



**OFFICE OF ENERGY INFRASTRUCTURE SAFETY** 715 P Street, 20th Floor | Sacramento, CA 95814 916.902.6000 | www.energysafety.ca.gov

Caroline Thomas Jacobs, Director

# TRANSMITTED VIA ELECTRONIC MAIL

July 28, 2022

Erik Takayesu

NOV SCE MYU 20220406-01

Vice President Asset Strategy and Planning Southern California Edison 2244 Walnut Grove Rosemead, CA 91770

# NOTICE OF VIOLATION

Dear 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.

Matthew Yunge, Energy Safety staff, conducted a walking inspection in the Tule River Reservation on April 6, 2022, and discovered the following violation(s):

- 1. Violation 1: Per SCE's DDS, section DDS-10, pages 10-82, "Vibration dampers shall be installed on every span in light loading areas." Also, SCE's Standards DOH, section CC 190, page 1 of 11, indicates that vibration dampers are required when installing covered conductor in light loading areas. Poles numbered 4465118E, 4477325E, 4363990E, 4360581E had covered conductor installed in a light loading area but failed to install vibration dampers. Energy Safety considers this violation for failure of adhering to protocol to be in the Minor risk category.
- 2. Violation 2: "Per SCE's Standards DOH, section PO 300, page 3 of 9, and DDS, section DDS-10, pages 10-26, installation of a fiberglass guy strain insulator is required for distribution guying applications and repairs in high fire risk areas (HFRAs) and shall be installed in



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conjunction with covered conductor installation.<sup>1</sup> Pole numbered 4465131E had covered conductor installed but failed to install fiberglass guy strain insulator, in accordance with SCE protocol. Energy Safety considers this violation for failure of adhering to protocol to be in the Minor risk category.

3. Violation 3: Per SCE's DOH, Table DC 535-1: Wildlife Protection Material, SCE requires that anti-rotation clips be used with Dead-End Clamp Covers.<sup>2</sup> Pole numbered 4477325E did not have anti-rotational clips installed in dead-end clamp covers. Energy Safety considers this violation for failure of adhering to protocol 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), August 27, 2022, advise Energy Safety of corrective actions taken or planned by SCE to remedy the above identified violation(s) and prevent a recurrence. This response shall be filed in the Energy Safety e-Filing system under the 2022-NOV docket,<sup>3</sup> and the associated file name(s) must begin with the NOV identification number provided above.

Risk Category	Violation and defect correction timeline					
Severe	Immediate resolution					
	• 2 months (in HFTD Tier 3)					
Moderate	• 6 months (in HFTD Tier 2)					
	<ul> <li>6 months (if relevant to worker safety; not in HFTD Tier 3)</li> </ul>					
Minor	<ul> <li>12 months or resolution scheduled in WMP update</li> </ul>					

 Table 1 Energy Safety Violation Correction Timeline by Risk Category

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 – August 27, 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 will be referred to the California Public Utilities Commission (CPUC) for its consideration of potential enforcement action, as the CPUC deems appropriate.

<sup>&</sup>lt;sup>1</sup> Energy Safety DR-030

<sup>&</sup>lt;sup>2</sup> SCE DOH, Table DC 535-01, SAP 10214048

<sup>&</sup>lt;sup>3</sup> https://efiling.energysafety.ca.gov/EFiling/DocketInformation.aspx?docketnumber=2022-NOV



OFFICE OF ENERGY INFRASTRUCTURE SAFETY 715 P Street, 20th Floor | Sacramento, CA 95814 916.902.6000 | www.energysafety.ca.gov Gavin Newsom, Governor

Caroline Thomas Jacobs, Director

Sincerely,

1

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

Cc:

Melissa Semcer, Energy Safety Edward Chavez, Energy Safety Matthew Yunge, Energy Safety Gary Chen, SCE Elizabeth Leano, SCE Diana Gallegos, SCE Johnny Parker, SCE Jonathon Chacon, SCE

# **Energy Safety Inspection Report**



OFFICE OF ENERGY INFRASTRUCTURE SAFETY



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Report Name: MYU\_SCE\_20220406-01 Date(s): April 6, 2022 Inspector: Matthew Yunge 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 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 April 6, 2022, I performed a walking inspection of Southern California Edison's (SCE) covered conductor installations, 2021 WMP initiative number 7.3.3.3.1, near or in the Tule River Reservation. 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	Immediate resolution				
	• 2 months (in HFTD Tier 3)				
Moderate	• 6 months (in HFTD Tier 2)				
	<ul> <li>6 months (if relevant to worker safety; not in HFTD Tier 3)</li> </ul>				
Minor	<ul> <li>12 months or resolution scheduled in WMP update</li> </ul>				

# Table 2. WMP Initiative Inspections

Item	Structure ID	HFTD	Initiative Number	Violation Type	Severity	Violation Description
1	4465118E	Tier 2	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
2	4477325E	Tier 2	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration damper
3	4477325E	Tier 2	7.3.3.3.1	Adherence to Protocol	Minor	No anti-rotational device installed at dead end cover
4	4363990E	Tier 2	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
5	4360581E	Tier 2	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install vibration dampers
6	4465131E	Tier 2	7.3.3.3.1	Adherence to Protocol	Minor	Failure to install fiberglass guy insulator

# III. DISCUSSION

In its response to a verbal data request Energy Safety, SCE provided initiative data indicating that a covered conductor installation project (WMP initiative number 7.3.3.3.1) in the Tule River Reservation was completed. This data submission represented the reporting periods of January through December 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.

Per SCE's DDS and DOH, when installing covered conductor, vibration dampers must also be installed.<sup>1</sup> Energy Safety staff found that vibration dampers were not installed at multiple structures where covered conductor 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" (hereafter, "Memo").<sup>2</sup> 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. On March 25, 2022, SCE sent an earlier version of that memo that was dated May 18, 2021.<sup>3</sup> However, Energy Safety finds that SCE is still in violation of its protocols requiring the installation of vibration dampers as part of covered conductor installations.

In accordance with SCE's protocols for covered conductor installation, Standards DOH PO section 300, SCE states, "For new guy installations, guy remediation, and/or pole replacements that require guying in High-Fire Risk Areas (HFRAs), the fiberglass guy strain rod shall be used."<sup>4</sup> In addition, SCE's DDS, section DDS-10 indicate that, "Beginning 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."<sup>5</sup> Further, in response to Energy Safety Data Request (DR-030), SCE stated "In HFRA installations of covered conductor it is required to... upgrade down guy/span guy installation to include Fiberglass Guy Strain Insulators."<sup>6</sup> During the inspection, Energy Safety found one instance 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.

Energy Safety discovered a dead-end cover that was missing an anti-rotational device. Per SCE's DOH, Table DC 535-1: Wildlife Protection Material, SCE requires that anti-rotation clips be used with Dead-End Clamp Covers.<sup>7</sup> Structures where this protocol was not followed are noted in Table 2 above.

<sup>&</sup>lt;sup>1</sup> DOH CC section 190, DDS section DDS-10, page 10-82

<sup>&</sup>lt;sup>2</sup> Interim Deviation from Standards on Vibration Damper for Covered Conductor dated 8/18/2021, See Appendix B

<sup>&</sup>lt;sup>3</sup> Interim Deviation from Standards on Vibration Damper for Covered Conductor dated 5/18/2021, See Appendix B

<sup>&</sup>lt;sup>4</sup> DOH PO section 300, page 3 of 9

<sup>&</sup>lt;sup>5</sup> DDS section DDS-10, page 10-26

<sup>&</sup>lt;sup>6</sup> Data Request Set (Energy Safety DR-030), Question 3, ES-SCE-CC Protocols, (see Appendix B)

<sup>&</sup>lt;sup>7</sup> SCE DOH, Table DC 535-01, SAP 10214048

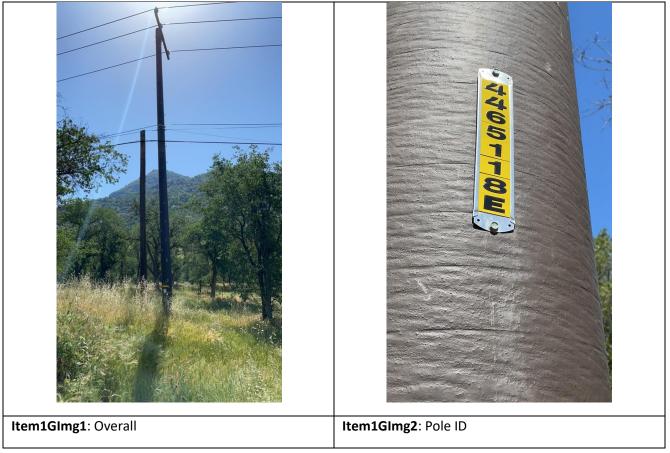
# **IV. CONCLUSION**

Pursuant to its objectives and statutory obligations, Energy Safety has completed the abovereferenced 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

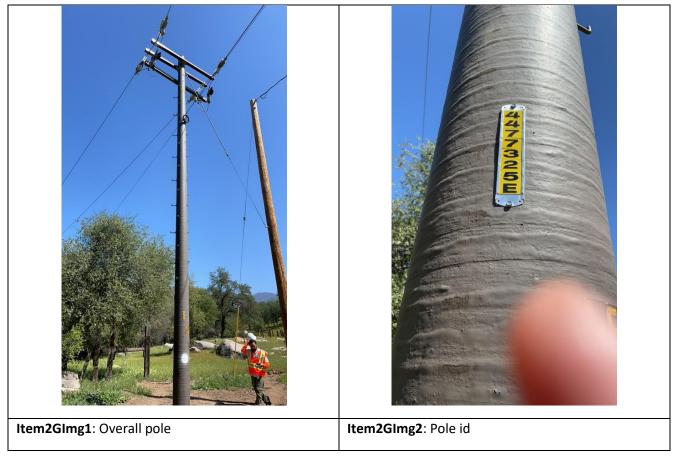
# Structure ID: 4465118E



# Initiative Activity #1 Photo



# Structure ID: 4477325E



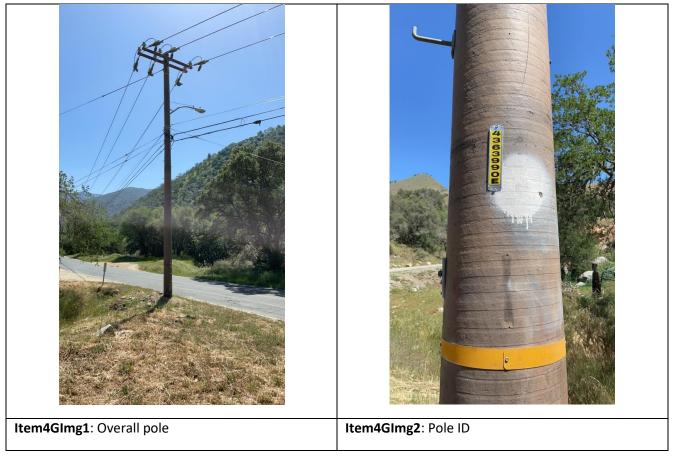
Initiative Activity #1 Photo



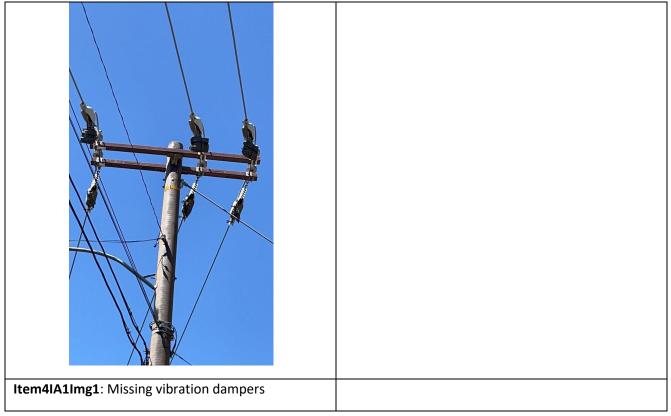
Initiative Activity #2 Photo

Item2IA2Img1: Missing anti-rotational device at outer notch under dead uncover	

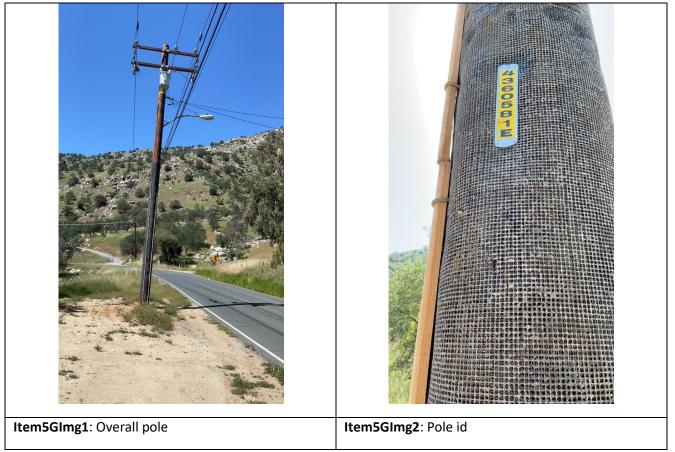
# Structure ID: 4363990E

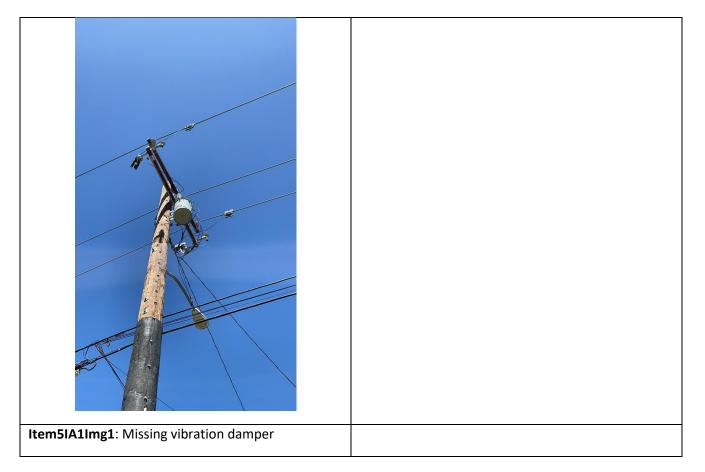


Initiative Activity #1 Photo

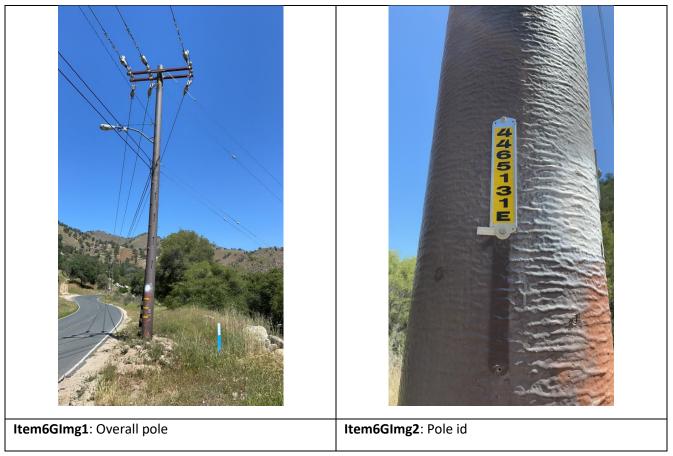


# Structure ID: 4360581E

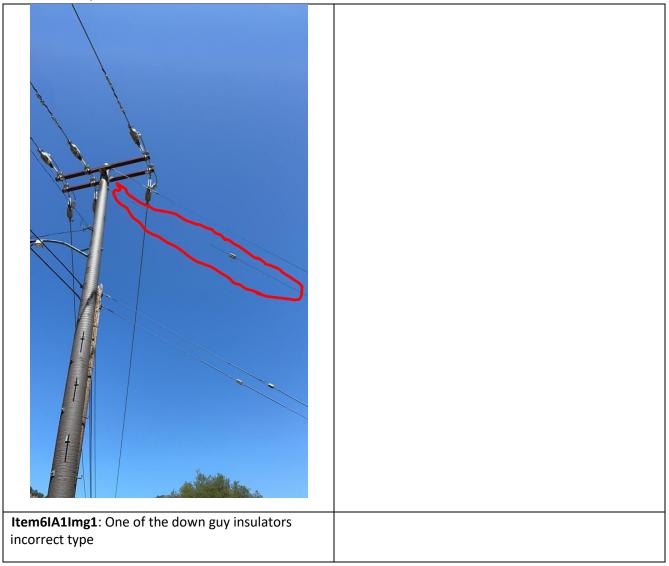




### **Structure ID:** 4465131E



# Initiative Activity #1 Photo





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.<sup>1</sup> 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 conductor <sup>2</sup>
- 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 conductor <sup>2</sup>

## Action

Deviation from Distribution Overhead Construction Standards CC 190 when dampers are not available is acceptable for the duration of the damper shortage<sup>3</sup>, 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 <u>Damper Shortage Report</u>, 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 determination<sup>4</sup>. 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.

<sup>4</sup> The go back will only target the high vibration susceptibility areas.



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<sup>&</sup>lt;sup>1</sup> This is distinguished from the standard installation requirement, and it is only for inventory purposes.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup>The interim deviation from the standard only applies to construction, and planners need to plan the projects in accordance with the standard as required.

### Standards Affected

DOH CC 190

### Contact Information

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

- Niousha Tavakoli: 949-910-8819
  - <u>Niousha.Tavakoli@sce.com</u>



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Appendix A- Damper Shortage Report

Date	TD Number	Company Name	District	System Voltage	Structure Number		Circuit Name	Covered Conductor Size
Date	1D Number	Company Name	District	system votage	From	To	Circuit Name	Covered Conductor Size

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05/18/2021

Ref. No. HL-0821

## Interim Deviation from Standards on Vibration Damper for Covered Conductor

#### 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.<sup>1</sup> 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.

- 10212415 Spiral Dampers: 1 damper required per phase per span
   20 dampers should be allocated per 5 280 feet of several conduct
  - 30 dampers should be allocated per 5,280 feet of covered conductor <sup>2</sup>
- 10212416 (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 conductor <sup>2</sup>

## Action

Deviation from Distribution Overhead Construction Standards CC 190 when dampers are not available is acceptable for the duration of the damper shortage, 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 <u>Damper Shortage Report</u>, 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 determination. Then, they will be compiled and sent to the following individuals to ensure that no QC corrective actions are given on these work orders:

Quality Control – Timothy Garcia

Timothy.Garcia@sce.com

Governance & Reporting – Jose Angel Loya

Jose.A.Loya@sce.com

<sup>2</sup> 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.



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

#### 05/18/2021

This information needs to be provided to the individuals identified above as soon as work is complete. Once the material shortage has been resolved, another bulletin will be published to revoke the deviation process.

### Standards Affected

DOH CC 190

### Contact Information

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

- Hunly Chy: 626-483-8864
  - Hunly.Chy@sce.com
- Niousha Tavakoli: 949-910-8819
  - Niousha.Tavakoli@sce.com



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Appendix A- Damper Shortage Report

Data	TD Number	Common Nome	District	Sectors Voltage	Structure Number		Circuit Name	Covered Conductor Size
Date	1D Number	Company Name	District	System Voltage	From	То	Circuit Name	Covered Conductor Size



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## Southern California Edison WSD Compliance – WSD Compliance

#### DATA REQUEST SET ES-SCE-CC-Protocols

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".