



TRANSMITTED VIA ELECTRONIC MAIL

March 23, 2022

Erik Takayesu

NOV_SCE_ATJ_ 20211202-01

Vice President Asset Strategy and Planning

Southern California Edison

2244 Walnut Grove

Rosemead, CA 91770

NOTICE OF VIOLATION

Mr. Takayesu,

Pursuant to Government Code § 15475.1, the Office of Energy Infrastructure Safety (Energy Safety) has completed a compliance assessment of Southern California Edison (SCE) and determined the existence of one or more violations. In accordance with Government Code § 15475.2 and the California Code of Regulations, Title 14, Division 17 § 29302(b)(2), noncompliance with an approved wildfire mitigation plan (WMP) or any law, regulation, or guideline within Energy Safety’s authority is considered a violation.

Anthony Trujillo, Energy Safety staff, conducted a walking inspection in Los Angeles County on December 2, 2021, and discovered the following violation(s):

1. Violation 1: Per SCE’s 2021-Q2 quarterly data report (QDR), covered conductor was installed on poles numbered 45377945E, 4568486E, OH-7017637, and OH-7017636. All these structures reported a covered conductor initiative (2021 WMP initiative number 7.3.3.3.1) with a status of “complete.” However, upon inspection, SCE has not even begun covered conductor installation at any of these locations. Energy Safety considers this data accuracy violation to be in the Moderate risk category.
2. Violation 2: Per SCE’s 2021-Q2 QDR, covered conductor was installed on poles numbered 45377945E, 4568486E, OH-7017637, and OH-7017636. Upon inspection, Energy Safety staff found no covered conductor installed at the above-mentioned structures. Given SCE’s focus on covered conductor as one of its flagship wildfire mitigation programs and the scope of this mitigation program, Energy Safety is greatly concerned about how much covered conductor work is completed and how prevalent this issue may be. Energy Safety



March 23, 2022

NOV_SCE_ATJ_20211202-01

considers this violation related to incomplete WMP work to be in the Moderate risk category.

3. Violation 3: Per SCE’s Distribution Overhead Construction Standards (DOH), section PO 300, page 3 of 9, and Distribution Design Standards (DDS), section DDS-10, page 10-26, installation of a fiberglass guy strain insulator is required for distribution guying applications and repairs in high fire risk areas (HFRA) and shall be installed in conjunction with covered conductor installation.¹ Poles numbered 4628153E, 710834E, 862693E, 4393713E, 862696E, 4308816E, 4308817E, and 4789750E had covered conductor installed but failed to install fiberglass guy strain insulators, in accordance with SCE protocol. Energy Safety considers this violation for failure of adhering to protocol to be in the Minor risk category.
4. Violation 4: Per SCE’s DDS, section DDS-10, page 10-82, “for the 336 (30/7) ACSR covered conductor, vibration dampers shall be installed on every span in both light loading and heavy loading areas” and SCE’s Distribution Overhead Construction Standards (DOH), section CC 190, page 1 of 11, vibration dampers are required when installing covered conductor. Poles numbered 4628153E, 710834E, 862693E, 4155191E, 4724215E, 1902077E, 4393705E, 4393713E, 4308815E, 862696E, 4308816E, 4308817E, and 4789750E had covered conductor installed but failed to install vibration dampers. Energy Safety considers this violation for failure of adhering to protocol to be in the Minor risk category.
5. Violation 5: Per SCE’s DOH, when transitioning from covered conductor to bare wire, “if conductor is exposed, install bolted wedge connector cover.” Per SCE’s DDS, Section 10, 5.7.C.1.f, “Covered conductor systems shall be an all-covered system. This means that wildlife covers shall be installed on dead-ends, terminations, connectors, equipment bushings, and any partially covered exposed conductor.” Pole number 4628153E did not have bolted wedge connector covers installed when transitioning from bare to covered conductor. Energy Safety considers this violation for failure of adhering to protocol to be in the Minor risk category.
6. Violation 6: At poles OH-7017637 and OH-7017636, the pole identification number did not match the identification number provided by SCE in its QDR. Energy Safety considers this data accuracy violation to be in the Minor risk category.

In accordance with the Energy Safety Compliance Process, outlined in Table 1 below are the correction timelines for identified violations relative to their risk category. Within 30 days from the issuance date of this notice of violation (NOV), April 22, 2022, advise Energy Safety of

¹ Energy Safety DR-030



March 23, 2022

NOV_SCE_ATJ_ 20211202-01

corrective actions taken or planned by SCE to remedy the above identified violation(s) and prevent recurrence. This response shall be filed in the Energy Safety e-Filing system under the [2021-NOV docket](#)² and the associated file name(s) must begin with the NOV identification number provided above.

Table 1 Energy Safety Violation Correction Timeline by Risk Category

Risk Category	Violation and defect correction timeline
Severe	<ul style="list-style-type: none"> • Immediate resolution
Moderate	<ul style="list-style-type: none"> • 2 months (in HFTD Tier 3) • 6 months (in HFTD Tier 2) • 6 months (if relevant to worker safety; not in HFTD Tier 3)
Minor	<ul style="list-style-type: none"> • 12 months or resolution scheduled in WMP update

Pursuant to Government Code § 15475.4(b), this NOV is served electronically, and SCE may request a hearing to take public comment or present additional information. Per statute, the deadline to request a hearing is within 30 days from the issuance date of this NOV – April 22, 2022. If a petition for hearing is not received by the deadline, then the determination and conditions set forth in this NOV become final.

Pursuant to Public Utilities Code § 8389(g), following receipt of SCE’s response to this NOV and resolution of any disputes, this matter may be referred to the California Public Utilities Commission (CPUC) for its consideration of potential enforcement action, as the CPUC deems appropriate.

Sincerely,

Koko Tomassian
Compliance Program Manager
Compliance Assurance Division
Office of Energy Infrastructure Safety

Cc:
Elizabeth Leano, SCE

² <https://efiling.energysafety.ca.gov/EFiling/DocketInformation.aspx?docketnumber=2021-NOV>



OFFICE OF ENERGY INFRASTRUCTURE SAFETY

715 P Street, 20th Floor | Sacramento, CA 95814
916.902.6000 | www.energysafety.ca.gov

Caroline Thomas Jacobs, Director

March 23, 2022

NOV_SCE_ATJ_20211202-01

Diana Gallegos, SCE
Elizabeth Leano, SCE
Johnny Parker, SCE
Jonathan Chacon, SCE
Melissa Semcer, Energy Safety
Edward Chavez, Energy Safety
Anthony Trujillo, Energy Safety
Gary Chen, SCE

Energy Safety Inspection Report



OFFICE OF ENERGY
INFRASTRUCTURE
SAFETY



Table of Contents

I. BACKGROUND 1

II. RESULTS.....2

Table 1. Risk Category and Correction Timelines2

Table 2. WMP Initiative Inspections.....3

Table 3. General Wildfire Safety Inspections5

III. DISCUSSION8

IV. CONCLUSION.....9

V. APPENDICES..... A-1

Report Name: ATJ_SCE_20221202-01

Date(s): December 2, 2021

Inspector: Anthony Trujillo

Utility: Southern California Edison

Attention: Erik Takayesu, Vice President Asset Strategy and Planning

I. BACKGROUND

While wildfires are a natural part of California's ecosystem, the "fire season" in California and throughout the West is beginning and finishing earlier and later each year. Climate change and drought are believed to be a major contributor to this unsettling pattern. Utility-ignited wildfires are also a significant contributor to the wildfire risk in the Golden State, as this ignition cause category represents a disproportionate amount of the largest and most destructive fires in state history. Consequently, the Office of Energy Infrastructure Safety (Energy Safety) was established per the California Energy Infrastructure Safety Act (Government Code Sections 15470 – 15476) with the primary purpose of ensuring electrical corporations are reducing wildfire risk and complying with energy infrastructure safety measures. One such method for Energy Safety meeting its objective is to conduct detailed visual inspections of electrical infrastructure.

Inspections are carried out by Energy Safety's Compliance Division on a regular basis to verify the work performed by utilities, as reported in approved wildfire mitigation plans (WMPs) or subsequent filings and assess general conditions of electrical infrastructure that may adversely impact an electrical corporation's wildfire risk. Accordingly, Energy Safety inspections are distinguished into two lines of effort. Inspections related to an electrical corporation's execution of its WMP initiatives is referred to as "WMP Initiative Inspections," findings of which are detailed in Table 2. Issues discovered during these inspections are categorized as violations and are accompanied by a notice of violation (NOV). In addition to assessing compliance with WMP initiatives, Energy Safety inspectors also visually assess the electrical infrastructure and surrounding vegetation to determine whether conditions are present which increase an electrical corporation's ignition and wildfire risk. These inspections are referred to as "General Wildfire Safety Inspections" and findings are detailed in Table 3 below. Issues discovered during these inspections are categorized as defects and are accompanied by a notice of defect (NOD).

This report details the findings of a recent Energy Safety inspection.

Section 15475.1. of the Government Code states that:

(a) The office may determine that a regulated entity is not in compliance with any matter under the authority of the office. If necessary, the office may undertake an investigation into whether the



regulated entity is noncompliant with its duties and responsibilities or has otherwise committed violations of any laws, regulations, or guidelines within the authority of the office.

(b) The office's primary objective is to ensure that regulated entities are reducing wildfire risk and complying with energy infrastructure safety measures as required by law.

On December 2, 2021, I performed a walking inspection of Southern California Edison (SCE) covered conductor installations, 2021 WMP initiative number 7.3.3.3.1, along Ridge Route Road and North Gate Road near the city of Castaic, California. Detailed findings from this field inspection are laid out in Section II below.

II. RESULTS

In accordance with Energy Safety's Wildfire Mitigation Plan Compliance Process, violations and defects discovered by Energy Safety must be corrected in a timely manner. The timeline for corrective action is dependent on the risk category, location, and potential impact to worker safety of the violation or defect discovered. Risk categories range from severe to minor, and locational risks are determined with tier levels in the California Public Utility Commission's High Fire Threat District (HFTD) map. Table 1 below outlines violation and defect risk categories and their associated correction timelines. The correction timelines identified below apply to the results of both WMP initiative inspections as well as general wildfire safety inspections.

Table 1. Risk Category and Correction Timelines

Risk Category	Violation and defect correction timeline
Severe	<ul style="list-style-type: none">• Immediate resolution
Moderate	<ul style="list-style-type: none">• 2 months (in HFTD Tier 3)• 6 months (in HFTD Tier 2)• 6 months (if relevant to worker safety; not in HFTD Tier 3)
Minor	<ul style="list-style-type: none">• 12 months or resolution scheduled in WMP update

Table 2. WMP Initiative Inspections

Item	Structure ID	HFTD	Initiative Number	Violation Type	Severity	Violation Description
1	45377945E	Tier 3	7.3.3.3.1	Data Accuracy	Minor	Wrong pole ID provided. Provided pole ID is 45377945E. Actual pole ID is 4537945E
2	45377945E	Tier 3	7.3.3.3.1	Data Accuracy	Moderate	Covered conductor reported as completed, and has not started
3	45377945E	Tier 3	7.3.3.3.1	Completeness	Moderate	Failure to install covered conductor
4	4628153E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
5	4628153E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install bolted wedge connector covers when transitioning from covered to bare conductor
6	4628153E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install fiberglass guy strain insulator
7	710834E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
8	710834E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install fiberglass guy strain insulators on two guys.
9	862693E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
10	862693E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install fiberglass guy strain insulator
11	4155191E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
12	4724215E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
13	1902077E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
14	4393705E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers

Item	Structure ID	HFTD	Initiative Number	Violation Type	Severity	Violation Description
15	4393713E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
16	4393713E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install fiberglass guy strain insulators on three guys
17	4308815E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
18	862696E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
19	862696E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install fiberglass guy strain insulators on three guys
20	4308816E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
21	4308816E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install fiberglass guy strain insulators on two guys
22	4308817E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
23	4308817E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install fiberglass guy strain insulator
24	4789750E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
25	4789750E	Tier 3	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install fiberglass guy strain insulators on two guys
26	4568486E	Tier 3	7.3.3.3.1	Data Accuracy	Moderate	Covered conductor reported as completed, and has not started
27	4568486E	Tier 3	7.3.3.3.1	Completeness	Moderate	Failure to install covered conductor
28	OH-7017637	Tier 3	7.3.3.3.1	Data Accuracy	Moderate	Covered conductor reported as completed, and has not started
29	OH-7017637	Tier 3	7.3.3.3.1	Completeness	Moderate	Failure to install covered conductor
30	OH-7017637	Tier 3	7.3.3.3.1	Data Accuracy	Minor	Wrong pole ID provided. Provided pole ID is OH-7017637. Actual pole ID is 676268E

Item	Structure ID	HFTD	Initiative Number	Violation Type	Severity	Violation Description
31	OH-7017636	Tier 3	7.3.3.3.1	Data Accuracy	Moderate	Covered conductor reported as completed, and has not started
32	OH-7017636	Tier 3	7.3.3.3.1	Completeness	Moderate	Failure to install covered conductor
33	OH-7017636	Tier 3	7.3.3.3.1	Data Accuracy	Minor	Wrong pole ID provided. Provided pole ID is OH-7017636. Structure ID is 676269E

Table 3. General Wildfire Safety Inspections

Item	Structure ID	HFTD	Defect Type	Severity	Defect Description
1	4568486E	Tier 3	Conductor evidence of bird caging	Minor	Conductor shows evidence of bird caging

III. DISCUSSION

In its 2021-Q2 quarterly data report (QDR) submission on August 1, 2021, SCE provided initiative data indicating that covered conductor installation projects (2021 WMP initiative number 7.3.3.3.1) in Castaic were completed. This QDR submission represented the reporting periods of April through June (i.e., Q2) of 2021. Based on this information received from SCE, Energy Safety planned an inspection of select structures in this area to assess the accuracy of SCE data, the completeness of SCE's work, and whether SCE followed its protocols for covered conductor installation. Upon arriving to the inspection locations, Energy Safety observed that covered conductor was not installed at every location where SCE's QDR indicated covered conductor work had a status of "Complete." These structures are noted in Table 2 above.

In accordance with SCE's protocols for covered conductor installation, Distribution Overhead Construction Standards (DOH) PO section 300, SCE states, "In HFRA installations of covered conductor it is required to upgrade down guy/span guy insulation to include Fiberglass Guy Strain Insulators."¹ In addition, SCE's Distribution Design Standards (DDS), section DDS-10 indicates that, "[b]eginning July 2020, SCE has transitioned to a standard requirement in guying to utilize the fiberglass guy strain insulators where traditional porcelain guy strain insulators have been applied."² Further, in response to an Energy Safety Data Request (DR-030), SCE stated that, "[i]n HFRA installations of covered conductor it is required to... upgrade down guy/span guy installation to include Fiberglass Guy Strain Insulators."³ During the inspection, Energy Safety found several instances where fiberglass guy wire strain insulators were not installed where covered conductor work was completed, per SCE's protocols. Structures where this protocol was not followed are noted in Table 2 above.

Per SCE's DDS and DOH, when installing covered conductor, vibration dampers must also be installed.⁴ Energy Safety staff found that vibration dampers were not installed at multiple structures where covered conductor installation was completed. The structures missing vibration dampers where covered conductor was installed are identified in Table 2 above. On November 19, 2021, SCE submitted a memo to Energy Safety titled, "Interim Deviation from Standards on Vibration Damper for Covered Conductor"⁵ (hereafter, "Memo"). This Memo was dated August 18, 2021, and indicates that due to supply chain issues, SCE will suspend the installation of vibration dampers until December 31, 2021. In accordance with SCE's Q2 QDR submission, the covered conductor installations inspected by Energy Safety were completed prior to the issuance of the Memo. Also, SCE informed Energy Safety of this supply chain issue only after inspections commenced. Consequently, Energy Safety finds that SCE is still in violation of its protocols requiring the installation of vibration dampers as part of covered conductor installations.

¹ DOH PO section 300, page 3 of 9

² DDS section DDS-10, page 10-26

³ Data Request Set (Energy Safety DR-030), Question 3, ES-SCE-CC Protocols, (see Appendix B)

⁴ DOH CC section 190, DDS section DDS-10, page 10-82

⁵ Interim Deviation from Standards on Vibration Damper for Covered Conductor, See Appendix B

Per SCE's DOH, Section CC 180, Sheet 1 of 1, when transitioning from covered conductor to bare wire, "dead-end clamps" and "if conductor is exposed, install bolted wedge connector cover" are required. Also, DDS, Section 10, 5.7.C.1.f., "Covered conductor systems shall be an all-covered system. This means that wildlife covers shall be installed on dead-ends, terminations, connectors, equipment bushings, and any partially covered exposed conductor. Further covering other equipment with wildlife protection covers will increase the covered conductor system's overall effectiveness at preventing contact-with-object faults." Energy Safety observed a structure that did not have bolted wedge connector covers when transitioning from bare to covered conductor. The structure is noted in Table 2 above.

During inspections, Energy Safety found three structures where the structure ID provided by SCE did not match the structure ID observed in the field. Structures where Energy Safety observed this data accuracy violation are noted in Table 2 above.

In addition to the violations discovered during WMP inspections of SCE's covered conductor installations, Energy Safety discovered one conductor that showed evidence of bird caging. Energy Safety considers bird caging as a condition that increases an electrical corporation's ignition risk because bird caging is a potential indicator of degradation in a conductor and compromises its structural integrity. Bird caging on a supply conductor can weaken its strength and lead to a wire down event and ignition, thus increasing the risk of conductor failure and potential ignition. The span where bird caging was observed is identified in Table 3.

IV. CONCLUSION

Pursuant to its objectives and statutory obligations, Energy Safety has completed the above referenced inspection and discovered violations and/or defects by Southern California Edison. Southern California Edison's required response to these non-compliances and options for hearing are detailed in the associated notice of violation and/or defect, respectively.

V. APPENDICES

APPENDIX A: Photo Log

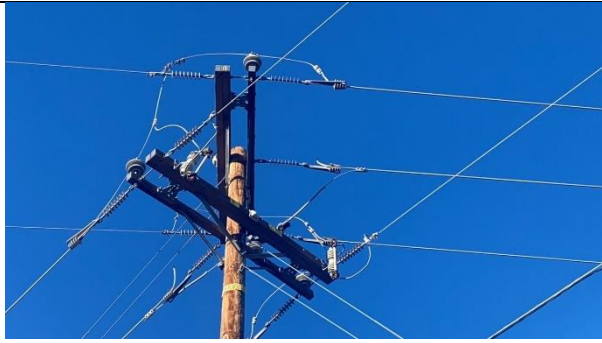
Structure ID: 45377945E

Initiative Activity #1 Photo



Item1IA1img1: Pole ID

Initiative Activity #2 Photo



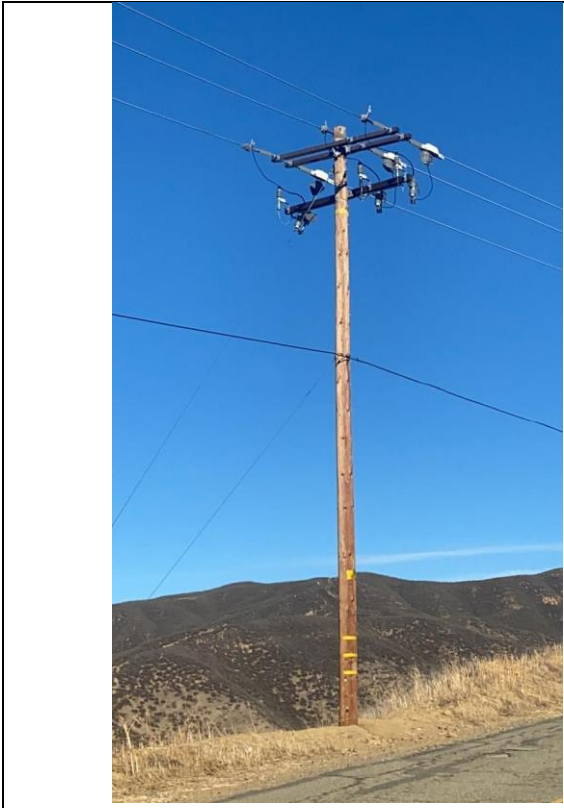
Item1IA2Img1: Overall pole phases



Item1IA2Img3: Bare conductors

Structure ID: 4628153E

General Photo



Item2GImg1: Overall pole



Item2GImg2: Pole ID

Initiative Activity #1 Photo



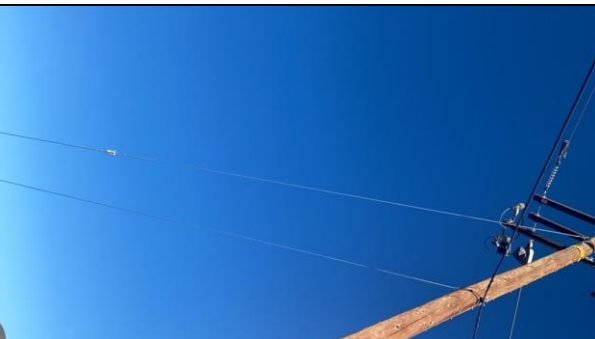
Item2IA1Img1: No vibration dampers

Initiative Activity #3 Photo



Item2IA3Img1: No bolted wedge connector covers when transitioning from bare to covered conductor

Initiative Activity #4 Photo



Item2IA4Img1: Porcelain down guy

Structure ID: 710834E

General Photo



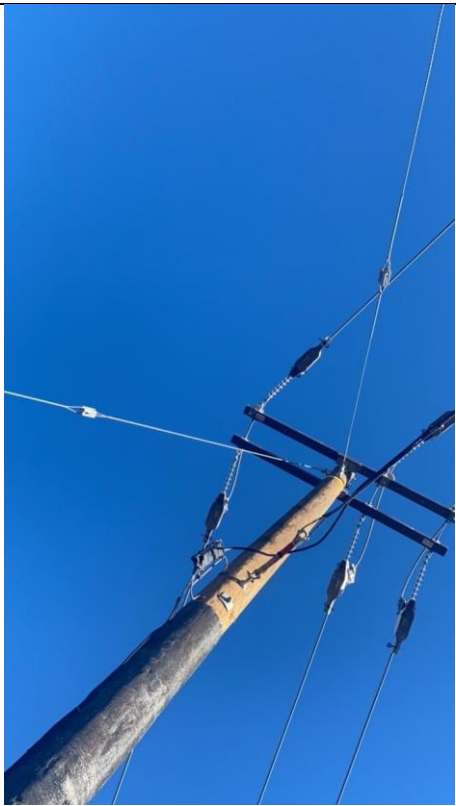
Item3GImg2: Pole ID

Initiative Activity #1 Photo



Item3IA1Img1: No vibration dampers

Initiative Activity #2 Photo



Item3IA2Img1: Porcelain guy insulators

Structure ID: 862693E

General Photo

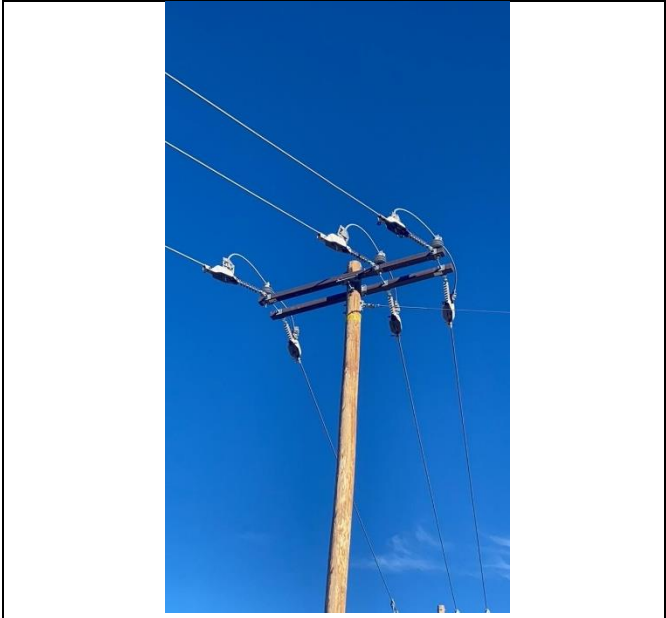


Item4GImg1: Overall pole



Item4GImg2: Pole ID

Initiative Activity #1 Photo



Item4IA1Img1: No vibration dampers

Initiative Activity #2 Photo



Item4IA2Img1: Porcelain guy insulator

Structure ID: 4155191E

General Photo



Item5GImg1: Overall pole



Item5GImg2: Pole ID

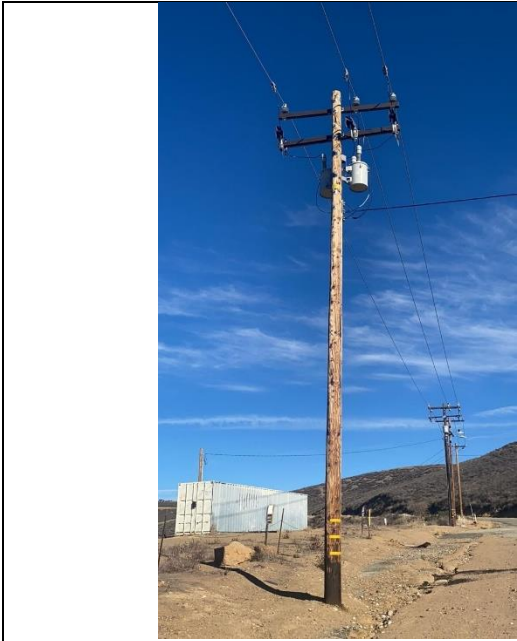
Initiative Activity #1 Photo



Item5IA1Img1: No vibration dampers

Structure ID: 4724215E

General Photo

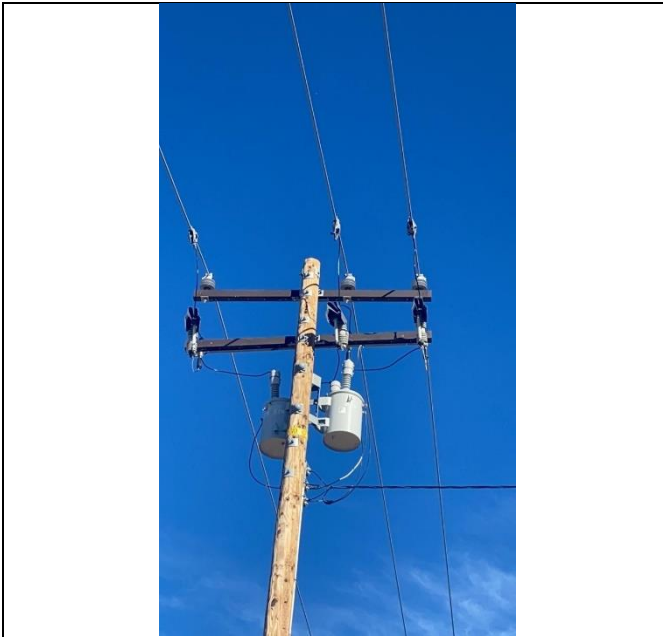


Item6GImg1: Overall pole



Item6GImg2: Pole ID

Initiative Activity #1 Photo



Item6IA1img1: No vibration dampers

Structure ID: 1902077E

General Photo



Item7GImg1: Overall pole

Initiative Activity #1 Photo



Item7IA1Img1: No vibration dampers

Structure ID: 4393705E

General Photo

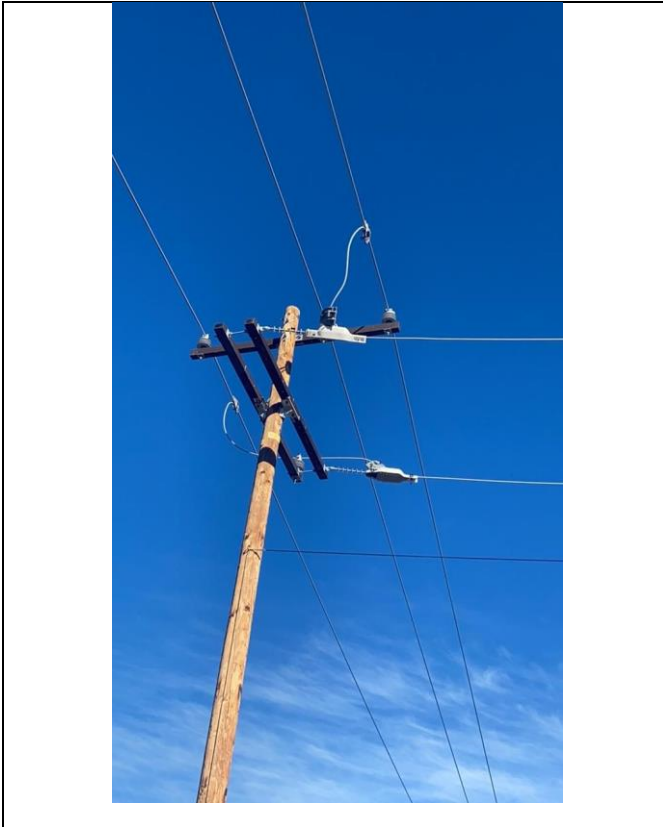


Item8GImg1: Overall pole



Item8GImg2: Pole ID

Initiative Activity #1 Photo



Item8IA1Img1: No vibration dampers

Structure ID: 4393713E

General Photo



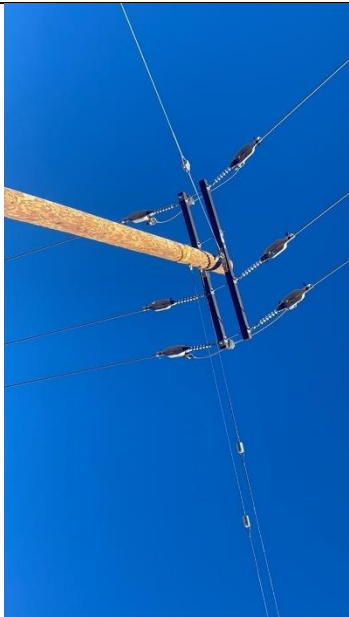
Item9GImg1: Overall pole

Initiative Activity #1 Photo



Item9IA1Img1: No vibration dampers

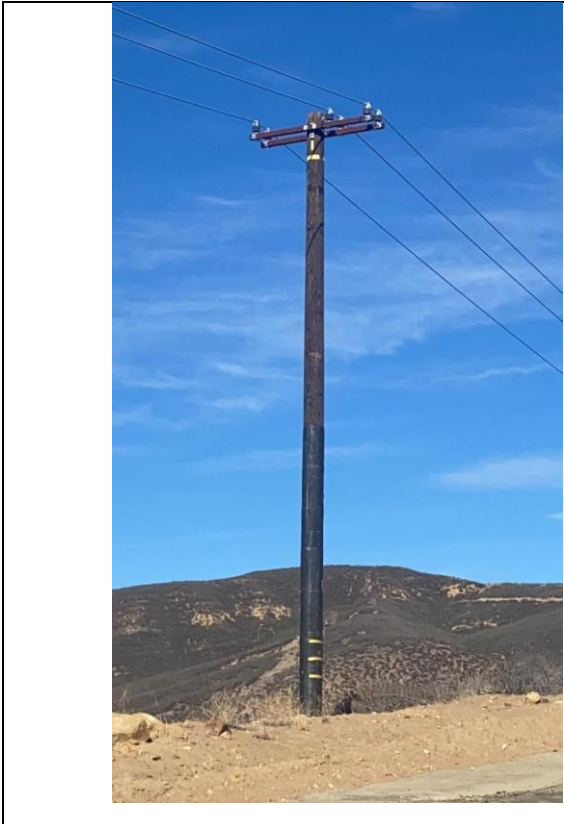
Initiative Activity #2 Photo



Item9IA2Img1: Three guy wires with porcelain insulators

Structure ID: 4308815E

General Photo

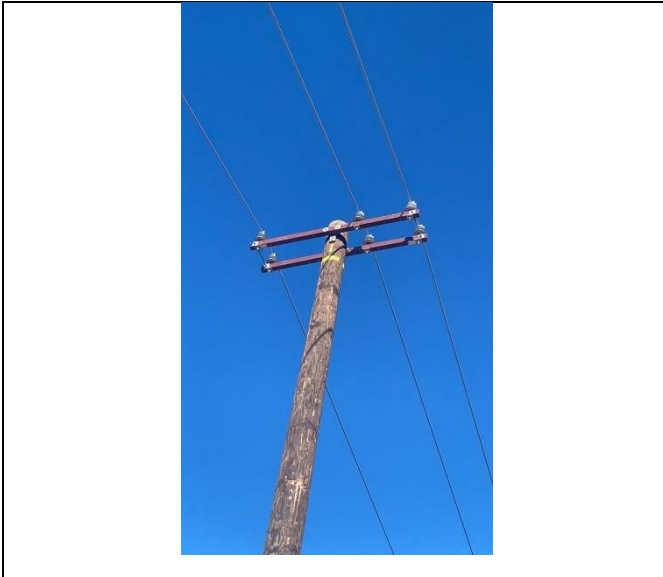


Item10GImg1: Overall pole



Item10GImg2: Pole ID

Initiative Activity #1 Photo



Item10IA1img1: No vibration dampers

Structure ID: 862696E

General Photo

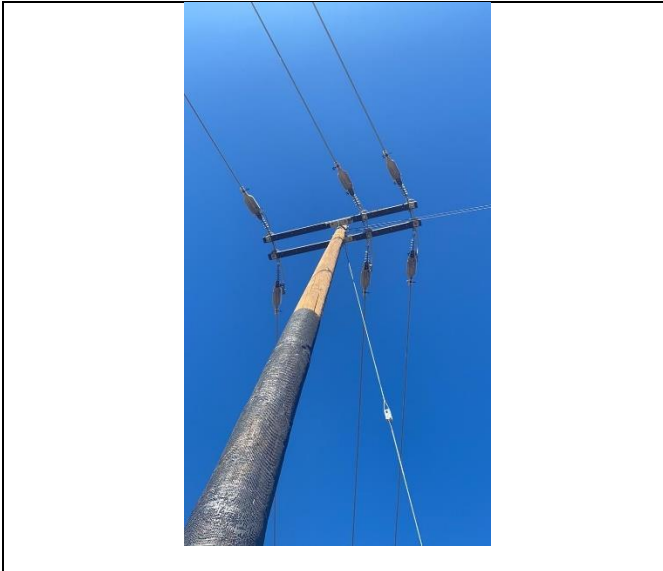


Item11GImg1: Overall pole



Item11GImg2: Pole ID

Initiative Activity #1 Photo



Item11IA1Img1: No vibration dampers

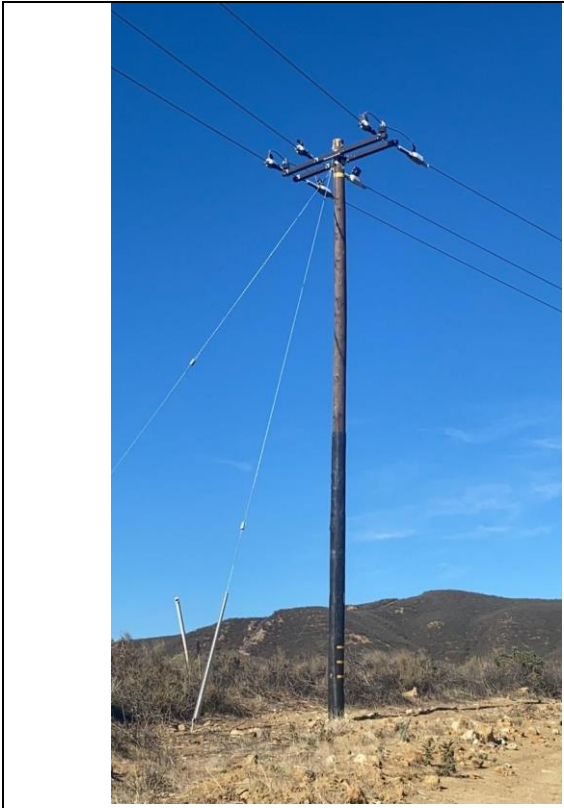
Initiative Activity #2 Photo



Item11IA2Img1: Porcelain guy insulators on three guys

Structure ID: 4308816E

General Photo

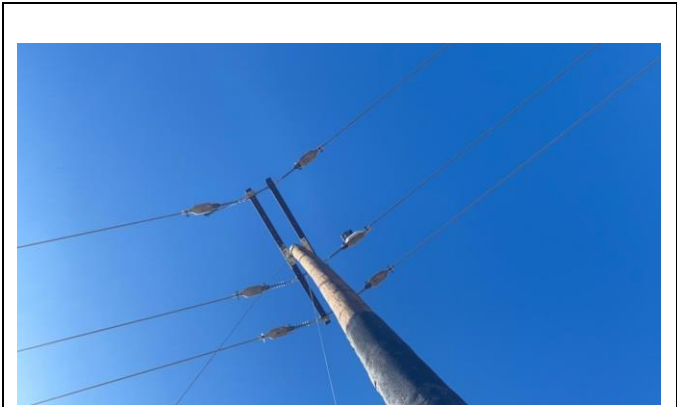


Item12GImg1: Overall pole



Item12GImg2: Pole ID

Initiative Activity #1 Photo



Item12IA1Img1: No vibration dampers



Initiative Activity #2 Photo



Item12IA2Img1: Porcelain guy insulators on two guy wires

Structure ID: 4308817E

General Photo

	
<p>Item13GImg1: Overall pole</p>	<p>Item13GImg2: Pole ID</p>

Initiative Activity #1 Photo


<p>Item13IA1Img1: No vibration dampers</p>

Initiative Activity #2 Photo



Item13IA2Img1: Porcelain guy insulator

Structure ID: 4789750E

General Photo



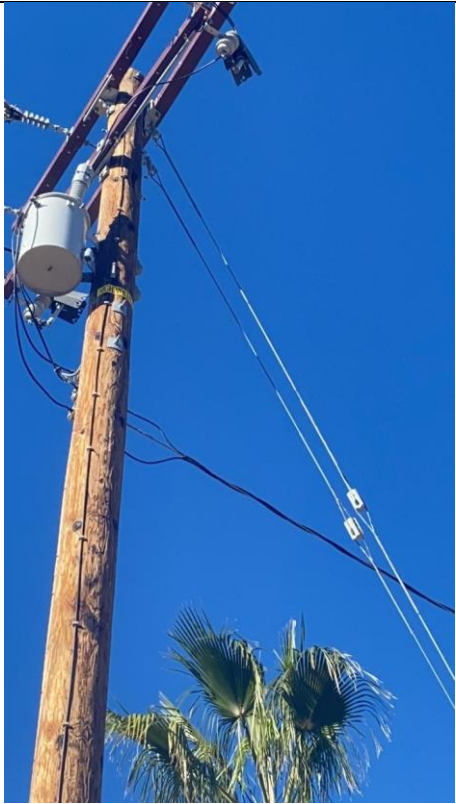
Item14GImg2: Pole ID

Initiative Activity #1 Photo



Item14IA1img1: No vibration dampers

Initiative Activity #2 Photo



Item14IA2Img1: Porcelain insulators

Structure ID: 4568486E

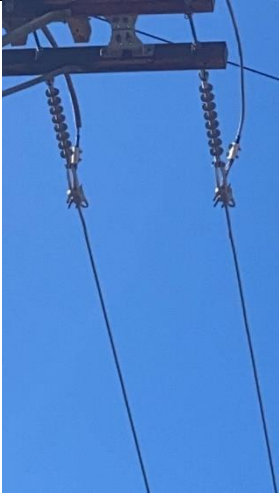
General Photo



Item15GImg1: Overall pole

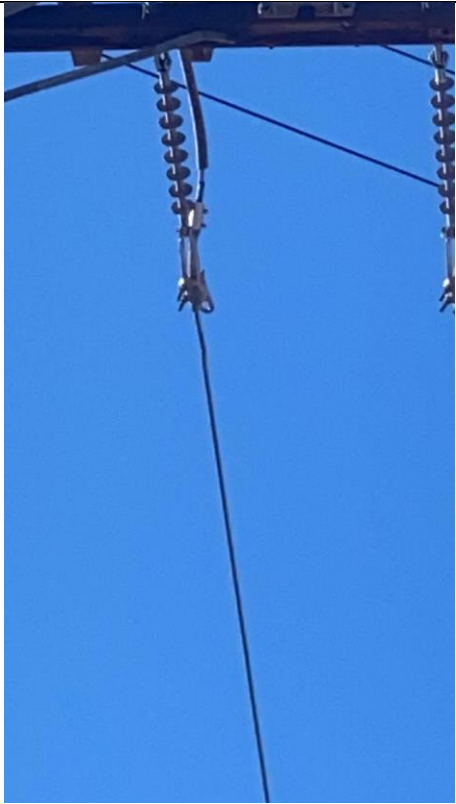


Item15GImg2: Pole ID



Item15GImg3: Bare wire on all phases closeup

Initiative Activity #1 Photo



Item15IA1img1: Bare conductor

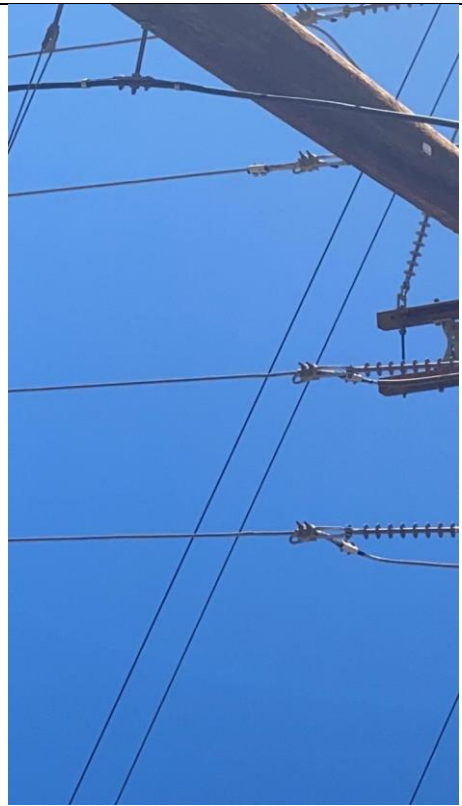


Item15IA1img2: Overall pole

Conductor Question #5 Photo



Item15CD5Img1: Close up of phase bird caging



Item15CD5Img2: Overall view, bird caging on bottom phase

Structure ID: OH-7017637

General Photo



Item16GImg1: Overall structure



Item16GImg2: Structure ID

Initiative Activity #1 Photo



Item16IA1Img1: Bare conductor



Item16IA1Img2: Overall view of bare conductor

Initiative Activity #2 Photo



Item16IA2Img1: Correct structure ID



Item16IA2Img2: Other structure ID

Structure ID: OH-7017636

General Photo



Item17GImg1: Overall structure



Item17GImg2: Structure ID



Item17GImg3: Other structure ID

Initiative Activity #1 Photo



Item17IA1Img1: Bare phases

Initiative Activity #2 Photo



Item17IA2Img1: Structure ID

APPENDIX B: Other Documentation

Data Request Set, Question 3, ES-SCE-CC Protocols:

Southern California Edison
WSD Compliance – WSD Compliance

DATA REQUEST SET ES - SCE - CC - P r o t o c o l s

To: Energy Safety
Prepared by: Jerald Foster
Job Title: Senior Manager
Received Date: 10/11/2021

Response Date: 10/25/2021

7.3.3.3.1: Covered Conductor installation (SH-1)

Per SCE's 2021 WMP update, "In 2021 SCE continues its Wildfire Covered Conductor Program (WCCP), a multi-year program initiated in 2018 that replaces bare overhead conductor with covered conductor in HFRA. SCE also continues installing covered conductor in HFRAs during post-fire restoration work (outside of the WCCP). Poles that require replacement as part of WCCP are replaced with Fire Resistant Poles (FRP)." ¹ Pursuant to this statement and SCE's WCCP, Energy Safety requests the following:

¹ 2021 WMP Update page 213

Question 03:

When installing covered conductors, do SCE's current protocols and construction standards require the simultaneous installation or upgrade of other equipment (i.e., crossarms, insulators, jumper wires, etc.)?

a. If so, list and describe all such installations or upgrades.

Response to Question 03:

Per the attached document titled "DDS_10 Surge Arresters" it is a requirement to install surge arresters on all equipment connected to covered conductor.

The attached "DOH CC section 190" provides requirements to install vibration dampers on covered conductor systems.

In HFRA installations of covered conductor it is required to upgrade wood crossarms with composite, upgrade all insulators to a polymer insulator, install wildlife protection covers, upgrade fuses where applicable, and upgrade down guy/span guy installation to include Fiberglass Guy Strain Insulators. The standards outlining these requirements are attached in the document titled "DDS Requirements Binder" as well as the attached "DOH Section CC".

SCE



8/18/2021

Ref. No. HL-1921

Interim Deviation from Standards on Vibration Damper for Covered Conductor

*****This Bulletin Supersedes HL-0821*****

Purpose

This Hotline Bulletin provides SCE, Contract Construction, and Quality Control Personnel guidance on the requirement for installation of vibration dampers due to the temporary shortage of vibration dampers. This deviation allows installation of covered conductor without dampers.

This deviation only applies if the work location does not have the required dampers to complete the installation and will be in effect until December 31, 2021; dampers are still required to be installed for the work locations that have inventory on hand.

Background

Installing vibration dampers on the covered conductor mitigates Aeolian vibration by protecting the covered conductor from abrasion and fatigue damage. The vibration damper standard was put into effect in October 2020 and is required for all covered conductors in light loading areas (elevation below 3,000 feet). Recently, SCE has been experiencing an acute shortage of Stockbridge Dampers (refer to Figure 1) for 336 ACSR Covered Conductor due to the high demand and supplier constraints. Additionally, the spiral vibration dampers (refer to Figure 2) for 1/0 ACSR, #2 Copper, and 2/0 Copper may be running low on stock.



Figure 1: Stockbridge Damper



Figure 2: Spiral Damper

Discussion

Apart from supply shortages, a review of the orders placed for vibration dampers indicates inconsistent ordering practices at various store locations. For example, the analysis shows that some locations are ordering up to ten times more vibration dampers than needed based on the circuit miles of covered conductors to be installed. On the other hand, the analysis shows that some locations with high covered conductor orders are not ordering enough dampers. To ensure consistent delivery of vibration dampers, the following guidance is developed by Supply Chain and Asset & Engineering Strategy team, and it will be applied towards the field requests.¹

As more inventories become available, Supply Chain will distribute vibration dampers based on the guidance developed and the covered conductor assigned on-site at the designated location.

- 10214215 Spiral Dampers: 1 damper required per phase per span
 - 30 dampers should be allocated per 5,280 feet of covered conductor²

- 10214216 (Spiral), 10214493, 10214494, 10214495, 10214496, 10214497, 10214498, 10214499 Stockbridge Dampers: 2 dampers required per phase per span
 - 60 dampers allocated per 5,280 feet of covered conductor²

Action

Deviation from Distribution Overhead Construction Standards CC 190 when dampers are not available is acceptable for the duration of the damper shortage³, which is projected to last until December 31, 2021. SCE field crews and contractor personnel shall record any spans/locations on the Job Information Sheet (JIS) and [Damper Shortage Report](#), which can be filled out online or in the form attached at the end of this bulletin (refer to Appendix A). The Damper Shortage Report is intended to capture pertinent information where vibration dampers were not installed due to the shortage. The Shortage Reports shall be sent to Niousha Tavakoli biweekly for damper retrofit determination⁴. Then, they will be compiled and sent to the Quality Organization to ensure that no QC corrective actions are given on these work orders. Once the material shortage has been resolved, another bulletin will be published to revoke the deviation process.

¹ This is distinguished from the standard installation requirement, and it is only for inventory purposes.

² Damper allocation assumptions are based on a system average of 180 feet span and should be utilized as guidance, not a one size fits all.

³ The interim deviation from the standard only applies to construction, and planners need to plan the projects in accordance with the standard as required.

⁴ The go back will only target the high vibration susceptibility areas.

Standards Affected

DOH CC 190

Contact Information

If you have any questions related to this bulletin, please contact:

- Niousha Tavakoli: 949-910-8819
 - Niousha.Tavakoli@sce.com

