there to URD pothead termination. When the lineman pinned the dead-end he felt like there was a lot of induction on the dead-end. He flew to the ground and notified the foreman that it felt like there was a lot of induction more than the 60kv line that paralleled the sub would make. At that point they tested the switch and it was energized at 120kv. The foreman called NVE system to see if he could get permission to open the switch, NVE said they did not show the switch or cable in there system or mapping. The liberty inspector was notified of the situation that happened by the foreman, and that the cable and switch were energized. A NVE sub switchman showed up about a hour and a half later and opened the switch and verified that nothing was in there system that even showed this. The crew called a all stop and did not proceed with any more work on that tower. They crew discussed the mistakes that were made, by not verifying the switches were de-energized by testing. MAD distance was broke when we pinned the dead-end. Complacency came into play because the whole crew was under the assumption that this was a new construction project and everything on the portal tower was new and de-energized. Test for any nominal voltage on all sources. Never Assume. Communicate with all entity's involved.
5/9/2022	Outside Crew	Fiber Line Break	Wire Control	<b>Fiber Line Break - May 9, 2022</b> , A five-man line crew was tasked with reframing three de-energized and grounded structures. The journeyman lineman operating the bucket truck was booming down with the knuckle in the vertical position to hand-off a crossarm to the apprentice lineman on the ground. When booming back up into his working position, the journeyman heard a loud popping sound. He had not paid attention to the fiber line below the bucket's second stage and when he boomed back up, the fiber line was caught on the second stage of the bucket and broke. The foreman immediately called an all-stop, gathered his crew to retailboard, contacted supervision, and rolled up the fiber line and secured it to the pole. Appropriate notifications were made. No injuries. The crew completed their work without further incident.
5/9/2022	Outside Crew	Secondary Failure	Improper Installation	<b>Secondary Failure - May 9, 2022</b> , As part of a 66 kV circuit breaker (CB) commissioning, a maintenance crew in a substation was pushing secondary voltage to the 66 kV CB when they realized that the palette was getting hot. Once they deenergized the wiring, they noticed field wiring in the CB pull box had not been not safe-ended after lugs were installed and had been pushed back into conduit next to the feed, which caused the wiring to ground-out. The crew stopped all work, made appropriate notifications, and held a safety stand down. No injuries.
5/9/2022	Outside Crew	Civilian Vehicle Damage	Loss of Hardware Control	<b>Civilian Vehicle Damage - May 9, 2022</b> , A journeyman lineman installed a new streetlight and noticed there was no power. He identified the neutral was damaged and when he removed the one-bolt to fix the neutral, the bolt slipped out of his hands and cracked the windshield of a third-party vehicle. Appropriate notifications were made, including contact made with the third-party vehicle owner to replace the windshield.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
6/6/2022	Outside Crew	Customer Complaint	Irrational Customer	<b>Customer Complaint - June 6, 2022</b> , Customer Complaint. A line crew was tasked to reframe a pole and reconductor a 12 kV line, and the pole was in the front yard of a private property in a rural area. The crew had been working approximately 90 minutes when a Sheriff arrived because the customer had called in and claimed he saw the crew on camera, and that they were impersonating a utility crew and attempting to burglarize his property. The authorities verified the crew and their work, advised the crew to quickly finish their work, and let the homeowner know the situation. A general foreman (GF) arrived on-site, spoke with the Sheriff, and called the customer while in front of the Deputy. The customer not-so-nicely told the GF to get off the property, but the GF explained to the Sheriff it would be unsafe to leave the jobsite in the condition it was in, and that the crew would finish the job as quickly as possible but in a safe manner. Later, the customer arrived on-scene and began threatening the crew, claiming he would make use of a firearm. The crew attempted to leave in their vehicles, but the customer had blocked the access road with his truck. So, the crew vacated the property on-foot. At some point during all this, the customer fired a weapon 12 – 15 times, thought to be aimed at the ground. The crew safely exited the property, notified the police department, and made appropriate notifications
6/6/2022	Tree Crew	Vehicle Incident	Civilian Driver	<b>Vehicle Incident - June 6, 2022</b> , A line crew was caravanning to their job site in the morning, driving a digger derrick truck hauling a pole (traveling approximately 30 mph), followed by two bucket trucks. A third-party driver cut in front of the bucket truck travelling directly behind the digger derrick, which caused the bucket truck driver to lock up his brakes. The second bucket truck driver was unable to stop in time and rear-ended the bucket truck in front of him. The drivers pulled the trucks to the side of the road, assessed the crew for injuries, secured the scene, and made appropriate notifications. No injuries reported at the scene.
6/13/2022	Tree Crew	Property Damage	Operator Error	<b>Property Damage - June 13, 2022</b> , A seven-man tree crew was performing a large tree removal operation with crane-assisted rigging and had cleared the property owner from the house prior to beginning work. The tree showed clear signs of decay and the treetop had three codominant stems growing from a previous treetop failure. The climber attached a sling to one of the codominant stems and cut close to the included bark to identify the extent of decay. After the cut was made and the crane lifted the tree section about three feet, the smaller, unsecured codominant stem broke, and fell about 50 feet onto the roof of the nearby property below, which punctured the roof in several places and damaged two beams. An all-stop was called, the tree crew secured the area, and appropriate notifications were made. Already working under a scheduled outage, the crew reassessed and updated their work plan, discussed what could have prevented the incident, and completed the remainder of the job without further incident.
6/13/2022	Outside Crew	Vehicle Incident	Operator Error	<b>Vehicle Incident - June 13, 2022</b> , A digging crew was going to retrieve compressors from the landing zone that had been used in a prior helicopter job. The compressors had been flown into the landing zone, lined up, and staged so their wheels could be reattached prior to transport. A digger derrick with pole trailer had been brought in to assist in lifting the compressors. A foreman truck was parked next to the digger derrick, facing the opposite direction. A groundman decided to move the digger derrick into position for the lifts and began to back up the vehicle without a spotter. When the foreman heard the digger derrick backup alarm, he began to yell and run toward the vehicle. Due to the position of the truck and trailer, the vehicles jackknifed, and the back end of the digger derrick struck the foreman truck. The foreman called an all-stop, had the groundman shut off and vacate the vehicle, and made appropriate notifications. No injuries.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
7/7/2022	Outside Crew	Property Damage	Engine Failure	<b>Property Damage - July 7, 2022</b> , An Electrical crew (E-crew) foreman was traveling south bound on 405 freeway in a foreman companion vehicle. The driver felt the truck clunking and then lost power steering and brake-assist to the vehicle. Around the same time, the foreman witnessed smoke coming from the engine compartment. The foreman coasted the companion truck off the freeway at the Palo Verde exit and pulled off the main road. The crew used a fire extinguisher and safely put out the engine fire, the fire was small and did not warrant emergency services. The crew members following the foreman reported seeing metal debris coming out from under the truck at roughly the same time the incident was occurring. There were no injuries, the foreman's vehicle was delivered to the Long Beach S/C garage and the Transportation Services Department (TSD) manger was contacted. Cause: The Apparent Cause of the vehicle fire was catastrophic failure of the engine. Internal components breeched the engine wall and allowed lubricating oil to leak onto the exhaust pipe igniting the oil.
7/18/2022	Quality Specialist	Property Damage	Operator Error	<b>Property Damage - July 18, 2022</b> , When a quality specialist driving a Polaris on a right-of-way was making a U-turn, the back right tire fell into a hidden rut and at the same time, the front left tire climbed up onto a rock. The Polaris tipped, teetered, and then slowly fell onto the driver's side. The specialist was driving alone, at a safe speed, and was wearing a helmet and safety seatbelt. No injuries. Minor damage to the vehicle. After the specialist determined he was safe and uninjured, he made appropriate notifications.
7/18/2022	Fielder	Vehicle Incident	Operator Error	<b>Vehicle Incident - July 18, 2022</b> , A fielder was driving south bound on the 605 Freeway, when the car in front slammed on its brakes. Fielder was unable to stop in time and hit the car in front at approximately 5-10 mph. Fielder pulled the vehicle over the shoulder of the freeway and turned-on hazard lights. Fielder got out of the vehicle and made contact with the other drivers to see if there were any injuries. After determining it was not a medical emergency, she then made proper notifications.
7/25/2022	Civil Crew	Property Damage	Operator Error	<b>Property Damage - July 25, 2022</b> , Operator was trenching with mini-ex to clear roots and struck a newly installed 1/2" CIC communication line. Work was stopped, and site was secured. Notifications were made to Safety, GF, Superintendent, SCE ISU-2/UCCM and Dig Alert. No injuries were sustained.
8/1/2022	Tree Crew	Property Damage	Operator Error	<b>Property Damage - August 1, 2022</b> , A three-man tree trimming crew was performing routine line clearance in a residential area. The foreman was using an aerial lift and pole pruner to complete the task. The crew had performed a thorough inspection and identified the communication line, but due to heavy vegetation and poor visibility at the time of operations, the foreman cut the communication line with the pole pruner. The crew stopped all work, secured the area, and made appropriate notifications.
8/1/2022	Civil Crew	Property Damage	Improper Dig	<b>Property Damage - August 1, 2022</b> , A crew had potholed* for utilities and located and marked a water line prior to beginning excavation, but due to confusion on the original mark and actual located mark, the operator and spotter dug and hit the line. Appropriate notifications were made, repairs were made by the water company, and it was determined the crew should have clearly identified the potholed service before backfilling the pothole. Two days later, a site meeting was held with all crew members prior to the start of work to review the appropriate policies and procedures and eliminate future confusion on this type of issue.
8/8/2022	Outside Crew	Close Call	3rd Pary Vehicle Accident	<b>Close Call - August 8, 2022</b> , A line crew had crew traffic control set-up (one lane closed on a two-lane road) and were placing temporary asphalt. Flaggers were located at each end of the lane closure. Flagger 2 (north taper) gave flagger 1 (south end) clearance to allow oncoming vehicles to proceed north. Flagger 2 was holding traffic on his end and noticed the first vehicle approaching his stop zone traveling at a high rate of speed. He began frantically waving the stop paddle to get the driver's attention, but the vehicle swerved past flagger 2, heading towards the oncoming traffic. Finally, the driver noticed the oncoming traffic, veered into the cone zone at high rate of speed, and collided with the crew's unoccupied skidsteer. The skidsteer was pushed approximately 60 feet from where it was parked. The crew immediately stopped work, secured the site, called 911, and made appropriate notifications. The California Highway Patrol and emergency medical services responded, and the four occupants of the third-party vehicle were transported to the hospital. No pedestrians in the area and no injuries to the crew.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
8/8/2022	Civil Crew	Property Damage	Improper Potholing	<b>Property Damage- August 8, 2022</b> , A worker was potholing two feet away from a marked utility, moving inward toward the mark. When he was unable to locate the utility, he began clearing loose spoils from the trench and nicked the marked 1/2" poly gas line with the round tip shovel. The crew immediately stopped work, secured the site, and made appropriate notifications.
8/8/2022	Outside Crew	Property Damage	Driver Error	<b>Property Damage- August 8, 2022</b> , A line crew conducted their job briefing for a reconductor job then started to maneuver heavy equipment into position on the right-of-way. A lineman drove the bucket truck with attached wire puller to the structure where the puller would be set. After the puller was moved into place and unhitched, a second lineman went to move the bucket truck and when he moved it forward, the truck bumper sheared a fire hydrant and water flowed out. The foreman immediately made appropriate notifications, including the water district. A water technician arrived onsite, shut-off the water, and scheduled repair of the hydrant for a future date. No injuries. The bucket truck sustained minor damage to the front bumper.
8/8/2022	Outside Crew	Property Damage	Pole Control	<b>Property Damage- August 8, 2022</b> , A four-man line crew was tasked to replace a three-phase dead-end deteriorated pole with a three-phase transformer bank. The crew deenergized the primary and secondary 1 span south at the adjacent double dead-end, and they grounded at the adjacent structure. After they deenergized the circuit, the crew set up the bucket at the structure to be replaced. The pole was at the rear of a commercial building and a lineman and the foreman began to get the new pole and digger derrick set up in the alley way. The apprentice was tasked to frame crossarms and one lineman was in the bucket to start wrecking-out the old pole. The lineman in the bucket was able to let down the slack primary and secondary lines, and he removed the secondary crossarm and two communication lines. The lineman saw the down guy wire was slacked, and he was able to open the down guy preform and remove the down guy by hand. After the lineman removed the down guy, he started to boom down, and the pole fell over (with the transformer bank still on it) across a chain-link fence and into the adjacent property. The crew stopped work, the foreman confirmed no one was near the pole(crew or the public) and there were no injuries, then made appropriate notifications. The oil was contained within a small area of the asphalt parking lot and the crew inspected the area for drains and gutters but found none in the area. Both SCE and crew leaders arrived at the jobsite, followed by the environmental contractor to handle clean-up of the transformer oil release.
8/22/2022	Outside Crew	Property Damage	Unsecured Load	<b>Property Damage - August 22, 2022</b> , A line crew was traveling back to the yard in a rural area after deteriorated pole and wire replacement work. An apprentice was driving the digger derrick truck with trailer and had merged onto the highway. Other crew members caravanning (two bucket trucks and a foreman truck) behind the apprentice came upon two third-party vehicles that had been damaged by two wire reels. The foreman cleared the area, made sure all parties were out of the roadway, and contacted the apprentice in the digger derrick truck to double-back to the scene. The apprentice was not aware that he had lost part of the load. No injuries. Appropriate notifications were made. The California Highway Patrol arrived on-scene and filed a report.
8/22/2022	Outside Crew	Property Damage	Driver Error	<b>Property Damage - August 22, 2022</b> , A three-man tree crew in a pick-up truck with a water tender attached was driving on a dirt road. As they approached a left turn, the driver continued straight onto the earth embankment and the truck flipped over onto its roof. The crew members helped each other out of the vehicle, confirmed everyone was okay, then inspected the site for environmental spills or potential signs of ignition — none were observed. Appropriate notifications were made, and the general foreman and safety manager arrived on-site. Although no injuries were noted at the time, the management team sent the crew to a medical facility for a check up.
8/29/2022	Civil Crew	Property Damage	Improper Potholing	<b>Property Damage - August 29, 2022</b> , When potholing to locate a half-inch gas line, a worker damaged the service. Work was stopped, the site was secured, and appropriate notifications were made

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
8/29/2022	Civil Crew	Property Damage	Improper Potholing	<b>Property Damage - August 29, 2022</b> , A civil crew was potholing by-hand using a round point shovel in extremely hard soil conditions when they damaged a marked, plastic gas service line. Work was stopped, the area was secured, and appropriate notifications were made. A SoCal Gas repair crew arrived and made necessary repairs.
8/29/2022	Civil Crew	Property Damage	Improper Potholing	<b>Property Damage - August 29, 2022</b> , A civil crew had potholed a gas service at the sidewalk and confirmed it was not in conflict with new house electrical service being installed. A worker located the gas service near the meter riser then began hand-digging to locate the conduit stub-out (installed the previous day). While locating the stub-out, the worker realized he had nicked the gas service that veered into, then back-out of the trench line. Work was stopped, the area was secured, and appropriate notifications were made. A SoCal Gas repair crew arrived and made necessary repairs.
8/29/2022	Outside Crew	Pole Failure	Deteriorated Pole	<b>Equipment Failure - August 29, 2022</b> , A crew was tasked with replacing a deteriorated pole (pole A) as part of a scheduled night outage; the crew had traffic control in-place. The crew members applied adequate primary cover of the top 12 kV line in order to start removing all facilities off the pole to be replaced. Without incident the crew disconnected, let down, and secured onto an existing span guy the 50-foot primary buck/lateral slack span line (#4 ACSR wire) that was going south and attached to another wood pole (pole B). Also without incident, they cut down the old pole to the communication level, detached and suspended the communication lines at-grade, and removed the remainder of the existing pole and pole butt from the ground. While hand-digging to clean out the existing hole to accommodate the new pole, the crew members heard crackling noises across the street and witnessed pole B fall and land on the street –inside the traffic control and pedestrian closure –northwest of its existing location. The foreman immediately called an all-stop, confirmed all crew members were safe, then made appropriate notifications. Once the crew was given the okay to proceed, the foreman held an on-site safety stand-down and retailboarded with the crew. The remainder of the job was completed without further incident.
9/5/2022	Tree Crew	Property Damage	Improper Work Procedure	<b>Property Damage - September 5, 2022</b> , A tree crew was tasked to remove a tree in a mountainous area. Before beginning work, the crew identified a handhole* in the drop zone and created a barrier of protection around it using sections of cedar logs. During climbing/cutting operations, the crew used a pulley system to lower sections of the tree down with control. Their objective was to bring the treetop down next to the cedar logs and avoid damage to the handhole, but the treetop struck and bounced off one of the cedar logs and landed on top of the handhole. The impact damaged the handhole cover and exterior of the wires, which left the underground wires exposed. Appropriate notifications were made, and the tree crews safely cleared a path for a troubleman to access and repair the handhole.

<u>Date Of Incident</u>	<u>Occupation</u>	<u>Type of Incident</u>	<u>Body Part / Root Cause</u>	<u>Description</u>
<b>Customer Accidents/Incidents</b>				
5/13/2022	SCE Civil Crew	Civilian Auto Incident	3 - Civilian Fatalities	<b>Fatality - May 13,2022</b> , A SoCal Edison civil crew was working on an underground structure of a 12 kV circuit. The crew had closed a nearby on-ramp as a safety precaution and set up a backhoe trailer within another area of their established traffic control to act as a buffer to oncoming traffic. While the foreman was in his truck and another employee was near the outside of the truck, a third-party vehicle drove into the coned-off traffic control area and hit the backhoe trailer, which pushed the trailer into the foreman's truck. The foreman's truck was pushed forward by the impact and caused the foreman to strike his head, then his truck hit the other crew member, who fell backwards and hit his head on the curb. Other crew members heard a loud noise, saw debris, and the third-party vehicle burst into flames. Both the injured foreman and crew member were treated at a hospital and released. Tragically, the three people inside the third-party vehicle were all fatally injured.
5/9/2022	SCE Survey Crew	Civilian Auto Incident	Fatality	<b>Fatality - May 9,2022</b> , A subcontracted surveyor that was working for SoCal Edison was performing work on a median and was struck by a third party vehicle. He was transported to the nearest medical center where he unfortunately succumbed to his injuries.
5/4/2022	PG&E Gas Crew	Significant Injury	2-Fatalities	<b>Fatality - May 4,2022</b> , Crew was pigging a pipeline after a hydrostatic test and placed foam pigs into the launcher. The pig receiver door was open, the pig released, and struck two employees that were directly in front of the door. The crew called 911 and both employees were transported to the hospital. Neither employee survived their injuries.



6/2/2022

Ref. No. HL-0822

## **Use of SCE Approved Materials and Adherence to SCE Construction Standards**

### **Purpose**

The purpose of this bulletin is to remind SCE and contractor crews of the requirement that only project-specific, SCE-approved materials, as provided in SCE's construction and design standards, may be installed on SCE's structures/facilities.

### **Discussion**

SCE's published construction and design standards help ensure compliance with CPUC General Orders and other regulations. SCE's construction and design standards provide details on SCE approved materials for overhead and underground installations.

### **Action**

Ensure that SCE-approved materials (i.e., material coded items) are installed on SCE structures/facilities.

**Equipment or materials that are not approved by SCE shall not be used or installed. SCE and contractor crews should not install materials from other SCE installation projects or materials from installations for other utilities without verifying that the materials are approved by SCE for the project.**

### **Standards Affected**

No standards are being changed. Refer to the appropriate construction or design standard based on the work being performed.

### **Contact Information**

- For questions regarding this bulletin, contact Benjamin Garcia @ Benjamin.garcia@sce.com or 714-895-0787
- Contractors – contact your Edison Representative, Project General Supervisor (PGS), Inspector, Specialist, Project Superintendent, etc. or Field Safety Advisor



6/23/2022

Ref. No. OB-0822

## **E1 Notification Environmental Request Update**

### **Purpose**

The purpose of this Operating Bulletin communication is to inform SCE and Contractor personnel of the environmental requirements and contacts for E1 notifications that are emergent priority level 1 (E1P1).

### **Background**

From early mid-2022, the Audits Service Department (ASD) performed an internal audit review of the processes and procedures surrounding E1P1 work activities in both Transmission and Distribution (T&D). The audit included a review of the E1P1 program policies and procedures issued in 2021, including employee and contractor training and job aids regarding P1 work classification and engagement of Environmental Service Department (ESD).

Per ESD policies and procedures, ESD is required to be notified during ground- and vegetation-disturbing activities, which includes but is not limited to, pole replacements. As part of the audit evaluation and findings, ASD found many pole replacements occurred without environmental review, and there was significant variability regarding when and where pole replacements were reported. These findings indicate unclear guidance and lack of controls.

### **Discussion**

When performing ground and/or vegetation disturbing activities or when accessing public lands to perform E1P1 activities, ESD must be contacted.

During E1P1 work activities, it is very important to avoid environmental impacts to the greatest extent possible. ESD will provide guidance to avoid/minimize environmental impacts and field monitors so crews can complete the work in the safest manner possible.

The duty supervisor or foreman is responsible to provide the Standard Environmental Requirements to crews performing E1P1 work. Crews including contractors will follow Standard Environmental Requirements when performing E1P1 work activities.

Link to Standard Environmental Requirements

<https://edisonintl.sharepoint.com/sites/TD/org/MIPO/Standard%20Environmental%20Requirements.pdf>

**Action**

The duty supervisor or foreman is responsible to contact ESD if work activities or access involve ground and/or vegetation disturbance

Examples include:

- **Ground disturbance** - vehicular overland or off-road travel to access pole or structure locations, guy anchor replacement, pole replacement, access road maintenance, or underground cable repair.
- **Vegetation disturbance** - tree trimming, tree removal, and creation of a foot path

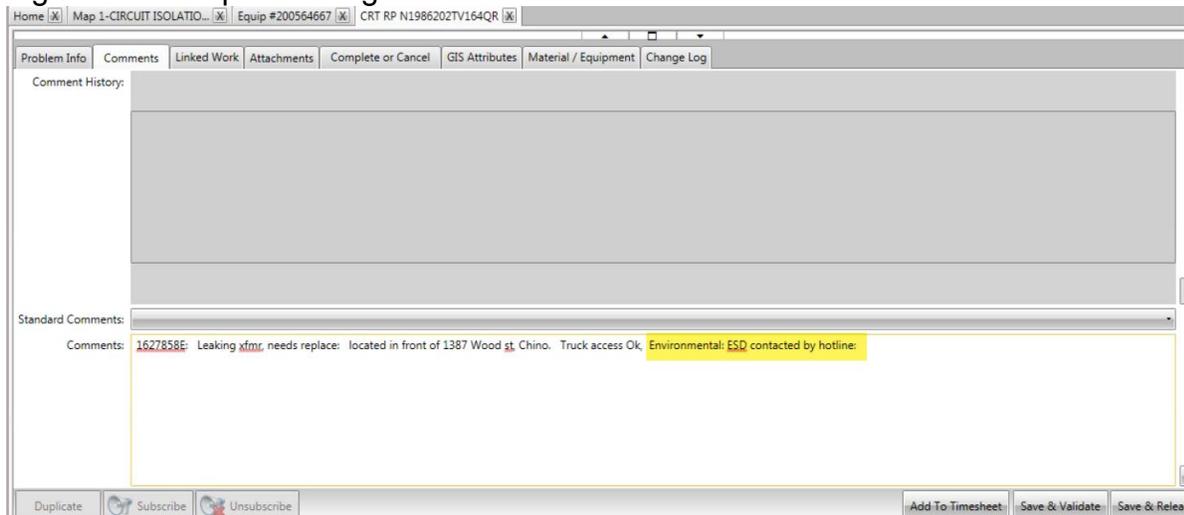
The duty supervisor or foreman is responsible to notify Got Spill as soon as possible if known or suspected hazardous material release at the work site.

The person responsible (i.e., foreman) to notify ESD is also required to document actions in the E1P1 notification long text. This requirement will validate and document ESD was formally contacted. Contractors will need to contact the duty supervisor if ESD is required and by which method. Refer to table below for E1P1 notification long text documentation requirements.

Table 1. Long Text Documentation

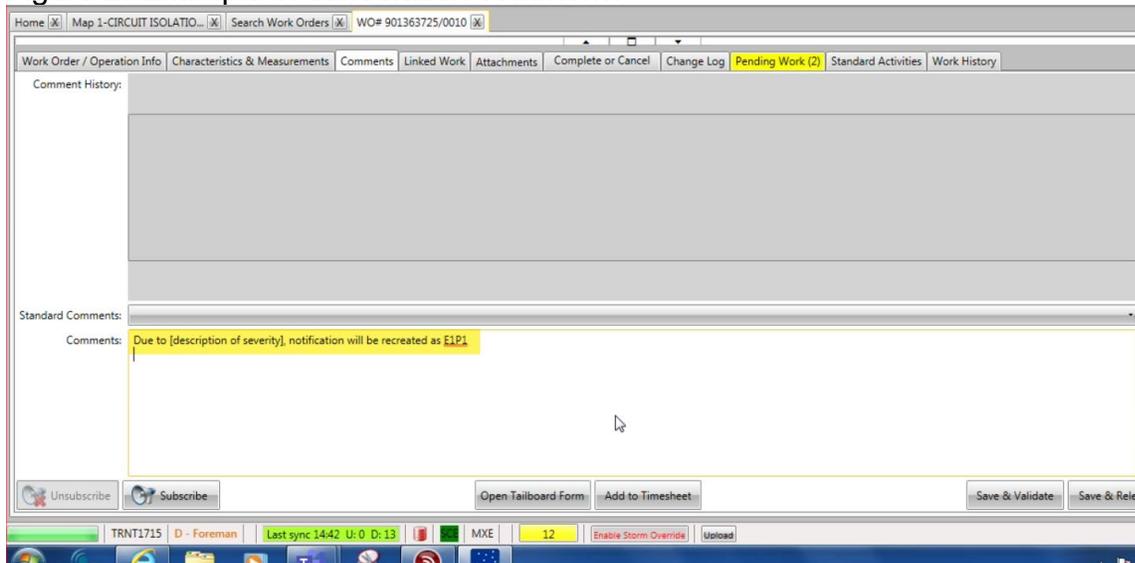
Condition	Situation/Action	E1P1 Notification Long Text Documentation Requirements
1.	Environmental contacted by hotline	Environmental: ESD contacted by hotline
2.	Environmental contacted by email	Environmental: ESD contacted by email
3.	Got Spill contacted by hotline	Environmental: Got Spill contacted by hotline

Figure 1. Example of Long Text documentation



If the condition is initially written as an E1P2 notification (non-emergent) but due to the severity requires the priority to be changed to E1P1 (emergent), the PRS (performance resource supervisor) will follow the existing cancelation process and ensure the comments are documented in the long text. If Environmental is required, the PRS is responsible to add environmental documentation in the long text comment in E1P1 (see Table 1 for reference).

Figure 2. Example of cancelation comments



### **Standards Affected**

New Environmental Manual targeted to be released, 4<sup>th</sup> quarter 2022

### **Contact Information**

Environmental Services Department (ESD) is available 24/7 to respond to E1P1 work and spill responses

Contact ESD at (833) SCE-2ENC/ (833) 723-2362 or email [EnvironmentalRequirements@sce.com](mailto:EnvironmentalRequirements@sce.com) for questions about environmental requirements (e.g. birds, cultural resources, waterways), non-compliances, and emergency P1 work.

Contact Got Spill at (844) GOT-SPIL (844) 468-7745 for hazardous material releases.

## Update to Anti-Rotation Clip

### Purpose

The purpose of this communication is to advise SCE and Contract personnel of the correct installation method for the dead-end cover anti-rotation clip.

### Background

In July 2020, SCE Engineering and Construction Methods added a new requirement to install an anti-rotation clip to prevent dead-end covers from rotating. This requirement was added when covered conductor dead-end installations had been identified where the dead-end cover had rotated when dead-end jumpers were installed below the shoe or cover. The anti-rotation clip was required for all instances, regardless of jumper direction/orientation.

### Discussion

During QA/QC inspections the following observations have been made:

- In some instances, the cotter key of the dead-end shoe was identified as coming out from the pin. See Figure 1. The assumption is that the anti-rotation clip was installed too close to the pin and cotter key and was likely pushed out during installation.
- The dead-end cover was installed incorrectly over too many sheds/skirts. Incorrect placement of the dead-end cover could affect placement of the anti-rotation clip.



**Figure 1: Example of Backed-Out Cotter Pin**

## Action

Install the dead-end cover per the provided manufacturer installation instructions. See Figure 3 below.

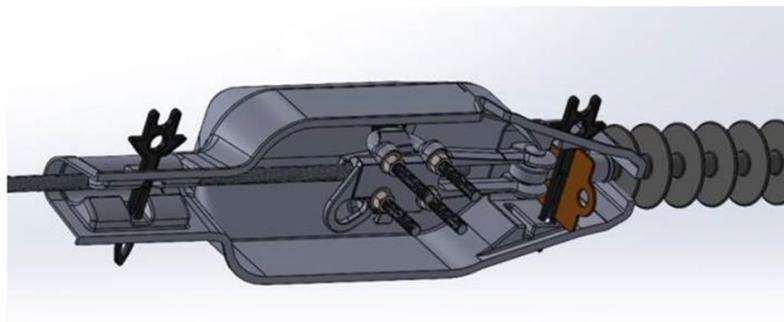
- Cover should be installed on the outside of the first skirt/shed of the dead-end insulator.
- The pins should be installed perpendicular to the line/shoe so the pin lays flat
- The anti-rotation clip will be installed **behind** the pin that holds the dead-end cover in place and on the flat part of the dead-end insulator. This will put the anti-rotation clip behind the two pin and cut outs of the dead-end cover. See Figure 4.
- The cotter key should be installed with the head of the key facing up or towards the dead-end insulator See Figure 5.

Based on field feedback, if required, a hole may be drill in the location identified in Figure 6. A drilled hole in this location will allow for easier bending of the larger covered conductor sizes. If a hole is drilled, the pre-drilled hole needs to be covered with the caps that are provided when shipped to districts.

Upon publication of this communication, dead-end installs that have a jumper coming out of the top of the dead-end cover **will not** require the anti-rotation clip to be installed. This also applies to existing installations. Refer to Figure 2.



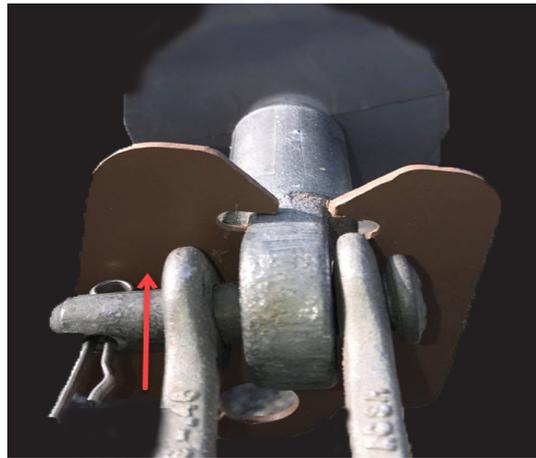
**Figure 2: Dead-End Jumper Orientation (would not require anti-rotation clip)**



**Figure 3: Manufacturer Installation Instruction Example**



**Figure 4: Correct Installation of Pin and Anti-Rotation Clip**



**Figure 5: Correct Orientation of Cotter Pin**



**Figure 6: Location of Drilled Hole for Larger Conductors**

**Quality Control Observations:**

Outstanding quality control (QC) observations are being evaluated based on highest risk and QC is expected to continue to observe structures for missing anti-rotation clips on dead-end wildlife covers. Exceptions to “go-back” and future QC observations are wildlife cover dead-end installs missing the anti-rotation clip where the jumper tail is orientated through the top of the cover, securing it from rotating.

**Standards Affected**

DOH DC 535

**Contact Information**

- SCE employees — contact [Thomas.Fieldse@sce.com](mailto:Thomas.Fieldse@sce.com) or [CMHelpDesk@sce.com](mailto:CMHelpDesk@sce.com)
- Contractors — contact your Edison Representative, Project General Supervisor (PGS), Inspector, Specialist, Project Superintendent, etc. or Field Safety Advisor



## MONTHLY SAFETY TOPIC – FIRE SAFETY

**Seven of the deadliest wildfires in California history were in the past five years. How can we do our part to help keep wildfires from igniting this season?** According to the California Department of Forestry and Fire Protection, 95% of California wildfires are caused by people. If that's true, then it stands to reason that 95% of California wildfires *are preventable*. That's where we come in...the goal is prevention.

Unfortunately, we know from experience that wildfire season has moved from summer months to a year-round issue, with wildfire fuels more abundant as they dry throughout the year and drought conditions worsen.

So, what is within our control to ensure our habits or the work we perform do not contribute to the problem? We must go beyond the mundane fire preparedness approach by keeping it top-of-mind during job prep and when on-site...consciously stepping through the fire plan, not just checking the box. How much real, conscious thought do we give to fire safety when planning and performing our work? Are we prepared for the high probability that fast moving, wind or fuel-driven wildfires will burn adjacent to or through the work area at any point?

Remember, wildfires can quickly overcome operational and maintenance crews, placing their health and safety at risk. That's why understanding and applying the following company programs and policies around fire prevention is paramount:

- SCE High Fire Risk Area (HFRA) Work Restriction and Mitigation Measures\*, which set restrictions or delays to field work in HFRA
- SCE Hot Work Permit Program specifying requirements for spark-emitting activities such as cutting, welding, and grinding operations
- Operations and Maintenance Plan for Electric Facilities on National Forest System Lands within the Pacific Southwest Region, which describes how a utility's field personnel and contractors conduct O&M activities in a manner that is consistent with the standards and guidelines of each forest's land management plan

Yes, that's a lot of information, but much time and effort have gone into developing policies and procedures for wildfire preparedness and prevention — all with worker and public safety in mind. So, again, how can we do our part to keep wildfires from igniting this season and not be included in that 95%?

\*see attached HFRA Work Restriction and Mitigation Measures or page 3 for a link

## TAILBOARD TOPICS

**Hold on a minute. Identify what's important right now — for you, your crew, this job...**

### Ask yourselves:

- Will we be driving or parking over dry brush? What should we consider or do differently?
- Yes, we have fire extinguishers but are they up-to-date or expired? Who checked?
- Will our work involve spark-producing equipment over or near vegetation/dry brush? If so, what is our fire plan?
- Does our work require a water truck? Anything else?
- Anyone on this crew a smoker? Are they properly extinguishing their cigarette(s)?
- Am I working near or with flammable materials? What precautions do I need to take?
- Sure, you can see the fire equipment...but is it close by and accessible? If a fire ignites near you, just how far away do you want that gear to be? Pretty darn close, actually.

### Fire Safety Quiz

1. The Fire Supervisor is the designated Utility point of contact responsible for communicating fire related information between the forest and the \_\_\_\_\_ work crews.
2. The fire patrol person is a member of the work crew assigned the responsibilities for fire \_\_\_\_\_ and fire \_\_\_\_\_ mitigation on the job site.
3. The Project Activity Level is a decision support tool designed to help fire and timber resource managers establish the level of industrial precaution for the \_\_\_\_\_ day.
4. The Fire Watch, when assigned, shall continue to monitor the Hot Work area \_\_\_\_\_ minutes after the completion of Hot Work operation to detect and extinguish smoldering fires.
5. When working with contractors, before starting a job that includes \_\_\_\_\_, the SCE Representative or designated Point of Contact shall discuss the planned project, identify approved Hot Work site locations, review the \_\_\_\_\_ - \_\_\_\_\_ emergency procedures with the contractor, and ensure the work procedures do not \_\_\_\_\_ with the objectives of the SCE Hot Work Program.

Answers: 1. Utility 2. prevention, risk 3. following 4. thirty 5. Hot Work, site-specific, conflict

Incident learnings and safety bulletins, and *preliminary* information on electrical contact, unsafe act or condition, or high-energy, low-energy, or potential serious injury or fatality incidents which occurred among our extended SCE workforce.

These incidents occurred within our SCE workforce and are clear reminders that rules must be followed. Provided for crew awareness and discussion, it is expected that leaders share this information and reinforce adherence.

## INJURY/ILLNESS

As part of fire mitigation work, an **aerial inspection crew was performing distribution pole inspections**. The crew entered an open property and talked with a worker on the far end of that property. There were **gates with "beware of dog" signs and all gates were open**. The crew drove to the end of the pole line and heard dogs bark in the area. **One crew member got out** and was going to notify the homeowner and as the crew member was walking, they **remembered they needed personal protective equipment (PPE)** from the vehicle. The crew member **turned around started to walk back** to get the PPE and the homeowner's **dog bit the crew member in the calf**, which broke the skin. Appropriate notifications were made. The crew used their first-aid kit to treat the wound then went to an urgent care provider where the crew member received basic first-aid and was released the same day with no limitations.



Figure 1. Injured crew member's calf with dog bite.

## SCE and CONTRACTOR EXPECTATIONS

Review and employ the following to help avoid similar incidents:

### Safety Reminders

- Maintain situational awareness
- If possible, make contact with the customer at the front door prior to entering a backyard or private property. Ask if animals are present and request the resident/owner keep the animal(s) inside or secured until notified by you that work is complete
- Announce your presence before entering private property by hitting the fence, yelling, or making other loud sounds
- Look for signs that a dog might be present such as food/water bowls, running tracks along fences, animal toys, etc.
- Use available large objects to shield yourself and act as a barrier between you and the attacking animal until exit is possible
- If possible, face the dog/animal and try to walk away. Do not run with your back to it

## CLOSE CALL

An **aerial inspection team inspecting transmission towers was positioning the drone** to capture an upward view of the tower. **Neither the pilot nor the visual observer had line of sight to the drone** as they descended it into position, and the drone pilot **inadvertently descended the drone onto the top of an adjacent lattice tower** (a much shorter structure located between the two taller towers). The **drone became lodged in the lattice portion of the tower**. Appropriate notifications were made. A project-wide safety stand down was called and a senior patrolman retrieved the drone. No injuries. No damage to the transmission tower. The drone sustained minimal damage.



Figure 2. Drone and transmission tower involved in incident.

## SCE and CONTRACTOR EXPECTATIONS

Review and employ the following to help avoid similar incidents:

### Critical Observable Actions

- Crew uses a spotter to avoid overhead obstructions
- There is effective communication between spotter and operator
- Crew has a thorough tailboard, covering all primary hazards, signed by all on-site
- Crew is communicating effectively
- Crew is using three-way communication for critical tasks

### Safety Reminders

- Hold a formal tailboard covering all scopes of work relevant to the completion of the assigned tasks, the associated hazards, and mitigation plan(s)
- Use a spotter with a clear line of sight when maneuvering booms and other aerial equipment
- Open communication should always be present and encouraged on jobsites between crew members
- Retailboard to cover remaining tasks required to complete the job after changes in scope, unforeseen weather conditions, long breaks, or other interruptions which may take focus off the task at-hand

Incident learnings and safety bulletins, and *preliminary* information on electrical contact, unsafe act or condition, or high-energy, low-energy, or potential serious injury or fatality incidents which occurred among our extended SCE workforce.

## OTHER

A five-man line crew was tasked with replacing a deteriorated pole in a city plaza. When an apprentice working from a bucket moved into position to remove a city-owned visa box that was mounted to the structure, he was swarmed by bees that were living in the box. The apprentice safely boomed away from the structure and notified his foreman. The crew stopped work and secured the area, the apprentice was assessed for first-aid needs, and appropriate notifications were made. The apprentice sustained bee stings to his forehead and right hand. Through this incident it was learned the apprentice was not allergic to bees; he did not require first-aid.

## SCE and CONTRACTOR EXPECTATIONS

Review and employ the following to help avoid similar incidents:

### Safety Reminders

- Be prepared with medication (e.g., EPI pen) if needed for workers subject to allergic reaction(s)
- Seek first-aid/medical attention as soon as possible when bitten by a pest or animal
- Maintain situational awareness, review job sites, and continuously look for potential safety hazards
- When attacked by bees, hornets, or wasps, get to safety as quickly as possible, as bees release a chemical that attracts other bees when they sting
- If workers do get stung, have someone stay with them to watch for any allergic reactions. The area where the sting occurred should be washed with soap and water before attempting to remove the stinger. Run a clean fingernail or gauze over the sting to draw the stinger out
- Ice can be applied to a recent sting to help reduce swelling. Refrain from scratching or picking at a sting so that it doesn't become further irritated or infected



Figure 3. Pole and visa box involved in incident.

## What are Critical Observable Actions?

Critical Observable Actions (COAs) are visible actions or conditions that mitigate a primary hazard.

See full lists of COAs for the following work-types:

- [Air Operations](#)
- [Compliance Tree Trimming Recently updated!](#)
- [Overhead Distribution](#)
- [Substation Construction](#)
- [Transmission Bulk Power](#)
- [Underground Civil](#)

## UPDATED COMPLIANCE TREE TRIMMING CRITICAL OBSERVABLE ACTIONS

SCE recently updated the Compliance Tree Trimming Critical Observable Actions (COA) table. Changes are effective immediately.

**See attached.** These updated and other work-type COAs are also available by clicking the links available in the yellow side bar on this page or at our supplier site at [sce.com](http://sce.com).

## INTER-UTILITY OVERHEAD TRAINING ASSOCIATION CONFERENCE

### The significantly reduced hotel rate has been extended until July 15!

The annual Inter-Utility Overhead Training Association (IUOTA) conference returns this year and is being hosted by SCE and Milwaukee Tool.

Bringing training and safety together, the primary purpose of IOUTA is to promote increased efficiency and effectiveness of training for overhead and underground personnel through the exchange of ideas and training information. The scope of training activities includes safety, communications, operations, maintenance, general work practices, and policies related to training.

Registration is free. This is a great opportunity for training and safety professionals as well as leaders in operations (field or supervision) responsible to benchmark pertinent industry information and glean lessons learned to help prevent serious injuries and fatalities at their own companies.

**The conference is August 15 – 17, 2022** at Hotel Maya in Long Beach, CA. **Significantly reduced hotel room rate available through July 15.** The conference location is also family-friendly, with many activities nearby.

Space is limited. Click [here](#) to register for the conference and/or learn specifics about the hotel, rate, etc. Visit [www.iuota.com](http://www.iuota.com) for IOUTA contacts and additional conference information.

## HFRA Hot Work Restriction & Mitigation Measures

The High Fire Risk Area (HFRA) Hot Work Restriction and Mitigation Measures program requires SCE employees and contractors to adhere to additional precautionary safe work practices at all times when performing hot work activities in HFRA that may cause arcs, sparks, flames, and/or significant heat sources which could lead to an ignition.

Visit the [Contractor Safety Portal > Manuals & Handbooks > Fire Prevention](#) for complete information

## **HFRA Hot Work Restriction & Mitigation Measures**

The objective of this program is to implement additional measures to help mitigate against crew/equipment caused fire ignitions in high fire risk areas (HFRA) and to bring further heightened awareness to the inherent dangers around conducting field work that could generate a spark/arc or create an ignition while working in HFRA.

This program requires SCE employees and contractors to adhere to additional precautionary safe work practices at all times when performing hot work activities in HFRA that may cause arcs, sparks, flames and/or significant heat sources which could lead to an ignition. Additionally, this program requires SCE employees and contractors to postpone non-emergency work that involves hot work activities during elevated and extreme fire weather threat conditions to help prevent a wildfire that could be difficult to suppress.

Hot work activities are defined as construction or maintenance activities that can initiate a fire or generate potential ignition sources. These activities include traditional hot work activities pursuant to SCE's [Hot Work Program](#), which include the following:

- Metal cutting and grinding
- Welding
- Burning
- Oxygen and arc cutting
- Open flame soldering
- Brazing
- Pipe thawing
- Torch applied roofing
- Thermal spraying

Region managers (Distribution), regional construction managers (Distribution), district managers (Distribution), grid managers (Transmission), operations managers (Vegetation Management), field supervisors, and other OU leadership with oversight of field work (e.g., Generation, IT, CRE, etc.) are responsible for ensuring that SCE field personnel comply with this program and that their contractors are aware of their obligation to train their crews in the requirements of this program and validate that they have the required tools/equipment to comply with the mitigations listed below.

### **HFRA Hot Work Restriction and Mitigation Measures**

SCE employees and contractors shall comply with **ALL** the following fire mitigation practices whenever conducting hot work activities in SCE's HFRA:

1. Conduct a pre-job plan/tailboard to identify work activities that would have the potential for causing a fire and an action plan to mitigate them;
2. Work that could cause a fire shall be performed under the direct observation of the crew foreman or site lead;
3. Hot work permits (where applicable at SCE locations/facilities) are in place prior to commencing work;
4. One or more of the following mitigations must be in place when conducting hot work activities:
  - a. A minimum 10 ft. radius\*\* of the ground around the central hot work activity area shall be generously sprayed with water (or approved wetting agent) using water backpack or other

- means and reapplied as needed to ensure any vegetation or potential ignition risks remain damp throughout the duration of hot work, **OR**
- b. A minimum 10 ft. radius\*\* of the ground around the central hot work activity area shall be cleared to mineral earth/dirt (local agency/jurisdiction permitting), **OR**
  - c. A welding tent, fire/blast/arc blankets, and/or metal shield surrounding the hot work must be deployed;
5. The crew is able to maintain adequate communications (900 MHz, cellular, satellite, etc.) if coverage is available;
  6. Work vehicle(s) must be equipped with, at minimum, the following fire suppression equipment: shovel, McLeod or heavy-duty metal rake, completely filled water backpack (minimum 5 gal. capacity), and ABC fire extinguisher (min. 5 lb. capacity). Such equipment must be readily available and placed near the work being performed to enable an immediate response to an incipient ignition;
  7. Care should always be taken not to park or drive vehicles on dry grass, leaves, or brush, **AND:**
  8. All switching operations shall comply with System Operating Bulletin 322 (SOB 322).

\*\*Protected area may be adjusted to account for wind or other environmental/site conditions as deemed necessary by foreman/site lead to ensure appropriate ignition mitigation.

Vegetation Management contractors shall also adhere to their approved SCE Contractor Hazard Assessment and Safety Plan, which provide additional mitigation measures and requirements specific to their work scope and activities.

Additionally, all field work performed within the boundaries of the United States Forest Service (USFS) shall comply with the USFS Master Special Use Permit and Operations and Maintenance Plan Appendix "F" (Fire Plan), which outlines responsibilities for fire prevention and extinguishment of fires that inadvertently start from utility operations and maintenance (O&M) activities on forest lands. The provisions in the Fire Plan also specify conditions under which O&M activities are authorized to occur, identify a system for determining fire risk, and detail conditions under which O&M activities will be curtailed or shut down. Lastly, SCE employees and contractors shall comply with all applicable federal, state, and local fire safety regulations.

### **Primary and Secondary Line Work and Switching**

Although primary and secondary line work and switching are generally not considered traditional hot work activities, field crews should be prepared for the unexpected, such as accidents and/or equipment malfunction that could generate sparks or incandescent particles. All of the mitigations noted above, with the exception of #4, shall be in place when performing the following line work and switching activities in HFRA. However, mitigation #4 should be employed if the line work and switching activities are *expected* to generate sparks or incandescent particles.

- Manual operation of energized electrical devices
- Energizing or de-energizing lines or equipment
- Opening or closing taps or fuses on energized electrical equipment
- Clearing foreign objects/vegetation in contact with energized lines
- Installing or removing protective covers on energized lines or equipment
- Working on energized secondaries or services

## **Additional Field Work Restrictions During Elevated and Extreme Fire Weather Threat Conditions (PSPS Events):**

During elevated or extreme fire weather threat conditions, SCE's incident commander may elect to activate an incident management team (IMT) to oversee its Public Safety Power Shutoff (PSPS) protocol. Special precautions must be taken during these events as vegetation will be particularly susceptible to ignition and a resulting fire could be difficult to suppress.

**Hot work activity on or near circuits subject to PSPS:** When working on or near circuits *under consideration for or de-energized due to* a PSPS event, all non-emergency work involving hot work activities on such circuits shall be cancelled during the period of concern and subsequently rescheduled when conditions improve. Emergency work (remediating conditions that represent immediate threats to public safety, electric reliability, or property) may only be performed if the above safe work practices (#1 - #8) are met. These restrictions shall apply to all SCE employees and contractors working in the areas of concern.

Note: If there are changes to the forecast and circuits are added to the PSPS monitoring list with a period of concern that is concurrent to hot work activities being performed, work must be safely stopped. Requested exceptions shall be provided to the PSPS IMT incident commander for review and approval along with the appropriate justifications and described mitigations. The crew foreman or site lead is responsible for ensuring adherence to these guidelines at all times, including situational awareness of HFRA boundaries and any current PSPS event activity.

### **Exceptions to the restrictions/mitigations noted above:**

- If the hot work is confined to an area devoid of flammable or combustible materials (e.g., parking lot, commercial area, irrigated/maintained agricultural lands, bare mineral rock/earth, work indoors, etc.), OR
- If it is actively raining, or has recently rained, and the ground and vegetation near the work area is saturated during hot work activities (reassessment required if rain ceases and fuels begin to dry out), OR
- Work that does not have the potential to generate arcs, sparks, flames or high-heat sources and cannot ignite a fire, OR
- When a circuit is de-energized due to PSPS and repairs to any identified priority notifications are needed, work may be performed to conduct such repairs so long as the remediation activities do not have the possibility of causing an ignition.

### **How to Identify HFRA and Circuits Subject to PSPS**

Maintaining situational awareness about which areas are considered high fire risk and subject to PSPS is a critical part of this program. The link below will take you to SCE's public "Power Outage Awareness Map" tool (Figure 1 below) where you can enter the nearest address (1) in order to determine if you are in a HFRA or working (or planning to work) on a circuit under consideration for or de-energized due to PSPS. Click on the 'Apply Filters' (2) widget on the interactive outage map, select 'High Fire Risk Areas' (3), and 'Apply Filter' (4) to see if the area of concern is in HFRA or subject to PSPS.

Link: [Current Power Outages](#) | [Outage Center](#) | [Home - SCE](#)

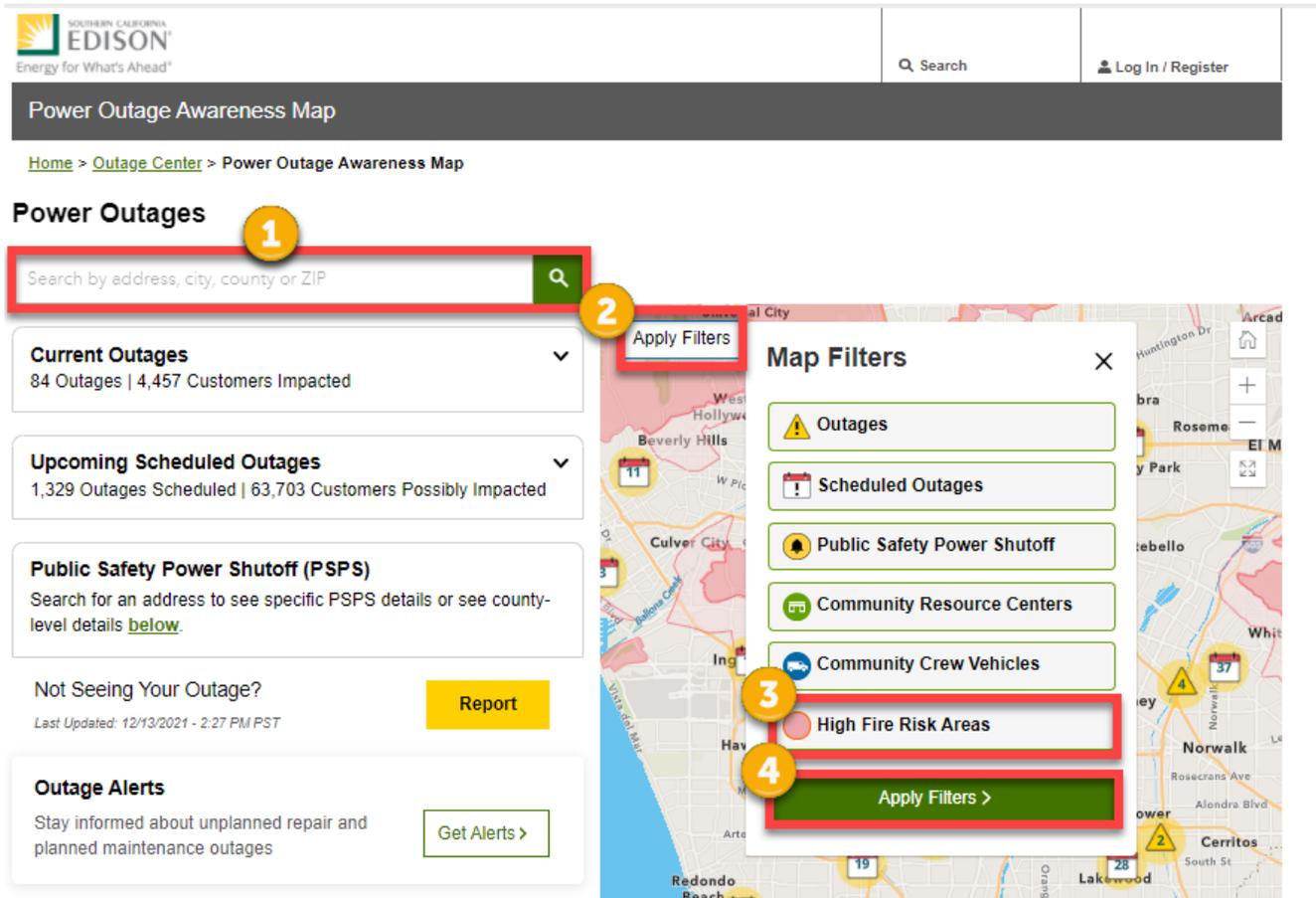


Figure 1

## Fire Monitoring and Patrol

All SCE field operating organizations should always remain vigilant and alert for fires or possible fires while working or traveling in HFRA. Any identified fires must be immediately reported to 911 and the appropriate Switching Center or Control Center as soon as possible:

- Transmission and Distribution employees (including Vegetation Management) will notify the local switching center
- IT and Transmission Telecom employees will notify the Telecommunications Control Center
- Corporate Real Estate, Environmental Services, and Corporate Security employees will notify the Edison Security Operations Center
- Generation employees will notify Generation dispatch
- Contractors must also notify their Edison representative

Additionally, Red Flag Fire Patrol magnetic or vinyl signs should be displayed on designated vehicles when operating in SCE's HFRA during a Red Flag Warning (Magnetic = SAP #10212566 / Vinyl = SAP #10212567).

## **Recommended Fire Prevention Practices for Job Tailboards**

Tailboards are a critical first step to ensure all supervisors and members of each crew involved in a job thoroughly understand the work to be performed and the method of accomplishing it in a safe manner. Before the start of each job, or in the event the scope of the job changes, every supervisor/job lead shall call his/her crew together and outline the proper work procedures/methods, roles and responsibilities, and possible hazards in order to conduct the work safely and minimize the risk of an ignition.

Below you will find a collection of best practices from CAL FIRE's Fire Prevention Field Guide, USFS Operations and Maintenance Plan for Electric Facilities, and other sources that can be used during the job tailboard when covering fire hazards and mitigations specific to the work being performed and job location.

- ✓ Select tools in good working order and work methods that minimize or eliminate arcs/sparks, if possible
- ✓ Select tools with mechanisms that do not create sparks or excessive heat when in use (e.g., hydraulic cable/bolt cutters) and avoid those that do (e.g., reciprocating saw)
- ✓ If arcs/sparks are unavoidable, ensure the work area is wetted down as required and utilize fire/welding blankets for added protection from heat sources
- ✓ Designate a Fire Watch, a person responsible for observing the hot work, monitoring conditions to ensure that a fire does not occur, stopping work if unsafe conditions develop, and immediately responding should an ignition occur
- ✓ Designate a Swamper, a person responsible for keeping the ground wetted under the hot work location as needed throughout the job
- ✓ Fire suppression tools and equipment should be kept directly accessible to workers at all times
- ✓ Carefully assess the terrain, vegetation, and access routes around and leading to the job location for hazards that may prevent the suppression of an incipient stage fire
- ✓ Ensure fire extinguishers are fully charged, water backpacks are full, and batteries are charged (if using battery powered sprayers)
- ✓ Ensure an adequate supply of water is available based on job size/type to ensure the area is wetted down appropriately throughout the day and water backpacks remain full
- ✓ Periodically inspect fire suppression equipment and tools to ensure they are in good repair and can be relied upon when needed
- ✓ Road grading or heavy brush removal requiring the use of heavy equipment should have a fire plan specific to the location and job objectives
- ✓ Mowing brush and small ingrowth trees to maintain previously cleared corridors should have a spotter in front of the mowing path to ensure rocks and other debris are removed prior to clearing
- ✓ If using gasoline-powered equipment, regularly check the spark arrestor to ensure carbon and/or oil buildup is removed and there are no holes in the arrestor screen
- ✓ When refueling equipment: Allow the equipment to cool for at least 5 minutes, only refuel over a non-combustible surface or approved fire barrier, SLOWLY open fuel tank to release pressure, and cease hot work during refueling; never rest hot equipment down on dry fuels
- ✓ Smoking is not permitted except in a barren area or in an area cleared to mineral soil at least 3 feet in diameter (PRC 4423.4)

## Compliance Tree Trimming Critical Observable Action Table



Activity / Environment	Primary Hazards	Critical Observable Actions
 <b>BASIC SITE SAFETY</b>	<b>General Requirements</b>	<input type="checkbox"/> Crew actively uses a competent, engaged observer. <input type="checkbox"/> Crew has a thorough tailboard with documentation on-site and available. <input type="checkbox"/> Crew has an Emergency Action Plan and necessary equipment on-site. <input type="checkbox"/> Crew has required fire equipment on-site. <input type="checkbox"/> Crew has the necessary tools/equipment and are using them appropriately. <input type="checkbox"/> Crew communicates effectively. <input type="checkbox"/> Crew remains out of the bight (i.e., pinch points, line of fire). <input type="checkbox"/> Crew maintains an orderly and thoughtful worksite, free of debris and tripping hazards. <input type="checkbox"/> Tools on-site are inspected, in good condition, and properly rated. <input type="checkbox"/> Crew is wearing personal protective equipment (PPE) required for the task at-hand. <input type="checkbox"/> Surrounding conditions are safe to work.
	<b>Atmosphere</b>	<input type="checkbox"/> Crew has ample water and shade on-site. <input type="checkbox"/> Weather is conducive and safe for planned activities.
 <b>TRAFFIC</b>	<b>Moving Vehicles</b>	<input type="checkbox"/> Crew has a traffic control plan on-site (if required). <input type="checkbox"/> Pedestrians are diverted around work site or escorted through. <input type="checkbox"/> Crew minimizes their exposure to traffic in high-risk traffic areas when possible. <input type="checkbox"/> Position vehicles as barriers when possible. <input type="checkbox"/> Crew has sufficient space to work safely within the coned-off work area. <input type="checkbox"/> Crew members face oncoming traffic at all times. <input type="checkbox"/> Crew is wearing high visibility clothing. <input type="checkbox"/> Flaggers/workers are in safe location with pre-determined escape route. <input type="checkbox"/> Boom avoids being positioned over lanes of passing traffic or pedestrian paths when possible. <input type="checkbox"/> Engaged spotter watches for high-profile vehicles while the boom is low over the roadway.
 <b>CLIMBING</b>	<b>Fall from heights</b>	<input type="checkbox"/> Crew actively uses a competent, engaged observer when climber ascends above 12 feet. <input type="checkbox"/> Fall protection equipment is in good condition. <input type="checkbox"/> Tree hazard assessment has been completed prior to climb. <input type="checkbox"/> Climber is using double tie-in when cutting tools are in use. <input type="checkbox"/> The climber is attached to a secure anchor point tied to a main leader – not a lateral branch. <input type="checkbox"/> Fall protection is correctly worn and adjusted properly.
	<b>Electrical Contact</b>	<input type="checkbox"/> Crew actively uses a competent, engaged observer. <input type="checkbox"/> Climber keeps body parts and tools outside of the minimum approach distance (MAD) at all times. <input type="checkbox"/> Tie-in point is positioned to swing away from power lines. <input type="checkbox"/> Limbs trimmed only when there is visibility of what is being cut. <input type="checkbox"/> Branches within the MAD are removed with approved tools/equipment. <input type="checkbox"/> Pruner poles shall be equipped with a properly placed and rated slash cord insulator. <input type="checkbox"/> Limbs cut above power lines are lowered with controlled rigging.
 <b>TREE FELLING</b>	<b>General</b>	<input type="checkbox"/> The crew has an effective tree removal plan in place.
	<b>Electrical Contact</b>	<input type="checkbox"/> Climber keeps body parts and tools outside of the MAD at all times. <input type="checkbox"/> Removed limbs and tree parts/sections are rigged and lowered to maintain clearance outside of the MAD.
	<b>Falling Tree/Dropped Objects</b>	<input type="checkbox"/> A drop zone is established, clearly marked, and enforced. <input type="checkbox"/> Notch and back-cut are used to fell trees over five inches in diameter at breast height (DBH). <input type="checkbox"/> The tree is safe to rig against, if applicable. <input type="checkbox"/> Safe distances are enforced (1.5x for rope pullers, 2x for bystanders). <input type="checkbox"/> Clearly established and cleared escape route for all workers. <input type="checkbox"/> Feller retreats via escape route as soon as tree begins falling. <input type="checkbox"/> Crew assesses for new hazards before moving into the danger zone. <input type="checkbox"/> Crews use a pull rope as needed on trees greater than five inches in DBH. <input type="checkbox"/> Crew uses appropriate rigging to avoid unintentional fall direction.

## Compliance Tree Trimming Critical Observable Action Table



Activity / Environment	Primary Hazards	Critical Observable Actions
	<b>Falling Objects</b>	<input type="checkbox"/> Crew actively uses a competent, engaged observer. <input type="checkbox"/> A drop zone is established, clearly marked, and enforced. <input type="checkbox"/> Tools used aloft are secure when not in use. <input type="checkbox"/> Crew communicates effectively.
	<b>Fall from Heights</b>	<input type="checkbox"/> Crew actively uses a competent, engaged observer when worker is above 12 feet. <input type="checkbox"/> Aerial device is set up securely and on stable ground. <input type="checkbox"/> Wheel chocks, outriggers, and pads are used as required. <input type="checkbox"/> Fall protection is worn correctly. <input type="checkbox"/> Fall protection equipment is in good condition. <input type="checkbox"/> Fall protection is attached to bucket anchor. <input type="checkbox"/> Load is within the capacity of the aerial lift. <input type="checkbox"/> Arborist stands firmly on the floor of the bucket at all times.
	<b>Electrical Contact</b>	<input type="checkbox"/> Crew actively uses a competent, engaged observer when electrical hazards are present. <input type="checkbox"/> Climber keeps body parts and tools outside of the MAD at all times. <input type="checkbox"/> Limbs trimmed only when there is visibility of what is being cut. <input type="checkbox"/> Branches within the MAD are removed with approved tools/equipment. <input type="checkbox"/> Limbs cut above power lines are dropped with control.
	<b>Fall from Heights</b>	<input type="checkbox"/> Crew actively uses a competent, engaged observer. <input type="checkbox"/> Ladder is in good condition. <input type="checkbox"/> Ladder is securely placed on stable ground. <input type="checkbox"/> Climber maintains three points-of-contact while ascending/descending.
	<b>Electrical Contact</b>	<input type="checkbox"/> Crew actively uses a competent, engaged observer when electrical hazards are present. <input type="checkbox"/> Limbs trimmed only when there is visibility of what is being cut. <input type="checkbox"/> Crew uses a non-conductive ladder. <input type="checkbox"/> Climber keeps body parts and tools outside of the MAD at all times. <input type="checkbox"/> Climber avoids contact with phone/communication lines or pole at all times.
	<b>General Requirements</b>	<input type="checkbox"/> Driver is qualified for the vehicle. <input type="checkbox"/> Vehicle is not parked on combustible material. <input type="checkbox"/> Vehicle is in good condition. <input type="checkbox"/> Unattended vehicles and trailers are secured. <input type="checkbox"/> Crew maintains three points-of-contact when ascending or descending vehicles or equipment. <input type="checkbox"/> Passengers only travel in seats with seatbelts. <input type="checkbox"/> Seatbelts are worn when vehicle is in motion.
	<b>Trailers and Loads</b>	<input type="checkbox"/> Loads are secure. <input type="checkbox"/> Trailer is in good condition prior to moving. <input type="checkbox"/> Trailer connections to vehicle are secure prior to moving the vehicle. <input type="checkbox"/> Chains and tie-downs are appropriate, used correctly, and in good condition.
	<b>Collision</b>	<input type="checkbox"/> Environment is safe before moving. <input type="checkbox"/> Driver maintains safe speed and following distance. <input type="checkbox"/> Driver uses turn signals as appropriate. <input type="checkbox"/> Driver removes all distractions prior to and during driving. <input type="checkbox"/> Driver parks in direction of egress whenever possible. <input type="checkbox"/> Driver uses a spotter when backing or otherwise necessary.
	<b>Rollover</b>	<input type="checkbox"/> Speed is appropriate for high center-of-gravity vehicles. <input type="checkbox"/> Driver approaches turns at a safe speed. <input type="checkbox"/> Driver keeps wheels on the road, except when entering a worksite (i.e., driving over grates etc.). <input type="checkbox"/> Ensure nearby shoulder is safe prior to pulling-off the road. <input type="checkbox"/> Driver manages appropriate gear and speed on declines.

## Compliance Tree Trimming Critical Observable Action Table



Activity / Environment	Primary Hazards	Critical Observable Actions
	<b>General</b>	<input type="checkbox"/> Crew ensures chipper location and activity do not compromise safety of workers.
	<b>Caught-In/Between</b>	<input type="checkbox"/> Crew clears chipping area, brush, and brush-hauling paths of ropes and other obstacles. <input type="checkbox"/> Crew uses tear away vests only while chipping; loose clothing and jewelry are removed prior to chipping. <input type="checkbox"/> Safety bar and/or emergency stop system is in place and working (if applicable). <input type="checkbox"/> Crew uses a push stick to move small debris into chipper. <input type="checkbox"/> Lock-Out Tag-Out of chipper during maintenance, when not in use, or when clearing a jammed chipper.
	<b>Struck By</b>	<input type="checkbox"/> Chipper is fed away from traffic (curbside) and branch is fed butt-end first. <input type="checkbox"/> Crew stands to the side of the chipper while chipper in operation. <input type="checkbox"/> All chipper guards and covers are in place and in good condition. <input type="checkbox"/> Crew stands clear of discharge of the chipper.
	<b>Laceration</b>	<input type="checkbox"/> Crew is using proper PPE for chainsaw use. <input type="checkbox"/> Chainsaw safety devices are in place and functioning properly. <input type="checkbox"/> Crew starts the chainsaw properly (i.e., does not drop-start). <input type="checkbox"/> Crew uses two hands when operating a chainsaw. <input type="checkbox"/> Crew maintains a stable body position when using a chainsaw. <input type="checkbox"/> Chainsaw is held with lower quadrant of the bar to avoid kickback (i.e., avoid cutting with upper quadrant). <input type="checkbox"/> Crew keeps body parts out of the chainsaw line of fire. <input type="checkbox"/> The body of the chainsaw is within the operator's power zone (i.e., shoulder to knee height). <input type="checkbox"/> When not in use, the chain brake is engaged, and the engine is off. <input type="checkbox"/> Crew carries the chainsaw in a safe manner.
	<b>Fall from Heights</b>	<input type="checkbox"/> Climber is using a second tie-in when operating a chainsaw aloft.
	<b>Dropped Objects</b>	<input type="checkbox"/> When not in use, chainsaw is secured against falling.
	<b>Fire</b>	<input type="checkbox"/> Chainsaws have both a muffler and spark arrestor and hot saw is not set on combustible material. <input type="checkbox"/> Saw operator moves at least 10 feet from the fueling station before starting the saw.
	<b>General</b>	<input type="checkbox"/> Pre-climb and trim assessment done
	<b>Fall from Heights</b>	<input type="checkbox"/> Crew actively uses a competent, engaged observer during climbing activities. <input type="checkbox"/> Crew has completed a pre-climb assessment of the palm and all climbing gear (gear replaced as needed). <input type="checkbox"/> Climber is tied into main trunk/stem with an Adjustable False Crotch (AFC) or choking configuration. <input type="checkbox"/> Climber's tie-in point/primary-suspension point prevents lateral movement of the climb line. <input type="checkbox"/> Climber is 100% tied-in at all times (ascending, descending, repositioning). <input type="checkbox"/> When repositioning, climber preloads new tie-in points with his/her full weight before releasing current means of secure tie-in. <input type="checkbox"/> Climber is using double tie-in when cutting tools are in use. <input type="checkbox"/> Climber is supported by an arborist climbing system positioned above the skirt.
	<b>Electrical Contact</b>	<input type="checkbox"/> Crew actively uses a competent, engaged observer. <input type="checkbox"/> Climber keeps body parts and tools outside of the MAD at all times as determined by qualification. <input type="checkbox"/> Fronds cut above power lines dropped or lowered with control. <input type="checkbox"/> Fronds in contact with wire removed with non-conductive tool equipped with a slash cord insulator.
	<b>Falling Objects</b>	<input type="checkbox"/> A drop zone is established, clearly marked, and enforced. <input type="checkbox"/> Tools used aloft are secure when not in use.
	<b>Suffocation / Crushing</b>	<input type="checkbox"/> Palm frond skirts shall be removed from the top crown.

Poda de árboles normativa  
**Tabla de medidas críticas observables**



Actividad	Peligros principales	Medidas críticas observables
 <p>Seguridad básica del área de</p>	<p><b>Requisitos generales</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Los trabajadores usan activamente los servicios de un observador competente y atento.</li> <li><input type="checkbox"/> Los trabajadores tienen un formulario de seguridad ("tailboard") completo con documentación disponible en el área de trabajo.</li> <li><input type="checkbox"/> Los trabajadores tienen un Plan de Medidas para Emergencias y el equipo necesario en el área.</li> <li><input type="checkbox"/> Los trabajadores tienen el equipo contra incendios necesario en el área.</li> <li><input type="checkbox"/> Los trabajadores tienen las herramientas/equipos necesarios y los usan correctamente.</li> <li><input type="checkbox"/> Los trabajadores se comunican de forma eficaz.</li> <li><input type="checkbox"/> Los trabajadores se mantienen fuera de peligro (es decir, puntos de aplastamiento, línea de riesgo).</li> <li><input type="checkbox"/> Los trabajadores mantienen un área de trabajo ordenada y cuidada, libre de residuos y de obstáculos que puedan provocar tropiezos.</li> <li><input type="checkbox"/> Las herramientas presentes en el área de trabajo se inspeccionan, están en buen estado y son adecuadas para ese uso.</li> <li><input type="checkbox"/> Los trabajadores usan el equipo de protección personal (PPE) adecuado para la tarea a realizar.</li> <li><input type="checkbox"/> Las condiciones son seguras para el trabajo.</li> </ul>
	<p><b>Ambiente</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Los trabajadores tienen abundante agua y sombra en el área.</li> <li><input type="checkbox"/> Las condiciones climáticas son adecuadas y seguras para las tareas previstas.</li> </ul>
 <p>Tránsito</p>	<p><b>Vehículos en movimiento</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Los trabajadores tienen un plan de control del tránsito en el área de trabajo (si fuera necesario).</li> <li><input type="checkbox"/> Los peatones se desvían del área de trabajo o bien se acompañan para atravesarla.</li> <li><input type="checkbox"/> Los trabajadores minimizan su exposición al tránsito en las zonas de alto riesgo cuando es posible.</li> <li><input type="checkbox"/> Colocar los vehículos como barreras cuando sea posible.</li> <li><input type="checkbox"/> Los trabajadores tienen espacio suficiente para trabajar de forma segura dentro del área de trabajo delimitada.</li> <li><input type="checkbox"/> En todo momento, los trabajadores realizan sus tareas de cara al sentido de circulación.</li> <li><input type="checkbox"/> Los trabajadores usan ropa de alta visibilidad.</li> <li><input type="checkbox"/> Los encargados de la señalización/trabajadores están ubicados en un lugar seguro con una ruta de escape predeterminada.</li> <li><input type="checkbox"/> Dentro de lo posible, se evita que el camión pluma esté ubicado en los carriles de circulación o las vías peatonales.</li> <li><input type="checkbox"/> El observador está atento a la presencia de vehículos altos mientras el camión pluma está bajo.</li> </ul>
 <p>Al subirse a un árbol</p>	<p><b>Caída desde alturas</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Los trabajadores usan activamente los servicios de un observador competente y atento cuando el escalador sube por sobre los 12 pies de altura.</li> <li><input type="checkbox"/> El equipo de protección contra caídas está en buen estado.</li> <li><input type="checkbox"/> Se llevó a cabo una evaluación del peligro de los árboles antes de subir.</li> <li><input type="checkbox"/> El trabajador usa el doble amarre cuando las herramientas de poda estén en uso.</li> <li><input type="checkbox"/> El escalador está sujeto a un punto de anclaje seguro amarrado a la parte superior del tronco, no a una rama lateral.</li> <li><input type="checkbox"/> La protección contra caídas se usa correctamente y está bien ajustada.</li> </ul>
	<p><b>Contacto eléctrico</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Los trabajadores usan activamente los servicios de un observador competente y atento.</li> <li><input type="checkbox"/> El escalador mantiene todo su cuerpo y herramientas fuera de la distancia mínima de seguridad ("minimum approach distance", MAD) en todo momento.</li> <li><input type="checkbox"/> El punto de amarre está colocado de forma de alejar al personal de los cables eléctricos.</li> <li><input type="checkbox"/> Las ramas se podan sólo cuando pueda verse claramente lo que se está cortando.</li> <li><input type="checkbox"/> Las ramas que están dentro de la MAD se retiran únicamente con herramientas/equipos aprobados.</li> <li><input type="checkbox"/> Las podadoras para ramas altas están equipadas con un aislante adecuado y debidamente colocado para evitar el corte del cable.</li> <li><input type="checkbox"/> Las ramas cortadas por encima de los cables eléctricos se bajan con un sistema controlado de suspensión de cargas.</li> </ul>

Poda de árboles normativa  
**Tabla de medidas críticas observables**



Actividad	Peligros principales	Medidas críticas observables
 <p><b>TREE FELLING</b></p> <p>Al talar árboles</p>	<b>Requisitos generales</b>	<input type="checkbox"/> Los trabajadores tienen un plan efectivo para la tala de árboles.
	<b>Contacto eléctrico</b>	<input type="checkbox"/> El escalador mantiene todo su cuerpo y herramientas fuera de la distancia mínima de seguridad (MAD) en todo momento. <input type="checkbox"/> Las ramas y las partes/secciones podadas de los árboles se bajan con un sistema de suspensión de cargas para respetar la distancia fuera de la MAD.
	<b>Caída de árboles/objetos</b>	<input type="checkbox"/> Zona de caída claramente establecida, señalada y respetada. <input type="checkbox"/> Muesca y corte trasero utilizado para talar árboles de más de 5 pulgadas de diámetro a la altura del pecho (en inglés, DBH). <input type="checkbox"/> En caso necesario, se puede usar de forma segura un sistema de suspensión de cargas en el árbol. <input type="checkbox"/> Se respetan las distancias de seguridad (1.5x para los encargados de jalar la soga, 2x para los transeúntes). <input type="checkbox"/> Ruta de escape claramente establecida y libre de obstáculos para todos los trabajadores. <input type="checkbox"/> El talador abandona la zona por la ruta de escape apenas el árbol comienza a caer. <input type="checkbox"/> Los trabajadores evalúan los riesgos nuevos antes de entrar en la zona de peligro. <input type="checkbox"/> Los trabajadores usan una cuerda de jalado según sea necesario en los árboles de más de cinco pulgadas de DBH. <input type="checkbox"/> Los trabajadores usan un sistema de suspensión de cargas adecuado para evitar una dirección de caída involuntaria.
 <p><b>AERIAL LIFT</b></p> <p>Dispositivos aéreos</p>	<b>Caída de objetos</b>	<input type="checkbox"/> Los trabajadores usan activamente los servicios de un observador competente y atento. <input type="checkbox"/> Zona de caída claramente establecida, señalada y respetada. <input type="checkbox"/> Las herramientas para las tareas en altura están protegidas y seguras cuando no están en uso. <input type="checkbox"/> Los trabajadores se comunican de forma eficaz.
	<b>Caída desde alturas</b>	<input type="checkbox"/> Los trabajadores usan activamente los servicios de un observador competente y atento cuando un trabajador se encuentra por sobre los 12 pies de altura. <input type="checkbox"/> El dispositivo aéreo está colocado de forma segura y sobre un terreno estable. <input type="checkbox"/> Se usan cuñas para ruedas, estabilizadores y plataformas según sea necesario. <input type="checkbox"/> La protección contra caídas se usa correctamente. <input type="checkbox"/> El equipo de protección contra caídas está en buen estado. <input type="checkbox"/> La protección contra caídas está amarrada a un punto de anclaje en el camión elevador. <input type="checkbox"/> La carga está dentro de la capacidad del sistema de suspensión de cargas. <input type="checkbox"/> El trabajador se para firmemente en el suelo del camión elevador en todo momento.
	<b>Contacto eléctrico</b>	<input type="checkbox"/> Los trabajadores usan activamente los servicios de un observador competente y atento cuando hay riesgos eléctricos. <input type="checkbox"/> El escalador mantiene todo su cuerpo y herramientas fuera de la distancia mínima de seguridad (MAD) en todo momento. <input type="checkbox"/> Las ramas se podan sólo cuando pueda verse claramente lo que se está cortando. <input type="checkbox"/> Las ramas que están dentro de la MAD se retiran únicamente con herramientas/equipos aprobados. <input type="checkbox"/> Las ramas cortadas por encima de los cables eléctricos se dejan caer con cuidado.
 <p><b>LADDERS</b></p> <p>Escaleras</p>	<b>Caída desde alturas</b>	<input type="checkbox"/> Los trabajadores usan activamente los servicios de un observador competente y atento. <input type="checkbox"/> La escalera está en buen estado. <input type="checkbox"/> La escalera está apoyada de forma segura sobre un terreno estable. <input type="checkbox"/> El escalador mantiene tres puntos de contacto al subir/bajar.
	<b>Contacto eléctrico</b>	<input type="checkbox"/> Los trabajadores usan activamente los servicios de un observador competente y atento cuando hay riesgos eléctricos. <input type="checkbox"/> Las ramas se podan sólo cuando pueda verse claramente lo que se está cortando. <input type="checkbox"/> Los trabajadores usan escaleras de material no conductor. <input type="checkbox"/> El escalador mantiene todo su cuerpo y herramientas fuera de la distancia mínima de seguridad (MAD) en todo momento. <input type="checkbox"/> En todo momento, el escalador evita entrar en contacto con los cables de teléfono/comunicación o el poste.

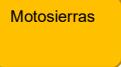
Poda de árboles normativa  
**Tabla de medidas críticas observables**



Actividad	Peligros principales	Medidas críticas observables
 <b>Vehículos</b>	<b>Requisitos generales</b>	<input type="checkbox"/> El conductor está capacitado para operar el vehículo. <input type="checkbox"/> El vehículo no está estacionado sobre material combustible. <input type="checkbox"/> El vehículo está en buen estado. <input type="checkbox"/> Los vehículos y remolques que no estén en uso están seguros. <input type="checkbox"/> Los trabajadores mantienen tres puntos de contacto al subir o bajar de los vehículos o equipos. <input type="checkbox"/> Los pasajeros viajan únicamente en asientos con cinturones de seguridad. <input type="checkbox"/> El cinturón de seguridad se usa cuando el vehículo está en movimiento.
	<b>Remolques y cargas</b>	<input type="checkbox"/> Las cargas están sujetas. <input type="checkbox"/> El remolque está en buen estado antes de moverlo. <input type="checkbox"/> Los enganches del remolque al vehículo están bien sujetos antes de poner en marcha el vehículo. <input type="checkbox"/> Las cadenas y los amarres son adecuados, se usan correctamente y están en buen estado.
	<b>Colisión</b>	<input type="checkbox"/> Se verifica que el entorno sea seguro antes de poner en marcha el vehículo. <input type="checkbox"/> El conductor respeta el límite de velocidad y la distancia de seguridad. <input type="checkbox"/> El conductor usa las luces de giro como corresponde. <input type="checkbox"/> El conductor elimina toda fuente de distracción antes y durante la conducción. <input type="checkbox"/> El conductor estaciona en dirección a la salida siempre que sea posible. <input type="checkbox"/> El conductor usa los servicios de un observador al dar marcha atrás o en caso necesario.
	<b>Vuelco</b>	<input type="checkbox"/> La velocidad es adecuada para los vehículos con centro de gravedad alto. <input type="checkbox"/> El conductor dobla a una velocidad segura. <input type="checkbox"/> El conductor mantiene las ruedas en la carretera, excepto al ingresar a una obra (por ejemplo, cuando pasa encima de rejillas, etc.). <input type="checkbox"/> Verificar que la banquina cercana sea segura antes de salir del camino. <input type="checkbox"/> El conductor mantiene la marcha y la velocidad adecuadas en las bajadas.
 <b>Trituradoras</b>	<b>Requisitos generales</b>	<input type="checkbox"/> Los trabajadores verifican que la ubicación y la actividad de la trituradora no pongan en peligro la seguridad de los trabajadores que realizan actividades aéreas/de subida (por ejemplo, mantener la comunicación de tres vías, usar activamente los servicios de un observador atento, etc.).
	<b>Posibilidad de quedar atrapado</b>	<input type="checkbox"/> Los trabajadores retiran las cuerdas y otros obstáculos del área en la que se usa la trituradora, la maleza y las vías de arrastre de la maleza antes y durante el astillado. <input type="checkbox"/> Los trabajadores usan chalecos fácilmente removibles ("tear away vests") únicamente mientras trituran; la ropa suelta y las joyas se quitan antes de triturar. <input type="checkbox"/> La barra de seguridad y/o el sistema de parada de emergencia están instalados y en buen estado de funcionamiento (si fuera necesario). <input type="checkbox"/> Los trabajadores usan una barra de empuje para introducir los restos pequeños a la trituradora. <input type="checkbox"/> Activar el procedimiento de Bloqueo y Etiquetado al dar mantenimiento, interrumpir el uso o limpiar una trituradora atascada.
	<b>Golpes</b>	<input type="checkbox"/> Alimentar la trituradora lejos del tránsito (desde el borde de la acera), pasando primero el extremo de la raíz. <input type="checkbox"/> Los trabajadores se colocan al costado de la trituradora cuando está en funcionamiento. <input type="checkbox"/> Todas las protecciones y cubiertas de la trituradora están colocadas y en buen estado. <input type="checkbox"/> Los trabajadores se alejan de la descarga de la trituradora.

Poda de árboles normativa  
**Tabla de medidas críticas observables**



Actividad	Peligros principales	Medidas críticas observables
 	Heridas	<input type="checkbox"/> Los trabajadores usan el PPE adecuado para el uso de la motosierra. <input type="checkbox"/> Los dispositivos de seguridad de la motosierra están en posición y en buen estado de funcionamiento. <input type="checkbox"/> Los trabajadores arrancan la motosierra correctamente (evitar lo que se conoce como "drop-start", lo que se hace al sujetar la motosierra con una mano y jalar con la otra mano de la cuerda de arranque con la motosierra no apoyada en el suelo o en el cuerpo). <input type="checkbox"/> Los trabajadores usan las dos manos al operar una motosierra. <input type="checkbox"/> Los trabajadores mantienen el cuerpo en una posición estable al usar una motosierra. <input type="checkbox"/> La motosierra se sujeta en el cuadrante inferior de la barra para evitar un rebote (es decir, evitar cortar con el cuadrante superior). <input type="checkbox"/> Los trabajadores mantienen todo su cuerpo fuera de la línea de riesgo de la motosierra. <input type="checkbox"/> El cuerpo de la motosierra está dentro de la zona de potencia del operador (es decir, a la altura de los hombros y las rodillas). <input type="checkbox"/> Cuando no se usa, el freno de la cadena está activado y el motor apagado. <input type="checkbox"/> Los trabajadores mueven la motosierra de forma segura.
	Caída desde alturas	<input type="checkbox"/> El escalador usa un amarre secundario al operar una motosierra en altura.
	Caída de objetos	<input type="checkbox"/> Cuando no se usa, la motosierra está segura contra posibles caídas.
	Incendio	<input type="checkbox"/> Las motosierras tienen un silenciador y un supresor de chispas. Evitar apoyar la sierra caliente sobre material combustible. <input type="checkbox"/> Antes de poner en marcha la motosierra, su operador está al menos a 10 pies de distancia del área en la que se almacena combustible.
 	Requisitos generales	<input type="checkbox"/> Los trabajadores usan activamente los servicios de un observador competente y atento.
	Caída desde alturas	<input type="checkbox"/> Los trabajadores usan activamente los servicios de un observador competente y atento al subir. <input type="checkbox"/> Los trabajadores llevarán a cabo la inspección previa a la subida de la palmera y de todo el equipo de subida (el equipo se sustituye si es necesario). <input type="checkbox"/> El escalador está amarrado al tronco/tallo principal con una correa de anclaje ajustable ("Adjustable False Crotch" o AFC) o una configuración de choke. <input type="checkbox"/> El punto de amarre/punto de suspensión principal del escalador evita el movimiento lateral de la línea de subida. <input type="checkbox"/> El escalador está 100% amarrado en todo momento (subida, bajada, reposicionamiento). <input type="checkbox"/> Al reposicionarse, el escalador deberá precargar los nuevos puntos de amarre con todo su peso antes de soltar los medios actuales de amarre seguro. <input type="checkbox"/> El trabajador usa el doble amarre cuando las herramientas de poda estén en uso. <input type="checkbox"/> El escalador está apoyado en un sistema de subida para arboristas colocado por encima de follaje seco de las palmeras.
	Contacto eléctrico	<input type="checkbox"/> Los trabajadores usan activamente los servicios de un observador competente y atento. <input type="checkbox"/> El escalador mantiene todo su cuerpo y herramientas fuera de la distancia mínima de seguridad (MAD) en todo momento según lo determinado por la capacitación. <input type="checkbox"/> Las hojas cortadas por encima de los cables eléctricos se dejan caer o se bajan con cuidado. <input type="checkbox"/> Las hojas en contacto con los cables se retiran con una herramienta de material no conductor equipada con un aislante para evitar el corte del cable.
	Caída de objetos	<input type="checkbox"/> Zona de caída claramente establecida, señalada y respetada. <input type="checkbox"/> Las herramientas para las tareas en altura están protegidas y seguras cuando no están en uso.
	Asfixia/Aplastamiento	<input type="checkbox"/> Se retira el follaje seco de la parte superior de la palmera.



8/1/2022

Ref. No. OB-1022

## **AFL Stockbridge Damper Approved for 336 ACSR**

**\*\*\*This Bulletin Supersedes OB-2021 1121\*\*\***

### **Purpose**

The purpose of this bulletin is to inform SCE field crews and Contract Personnel that Wire and Structural Engineering has fully approved AFL Telecommunications (known as AFL) as a secondary supplier for Stockbridge dampers to meet business requirements and ensure standards could be met with minimal impacts. AFL damper installation has been added to [Vibration Dampers Requirements in Covered Conductor Systems within Distribution Overhead Construction Standards \(DOH\) Section CC 190.4](#).

### **Background**

SCE has been experiencing a shortage of Stockbridge dampers (refer to [HL-2021 2621](#)) for 336 ACSR Covered Conductor due to the high demand and supplier constraints. To meet these demands, engineering evaluated and approved AFL as a secondary source for the Stockbridge dampers. AFL Stockbridge (Shear Bolt Stockbridge) damper consists of an aluminum clamp and cast-iron weights pressed onto steel messenger wire for optimal mechanical performance (refer to Figure 1). The clamp is supplied with a Shear bolt; thus, no torque wrench is needed for installation. The damper can be hung on the cable, and the bolt tightened until the head shears off, ensuring proper installation. AFL dampers are designed and sized per conductor and tested in accordance with IEEE specifications. AFL Stockbridge damper for 336 ACSR (SAP #10214493) is 16" long and weighs 11 lbs. It is a symmetrical damper so that it can be installed with either weight facing the tower<sup>1</sup>.



Figure 1: AFL Stockbridge Damper for 336 18/1 CC ACSR

Note:

Application requirements for the vibration dampers are provided in DOH Table CC 190-1.

### Action

Engineering performed additional tests and approved Shear Bolt Stockbridge dampers for systemwide use. Thus, Shear Bolt Stockbridge dampers installation is allowed in coastal and non-coastal regions.

The following are installation procedures for the Shear Bolt Stockbridge vibration damper on covered conductor systems:

STEP 1: Obtain the damper spacing from [DOH Table CC 190-2](#)

- a) Measure and mark out the appropriate distance for the first damper from the end of the insulator (refer to Figure 2 and Dimension "A" in [DOH Table CC 190-2](#))
- b) Measure and mark out the appropriate distance for the second damper in reference to the first damper mark (refer to Figure 2 and Dimension "B" in [DOH Table CC 190-2](#))

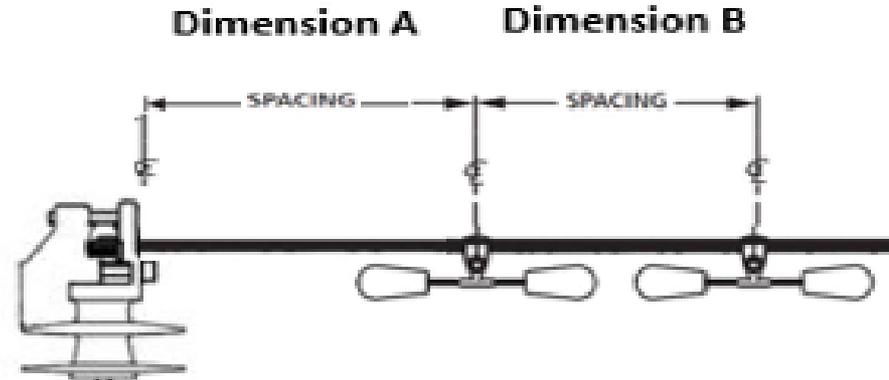


Figure2: Stockbridge Damper Dimension Requirements

STEP 2: The bolt on the clamp should be loosened to allow space for the conductor

STEP 3: Hang the damper on the conductor at a proper spacing in Step 1, and then tighten down the bolt

STEP4: Tighten the bolt until the breakaway head shears off for maximum safety and stability

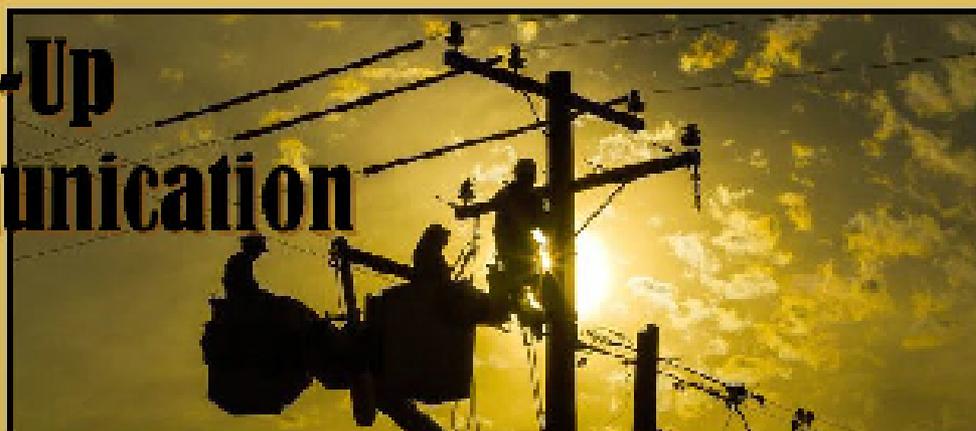
### Standards Affected

DOH CC 190

### Contact Information

- SCE employees — contact Wire and Structural Engineering, Niousha Tavakoli: 949-910-8819 [Niousha.Tavakoli@sce.com](mailto:Niousha.Tavakoli@sce.com) or [CMHelpDesk@sce.com](mailto:CMHelpDesk@sce.com)
- Contractors — contact your Edison Representative, Project General Supervisor (PGS), Inspector, Specialist, Project Superintendent, etc. or Field Safety Advisor

# Heads-Up Communication



Published by T&D Construction Methods, Chino

7/22/2022

Ref. No. HU-0822

## Use of TD203 Circuit Map Revision Requests

### Purpose

The purpose of this communication is to reinforce the vital steps of accurately and timely submitting TD203 circuit map revision requests to the Grid Ops Circuit Mapping Group (GCM). All changes to high-voltage equipment and conductor shall be submitted through a TD203 form to circuit mapping hubs for any changes to high voltage equipment in the field.

### Background

Accurate circuit maps are integral to managing Public Safety Power Shut-off (PSPS) events, outages, customer communications, switching procedures, transformer loading, crew daily tailboards, and other critical activities. Therefore, it is vital that distribution circuit map updates be accurate and sent in a timely manner.

### Action

All circuit mapping revisions require a [TD203](#) form submission along with a red line marked-up circuit map within approximately 24 hours of high-voltage work being completed in the field. Please review the [Circuit Mapping Revision Procedure](#) with your teams.

### Standards Affected

The [Circuit Mapping Revision Procedure](#) should be referenced when submitting TD203 Circuit Mapping Revision Requests.

### Contact Information

- SCE Employees – contact [Francisco.Venegas@sce.com](mailto:Francisco.Venegas@sce.com); [Cole.Smith@sce.com](mailto:Cole.Smith@sce.com) or [CMHelpDesk@sce.com](mailto:CMHelpDesk@sce.com)
- Contractors – contact your Edison Representative, Project General Supervisor (PGS), Inspector, Specialist, Project Superintendent, etc. or Field Safety Advisor



8/1/2022

Ref. No. OB-1022

## **AFL Stockbridge Damper Approved for 336 ACSR** **\*\*\*This Bulletin Supersedes OB-2021 1121\*\*\***

### **Purpose**

The purpose of this bulletin is to inform SCE field crews and Contract Personnel that Wire and Structural Engineering has fully approved AFL Telecommunications (known as AFL) as a secondary supplier for Stockbridge dampers to meet business requirements and ensure standards could be met with minimal impacts. AFL damper installation has been added to [Vibration Dampers Requirements in Covered Conductor Systems within Distribution Overhead Construction Standards \(DOH\) Section CC 190.4](#).

### **Background**

SCE has been experiencing a shortage of Stockbridge dampers (refer to [HL-2021 2621](#)) for 336 ACSR Covered Conductor due to the high demand and supplier constraints. To meet these demands, engineering evaluated and approved AFL as a secondary source for the Stockbridge dampers. AFL Stockbridge (Shear Bolt Stockbridge) damper consists of an aluminum clamp and cast-iron weights pressed onto steel messenger wire for optimal mechanical performance (refer to Figure 1). The clamp is supplied with a Shear bolt; thus, no torque wrench is needed for installation. The damper can be hung on the cable, and the bolt tightened until the head shears off, ensuring proper installation. AFL dampers are designed and sized per conductor and tested in accordance with IEEE specifications. AFL Stockbridge damper for 336 ACSR (SAP #10214493) is 16" long and weighs 11 lbs. It is a symmetrical damper so that it can be installed with either weight facing the tower<sup>1</sup>.



Figure 1: AFL Stockbridge Damper for 336 18/1 CC ACSR

Note:

Application requirements for the vibration dampers are provided in DOH Table CC 190-1.

### **Action**

Engineering performed additional tests and approved Shear Bolt Stockbridge dampers for systemwide use. Thus, Shear Bolt Stockbridge dampers installation is allowed in coastal and non-coastal regions.

The following are installation procedures for the Shear Bolt Stockbridge vibration damper on covered conductor systems:

STEP 1: Obtain the damper spacing from [DOH Table CC 190-2](#)

- a) Measure and mark out the appropriate distance for the first damper from the end of the insulator (refer to Figure 2 and Dimension "A" in [DOH Table CC 190-2](#))
- b) Measure and mark out the appropriate distance for the second damper in reference to the first damper mark (refer to Figure 2 and Dimension "B" in [DOH Table CC 190-2](#))

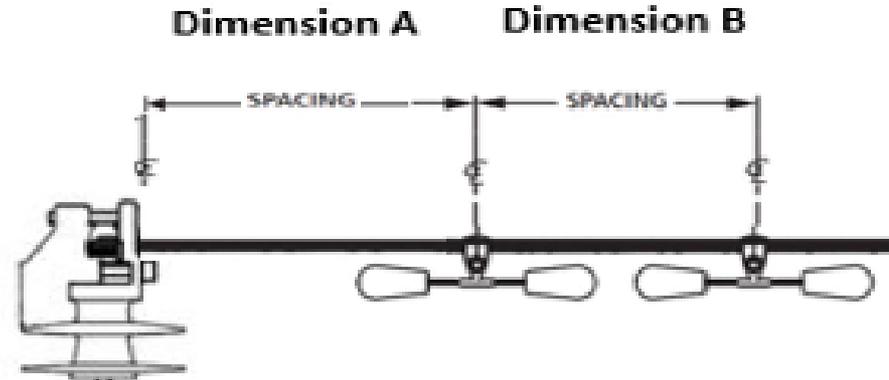


Figure2: Stockbridge Damper Dimension Requirements

STEP 2: The bolt on the clamp should be loosened to allow space for the conductor

STEP 3: Hang the damper on the conductor at a proper spacing in Step 1, and then tighten down the bolt

STEP4: Tighten the bolt until the breakaway head shears off for maximum safety and stability

### **Standards Affected**

DOH CC 190

### **Contact Information**

- SCE employees — contact Wire and Structural Engineering, Niousha Tavakoli: 949-910-8819 [Niousha.Tavakoli@sce.com](mailto:Niousha.Tavakoli@sce.com) or [CMHelpDesk@sce.com](mailto:CMHelpDesk@sce.com)
- Contractors — contact your Edison Representative, Project General Supervisor (PGS), Inspector, Specialist, Project Superintendent, etc. or Field Safety Advisor

8/18/2022

Ref. No. HL-0922

## Damaged Vise-Top Insulator Findings

### Purpose

The purpose of this bulletin is to inform and reinforce the appropriate installation methods of polymer vise-top insulators and compliance to deviation angle standards.

### Background

Aerial Inspections has notified Engineering and Construction Methods (CM) that, as of May 2022, 90 Priority 1 notifications have been generated to replace cracked/melted insulators. See Figure 1.

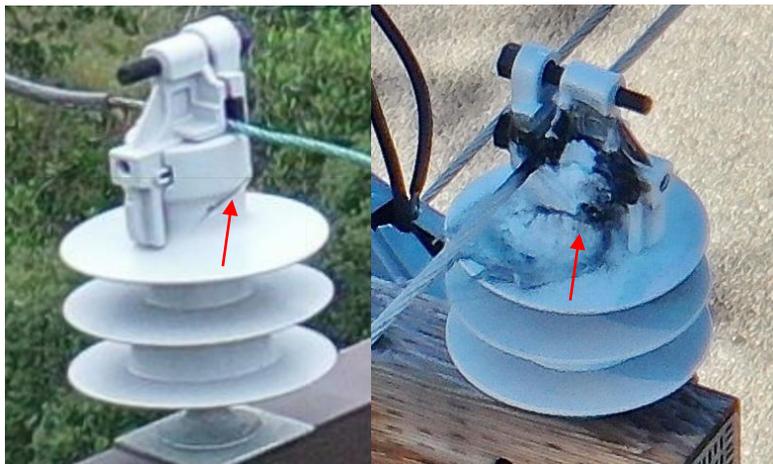


Figure 1: Cracked/Melted Insulator Example

Additionally, Engineering and CM have been advised of other instances where excessive covered conductor angle deviations have resulted in insulators shearing off at the pin, resulting in phase-to-phase/ground contact or floating conductors. See Figure 2.

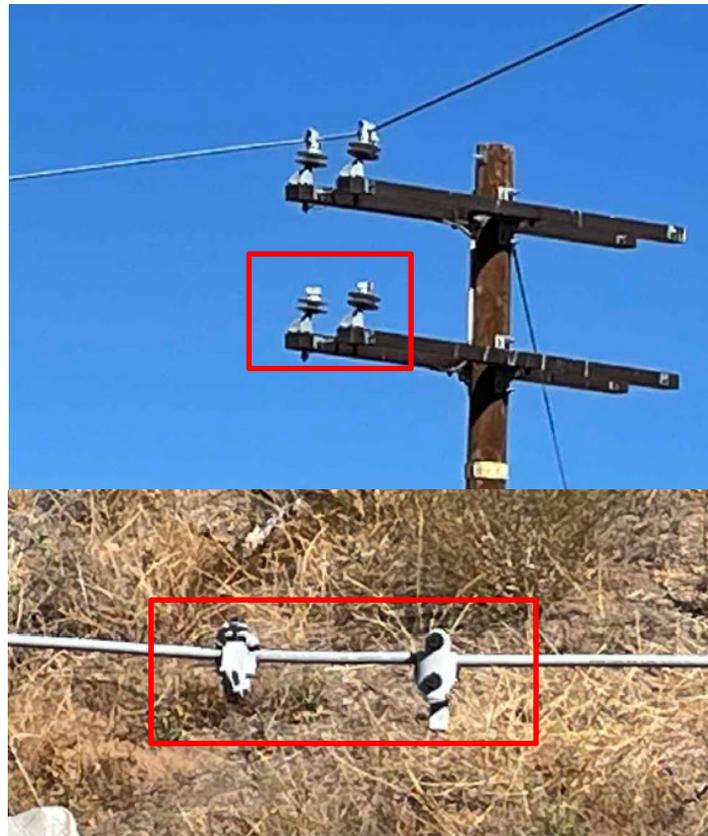


Figure 2: Sheared Insulator Clamps

### **Discussion**

Engineering suspects that the insulators cracking/melting issue is a result of over-torquing on the pins during installation. When the insulator is over-torqued, stress is generated on the polymer material leading to a small crack forming on the inside of the insulator. A combination of heat-cycling and pressure from the manufacturer installed mastic causes the crack to propagate and eventually reach the surface of the insulator. The crack eventually becomes a source of partial discharge and an easy path to ground for leakage current.

As for the covered conductor angle failures, Engineering suspects that these installations are a result of two potential factors, which may result in too much mechanical load on the vise clamp:

- Angle deviation was exceeded
- OR**
- Conductor design tension was exceeded

### **Action**

Follow all installation steps detailed in Distribution Overhead Construction (DOH) GR 200.6. Additionally, refer to the Training Integration (TI) job aid [here](#) for proper installation steps. The polymer vise-top insulators shall only be tightened to 1/2 a full turn once the mastic is engaged for it to fully sit and engage on the pin.

For angle deviations, ensure sag charts are followed and use appropriate tools to measure conductor sag & tension during installations. Proper wire tension and sagging along with appropriate use of single and double arms may help avoid failure of the insulator for angle installations. If tension appears to be too tight once the installation is complete, it is recommended to re-check sag using appropriate work methods.

### **Standards Affected**

- DOH GR 200, Scope 6 – Installation Steps for Polymer Vise-Top Insulators
- DOH DC 575 – Angle Deviation Standards
- DOH CO Section – Sag Charts for Covered Conductor

### **Contact Information**

- SCE employees — contact Gabriel Mercado, 714-722-7331 or [gabrielrene.mercado@sce.com](mailto:gabrielrene.mercado@sce.com) or [CMHelpDesk@sce.com](mailto:CMHelpDesk@sce.com)
- Contractors — contact your Edison Representative, Project General Supervisor (PGS), Inspector, Specialist, Project Superintendent, etc. or Field Safety Advisor

# SCE Contractor Incident Reporting Process — August 1, 2022

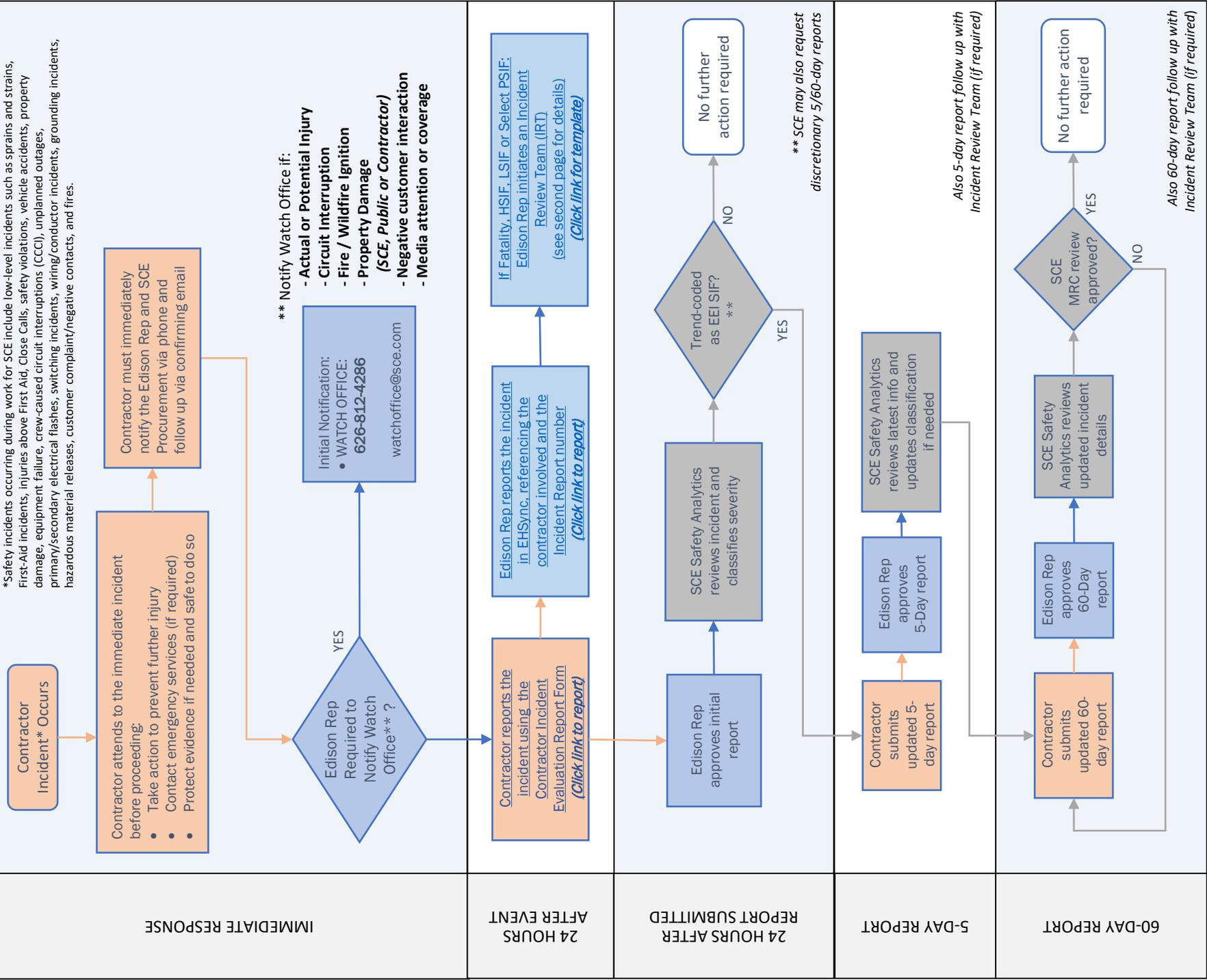
Color Key:

Contractor

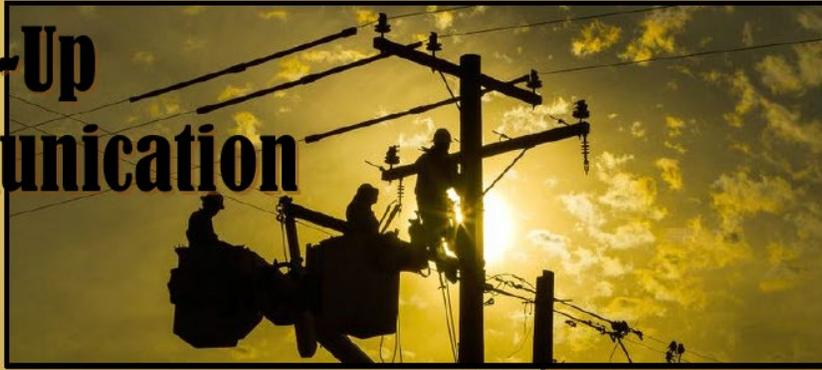
Edison Representative

SCE Safety

\*Safety incidents occurring during work for SCE include low-level incidents such as sprains and strains, First-Aid incidents, injuries above First Aid, Close Calls, safety violations, vehicle accidents, property damage, equipment failure, crew-caused circuit interruptions (CCI), unplanned outages, primary/secondary electrical flashes, switching incidents, wiring/conductor incidents, grounding incidents, hazardous material releases, customer complaint/negative contacts, and fires.



# Heads-Up Communication



Published by T&D Construction Methods, China

8/25/2022

Ref. No. HU-0922

## Updated Material Codes for #8 AI AWG and #2 AI AWG Cables

### Purpose

The purpose of this communication is to notify SCE and contract personnel of updates to the #8 AI AWG and #2 AI AWG material codes.

### Background

To gain efficiencies and eliminate the possibility of the cable jamming during installation, some time ago SCE transitioned from parallel (Figure 1) to plex (Figure 2) manufacturing for most of its 600 V secondary cables.



Figure 1: Parallel Manufacturing



Figure 2: Plex Manufacturing

## **Discussion**

Due to manufacturing constraints related to these two types of cables and the benefit of standardizing the 600V secondary cable product line, SCE will now transition these cables to our contemporized standards of plex manufacturing for appropriate-sized secondary cables. With that, note the following replacement material codes:

- SAP 10110160 (#2 Al AWG) will be set to Key 06. SAP 10216990 is replacement material code
- SAP 10110316 (#8 Al AWG) will be set to Key 06. SAP 10216991 is replacement material code

## **Action**

Continue using existing inventory of material codes 10110160 and 10110316 as applicable until inventory is depleted.

In addition, all effected standards with this change will be revised and be issued as part of the October update. Until then, please note this change.

## **Standards Affected**

From the Distribution Overhead Construction Standards (DOH):

SL 105, SL 111, SL 305, SL 307, SL 310, SL 312, SL 315, SL 317, SL 425, SL 430, SL 505, SL 600, SL 605, and SL 615

From the Distribution Underground Construction Standards (DUG): IC 100

## **Contact Information**

- SCE Employees – contact [Cesar.Ancheta@sce.com](mailto:Cesar.Ancheta@sce.com) or [CMHelpDesk@sce.com](mailto:CMHelpDesk@sce.com)
- Contractors – contact your Edison Representative, Project General Supervisor (PGS), Inspector, Specialist, Project Superintendent, etc. or Field Safety Advisor



9/9/2022

Ref. No. HL-1022

## **Transformer Replacement Criteria when Pole is Replaced**

### **Purpose**

The purpose of this bulletin is to notify SCE and contractor field personnel of a change to standards related to transferring transformers during a pole replacement. The changes stated in this bulletin are effective immediately.

### **Background**

For several months the utility industry has been experiencing supply chain issues across the U.S. As a result of these issues, SCE has experienced a critical shortage of transformer inventory on selected distribution transformer codes. Contributing factors to the shortage are one or more of the following: (1) labor shortages at the manufacturer, (2) transportation bottlenecks, and/or (3) raw material shortages.

This shortage of select transformer inventory has now begun to specifically impact our deteriorated pole program by causing project delays and/or cancellations, which affect SCE's ability to meet regulatory compliance. Moreover, cancelation of deteriorated pole projects leaves unfit poles in-service, which presents a liability/safety risk to SCE and the public, until they can be replaced.

## Discussion

Current Distribution Design Standards (DDS), DDS-10 Section 5.6.P.6.f, allow existing transformers to be transferred to a new pole under the following conditions:

- Transformer must be under 25 years old (based on manufactured date)
- Transformer must be appropriately loaded (not under or overloaded)
- Transformers must not be obsolete equipment (i.e., CP Transformers)

The biggest obstacle for transferring transformers resides in the second bullet listed above, where it states that the installation range values shall be used to determine if a transfer is an option. Due to installation range values being so low, many transformers do not meet the requirements to be transferred. To encourage more transfers, Engineering was tasked with reviewing this criterion for all pole replacements.

## Action

For ALL pole replacements, a transformer can be transferred to a new pole *if ALL the following conditions are met*:

- 1. High Fire Risk Area (HFRA):** Only FR3 filled transformers can be transferred to new pole.  
**Non-HFRA:** Both mineral oil and FR3 transformers can be transferred to new pole.
- 2. The transformer is less than 25 years old.**
- 3. The transformer must not be a Key 10 material status.**
  - *Ex. 10kVA, 15kVA and Current Protected Transformers cannot be transferred to new pole because these are obsolete designs (Key 10).*
- 4. The transformer should pass ODI inspection at the time of transfer.**
  - *No corrosion, no oil leak, no paint peel, bushings are in good condition, etc.*
  - *See Attachment 1 for the inspection criteria.*
- 5. Transformer loading (e.g., TLM) shall be less than or equal to 85% of removal point.**
  - *Round TLM kVA value to the nearest 1kVA*
  - *This 15%TLM margin allows the transformer room for future growth.*
  - *See Attachment 2 for loading tables including this 85% criteria.*

Transformers that do not meet all five conditions listed above shall be replaced and sized per the "Installation Range" columns detailed in DDS-7, Table 7-21.

Please reference bulletin [HL-2022 0622](#) for transformers that do not qualify for transfer to new pole but may qualify to be refurbished for future use.

### **Standards Affected**

- DDS-10 Section 5.6.P.6.f will be updated for next quarter publication.

### **Contact Information**

- SCE Employees – contact:

Gregory Ante  
Transformation & Hardware Engineering  
(626) 862-7065  
[Gregory.Ante@sce.com](mailto:Gregory.Ante@sce.com)

Erfan Bamdad  
Wire & Structural Standards  
(626) 482-7320  
[Erfan.Bamdad@sce.com](mailto:Erfan.Bamdad@sce.com)

- Contractors – contact your Edison Representative, Project General Supervisor (PGS), Inspector, Specialist, Project Superintendent, etc. or Field Safety Advisor

### Attachment 1 – DOM, TR-1, Table 1-1: Pre-Installation Checklist (Transformer Only)

<input checked="" type="checkbox"/>	"Acceptance" Test	Description
<input type="checkbox"/>	Oil Leaks	Tanks must not have oil leaks. Inspect all welds and gaskets for leaks.
<input type="checkbox"/>	Condition of Paint	Paint must be continuous. Rust or bare metal must not be visible. Check under tank and radiator fins if applicable.
<input type="checkbox"/>	Damage	No external damage.
<input type="checkbox"/>	Nameplate and Accessories	Verify that the transformer voltage ratings match the system it is to be installed on. Also, verify that the transformer accessories are consistent with the nameplate data (for example: polarity, tap-changer, and so forth).
<input type="checkbox"/>	Pressure Relief Valve (PRV) Internal Fault Detector (IFD)	PRV/IFD must be operational; not damaged or leaking.  For more information on the IFD device, see <a href="#">Subsection 4.3</a> .
<input type="checkbox"/>	De-Energized Tap Changer (DETC) Position Indicator	If equipped: tap changer should turn in a deliverable manner. Tap changer position markings must be permanent and legible. Verify tap changer is properly aligned with the desired position."
<input type="checkbox"/>	DETC – "De-Energized Operation ONLY" Sign	If equipped: tap changer must be labeled to de-energize transformer before operating the DETC switch. Decals are not acceptable.
<input type="checkbox"/>	HV and LV Bushing Physical Condition	All bushings must be in good physical condition. Bushings must not be cracked or broken.
<input type="checkbox"/>	HV Bushing Wildlife Covers	SCE HV bushing wildlife covers must be installed per <a href="#">DOH DC-535</a> .
<input type="checkbox"/>	Transformer Turns Ratio (TTR) Test	Ratio must be within $\pm 0.5\%$ of nameplate ratio.
<input type="checkbox"/>	Megger Testing	Megger test results for HV-GRD and HV-LV shall be 999 Megaohms or greater. <b>Megger test results for LV-GRD shall be 500 Megaohms or greater.</b> If the Megger test fails, clean the bushings in accordance with the instructions listed in <a href="#">Attachment 1-2</a> . If the transformer continues to fail after multiple cleanings/re-testing attempts, consider the transformer defective and process in accordance with Reference <a href="#">3.9</a> and <a href="#">3.10</a> of this document.  NOTE: Megger machine (model: BM 403/2) displays a maximum value of 999 Megaohms. Megger machine (model: MIT 410) has the ability to measure Gigaohms. If the MIT 410 machine displays a two digit value, verify the unit of measurement (Mega or Gigaohms).

Attachment 2 – DDS-7 Transformer loading tables with Pole Transfer load limits

Overhead - Zone 1				
kVA	Installation Range		Pole Transfer	Removal Point
	1	2		
10				16
15				31
25	0-22	0-22	37	44
37.5	23-31	23-47	59	69
50	32-51	48-64	72	85
75	52-63	65-84	99	116
100	64-119	85-119	122	143

Overhead - Zone 3				
kVA	Installation Range		Pole Transfer	Removal Point
	1	2		
10				15
15				29
25	0-21	0-21	35	41
37.5	22-32	22-46	55	65
50	33-48	47-60	68	80
75	49-63	61-79	91	107
100	64-111	80-111	114	134

Overhead - Zone 5				
kVA	Installation Range		Pole Transfer	Removal Point
	1	2		
10				14
15				27
25	0-22	0-22	33	39
37.5	23-31	23-45	52	61
50	32-49	46-57	65	76
75	50-60	58-75	88	104
100	61-104	76-104	108	127

Overhead - Zone 7				
kVA	Installation Range		Pole Transfer	Removal Point
	1	2		
10				13
15				25
25	0-21	0-21	31	36
37.5	22-28	22-41	48	56
50	29-45	42-51	59	69
75	46-59	52-68	81	95
100	60-95	69-95	99	117

Overhead - Zone 9				
kVA	Installation Range		Pole Transfer	Removal Point
	1	2		
10				13
15				25
25	0-20	0-20	30	35
37.5	21-28	21-40	47	55
50	29-45	41-50	58	68
75	46-59	51-67	79	93
100	60-94	68-94	98	115



# Contractor Safety Talks

## Special Points of Interest:

The State and County's Coronavirus controls are evolving but we will continue to demonstrate safe work practices for the safety of our employees and customers.

For SDG&E's current COVID-19 guidelines, please see the latest communication on the ISN bulletin board and also communicated via email from Supply Management.

## Safe Excavation Practices



## Did you know?

In 2019, it is estimated that the annual societal costs of damages to buried utilities in the US is approx. \$30 billion.

In 2020, the top 5 root causes that accounted for nearly 70% of utility damage are: failure to notify one call, excavator dug prior to verifying marks by potholing, excavator failed to maintain clearance, encountering abandoned facilities, and locator error/locator is late.

During trench and excavation operations, there are many factors to think about to ensure the crew remains safe and there are no utility damages.

While excavating, there are various things to consider to avoid damaging any known or marked out utilities. All known utilities should be exposed and location verified by potholing/hand digging to prevent any damage. Pneumatic tools or heavy equipment should not be used within the tolerance zone to expose a utility. Also, keep in mind that just because a utility was exposed and at a certain depth does not always mean it will be that same depth in another area. Due to installation and terrain, a utility may be at different depths in different areas, which is why it is necessary to pothole and expose the utility first where needed.

Additionally, having good housekeeping is an important thing to maintain on the jobsite, which leads to utility markings always being visible. Avoid putting spoil piles, trench plates, or any materials over utility markings. If the markings are covered, the operator/spotter may not know there is a utility in the area of excavation and cause unnecessary damage. If there is ever an unsafe condition or unsafe act, encourage employees to stop the job to re-evaluate the task at hand and decide how to move forward safely.

## FAQ

**Q:** How do I learn more about protection of underground infrastructure and where can I find additional information on excavation general requirements?

**A:** Go to California Law Article 4216 and/or click [here](#)

**A:** Go to Title 8 1541 "Excavation General Requirements" and/or click [here](#).

## OBSERVATIONS FROM THE FIELD

During the past month, SDG&E safety observers performed jobsite inspections on almost all SDG&E jobsites and observed 31,190 construction activities. Of these there were 248 at-risk conditions documented and corrected in the field. Of the at-risk conditions observed, 77% were low risk, with the majority of them being PPE gaps. There were 52 medium at-risk observations and 4 high risk observation during the month.

At-Risk Observations (August 2022)	At-Risk Behaviors
Operating without a spotter	There has been an increase in incidents where an operator/driver is operating a piece of equipment or vehicle without a spotter and causes property damage. Many cases are where they are backing up or there is lack of special awareness.

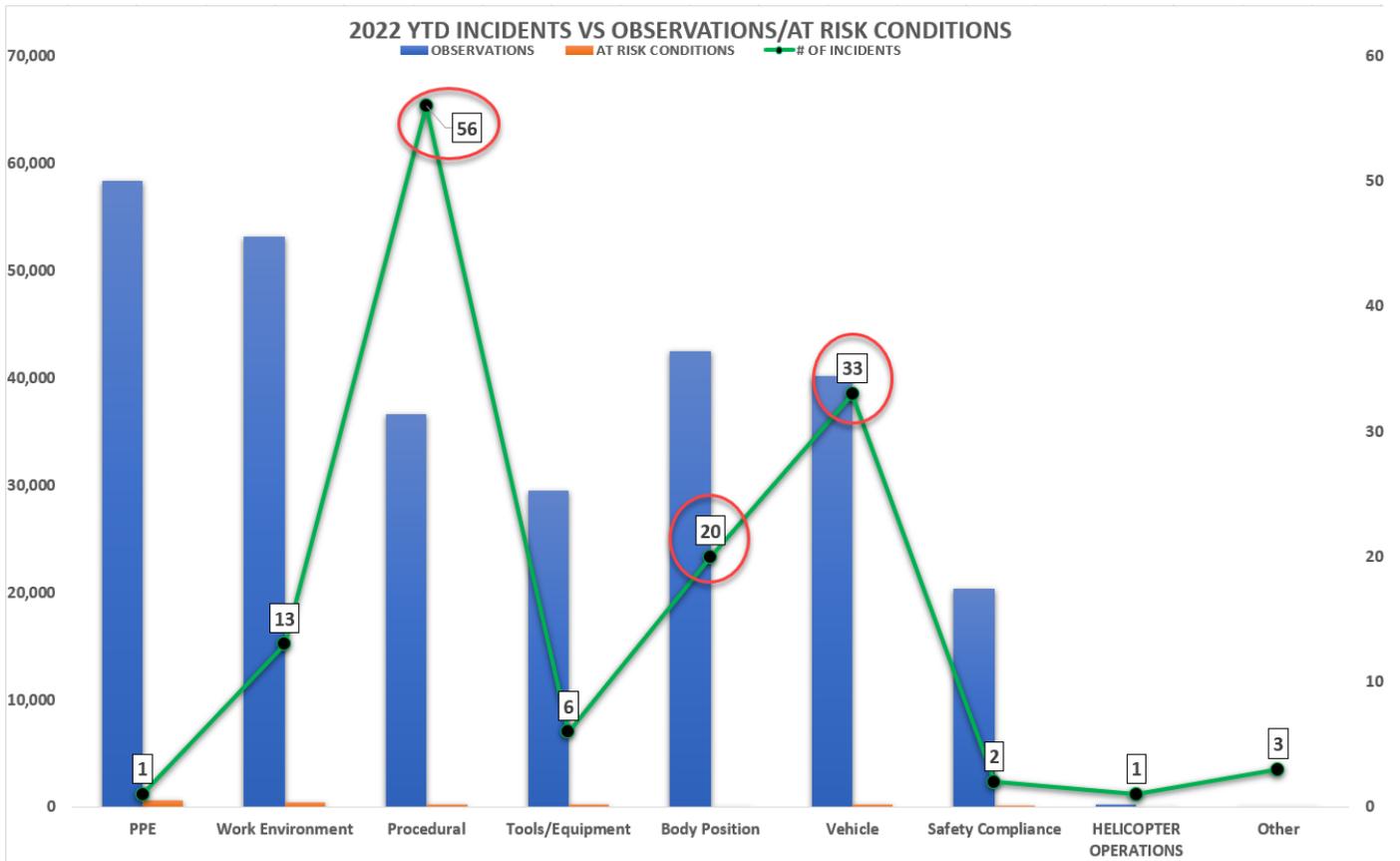
## NOTABLE AT-RISK OBSERVATIONS

Medium-High Risk Observations (August 2022)	Recommendation/Mitigation
Operator was moving equipment without using a spotter and ended up damaging a street light pole.	If operating a piece of equipment or backing up in a vehicle, ensure there is a spotter present to avoid damage to property or injury to someone onsite.
Employee was walking through the drop zone while their was overhead work in progress.	Ensure the drop zone is clearly marked out/delineated so personnel are aware of areas not to walk through.
Foreman did not have a completed Tailboard. It was missing some hazards, mitigation measures, and steps for the work they were doing that day.	A review of a fully completed Tailboard should be conducted with the whole crew prior to work beginning so they know what they are doing for the day and are aware of hazards on the job.
Two employees were in a 10' hole that did not have shoring installed down to the correct depth and was only shored up at the top of the hole.	If in a hole/trench is over 5' deep or has the potential for cave in, ensure that the proper protective system is used. If the protective system needs to be installed, do so according to the associated tabulated data.

## MONTHLY INCIDENTS/NEAR MISSES

Incidents (August 2022)	Recommendation/Mitigation
Electric Incident - Operator was excavating and hit a marked electrical line due to the utility marking being covered by a spoil pile.	Ensure good housekeeping on the jobsite and mark outs are not covered by dirt or materials.
Electric Incident - Operator was digging with a mini-ex and assumed the marked out electrical line was at the same depth as it was in the adjacent pothole and ended up damaging the marked electrical line due to change of depth	Always verify the location and depth of all known utilities prior to excavating.
Electric Incident - Crew was moving some cover and a temporary jumper came in contact with the back side of the insulator that had continuity to the metal pole and went to ground.	Use additional coverup when possible, be sure all necessary grounding is in place, and have a thorough tail gate to review possible hazards for the project.
Gas Incident - Crew had removed asphalt so they could pothole and encountered concrete. They decided to use a backhoe to remove the concrete and damaged a marked out 3" medium pressure steel gas line.	Utilize the safest method as possible to expose the utility safely. Using a Hydrovac as a means to pothole can be a safe option to find the utility and verify its depth.
Near Miss/Property Damage - While working on a steep hillside, a backhoe had a 1' by 2' wide rock in its bucket that became dislodged and rolled a few hundred feet causing property damage and ended up in a parking lot. Luckily there were no bystanders in that area at the time.	Ensure there are barriers in place, such as a fence or K-rail, in case any debris or large rocks potentially become loose.

**Three electric and One gas incidents occurred in August 2022. Zero SIF Potential Events occurred in August 2022. Zero OSHA incidents occurred in August 2022. Zero DART incidents occurred in August 2022. Zero Serious Near Misses Occurred in August 2022.** \*SIF Potential Event = Serious Injury/Fatality Potential



## FUTURE FOCUS AREAS

When looking at the past incidents, SDG&E recommends targeting mitigation measures for:

- Procedural gaps
- Vehicles
- Body Position

Please make sure to visit our bulletin board on ISN and read the latest communications at <https://www.isnetwork.com/BulletinBoard/asBulletinBoard.aspx>.

**Contractor Safety Services launched its new incident reporting system on April 1: Reports can be submitted at [SDG&E Contractor Initial Incident/Event Notification](#)**

Let us know what you're seeing in the field so we can make our observations even better!

**Questions or comments?** General questions: [SDGEContractorSafety@semprautilities.com](mailto:SDGEContractorSafety@semprautilities.com)

**Reporting Incidents:** [SDGEContractorIncidents@sdge.com](mailto:SDGEContractorIncidents@sdge.com)



# Contractor Safety Talks

## Special Points of Interest:

The State and County's Coronavirus controls are evolving but we will continue to demonstrate safe work practices for the safety of our employees and customers.

For SDG&E's current COVID-19 guidelines, please see the latest communication on the ISN bulletin board and also communicated via email from Supply Management.

## Did you know?

Approximately 75% of struck-by fatalities involve heavy equipment.

Backhoes and large trucks account for half of all deaths in construction accidents involving heavy equipment. These include motor vehicle accidents in which construction trucks collided with another vehicle or objects, rolled over, or ran off the road.

The most common injury workers suffer in heavy equipment accidents result from being crushed.

## Driver/Operator Responsibilities



Whether you are operating a vehicle or a piece of equipment, the operator has various responsibilities to maintain everyone's safety while operating.

Prior to operating any vehicle or piece of equipment, perform a pre-inspection to ensure all parts, equipment, and accessories are in good working condition and safe to operate. Make sure to pay attention to your surroundings and have spatial awareness. If the operator is in reverse, there should be a spotter present to guide the operator in a safe direction and to help avoid any obstructions.

If operating a heavy piece of equipment, ensure the operator has been trained and is qualified to operate that piece of equipment. There should also be a trained spotter present to assist the operator using verbal & non-verbal communication to guide the operator safely to avoid any damage.

Operating in a construction zone already presents many hazards, so having an adequate traffic control plan and trained flaggers allows the crews to operate in a safer work environment.

## FAQ

**Q:** How do I learn more about operators and additional information on the training involved with becoming an operator?

**A:** Go to Title 8 1618.1 "Operator Training, Certification, & Evaluation" and/or click [here](#).

## OBSERVATIONS FROM THE FIELD

During the past month, SDG&E safety observers performed jobsite inspections on almost all SDG&E jobsites and observed 30,294 construction activities. Of these there were 244 at-risk conditions documented and corrected in the field. Of the at-risk conditions observed, 78% were low risk, with the majority of them being PPE gaps. There were 54 medium at-risk observations and 0 high risk observation during the month.

At-Risk Observations (July 2022)	At-Risk Behaviors
244	The majority of at-risk conditions were in the PPE, Body Position, and Work Environment categories: failure to wear safety glasses, not having property barricades in place, and employees being in the bite.

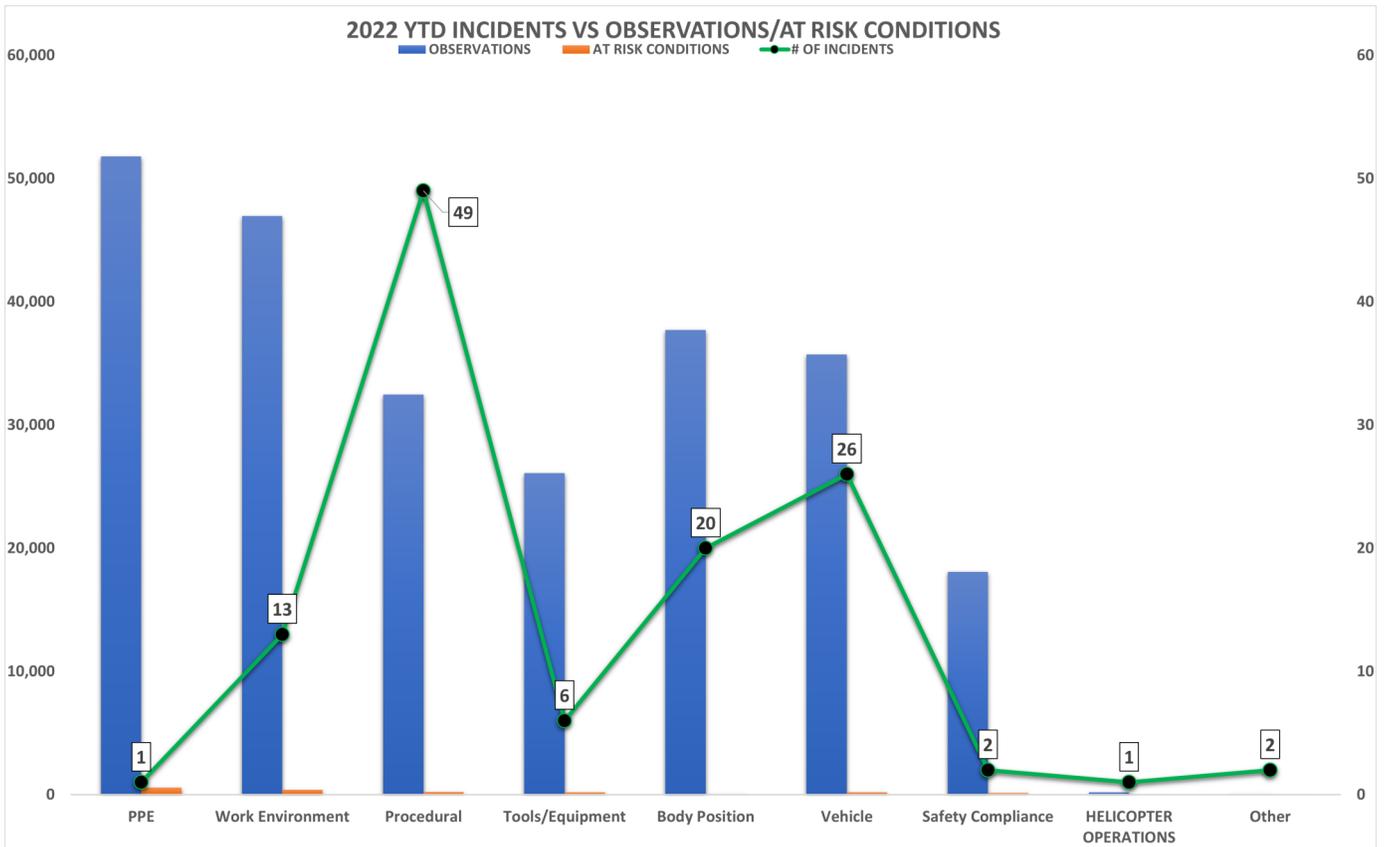
## NOTABLE AT-RISK OBSERVATIONS

Medium-High Risk Observations (July 2022)	Recommendation/Mitigation
Worker was using a motorized hand chipper and not wearing any safety glasses	While performing work, safety glasses should be worn at all times.
Employee walked under a suspended load	All personnel should remain outside of the drop zone while a load is suspended.
Crewmembers were off loading equipment in a high traffic area with no traffic control in place.	Ensure that traffic control is set up to safely guide traffic while work is being done.
A 6' open hole that was near a busy sidewalk was not barricaded and had no signage in place to indicate the	All open holes should be barricaded and/or have signage in place so workers and the public are aware of its location.

## MONTHLY INCIDENTS/NEAR MISSES

Incidents (July 2022)	Recommendation/Mitigation
OSHA Injury - Employee was working in a bell hole when the shoring jack malfunctioned, fell, and hit him in the shoulder. He was placed on modified duty.	Prior to starting work, conduct a pre-check on all materials & equipment to make sure they are in good working condition.
OSHA Injury - While working, two employees were stung by bees multiple times. One employee was taken to the clinic & the other was taken to the ER.	Clear the area in the event a beehive is encountered and contact the appropriate personnel. Train employees on the potential hazards caused by harmful insects, how to avoid injury, and what first aid is needed if an incident occurs.
Gas Incident - Crew was installing a 3" branch saddle and due to the pup being measured incorrectly, the tapping unit went through the back of the pipe, causing a gas leak.	Review standards related to the task at hand to ensure the proper procedures are being followed.
Electric Incident - A two-man crew was using a pole saw to trim vines that were in the vicinity of 3 phase open wire secondaries and the saw ended up contacting the wires causing a secondary outage.	Utilize the correct tool and work method for the job at hand .
Electric Incident - Employee severed an energized electrical line with a Sawzall. He was under the impression the line was abandoned.	Conduct a JHA prior to starting work and always test utilities to verify the absence of power prior to any cutting.
Electric Incident - While terminating new branch circuits for phase II in an electrical junction box, a short circuit occurred, causing the main breaker to trip.	Prior to working on a branch circuit, ensure that the circuit is tested prior to beginning work to confirm that it is not energized.

**5 electric and One gas at fault incidents occurred in July 2022. Zero SIF Potential Event occurred in July 2022. Two OSHA incident occurred in July 2022. Zero DART incident occurred in July 2022 .**



## FUTURE FOCUS AREAS

When looking at the past incidents, SDG&E recommends targeting mitigation measures for:

- Procedural
- Tools/Equipment
- Work Environment

Please make sure to visit our bulletin board on ISN and read the latest communications at <https://www.isnetwork.com/BulletinBoard/asBulletinBoard.aspx>.

**Contractor Safety Services launched its new incident reporting system on April 1: Reports can be submitted at [SDG&E Contractor Initial Incident/Event Notification](#)**

Let us know what you're seeing in the field so we can make our observations even better!

**Questions or comments?** General questions: [SDGEContractorSafety@semprautilities.com](mailto:SDGEContractorSafety@semprautilities.com)

**Reporting Incidents:** [SDGEContractorIncidents@sdge.com](mailto:SDGEContractorIncidents@sdge.com)



# Contractor Safety Talks

### Special Points of Interest:

The State and County's Coronavirus controls are evolving but we will continue to demonstrate safe work practices for the safety of our employees and customers.

For SDG&E's current COVID-19 guidelines, please see the latest communication on the ISN bulletin board and also communicated via email from Supply Management.

### Heat Illness



### Did you know?

Between 600-700 people die every year from heat-related illnesses in the US.

Heat-related illnesses are most likely to occur in July and August and 43% heat-related illnesses occur in California, Texas, and Arizona.

Additionally, the individuals who are most prone to suffer from heat-related illnesses are the very young, the elderly, and individuals with chronic health conditions.

Working outdoors can be strenuous on the body, especially if you are working in the heat. Heat illness can result from the body's inability to cope with a particular head load and can include heat cramps, heat exhaustion, or heat stroke.

There are various ways to ensure your team remains safe from the heat. Abide by the Heat Illness Program of the company you work for that at a minimum follows the Cal/OSHA regulations. Make sure to have shade available for team members, especially if the temperature exceeds 80 degrees. If working in a new area with high temperatures, allow the workers time to get acclimated to the heat and observe them for any heat-related illness symptoms. Also ensure there is plenty of water onsite for the crew members to stay hydrated. There should be enough water onsite to provide one quart of water per employee per hour. Providing training to the crew is also crucial so they can know the signs of heat-related illness and what to look for if a fellow worker is in distress and can be helped.

Consumption of caffeine or energy drinks while working outdoors in the heat can affect the body's water retention and may contribute to getting dehydrated. So drinking water or a beverage with electrolytes is encouraged while working in the heat to keep the body hydrated.

### FAQ

**Q:** How do I learn more about heat-related illness and where can I find additional information on heat illness prevention in outdoor environments?

**A:** Go to Title 8 3395 "Heat Illness Prevention in Outdoor Places of Employment" and/or click [here](#).

## OBSERVATIONS FROM THE FIELD

During the past month, SDG&E safety observers performed jobsite inspections on almost all SDG&E jobsites and observed 33,052 construction activities. Of these there were 251 at-risk conditions documented and corrected in the field. Of the at-risk conditions observed, 81% were low risk, with the majority of them being PPE gaps. There were 45 medium at-risk observations and 0 high risk observation during the month.

At-Risk Observations (June 2022)	At-Risk Behaviors
251	The majority of at-risk conditions were in the PPE and Work Environment categories: failure to wear safety glasses, not having property signage and barricades in place, and housekeeping.

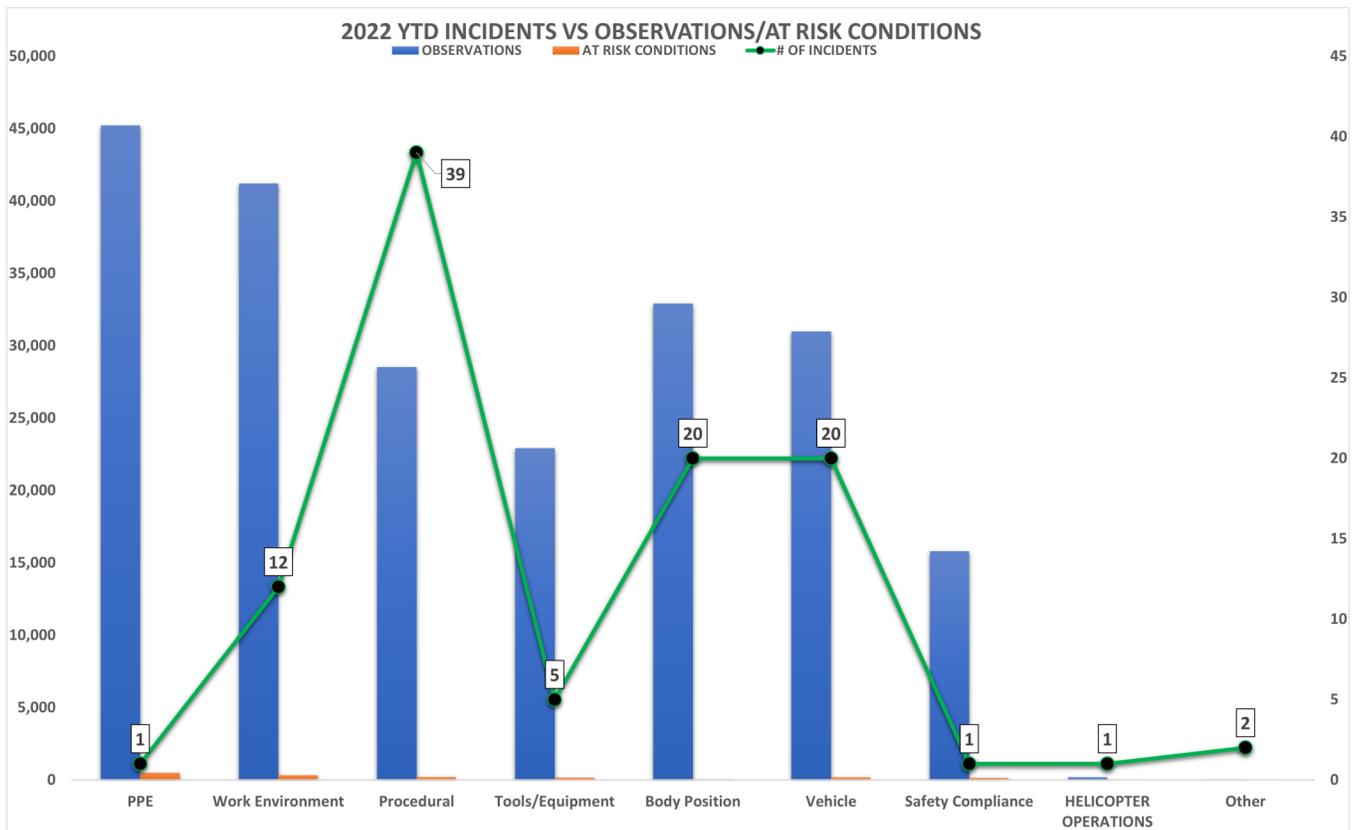
## NOTABLE AT-RISK OBSERVATIONS

Medium-High Risk Observations (June 2022)	Recommendation/Mitigation
There was an open excavation over 6' deep with no barricades set up to establish a safe work zone.	Ensure that all open holes are either covered or barricaded and have proper signage in place.
Employee was grinding with no face shield or any eye protection at all.	During work operations, make sure to always be wearing some type of eye protection.
While the operator was excavating, an employee was in the trench in the immediate vicinity of where the operator was digging.	During excavation operations, ensure that no crewmembers are in the trench regardless of depth and that they remain in the operators line of sight.
A water truck was backing up to the drop tank while there were other workers in his path and there was no spotter assisting him.	Ensure a spotter is in place for back up assistance to prevent any injuries or damages from occurring.

## MONTHLY INCIDENTS/NEAR MISSES

Incidents (June 2022)	Recommendation/Mitigation
OSHA Injury - Employee was tree cutting and while trying to reposition his safety strap, it hit a limb and the strap flung back into employee's face, chipping his tooth.	Be aware of tie in points, body positioning, and overreaching.
OSHA Injury - While employee was moving a jackhammer, he did not grab it by the handle and ended up pinching his finger, which resulted in the employee needing stitches.	While handling tools/equipment, make sure to keep hands out of pinch points or areas where the hands could be crushed and handle tools/equipment properly.
DART Injury - While employee was bending over to pick up a piece of material, he strained his back.	Make sure to use proper lifting techniques when picking any materials up and be aware of body positioning.
DART Injury - Employee was pushing a 2000 KVA transformer by himself to try to move it to its destination and felt pain in his lower leg.	Utilize rigging if applicable, use a team lift process when lifting heavy objects, and make sure the crew stretches prior to work starting and throughout the day if necessary.
SIF Potential - Crew was prepping to set and transfer a pole when the line became energized.	Always utilize EPZ grounding techniques, inspect electrical grounds prior to use, and ensure you have the correct grounds for the voltages being used
SIF Potential - Crew was grading an access road and damaged the wrap of a shallow gas transmission line.	Ensure that there is a valid USA ticket onsite if required and verify all utilities utilizing mark outs and above ground indicators.

**Zero electric and Zero gas at fault incidents occurred in June 2022. Two SIF Potential Event occurred in June 2022. Two OSHA incident occurred in June 2022. Two DART incident occurred in June 2022. \*SIF Potential Event = Serious Injury/Fatality Potential**



## FUTURE FOCUS AREAS

When looking at the past incidents, SDG&E recommends targeting mitigation measures for:

- Safety Compliance
- Tools/Equipment
- Work Environment

Please make sure to visit our bulletin board on ISN and read the latest communications at <https://www.isnetwork.com/BulletinBoard/asBulletinBoard.aspx>.

**Contractor Safety Services launched its new incident reporting system on April 1: Reports can be submitted at [SDG&E Contractor Initial Incident/Event Notification](#)**

Let us know what you're seeing in the field so we can make our observations even better!

**Questions or comments?** General questions: [SDGEContractorSafety@semprautilities.com](mailto:SDGEContractorSafety@semprautilities.com)

**Reporting Incidents:** [SDGEContractorIncidents@sdge.com](mailto:SDGEContractorIncidents@sdge.com)