

Release Date: Feb 02, 2023

Effective Date: Feb 02, 2023

Summary

This job aid is designed to assist Electric Distribution Compliance Inspectors, PG&E Employees, and Contractors in assessing and prioritizing compelling **abnormal conditions** on overhead facilities, including but not limited to GO 165 Inspections. Compelling Abnormal Condition is defined as any electric distribution pole, equipment, component, conductors, vegetation, or third-party condition that causes a safety or fire ignition risk that, in the judgment of the field employee, may adversely impact public safety and/or service reliability **within 5 years**.

Job Aid: Overhead Assessment

The field employee's primary responsibility when inspecting an overhead electric facility is to **examine and record any compelling abnormal conditions** and per GO95 Rule 18 level 3 conditions that can be completed as opportunity work with a 5-year duration. This job aid provides guidance on issues that field employees may encounter most frequently in the field but is not intended to be an all-inclusive listing of all abnormal conditions or corrective actions.

During any inspection or field assessment, the field employee may change the priority of any EC Tag based on the field conditions.

Per GO 95, Rule 18, the maximum duration of E tags in HFTD (High Fire Treat District) is:

- 12 months for Tier 2
- 6 months for Tier 3

The statement "Minor Work" referenced in this document is specific to compliance inspectors. When in the field, if a compliance inspector completes minor work, the work must be completed to current construction standards, with the exception of make-safe situations.

The FDA (Facility Type / Damage / Action) located in <u>Table 1</u> at the bottom of this document provides general guidance on EC tag notification for the specific scenario.



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Overhead	Job Aid	d Training
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- The Annual Refresher Training program is designed for Refresher Training PG&E's Compliance Inspectors who conducted detailed **TECH-0020** inspections in the previous year. Content includes explanations of changes to the annual inspection program, mobile applications, and the checklist. A review of this Job Aid is included in this course.
- New Inspector Training The New Inspector Training program is a 3-day training program designed for new Compliance Inspectors and Canus ELEC-1000 contractors who may be assigned Electric Distribution GO165 Overhead/Underground inspection and patrol work. A review of this Job Aid is included in this course.
- The New Contractor Training program is a 3-day training New Contractor Training program, followed by an assessment day plus a 2 day in-the-ELEC-0340, 0341, 0342 field-training. It is designed for new contractors who will be assigned Electric Distribution GO165 Overhead inspection work. A review of this Job Aid is included in this course.

Target Audience

Qualified Electrical Workers (QEW)

Before You Start

- Follow all applicable safety rules, procedures, and protocols.
- Wear appropriate personal protective equipment (PPE) for specific tasks and work area.



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## **Climbing Space**

## 1. Climbing Space – Obstructed

**General Guidance:** Evaluate pole to determine whether there is an obstruction caused by PG&E facilities or by third party facilities that is causing a compelling safety issue – based on the location of the pole and exposure to the worker - that needs to be addressed in 5 years.

**Example:** Equipment pole that cannot be accessed in a bucket truck.

Example: Pole in rear easement with secondary or service connection failures.

**Example:** where the climbing space is not a compelling condition: Equipment pole that is accessible 100% of the time in a bucket.

For PG&E obstructions: Create an EC notification.

For third party obstructions: Create a third-party notification if they pose a significant safety hazard.

If a third-party obstruction is causing an emergency safety or reliability issue, contact your supervisor for instructions.

Minor Work: No

EC Notification: Yes, if not able to perform minor work

Third Party Notification: Yes, if obstructed by third party

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: 066210



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At this Location:

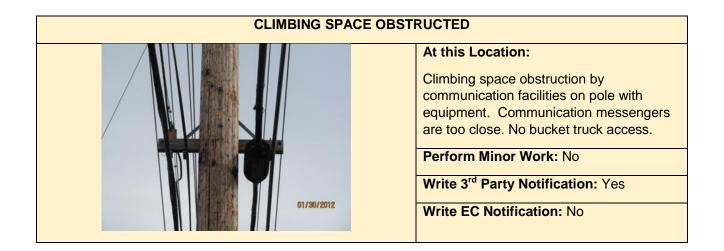
Obstructed climbing space, access via bucket truck from street below. Also, look for clearance issues between communications facilities and the PG&E down guys.

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: No

**Examples** 



## 2. Climbing Space – Obstructed by Vegetation



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**General Guidance:** For incidental vegetation in climbing space that can be moved when climbing, or quickly cleared prior to climbing, no action is required.

For major vegetation that cannot be quickly cleared or moved prior to climbing, evaluate the pole:

- Is there supply equipment on the pole that may need to be operated during emergency conditions?
- Should the obstruction be cleared for any other safety or reliability reason?

If the answer is yes to any of these questions, the inspector will need to create an EC Notification to clear vegetation unless it can be addressed as minor work.

Minor Work: Yes

EC Notification: Yes, if not able to perform minor work

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 year.

Related Documents: 066210



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OBSTRUCTED CLIMBING SPACE	CLIMBING SPACE OBSTRUCTED
At this Location: Obstructed climbing space. Inspector cannot see enough of the pole to complete Inspection (heavy vegetation, cannot see through). No equipment on pole. The only reason to address is to complete the inspection.	At this Location: Climbing space obstruction, able to perform inspection, no equipment on pole (able to see guys, able to see up the pole under tree)
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No, only need clearing to perform inspection	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: No
<ul> <li>FDA = OH Facility / Limited Access/Obstruct / Inspect (Primary)</li> <li>FDA= OH Facility / Limited Access/Obstruct / Remove</li> </ul>	
<b>Priority =</b> B tag, 0-3 months depending upon exposure; must complete before CPUC due date for map	

Examples

	TD-2305M-J/	
Job Aid: Overhe	ead Assessment Release Date: For	
Pole with Vegetation	IVY COVERED POLE	-eb 02, 2023
At this Location: 360° pole inspection not possible	At this Location: 360° pole inspection not possible	
Perform Minor Work: No	Perform Minor Work: No	
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No	
Write EC Notification: Yes	Write EC Notification: Yes	
<b>FDA =</b> OH Facility / Limited Access/Obstruct / Inspect (Primary)	<b>FDA =</b> OH Facility / Limited Access/Obstruct / Inspect (Primary)	
<b>FDA=</b> OH Facility / Limited Access/Obstruct / Remove	<b>FDA=</b> OH Facility / Limited Access/Obstruct / Remove	
<b>Priority =</b> B Tag, 0-3 months depending upon exposure; must complete before CPUC due date for map	<b>Priority =</b> B Tag, 0-3 months depending upon exposure; must complete before CPUC due date for map	

PG<mark>s</mark>



# Job Aid: Overhead Assessment

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## Conductor

1. Conductor Broken / Damaged

## **General Guidance:**

Visually check all conductors (primary/secondary/service), associated attachments and dead-ends for damage from the structure being inspected to mid-span in all directions or the weather-head or to the conductor's termination point

- A. Primary, secondary, and/or service conductors that are broken, damaged, burnt, corroded, loose, frayed or bird caging.
  - General Guidance: If observed, create EC Notification to repair or replace the conductor.

Note: If conductor has 40% or more of strands broken, A Tag stand by situation.

- B. Conductor has splices tied into insulator or splices in contact with the tie wire, preventing free movement of splice with conductor
  - General Guidance: Create EC to repair or replace conductor
- C. Damaged grey AWAC, Damaged grey service drops, i.e., visually cracked, multiple cracks, discoloration, corrosion, degradation, and/or loose AWAC lashing.
  - General Guidance: Create EC to replace conductor
- D. Primary, secondary, or Service conductor has diminished clearance mid-span or uneven conductor sag.
  - General Guidance: Refer to Clearance Job Aid in this document. If observed, create EC Notification to adjust clearance or to recommend a clearance pole.
- E. IOpen wire secondary conductor with rack construction has missing spreader brackets for spans > 135'.



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- General Guidance: If observed, create EC Notification to have spreader brackets installed where bucket truck accessible; use line of sight and if available, foreman-cane or rangefinder.
- F. If no access due to excessive vegetation:
  - General Guidance: create EC Notification, CGI OH Facility /Limited Access / Inspect if preventing complete inspection.
- G. Hand or preform tie wire broken, damaged, burnt, loose, corroded, showing signs of wearing, missing, or missing armor rod.
  - General Guidance: Create EC Notification to replace tie wire and/or armor rod.
- H. Jumper burnt or jumper clearance issues.
  - General Guidance: If observed, create EC Notification to replace burnt jumper or to adjust clearance issues.
- I. Visually check for excessively corroded or damaged connectors and dead-end hardware which has a potential to fail, drop conductor, or cause an ignition.
  - General Guidance: If observed, create EC Notification to replace connectors or dead-end hardware
- J. Visually check all splices for all conductors inside the scope of the inspection. If observed splices are damaged, corroded, cracked, tied into the insulator or underneath the tie wire, installed underneath the vibration dampener that prevent free movement of the splices with the conductor.
  - General Guidance: Use binoculars. If observed, create EC Notification to repair or replace.
- K. Is the service conductor cracked, exposing the hot leg?
  - General Guidance: Use binoculars. Evaluate service drops looking for cracked or damaged insulation exposing hot legs. If insulation is cracked

or



# Job Aid: Overhead Assessment

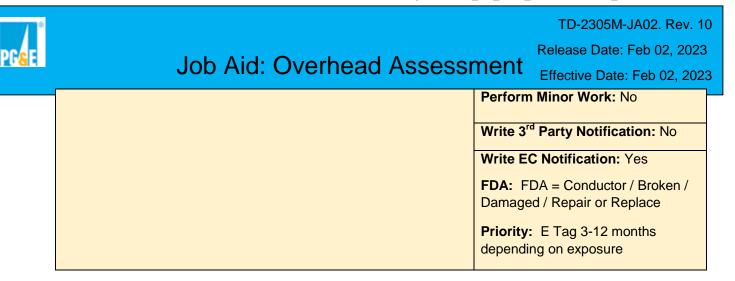
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damaged to the point where hot leg is exposed, this is an Emergency/Standby condition.

- Look for broken service neutrals, or signs that the neutral is in poor condition i.e. damaged, burnt, loose, corroded, showing signs of wearing and about to fail. Conductor separation issues.
  - General Guidance: Use binoculars. If observed, Create EC to repair or replace conductor
- M. Visually check service conductors going into riser, especially at the bend radius and cable grip, obverse potential fraying of the conductor insulation at the entry point to the molding or conduit for exposed hot leg, etc.
  - General Guidance: Use binoculars. If observed, Create EC to repair or replace conductor
- N. For other risks, hazards, or other maintenance conditions not previously identified above
  - General Guidance: Reach out to lead or supervisor if needed, otherwise Create EC Notification

## Examples









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At this Location: Damage to the conductor, more than 40% broken strands

Perform Minor Work: No

Write 3rd Party Notification: No

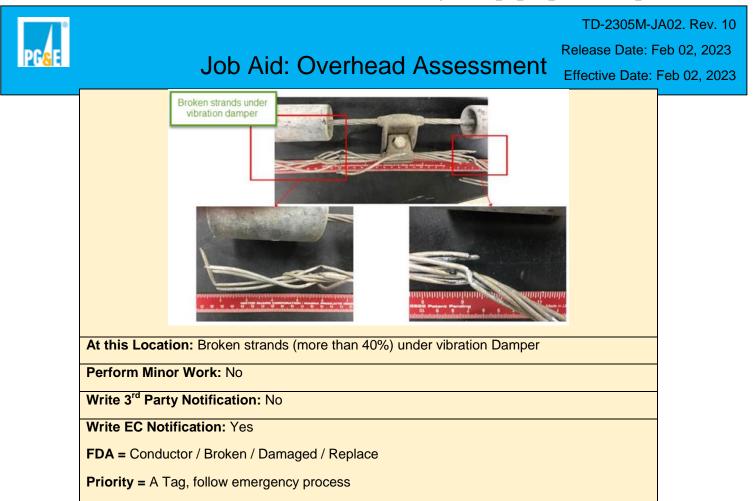
Write EC Notification: Yes

FDA = Conductor / Broken / Damaged / Repair or Replace

**Priority =** A Tag Emergency

Burnt Conductor Primary or Secondary	
	At this Location: Burnt Conductor,
	midspan, primary or secondary
	Perform Minor Work: No
	Write 3 rd Party Notification: No
	Write EC Notification: Yes
	<b>FDA:</b> FDA = Conductor / Burnt / Repair or Replace
	<b>Priority:</b> E Tag 3-12 months depending on exposure

## Broken Strands under Vibration damper

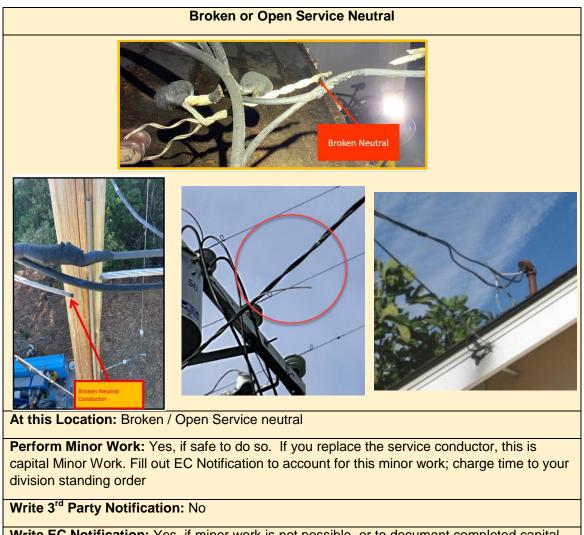




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Write EC Notification: Yes, if minor work is not possible, or to document completed capital minor work

**FDA =** Conductor / Broken / Damaged / Repair or Replace

**Priority =** A Tag, Emergency due to exposed hot leg, follow emergency process

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## Bad service conductor with exposed hot leg

At this Location: Bad service conductor with exposed hot leg, bundled with a potential to cross phase

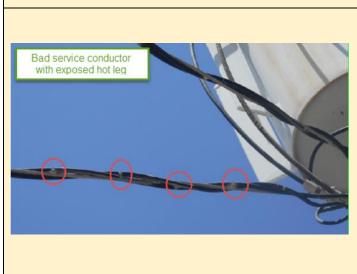
Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

**FDA:** FDA = Conductor / Broken / Damaged / Replace

**Priority:** A Tag, Emergency due to exposed hot leg, follow emergency process





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# Secondary Service Riser Drops Secondary Service Riser Drops Image: Colspan="2">Image: Colspan="2" Image: C

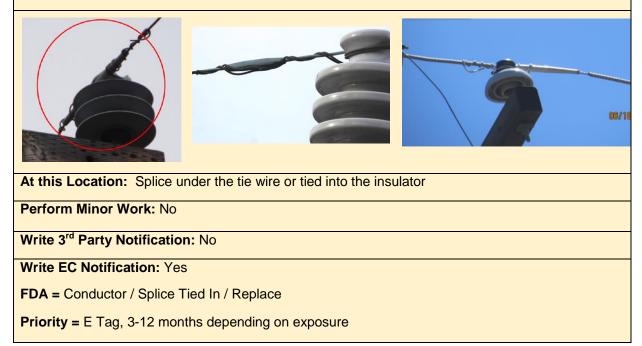
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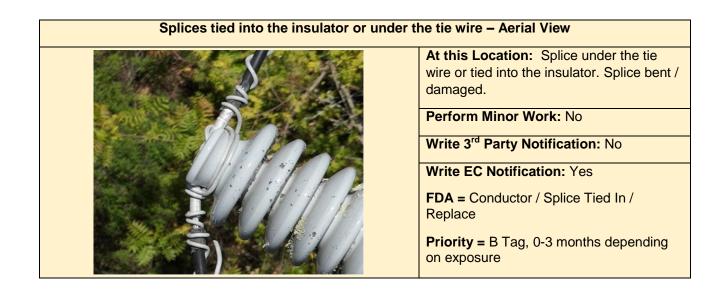
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Splices tied into the insulator or under the tie wire

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Damaged / Cracked Grey Service	
	At this Location: Cracked grey service. Older grey





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services tend to crack and will appear to have rings around the insulation. Loose lashing, visually cracked, discoloration/corrosion, Degradation. Perform Minor Work: Yes, if safe to do so. If you replace the service conductor, this is capital Minor Work. Fill out EC Notification to account for this minor work. Write 3rd Party Notification: No Write EC Notification: Yes FDA=Conductor / Broken / Replace OR FDA=Conductor / Damaged / Replace OR FDA=Conductor / Burnt / Replace **Priority =** A Tag emergency. Follow the Emergency Process



Damaged Secondary	
	At this Location: Damaged strands, less than 40%
	Perform Minor Work: No



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Write 3rd Party Notification: No

Write EC Notification: Yes

FDA= Conductor / Damaged / Repair

**Priority =** E Tag, 3-12 months depending on exposure

At this Location: Exposed Conductors, with an acceptable air gap between conductors         Perform Minor Work: Yes, if safe to do so         Write 3 rd Party Notification: No         Write EC Notification: Yes, if minor work cannot be performed         FDA= Conductor / Broken / Damaged / Repair         Priority = E Tag, 3-12 months depending on exposure	Exposed Service Connector		
		At this Location: Exposed Conductors, with an acceptable air gap between conductors Perform Minor Work: Yes, if safe to do so Write 3 rd Party Notification: No Write EC Notification: Yes, if minor work cannot be performed FDA= Conductor / Broken / Damaged / Repair	



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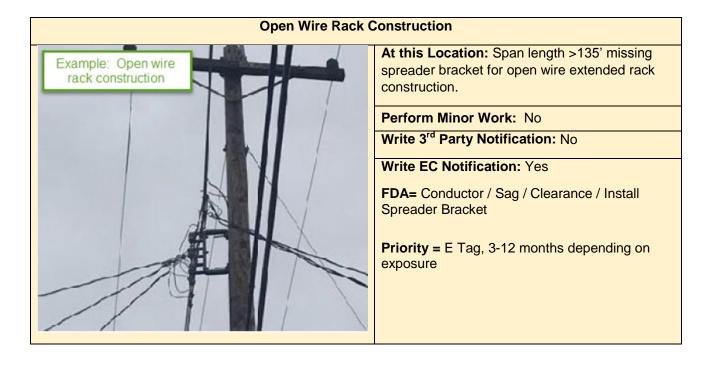


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Write EC Notification: Yes
FDA= Conductor / Damaged / Replace
FDA= Connector/ Insulation Deteriorated /
Repair
<b>Priority =</b> E Tag, 3-12 months depending
on exposure





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## Hardware Broken

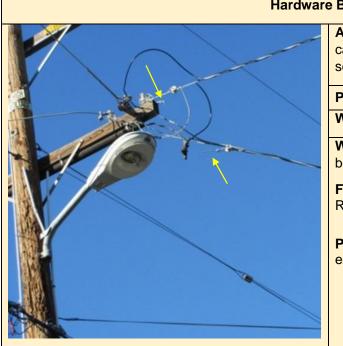
At this Location: The #6 solid copper is broken causing strain on the conductor. Unsecured service.

Perform Minor Work: Yes, if safe to do so Write 3rd Party Notification: No

Write EC Notification: Yes, if minor work cannot be performed

FDA= Hardware / Framing / Broken / Damaged / Repair

**Priority =** E Tag, 3-12 months depending on exposure



**OVERHEAD SERVICE STRAIN ABRASION** 

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**OVERHEAD SERVICE STRAIN ABRASION** 

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At this Location: Service strain abrasion, with possible burning at some sections. Damaged insulation.	At this Location: Service strain abrasion, no slack remaining
<b>Perform Minor Work:</b> Yes, if safe to do so. If you replace the service conductor, this is capital Minor Work.	<b>Perform Minor Work:</b> Yes, if safe to do so. If you replace the service conductor this is capital Minor Work.
Fill out EC Form to account for this minor work; charge time to your division standing order.	Fill out EC Form to account for this minor work; charge time to your division standing order.
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes, if minor work not possible, or to document completed capital minor work	Write EC Notification: Yes, if minor work not possible, or to document completed capital minor work
<b>FDA =</b> Conductor / Broken / Damaged Repair or Replace	<b>FDA =</b> Conductor / Broken / Damaged Repair or Replace
<b>Priority =</b> E Tag, 3-12 months depending on exposure, in comments add note about strain abrasion burnt conductor	<b>Priority =</b> E Tag, 3-12 months depending on exposure, in comments add note about strain abrasion burnt conductor
If abrasion has caused an exposed hot leg, assign Priority "A", emergency, and stand-by.	If abrasion has caused an exposed hot leg, assign Priority "A", emergency, and stand-by.

# Job Aid: Overhead Assessment

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## Loose Primary Neutral Ground

Loose primary neutral ground	
At this Location: Loose primary neutral ground, unsupported conductor, hanging	At this Location: Loose primary neutral ground, unsupported conductor, hanging
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
FDA = Molding, Loose, Adjust	FDA = Molding, Loose, Adjust
<b>Priority =</b> E Tag, 3-12 month, depending on exposure	<b>Priority =</b> E Tag, 3-12 month, depending on exposure



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# Job Aid: Overhead Assessment

## 2. Connector Broken / Damaged

## **General Guidance:**

Visually check all connectors for signs of damage, corrosion, or incorrect installation. Deteriorated aqua seal and/or insulation tape?

- A. Are secondary connectors (mini wedge and Insulink) installed on primary conductor?
  - Guidance: If yes, write EC notification to replace connector.
- B. Are connections made with dissimilar metals installed incorrectly?
  - Guidance: Proper installation is <u>Aluminum over Copper</u>.
  - Guidance: If yes, write EC notification to replace connector.
- C. Are tap clamps installed incorrectly?
  - Guidance: If yes, write EC notification to replace connector.
  - Identify improperly installed tap clamps (aka chance clamps); e.g.
    - i. No tap guards installed on conductor smaller than 1/0 Al and/or smaller than #2 Cu
    - ii. Installed on tap lines (jumpers) feeding more than 2 transformer banks.
    - iii. Installed on armor rod (used for tying in conductor with hand ties; not an appropriate method of attaching tap clamps)
    - iv. Used on any other type of equipment (recloser, capacitor, regulator, risers, etc.) other than a transformer.

**Note:** Chance Clamp is a brand name; this is also known as a hot-line clamp or tap clamp, etc.

D. Is the connector excessively corroded or damaged with potential to fail, drop

cond



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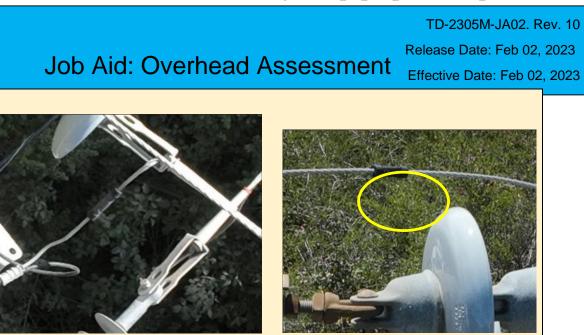
uctor, or cause an ignition?

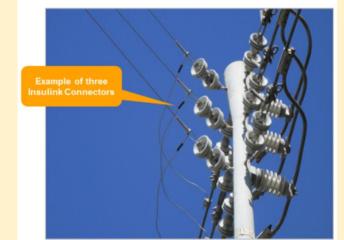
• Guidance: If yes, write EC notification to replace connector.

Incorrectly Installed Chance Clamp	
	At this Location: Incorrectly installed per note C above - chance clamp on armor rod
	Perform Minor Work: No Write 3 rd Party Notification: No
	Write EC Notification: Yes FDA: Connector / Incorrectly Installed / Replace
Tap clamp on armor rod installed incorrectly.	<b>Priority:</b> E Tag 3-12 months depending on exposure

Examples

## **Secondary Connector installed on Primary**





At this Location: Secondary connector installed on primary

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA: Connector / Incorrectly Installed / Replace

Priority: E Tag 3-12 months max depending on exposure



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# Job Aid: Overhead Assessment

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## Connector with Deteriorated Tape

At this Location: Deteriorated tape insulation, potential cross-phasing

Perform Minor Work: No Write 3rd Party Notification: No

Write EC Notification: Yes

**FDA=** Connector/ Insulation Deteriorated / Repair

**Priority =** E Tag, 3-12M depending on exposure





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# Job Aid: Overhead Assessment

## 3. Tie Wire Damaged

## A. Damaged / Corroded

**General Guidance:** Ensure tie wires are not damaged, broken, or corroded. Repair damaged secondary tie wire as minor work if possible.

Visually inspect hand ties to identify wear prior to failure; utilize bucket truck, binoculars, or camera to get a closer look - especially on older installations.

If damage to conductor or tie wire, create EC notification

Minor Work: Yes, on service or secondary only

- Repair damage to service or secondary as minor work if possible and if safe to do so.
- IF not able to perform minor work, THEN create EC notification.

EC Notification: Yes, only if not able to perform minor work.

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

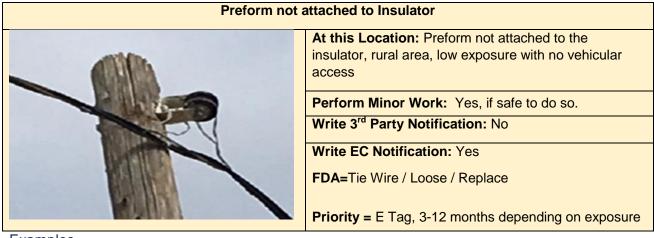
Reference: 052990 - Formed Insulator Ties for Distribution Line Conductors



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Job Aid: Overhead Assessment

Examples

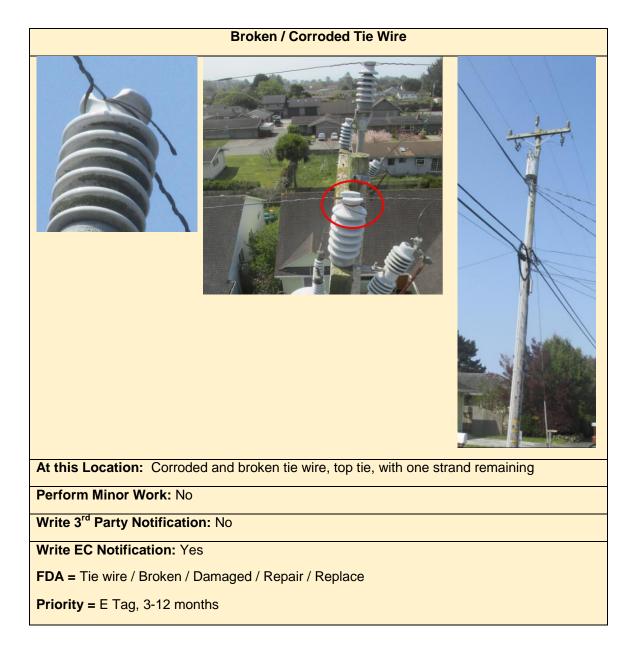
Tie Wire Corroded		
	At this Location: Tie wire is corroded, strand is broken	
	Perform Minor Work: No	
	Write 3 rd Party Notification: No	
	Write EC Notification: Yes	
(Doctor)	FDA=Tie Wire / Corroded / Replace	
	<b>Priority =</b> E Tag, 3-12 months depending on exposure	



# Job Aid: Overhead Assessment

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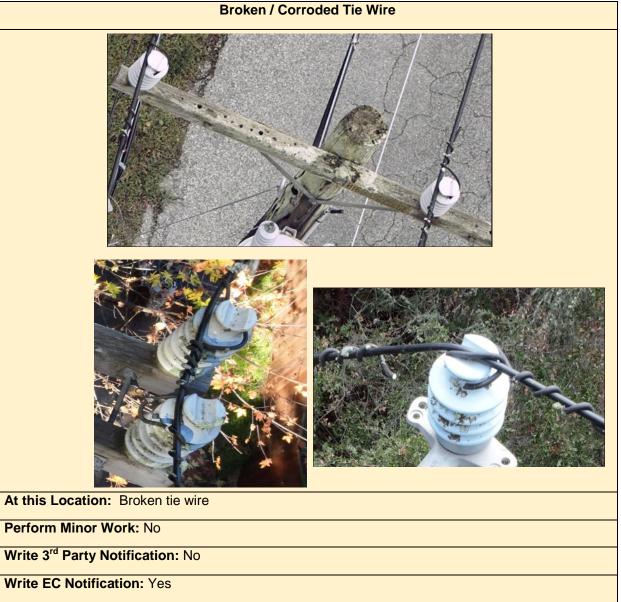
Effective Date: Feb 02, 2023





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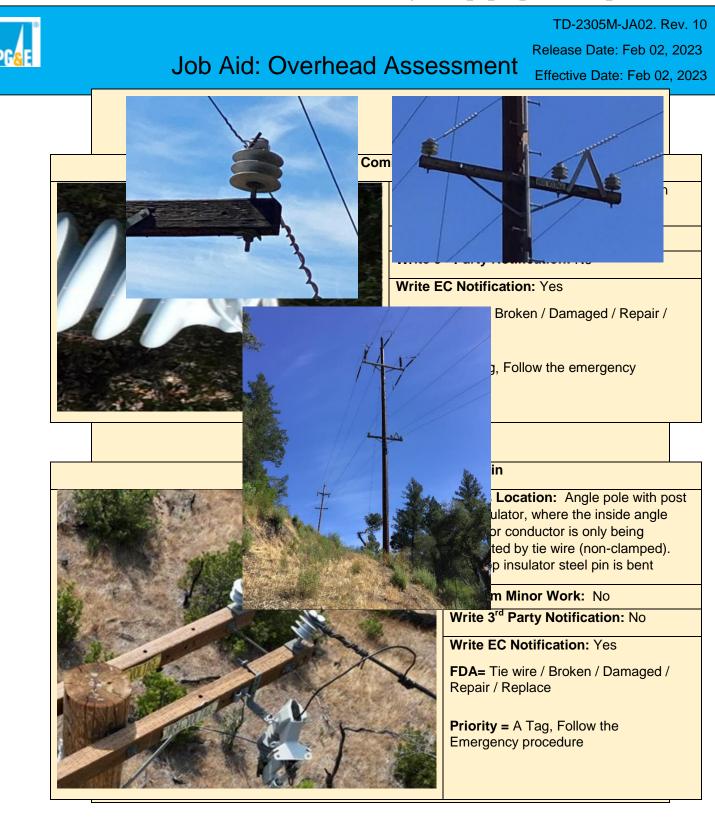


FDA = Tie wire / Broken / Damaged / Repair / Replace

Priority = E Tag, 3-12 months

#### **Questionable Tie Wire**

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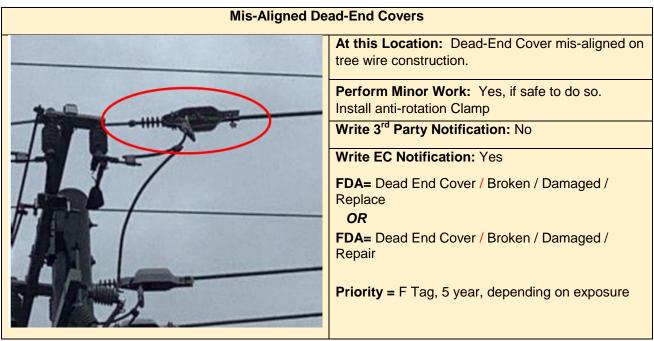
Effective Date: Feb 02, 2023

- 4. Primary Covered Conductor "Tree Wire"
  - A. Dead-End Covers Mis-aligned General Guidance: If Dead-End Covers are:
    - Rotated or mis-aligned
    - Appear that it was installed and now missing. Tree Wire **Only.**

If observed, create EC Notification to repair (Installed Dead-End Cover with Anti-Rotation Clamp) or replace dead-end cover

Ref: Numbered Documents:

- <u>061149</u>: "Raptor Safe Construction and Wildlife Protection,
- <u>015195</u> Installation Details for Aluminum, ACSR, and Copper Covered Tree Wire



Example



## Job Aid: Overhead Assessment

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B. Exposed Primary Covered Conductor- Tree Wire

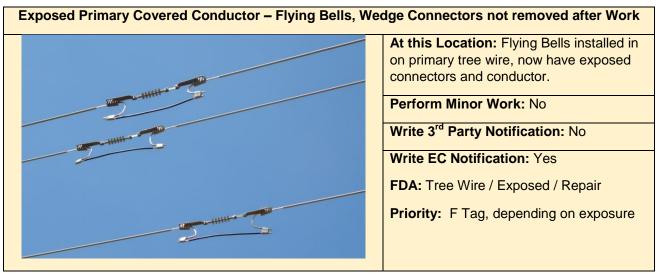
**Guidance:** Does covered conductor have any exposed conductor sections? Does the conductor have any exposed energized splices, connectors, flying bells, or any other components that are not covered?

Minor work: No

#### EC Notification: Yes

Ref: Numbered Documents:

- <u>061149</u>: "Raptor Safe Construction and Wildlife Protection,
- <u>015195</u> Installation Details for Aluminum, ACSR, and Copper Covered Tree Wire



Example

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#### Exposed Primary Covered Conductor Tree Wire, Burnt Conductor

At this Location: Tree Wire conductor exposed and burnt

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA= Tree Wire / Exposed / Repair

FDA= Conductor / Burnt / Repair

Priority: E Tag, 3-12 months depending on exposure

#### Exposed Primary Covered Conductor Tree Wire



At this Location: Tree Wire jacket cut into and bare conductor exposed

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA: Tree Wire / Exposed / Repair

**Priority:** F Tag, depending on exposure



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# Job Aid: Overhead Assessment

Conductor Not Properly Seated in the insulator Groove

Ensure that the Conductor (covered or bare) is properly seated and tied into the insulator groove on straight through, non-angle construction.

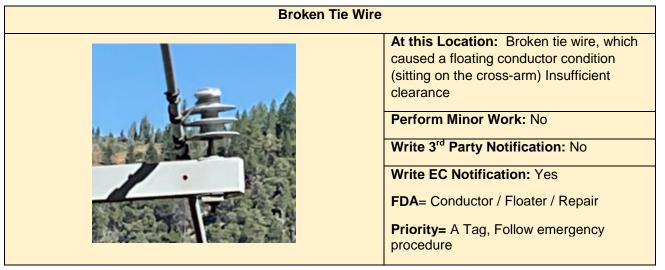
Visually inspect conductor and insulator to identify prior to failure; utilize bucket truck, binoculars, or camera to get a closer look - especially on older installations.

If installation is incorrect, create EC notification – see below (HFTD – A-tag) (non-HFTD or public safety issue B)

EC Notification: Yes

Related Documents: 021439, 028853, 052990

#### Examples





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Conductor Tied to Side of Skirt, not in Groove	Tie Wire Broken / Loose / Not in Groove
	<ul> <li>Pin Type Insulator</li> <li>Conductor was out of the groove.</li> </ul>
At this Location: Insulator spun, and conductor tied on the skirt, non-angle pole.	At this Location: Tie Wire Broken / Loose / Not in Groove
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
FDA = Tie Wire / Broken / Damaged / Replace	<b>FDA =</b> Tie Wire / Improperly Installed / Repair
<b>Priority =</b> B Tag, 0-3 months depending on exposure	<b>Priority =</b> B Tag, 0-3 months depending on exposure

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**Conductor Not in Groove** 

At this Location: (From an arial shot) Conductor not sitting in the groove, may not be possible to identify from the ground.

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

**FDA:** Tie Wire/ Broken/Damaged / Repair or Replace

**Priority:** B Tag, 0-3 months Depending on exposure

#### 6. Floaters

General Guidance: Does primary or secondary conductor(s) float? A floater is when

the



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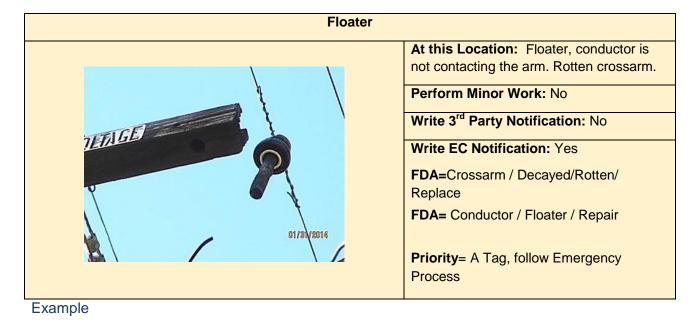
conductor is not attached to the crossarm/pole. Floaters are <u>ALWAYS</u> an Emergency/Standby condition. Create EC Notification using FDA Conductor / Floater / Repair.

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Minor Work: No

**EC Notification:** Yes

Related Documents: 022088



#### 7. Broken or Unsecured Service Bob

General Guidance: Repair or Replace broken insulator, wires, pins, etc.



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#### Minor Work: Yes

- Make repairs as minor work if possible and if safe to do so.
- IF not able to perform minor work, THEN create EC notification.
- **EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Job Aid: Overhead Assessment

#### **Related Documents: None**

BIOREN GUY DOD	t this Location: Broken service Insulator
Сор	hich has become unattached between the opper wire and the insulator.
Wri Wri FDA Dan Price	erform Minor Work: No Trite 3 rd Party Notification: No Trite EC Notification: Yes DA= Hardware/Framing / Broken / amaged / Repair riority=" E", 3-12 months depending upon kposure

Example



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#### 8. Conductor Clearances (Job Aid Below)

General Guidance: Refer to the Conductor Clearance Job Aid and below.

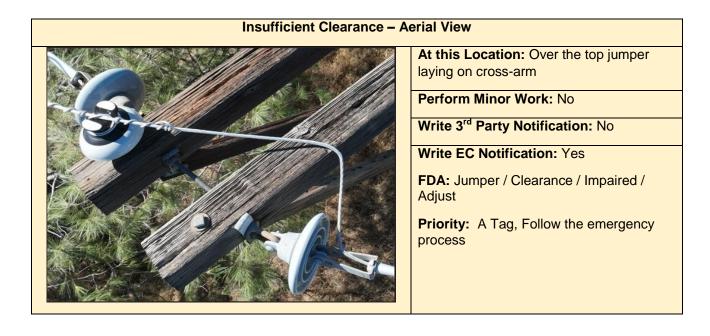
#### Minor Work: No

**EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: TD-2305M-JA12

#### Example



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#### **Insufficient Clearance**



At this Location: Insufficient clearance between connector and cross-arm

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

**FDA:** Conductor / Clearance / Impaired / Adjust

**Priority:** E Tag 3-12 months max depending on exposure

#### 9. Conductor: Uneven, Improper Sag, or Diminished Clearance

**General Guidance:** Check for primary or secondary conductor with improper sag or diminished clearance midspan or uneven conductors, phases touching, or broken at dead end supported by jumper.



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Any spans with uneven conductor - different tension, "bellies" (one is lower than the conductor next to it - when wind blows it may sway at different rates, etc.), then re-sag or install spreader brackets.

Look for damaged dead-end hardware ends that may cause uneven sag. Look for signs of annealing, excessive sag, splices, or discoloration that can result in failed conductor.

Identify clearance requirements utilizing the <u>Clearance Evaluation Job Aid</u> at the end of this document.

#### Minor Work: Yes.

- Make repairs as minor work if possible and if safe to do so. Re-sag or install spreader brackets.
- IF not able to perform minor work, THEN create EC notification.

#### **EC Notification: Yes**

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: TD-7103P-09 pg16, appendix B, table 1

## **Secondary Sagging Conductor** At this Location: Extended Rack Construction sagging covered and insulated secondary conductor, resulting in conductors touching Perform Minor Work: Yes, if safe to do so Write 3rd Party Notification: No Write EC Notification: Yes FDA= Conductor / Sag / Clearance / Adjust PRIORITY= E TAG, 3-12 months depending upon exposure

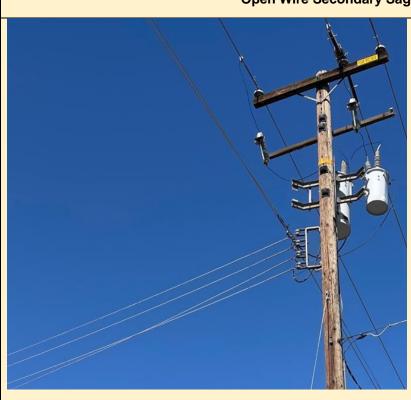
#### Examples



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#### **Open Wire Secondary Sag**

At this Location: Open wire secondary sag into neutral, energizing the neutral

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

**FDA=** Conductor/ Sag / Clearance / Adjust or replace

**PRIORITY=** A tag, follow emergency procedure

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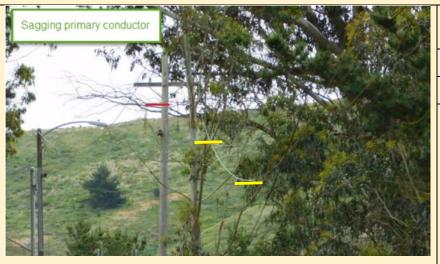
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Job Aid: Overhead Assessment Primary Sagging Conductor



At this Location: Sagging Primary Conductor

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

**FDA=** Conductor / Sag / Clearance / Adjust

**PRIORITY=** E tag, 3-12 months depending upon exposure

10. Jumpers

**General Guidance:** Are jumpers burnt or are there clearance issues? If yes, create EC notification.

Minor Work: No

**EC Notification: Yes** 

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

#### Examples

JUMPER TENSION	Jumper Clearance
----------------	------------------



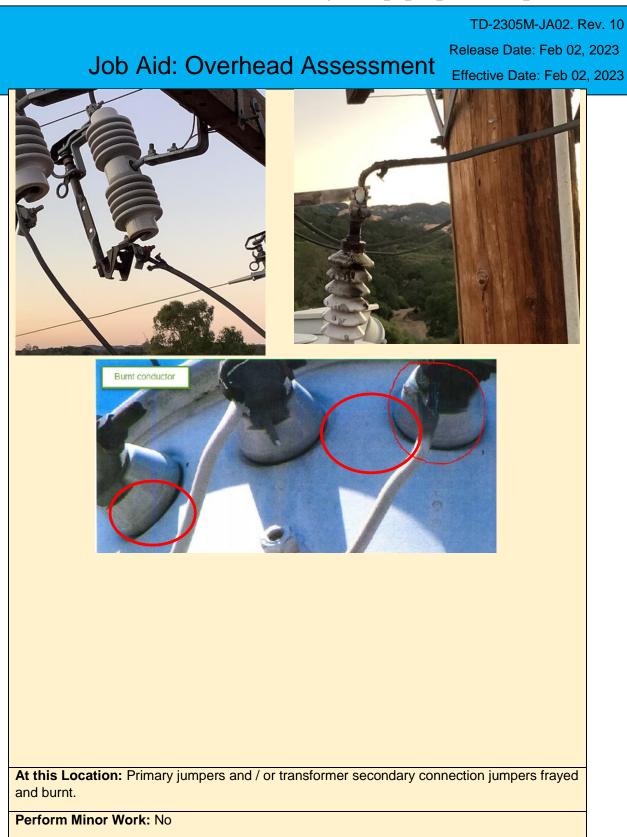
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At this Location: Jumper Tension, pulling over cutout	At this Location: Jumper Clearance
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
FDA= Jumper / Clearance impaired / Adjust	FDA= Jumper / Clearance impaired / Adjust
<b>Priority=</b> E Tag, 3-12 months depending upon exposure	<b>Priority=</b> E Tag, 3-12 months depending upon exposure

#### **Burnt Jumper**



Write 3rd Party Notification: No

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Write EC Notification: Yes

FDA = Jumper / Burnt / Replaced

Priority = E Tag, 3-12 months, depending on exposure



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## Job Aid: Overhead Assessment

Cutouts / Fuses / Switches

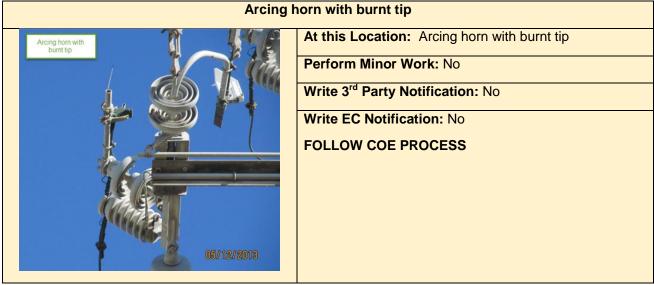
1. Damaged Arcing Horns

**General Guidance:** Call Restoration Dispatch to get a T-Man dispatched to the location to create a COE (CE) notification. Consider installing a warning tag on the pole.

Minor Work: No

EC Notification: No

Related Documents: 015225, 066195



Example



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#### 2. Cutouts

**General Guidance:** Are cutouts broken, damaged, cracked, loose, contaminated, or flashed?

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Guidance: Yes/No, if yes, THEN create an EC Notification.

Minor Work: No

**EC Notification: Yes** 

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: 015225



## Job Aid: Overhead Assessment

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Examples	
BROKEN DAMAGED CROSSARM MOUNTED CUTOUT	Broken Cutout
	<image/>
cutout	
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
<b>FDA =</b> Cutout / Broken/Damaged / Replace	FDA = Cutout / Broken/Damaged / Replace
<b>Priority =</b> E Tag, 3-12 months depending upon exposure, no COE	<b>Priority =</b> A Tag, Follow the emergency procedure



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#### 3. Fuses

**General Guidance:** Are the Fuses corroded on the mountings or end fittings, red cap missing (E Fuse only), paint finish is flaking or cracked, fiberglass layer exposed, E Fuse found hanging upside down (E Fuse only), missing components, cracks, deterioration, burnt, charring, or blown? Do liquid fuses have the appropriate fluid level?

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Minor Work: No

**EC Notification: Yes** 

Liquid Filled Fuses (Per TD-2305M-JA14):

**General Guidance:** 

- Low, missing, or undetermined liquid in HFTD
  - Create EC tag with **Priority B (90 days)** to replace liquid fuse element
     with approved ELF-LR
- Low, missing, or undetermined liquid in non-HFTD
  - Create EC tag with **Priority E (1 year)** to replace liquid fuse element with approved ELF-LR

Select the Priority due date based upon compelling abnormal conditions that may adversely impact public safety and/or service reliability in the next 5 years.

**Related Doc:** <u>015225</u>, <u>TD-2908P-01-JA260</u>, <u>TD-2908P-01-JA261</u>, <u>TD-2305M-JA14</u>, <u>TD-2908P-01-JA243</u>



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Examples

PART 63 POWER FUSE	Part 75 Fault Tamer
At this Location: Fuse End fitting corroded; fiberglass layer exposed	At this Location: excessive cutout corrosion leading to corrosion on the metal components of the FT Fuse, deteriorated housing on the FT Fuse will not contain an arc withing the snuffing tube. Any reasonable suspicion of damage that will not be able to operate correctly
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
FDA = Fuse / Broken / Damaged / Replace	FDA = Cutout / Broken/Damaged / Replace
<b>Priority =</b> E Tag – 3-12 months depending	And
on exposure.	FDA= Fuse / Broken / Damaged / Replace
	<b>Priority =</b> E Tag – 3-12 months depending on exposure.

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Liquid Fuse with no Liquid

At this Location: Liquid Fuse with no liquid, not in HFTD

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA = Fuse / Broken/Damaged / Replace

Priority = E Tag, 3-12 month, depending on exposure

#### REFERENCES: TD-2305M-JA14 -LIQUID FUSE LEVEL CHECK DURING OVERHEAD INSPECTION

TD-2908P-01-JA243- Operating Liquid Filled and Current Limiting Bushing Mounted Cutouts



At this Location: Liquid Fuse with low oil level in

Perform Minor Work: No

HFTD area.

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA = Fuse / Broken/Damaged / Replace

**Priority =** B Tag, 90 days depending on exposure

REFERENCES: TD-2305M-JA14 - LIQUID FUSE LEVEL CHECK DURING OVERHEAD INSPECTION

TD-2908P-01-JA243- Operating Liquid Filled and **Current Limiting Bushing Mounted Cutouts** 

## Switch Handle/Control Box is Not Locked

General Guidance: Ensure that boxes or enclosures located 8 feet or less above the

grou



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nd are locked.

Minor Work: Yes

- Perform minor work if possible and if safe to do so.
- IF not able to perform minor work, THEN create EC notification.

EC Notification: Yes, only if not able to perform minor work

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Job Aid: Overhead Assessment

Related Documents: 066195

## **Distribution Towers / Steel Lattice**

General Guidance: Inspectors are required to inspect distribution towers / lattices for the

following:

- Steel Covered by Earth
- Rust or Corrosion at Tower Footings
- Tower Footing Damaged
- Tower Member Loose
- Marking Hi-Sign Missing/Not Legible
- Guarding Tower Not Guarded (Where Applicable)
- Guy Attachment, Turn Buckles, or Preformed Guys Loose
- Tower Rusty Needs Paint

#### Minor Work: No

**EC Notification: Yes** 

Related Documents: 022168

#### Framing

1. Crossarm Broken/Deteriorated

General Guidance: Refer to Crossarm Evaluation Job Aid in this document.

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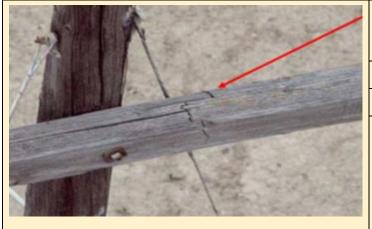


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#### Cracked Cross-Arm – Aerial View



At this Location: Top view of a cracked cross-arm on top and sides. May not be seen from the ground.

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

**FDA =** Cross-arm / Broken / Damaged / Replace

**Priority =** A Tag, Follow emergency procedure

Deteriorated Cross-Arm – Aerial View	
	At this Location: Top view of a Deteriorated/Rotten cross-arm. May not be seen from the ground. Quarter brace hardware coming loose. Perform Minor Work: No Write 3 rd Party Notification: No Write EC Notification: Yes FDA = Cross-arm / Broken / Damaged / Replace Priority = Minimum B tag 0-3 months, consider A Tag for conditions such as conductor size, double / single arm, exposure, etc.

# Deteriorated Cross-Arm – Aerial View Image: Arrow of the strength of the strengt of the strength of the strength of the strength of the strengt o

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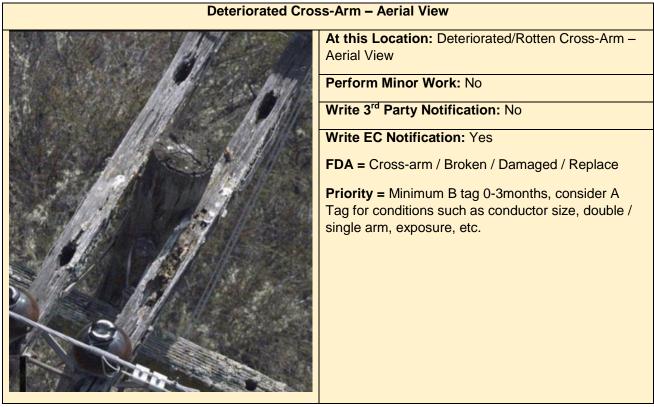


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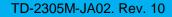
Write EC Notification: Yes
FDA = Cross-arm / Broken / Damaged / Replace
<b>Priority =</b> Minimum B tag 0-3months, consider A Tag for conditions such as conductor size, double / single arm, exposure, etc.



Crossarm Evaluation Job Aid General Information:

Environmental conditions throughout the service territory expose support structures to a variety of conditions that can cause or accelerate deterioration of wood components. This section provides guidelines for assessing wood crossarms.

**General Guidance:** During detailed inspections, examine wood crossarms and assess their condition: Is primary or secondary crossarm damaged, broken, burnt, decayed, rotten, loose, missing hardware or showing signs of bent bolts or brackets, gun shots, insect damage or woodpecker damage, or splitting that compromises the integrity of the crossarm? If yes, create EC notification to replace crossarm; always consider replacing wood crossarms with composite.





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#### **Additional Guidance:**

Identify conditions such as crossarm configuration, number of phases, location (e.g., urban, rural, forest, inaccessible, traffic, etc.), loading (e.g., double/triple arms, dead ends, alley arms, proximity to trees, angles/conductor size, heavy loading, damaged wood pins, etc.) and the likelihood of these conditions contributing to further deterioration or failure of the crossarm or attached components.

Often cross arms experience significant decay on the top of the arm without exhibiting clues that are visible from the ground¹. For this reason, arms that exhibit two or more of the following characteristics are more likely to decay on the top and should be considered for a more detailed aerial/climbing inspection:

- Arms that appear to be greater than 50 years old² (based on age of pole, presence of wood pins, brown/glass insulators, or other indicators).
- Arms mounted on poles where the pole top is showing signs of decay or crowning.
- Severely weathered arms or arms rounded or apparently decayed ends.
- · Damaged wood pins or elongated pinholes.
- Active moss/vegetation growth.
- Presence of woodpecker holes (greater than one inch diameter) on the arm
- Arms in areas of higher rainfall/moisture and reduced sunlight such as those in many coast and mountain areas.
- Wood pins on arms located in agricultural areas or orchards contaminated by aerial spraying and dirt, which contributes to tracking and arm or pin deterioration.

¹ Examples of top and bottom views of crossarm conditions are shown in table 2

² Many, but not all, arms prior to 1955 were untreated.

Examples



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#### BROKEN CROSSARM

Crossarm is completely broken/fractured



Emergency - make safe immediately

TOP OF CROSSARM DECAYED

Evidence of pole top decay and face of crossarm decay; may need additional assessment of crossarm



Replace 3-12 months

#### **BROKEN SECONDARY CROSSARM**

Secondary arm broken; split/fractured within 2" of bolt holes in heavy tree area.



#### SPLIT CROSSARM

Primary Squatter (wood pin). Crossarm split within 2" of pinhole.

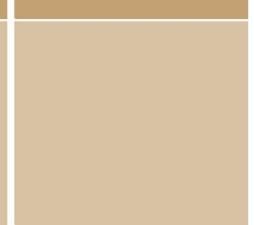


#### DETERIORATED CROSSARM

Significant deterioration, both arms are broken/split. Evidence of previous temporary repair.



Replace 3-12 months



WMP-Discovery2026-2028_DR_OEIS_007-Q003Atch02_Redacted



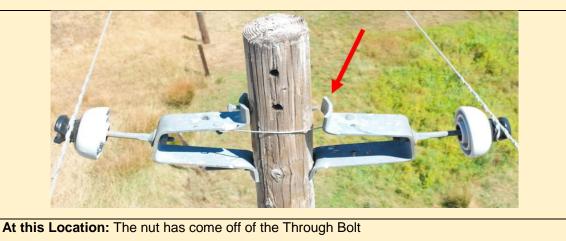
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#### Through Bolt Loose



Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

**FDA =** Hardware / Loose / Adjust

**Priority =** A Tag Emergency





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#### 2. Bonding Exists and Needs to be Repaired

**General Guidance:** Visual observation of broken / unattached bonding wire on a crossarm. Create EC notification.

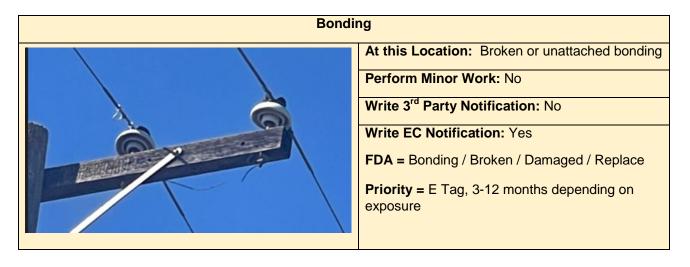
Job Aid: Overhead Assessment

Minor Work: No

**EC Notification:** Yes

Related Documents: 06667

#### Example





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#### 3. Underarm Bus Not Securely Attached

#### **General Guidance:**

It is a requirement to have at least two attachment points, secured to an underarm bus, one on each side.

It is a requirement to use the following corrosion resistant materials for attaching the underarm bus to the crossarm: straps, plumber's tape, lags, galvanized nails, staples, screws, bolts, zip ties, etc.

If an inspector finds an underarm bus secured with non-authorized material, such as duct tape, electrical tape, or rope, it must be secured by at least two additional approved attachment points.

When an inspector re-secures a bus, it must be brought up to construction standards; four attachment points using corrosion resistant materials.

Complete as minor work/re-secure the bus. IF it cannot be completed as minor work, then create EC notification if compelling and needs to be addressed within 5 years.

#### Minor Work: Yes

EC Notification: Yes, only if not able to perform minor work

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: 021924, Crossarm Evaluation



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#### **Under-Arm Bus Loose and Deteriorated**



At this Location: UAB deteriorated, partial repair with rope, secured with one strap

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA=Under-Arm Bus / Broken/Damaged / Repair

**Priority =** At minimum – must write up as F Tag, next inspection cycle; based on field condition and exposure, corrosion, etc.; prioritize as needed (A, B, E, or F)

Examples

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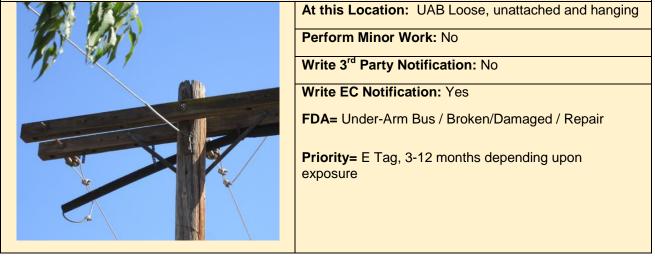


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Under-arm Bus Loose



#### 4. Wood Pin Burnt/Tracking or Broken

#### **General Guidance:**

Primary wood pins: If the primary wood pin is leaning or broken, or if there are signs of burning or tracking, create a 0-3 month Priority "B" EC Notification.

Primary or Secondary wood pins: If wood pin is broken or "floating", create emergency EC to address immediately.

Minor Work: No

**EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years

Related Documents: 015202, Crossarm Evaluation



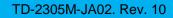
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Examples

PIN BROKEN	PIN BROKEN (FLOATER)
	ST FIGH SUT 3 TO TO
At this Location: Primary wood pin is broken, and the conductor is laying on the crossarm. Wood pin arm replace with Composite arm	At this Location: Secondary wood pin is broken, and the conductor is laying on the crossarm. Wood pin arm. Replace arm with composite arm
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
<b>FDA =</b> Conductor / Floater / Repair	FDA= Conductor / Floating / Repair
FDA= Crossarm/Broken Damaged/Replace	FDA= Crossarm/Broken Damaged/Replace
<b>Priority =</b> A Tag, follow emergency process	Priority= A Tag, follow Emergency Process





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PRIMARY WOOD PIN AT ANGLE	PRIMARY WOOD PIN SQUATTER
UT/04/2013	
At this Location: Deteriorated primary wood pin at angle. All insulators need to be replaced. Cross-arm ends still in good condition. Replace the crossarm with a composite arm.	At this Location: Primary wood pin squatter. Replace Crossarm with composite arm. No armor rod with hand-tie.
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: Yes, replace wooden pin with steel pin.
Write EC Notification: Yes	Write EC Notification: Yes
FDA= Crossarm/Broken	FDA= Crossarm/Broken Damaged/Replace
Damaged/Replace	FDA= Insulator / Primary Squatter/ Replace
FDA=Hardware/Framing /	<b>Priority=</b> E Tag, 3-12 months depending upon
/Broken/Damaged / Replace	exposure
<b>Priority=</b> E Tag, 3-6 Months depending on exposure.	



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#### 5. Corrosion

General Guidance: Visually check for corrosion on PG&E owned components,

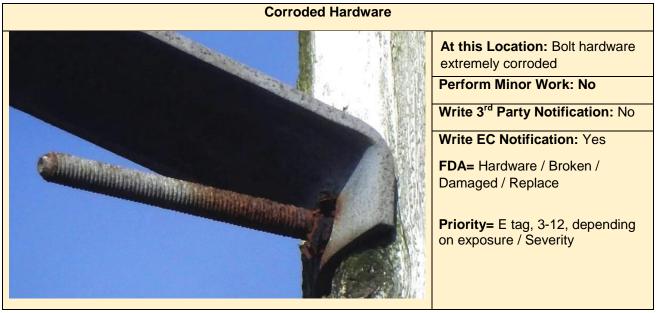
hardware, equipment, etc.

Minor Work: No

#### **EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years

#### **Related Documents:**



Examples



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#### **Corroded Anchor**

At this Location: Corroded Anchor Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

**FDA=** Anchor / Corroded / Replace

**Priority=** E tag, 3-12, depending on exposure / Severity

#### **Corroded Preform Tie**



At this Location: Corroded Preform Tie

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA= Tie Wire / Corroded / Replace

**Priority=** E tag, 3-12, depending on exposure / Severity

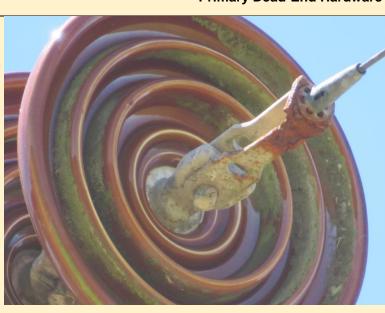


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Primary Dead-End Hardware Corroded

At this Location: Primary Dead-End Hardware Corroded

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

**FDA=** Hardware / Broken / Damaged / Replace

**Priority=** E tag, 3-12, depending on exposure / Severity





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### Grounds / Ground Molding

Ground is considered exposed when:

- Can physically touch it with hand or tool
- Can see the ground conductor
- Covered ground situation where the insulation is cut into

#### 1. Exposed Ground Below 8'

General Guidance: Exposed grounds 8 feet or less from the ground must be covered.

- Inspectors must make every effort to cover the ground as minor work.
- If the exposed ground can be completed as minor work preferred repair method is to use 1-1/2 inch plastic molding and not wood molding; if wood molding is used to make repair, use straps and not staples.
- Gaps in between molding segments should be covered if, in the inspector's judgment, they are large enough to allow human contact.

Consider a higher priority based on how much of the ground is exposed, and on the amount of public exposure. Inspector should "make safe" if cannot be addressed as minor work, based on location and exposure to the public.

The correct FDA is Ground/Exposed/Repair and not Molding Broken/damaged/ repair or replace.

#### Minor Work: Yes

**EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years

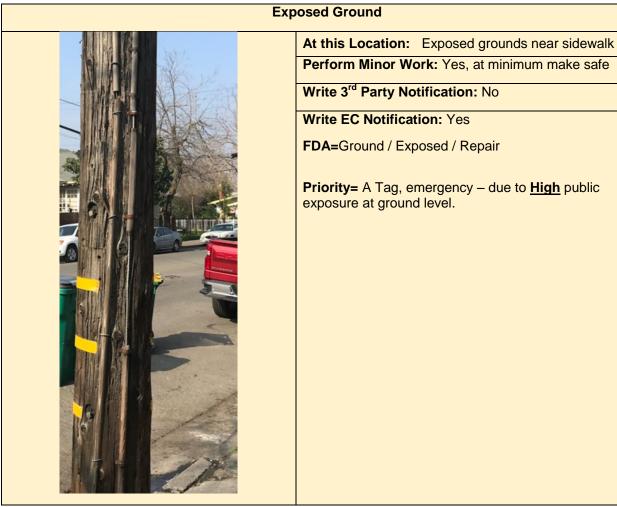
Related Documents: TD-2990P-01



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Examples



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**REPAIR WITH 1.5" MOLDING** 

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**Before:** Copper Wire sticking out from under the wood molding



After: 1.5-inch u-shaped molding installed over existing wood molding

At this Location: Wood molding with ground exposed

Perform Minor Work: Yes

Write 3rd Party Notification: No

Write EC Notification: Only if not able to perform minor work

FDA= Ground / Exposed / Repair

**Priority =** A Tag, Emergency due to <u>High</u> public exposure below 8' on sidewalk



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<b>REPAIR WITH 2" PLASTIC</b>	REPAIR WITH WOOD MOLDING
At this Location: Condition acceptable after repair of exposed ground	At this Location: Condition acceptable after repair with wood molding



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#### 2. Exposed Ground above 8' to the Communication Level

**General Guidance:** If there are communication facilities on the pole, exposed grounds above 8 feet to the communication level must be covered. Cover the ground as minor work if possible. If not, create an EC Notification.

Gaps in between molding segments should be covered if, in the inspector's judgment, they are large enough to allow human contact.

If the pole is not a joint pole, **no action required**, because there is no exposure to the communication worker.

Minor Work: Yes

**EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years

Related Documents: 021904, 036229



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### Examples

EXPOSED GROUND AT COMMUNICATION LEVEL	EXPOSED GROUND DUE TO TWISTED MOLDING
At this Location: Exposed ground at communications level. Wood molding broken in climbing space	At this Location: Exposed ground in wood molding.
Perform Minor Work: Yes, if safe to do so	Perform Minor Work: Yes, if safe to do so
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes, only if unable to perform minor work.	Write EC Notification: Yes, only if unable to perform minor work.
FDA= Ground / Exposed / Repair	FDA=Ground / Exposed / Repair
<b>Priority=</b> F Tag At minimum – next inspection cycle; based on field condition and exposure, corrosion, etc.; prioritize as needed (A, B, E, or F)	<b>Priority=</b> F Tag At minimum – next inspection cycle; based on field condition and exposure, corrosion, etc.; prioritize as needed (A, B, E, or F)





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#### 3. Ground Molding Unsecured/Loose

**General Guidance:** Ensure that the molding is in good condition and secured to the pole.

- Look for unsecured and loose wood ground molding, unglued PVC ground molding joints, molding joints that have come apart exposing the ground wire, etc.
- Gaps in between molding segments should be covered if, in the inspector's judgment, they are large enough to allow human contact.

When making repairs - must meet construction standards.

#### Minor Work: Yes

#### **EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

#### Related Documents: 021904





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WOOD MOLDING ABOVE 8', NOT SECURE EXPOSING GROUND	PVC MOLDING ABOVE 8', NOT SECURE EXPOSING GROUND	
At this Location: PG&E solely owned pole, Wood molding is not secure allowing human contact.	<b>At this Location:</b> At communication level, PVC molding not secure, due to failure of previous repairs, allowing human contact.	
<b>Perform Minor Work:</b> Yes, if safe to do so	Perform Minor Work: Yes, if safe to do so	
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No	
Write EC Notification: No	Write EC Notification: Yes, only if unable to perform minor work.	
	FDA=Ground / Exposed / Repair	
	<b>Priority=</b> F Tag At minimum – next inspection cycle; based on field condition and exposure, corrosion, etc.; prioritize as needed (A, B, E, or F)	



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#### 4. Exposed Ground Rod

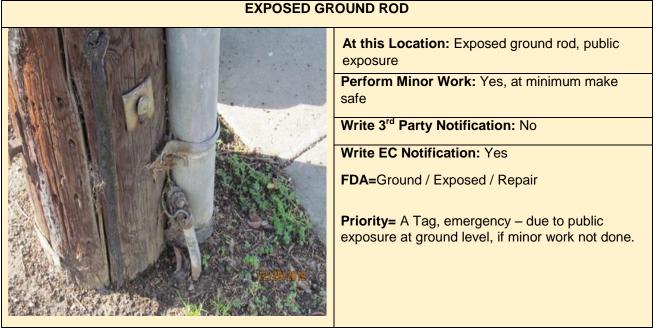
**General Guidance:** If the ground rod can be permanently covered as minor work, do so. If not, create EC notification.

#### Minor Work: Yes

#### **EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

#### **Related Documents: None**



Examples

#### 5. Broken Grounds



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General Guidance: Inspector identifies a broken ground

#### **Minor Work: Yes**

- Perform minor work if possible and if safe to do so.
- IF not able to perform minor work, THEN create EC notification.

#### **EC Notification: Yes**

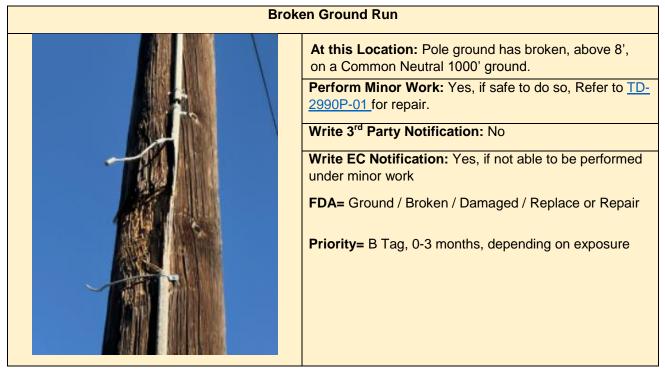
Consider an emergency priority based on where the ground is exposed (Above / Below 8'), and on the amount of public exposure. Inspector should "make safe" if cannot be addressed as minor work, based on location and exposure to the public.

When there is confusion on a PG&E broken ground, contact the lead or supervisor for clarification.

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

#### Related Documents: TD-2990P-01;

#### Examples





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#### **Broken Ground Run**

At this Location: Transformer ground has broken, below 8', in the sidewalk, exposed to the public

Perform Minor Work: Yes, if safe to do so, Refer to TD-2990P-01 for repair.

Write 3rd Party Notification: No

Write EC Notification: Yes, if not able to be performed under minor work

FDA= Ground / Broken / Damaged / Replace or Repair

**Priority=** A Tag, Follow the emergency procedure

### Guys / Anchors

1. Down Guy Preform Buried

#### **General Guidance:**

Top of anchor head must be above grade. Expose anchor as minor work. Evaluate the unbu



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ried anchor guy pre-forms and visually inspect them.

Perform minor work to add extension or grade around anchor so the anchor head becomes visible.

If the pre-form cannot be unburied as minor work, create an EC notification.

#### Notes:

- A. If you cannot dig up the anchor and create an EC with a photo of a buried anchor only - the Gatekeeper will not know if the anchor can be replaced or if an extension can be installed; you should make every effort to dig up the anchor to perform a complete assessment. If your photo is of a buried anchor only, the general rule of thumb is that the EC will be created to replace the anchor.
- B. If you **cannot** dig up the anchor, but you can see most of the pre-form an extension can *usually* be added (only one extension can be installed)
- C. If you are performing an Overhead Inspection, and you cannot dig up a deeply buried anchor, for example, cannot see the preform, the assumption is the anchor is too deep to expose. Create and EC to replace the anchor.
- D. The type of construction will determine the priority of the tag, for example:
  - Prioritize higher
    - o Large wire on a dead end or angle construction
  - Prioritize Lower
    - o Small wire on dead end or angle construction
- E. Add a picture of the location



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#### wintor-work: Yes

- Perform minor work if possible and if safe to do so.
- IF not able to perform minor work, THEN create EC notification.

#### **EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: 022221

#### **Examples**



After: Vegetation cleared from anchor

At this Location: Anchor below grade overgrown with vegetation. After minor work inspector decides if the anchor can be adjusted or needs replaced.

Perform Minor Work: Yes, remove the vegetation

Yes, expose anchor and evaluate condition/corrosion

Yes, preferred method is to adjust anchor by adding extension

Write 3rd Party Notification: No

Write EC Notification: Yes, If cannot be addressed as minor work

**FDA=** Anchor / Soil/Eroded/Graded / Replace (if the anchor cannot be adjusted)

**Priority=** F Tag at minimum – must write up as, next inspection cycle; based on field condition and exposure, corrosion, etc.; prioritize as needed (A, B, E, or F)



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ANCHOR EXTENSION

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RUELINESS

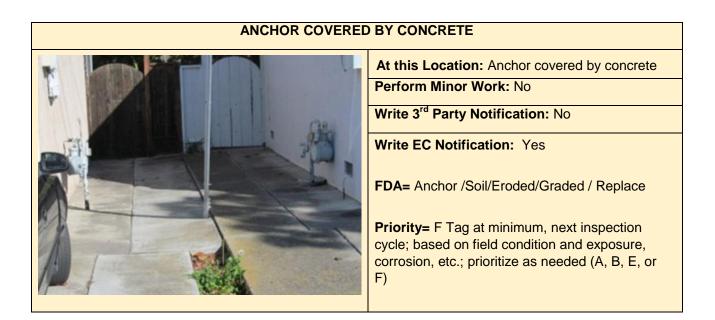
Close-Up

At this Location: : Inspector performed minor work, exposed anchor, evaluated anchor to be in good condition so that extension could be installed, then installed extension. (Back fill not shown)

Perform Minor Work: Yes

Write 3rd Party Notification: No

Write EC Notification: No



#### ANCHOR BURIED BY VEGETATION

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Internal

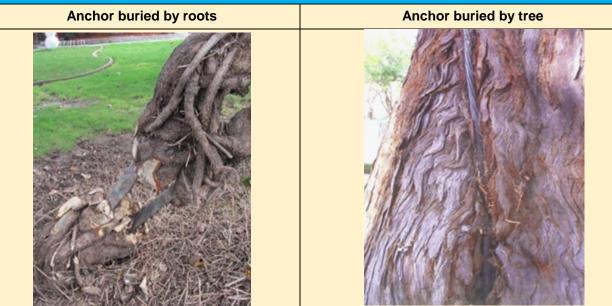


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At this Location: Anchor buried by ivy roots / tree

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA=Anchor / Soil / Eroded / Graded / Replace

Priority= F Tag at minimum, next inspection cycle; based on field condition and exposure, corrosion, etc.;

prioritize as needed (A, B, E, or F)



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2. Visible Portion of Anchor Rod has Significant Corrosion

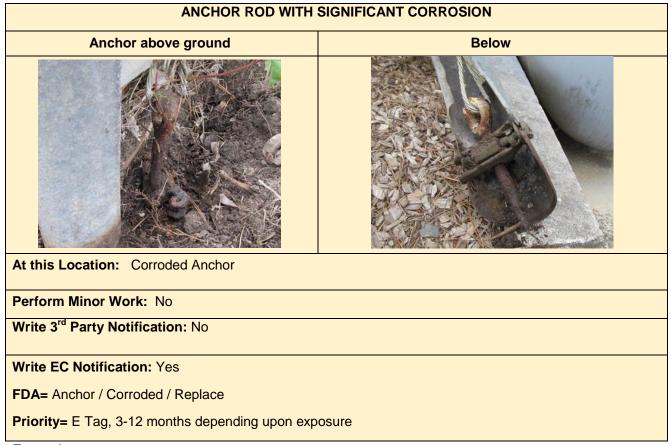
**General Guidance:** IF the anchor rod is significantly corroded, THEN create EC notification.

Minor Work: No

#### **EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

#### Related Documents: 025998



Examples



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#### 3. Guy Broken/Slack/Corroded

**General Guidance:** Important: Before any work is performed on a down guy, inspect the guy insulator; if broken, check for presence of voltage (with dead tester). Pole must be straight with Guy no more than 2" from taut, that does not have significant impact on the structural integrity of the pole. Tighten the guy as minor work if possible. If not possible, create an EC Notification.

If tightening the guy would exacerbate any pre-existing conditions on a facility (e.g. increase the lean of an already leaning pole, deform an already deforming pole), create an EC Notification with comments describing the situation.

Heavily rusted and signs of pitting with material loss, higher priority

Minor Work: Yes

#### **EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: 022178



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GUY CLEARANCE	GUY DAMAGED REPAIR
At this Location: Acceptable solution through plastic barrier	At this Location: Guy tail extends beyond the preform, <u>near sidewalk</u> , safety hazard
Perform Minor Work: No	Perform Minor Work: Yes, if safe to do so
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: No	Write EC Notification: Yes, only if unable to perform minor work.
	FDA= Guy / Broken / Damaged / Repair
	<b>Priority=</b> E Tag, 3-12 months depending upon exposure

Examples



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### SLACK GUY

At this Location: Loose guy on left side Perform Minor Work: Yes

Write 3rd Party Notification: No

Write EC Notification: Yes, only if minor work is not possible

FDA=Guy / Loose / Adjust

**Priority=** F Tag at minimum, next inspection cycle; based on field condition and exposure, corrosion, etc.; prioritize as needed (A, B, E, or F)



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OVERGROWN GUY	TREE GROWING AROUND GUY	
<b>At this Location:</b> Extensive dead ivy covering half of length of guy, below the bob.	<b>At this Location:</b> Tree growing around guy, below the bob.	
Perform Minor Work: No	Perform Minor Work: No	
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No	
Write EC Notification: Yes	Write EC Notification: Yes	
FDA=Guy / Broken/Damaged / Replace	FDA=Guy / Broken/Damaged / Replace	
Priority= E Tag, 3-12 months depending	<b>Priority=</b> E Tag, 3-12 months depending upon	
upon exposure	exposure	

Job Aid: Overhead Assessment



### IVY ON GUY AND PRIMARY

At this Location: Ivy on guy and on primary. Safety issues, possible energized guy and pole

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes FDA=Guy / Overgrown / Trim

**Priority=** B Tag, 3 months or less depending upon exposure



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(	BUY GROUNDED BY VEGETATION	4
Guy grounded	Guy grounded	Guy overgrown
by vegetation	by vegetation	by vegetation
At this Location: Guy grounded by vegetation, above the bob		
Perform Minor Work: Yes		
Write 3 rd Party Notification: No		
Write EC Notification: Yes, only if	minor work cannot be performed	
FDA=Guy / Overgrown / Trim		
Priority E Tag 3-12 months deno	nding upon ovposuro	

Priority= E Tag, 3-12 months depending upon exposure

Broken guy insulator	
Broken guy insulator	At this Location: Broken guy insulator
	Perform Minor Work: No
	Write 3 rd Party Notification: No
	Write EC Notification: Yes
	FDA= Guy / Broken/Damaged / Replace
	<b>Priority=</b> E Tag, 3-12 months depending upon exposure

#### TREE LIMB GROWING AROUND GUY

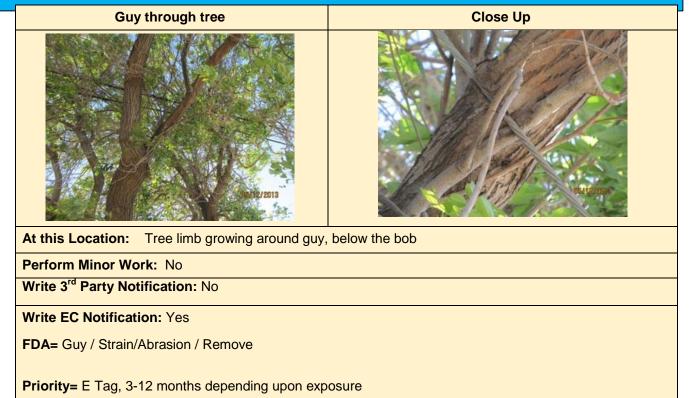


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**GUY CORRODED AND MISSING STRANDS** 



At this Location: Guy corroded and missing strands

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA= Guy / Corroded / Replace

**Priority=** E Tag, 3-12 months depending upon exposure



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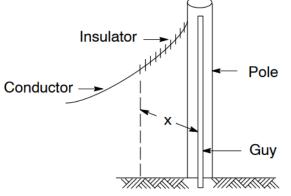
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#### 4. Guy Clearance Issue

General Guidance: Guys in the cylinder of "proximity" to conductors less than 35kV:

- a) A guy is in "proximity" if any portion of the guy is both within a vertical distance of less than 8 feet from the level of the supply conductors, and a radial distance of less than 6 feet from the surface of a wood pole or structure.
- b) A guy is "exposed" if any portion of the guy is less than 8 feet horizontally from the vertical plane of any supply conductor of more than 250 volts.



If distance "x" is less than 8', guy is exposed.

If a guy is exposed to any supply conductor of 22,500 volts or more, it will not be sectionalized and shall be securely grounded. All other guys, including overhead guys and guys in the proximity (i.e., cylinder of proximity), shall be sectionalized

- c) Any two anchor or overhead guys attached to the same wood pole, which are approximately parallel to each other and act in the same direction, should be separated at the points of attachment to the pole by approximately 12 inches if either of the guys is sectionalized. The purpose of this separation is to maintain a minimum separation of 3 inches between the surface of a strain insulator in one guy and the surface of the other guy. If this minimum separation of 3 inches is not obtained by the 12-inch separation at pole, use other means, such as greater separation than 12 inches, or attachment to separate anchors. This rule does not prohibit the two guys from contacting the same strain plate, nor does it prohibit attaching guys not acting in the same direction to the same through bolt.
- d) Not more than two guys, having a vertical separation of 18 inches or less, can be installed in any 4-foot section of climbing space.
- e) Overhead guys less than 17 feet long with neither end grounded, shall be sectionalized by installing one insulator approximately midway between points of attachment, in place of two insulators between 6 and 9 feet from each end.



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- Place sectionalizing insulators in guys as high as permissible, giving due f) consideration to the future installation of additional supply circuits. This is necessary to prevent the grounding of the upper end of such guys by the future installation of grounded telephone cables, tree growth, etc.
- g) Guys may be grounded by connecting them to a metallic anchor rod, a securely grounded steel pole, a ground rod, or another grounded guy.
- h) The requirements for grounding or sectionalizing sidewalk and truss guys, and the conditions under which they may be grounded, are the same as for anchor guys. Braces for these guys which fall within cylinders of proximity (i.e., braces that are less than 8 feet below supply conductors of 0-35,500 V), must not be grounded.
- i) Those portions of guys that are more than 6 inches from the surface of wood poles or crossarms (measured from the point of attachment along the guy) shall clear transformer cases and hangers by not less than 4 inches. Those portions that are less than 6 inches from the surface of wood poles or crossarms shall clear transformer cases and hangers by not less than 1-1/2 inches.
- i) Guys in climbing space may not be closer than 1-1/2 inches to any through bolt that is mechanically connected to dead-end hardware. Guys and guy attachments shall clear ground wires and metal riser conduits for supply cables by 1-1/2 inches minimum.

#### Minor Work: No

#### **EC Notification: Yes**

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: 022178



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5. Down Guy Grounded above Guy Insulator (vegetation or other)

**General Guidance:** Ensure that all guys are not grounded above the guy insulator. Remove any foreign objects (e.g., vegetation) contacting and grounding the guy above the insulator as minor work. Clear so that new growth will not contact or ground the guy.

Rule of thumb is that growth per year is 1 foot, so trim back 5 feet.

Minor Work: Yes

**EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: 022178



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DOWN GUY GROUNDED ABOVE GUY INSULATOR	DOWN GUY GROUNDED ABOVE GUY INSULATOR CAUSING STRAIN AND ABRASION
<b>At this Location:</b> Vine growing up and across the guy insulator grounding the guy	At this Location: Tree grounding the guy above the guy insulator causing strain and abrasion.
Perform Minor Work: Yes	Perform Minor Work: Yes
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes, only if minor work cannot be performed	Write EC Notification: Yes, only if minor work cannot be performed
FDA=Guy / Overgrown / Trim	FDA=Guy / Strain/Abrasion / Remove
Priority= E Tag, 3-12 months depending upon	FDA=Guy / Overgrown / Trim
exposure	<b>Priority=</b> E Tag, 3-12 months depending upon exposure
Examples	

Examples



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#### 6. Down Guy Marker Missing/Damaged

General Guidance: For poles installed with down guys:

- After 1996, Guy Markers are required on all down guys. The markers must be a minimum 8 ft. in length.
- Prior to 1996, guy markers are only required on poles which are exposed to traffic. Inspector should confirm the age of the pole via the date nail to verify the requirement.

Install a single guy marker on multiple guys which are clamped together. For guys that are not clamped together, but on the same anchor, consider separate guy markers on each guy if the separation is large.

**Note 1:** Installing yellow colored guy marker does not negate the need to install visibility strips on the markers. Install visibility strips around traffic areas, on state highways, near curbs, driveways, etc.

**Note 2:** For existing guy markers, ensure markers are in good condition and attached securely.

#### See details below:

Reflective visibility strips shall be installed on wood, fiberglass, or steel poles, streetlight poles, and guy markers as follows:

- A. On poles and guy markers installed on state highways.
- B. On poles and guy markers located within 15 feet from the paved surface or 15 feet from the edge of the traveled, unpaved portion of city or county roads (streets) where not protected by curbs.
- C. On poles and guy markers within 6 feet of an adjacent driveway, private roadway (street), turnaround, parking lot, or thoroughfare in rural district, capable of being traversed by vehicles, where these are not protected by curbs.

**Note:** Install a segment of guy marker above cattle guards to ensure a minimum 8 ft. of guarding.

Minor Work: Yes

#### **EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: 022178



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GUY MARKER MISSING	CATTLE GUARD LESS THAN 8 FT
At this Location: Guy marker missing	At this Location: Cattle guard is less than 8 feet in length
Perform Minor Work: Yes, install new guy	Perform Minor Work: Yes, lower cattle guard and
marker	add guy marker to meet 8 feet requirement.
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: No, perform minor work.	Write EC Notification: No, perform minor work
If minor work cannot be performed	If minor work cannot be performed
FDA=: Guy Marker / missing / Install or replace	FDA= Guy Marker / missing / Install or replace
Priority=: F Tag	Priority= F Tag

Examples

### DOWN GUY: MARKER NOT REQUIRED



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### **Idle Facilities**

- 1. Identifying and Documenting Idle Facilities
- Inspectors identify and document idle lines as they would for any other field condition found, per the requirements and procedures in the Electric Distribution Preventative Maintenance (EDPM) Manual <u>TD-2305M</u>.

Notes:

1) Whether a line is idle or not, continue to create EC notifications to document safety,



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reliability, and/or regulatory issues and create EC notifications for Vegetation Issues.

- All vegetations issues on idle facilities shall be written up on an EC tag. Do not create Veg only notifications for idle lines. Vegetation management personnel do not patrol or maintain vegetation on de-energized tap lines.
  - Compliance Inspections follow the Idle Facility Program as documented in TD-2459P-01 and use the annual Detailed Overhead Inspection Checklist to indicate when an Idle condition is present for the inspection location by checking the observed an Idle Facility box.
- When an idle condition is selected, the inspector shall select from 4 reasons:
  - 1. Pole is not mapped idle. It is de-energized.
    - Create IF Notification (using the Inspect App)
  - 2. Pole is not mapped idle. It is energized.
    - Create IF Notification (using the Inspect App)
    - Create EC Notification (to de-energize)
  - 3. Pole is mapped idle. It is de-energized.
    - No further action required
  - 4. Pole is mapped idle. It is energized.
    - Create EC Notification (to de-energize)
- Inspect App: Use the IF Notification in the Inspect App to document an observed Idle Facility field condition. These include asset information, location information, facility type, field conditions, and comments and photos. Compliance Inspectors will select the appropriate Priority as follows:
  - 1. High Priority
    - Location is associated with a new or existing EC Notification B Priority for maintenance work at this location

NOTE: Excludes "Idle Facility/De Energize"

- 2. Medium Priority
  - Transformer Present (Suspect PCB could elevate this to high priority depending on field conditions or exposure)
  - HFTD T3/T2
  - **Oil Filled Equipment**
  - Modesto Irrigation District (60 days)



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- 3. Low Priority
  - All other conditions

This listing is an overall summary of the guidance for IF Priority selection. For more detailed guidance please refer to the table below also included in TD-2459P-01

- At a minimum, attach the following three images to each IF Notification:
  - Two field photos of the field condition
  - Screenshot of Map with the idle area clearly identified

In addition, please include any other photos that may be useful to the investigation e.g. photo of the meter or a panel with no meter

#### Notes:

- Continue to document safety, reliability, and/or regulatory issues for EC and Vegetation Notifications. Vegetation management personnel **do not** patrol or maintain vegetation on de-energized tap lines.
- 2) Use Table 1 from <u>TD-2459P-01</u> to help in understanding the various priorities.
- Mapping resources are an additional tool help to identify idle facilities but should <u>NOT</u> be solely relied on to create EC Notifications to de-energize. Be sure to field confirm.

Utility Procedure: TD-2459P-01

Publication Date: 03/03/2022, Effective Date: 03/03/2022, Rev: 4



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Condition	Action	Investigation Priority
Safety situation/risk.	<ul> <li>Mitigate hazard and make safe, which may include de-energizing.</li> <li>Initiate an IF notification for investigation.</li> <li>Initiate an electric corrective (EC) notification to document any other abnormal conditions to resolve.</li> <li>Initiate a Priority B, 3-month EC notification to de-energize the facility.</li> </ul>	<ul> <li>High</li> <li>Submit to supervisor by end of day.</li> <li>Enter in SAP and communicate to idle facility investigation personnel within two business days.</li> </ul>
dle transformers that do not have a blue sticker indicating a polychlorinated biphenyl PCB) content of less than 5 parts per million (ppm) may be classified as high, nedium, or low priority. Consider current field conditions ¹ , the ransformer condition, and if the following sensitive locations are nearby: Surface or ground waters Sewers or sewage treatment systems Private or public drinking water sources or distribution systems Grazing lands Vegetable gardens or agricultural areas Daycare centers and schools	<ul> <li>If high priority, then mitigate hazard and make safe, which may include de-energizing.</li> <li>Initiate an IF notification for investigation; priority is dependent on field and equipment conditions.</li> <li>Note the specific field conditions, transformer condition, and transform locations (see "Condition" column notes) in the Comments section</li> <li>Initiate a Priority B, 3-month EC notification to de-energize the facility</li> </ul>	<ul> <li>High – Medium – Low</li> <li>To designate as high priority, consider the identified idle transformer locations, current condition of the transformer (see "Condition" column notes), and current condition of associated facilities (pole, crossarm, etc.)</li> </ul>
Future work required to maintain existing dle facility (EC notifications to repair/replace/relocate facilities).	<ul> <li>Initiate an IF notification for investigation and ensure the Future Work Requested field is checked</li> <li>Initiate a Priority B, 3-month EC notification to de-energize the facility</li> </ul>	High – Medium – Low
PG&E and Modesto Irrigation District (MID) service areas.	<ul> <li>Initiate an IF notification for investigation</li> <li>Initiate a Priority B, 3-month EC notification to de-energize the facility</li> </ul>	Medium
Idle facilities in raptor concentration zones (RCZs) with suitable habitat to support threatened or endangered raptors.	<ul> <li>Initiate an IF notification for investigation.</li> <li>Initiate a Priority B, 3-month EC notification to de-energize the facility.</li> </ul>	Medium – Low
<ul> <li>Oil-filled equipment considerations:</li> <li>Surface or ground waters</li> <li>Sewers or sewage treatment systems</li> <li>Private or public drinking water sources or distribution systems</li> <li>Grazing lands</li> <li>Vegetable gardens or agricultural areas</li> <li>Daycare centers and schools</li> </ul>	<ul> <li>Initiate an IF notification for investigation.</li> <li>For idle transformers, note the absence or presence of a blue sticker on the IF notification; a blue sticker indicates a PCB content of less than 5 ppm</li> <li>Initiate a Priority B, 3-month EC notification to de-energize the facility.</li> </ul>	Medium
Idle facility in Tier 2 & 3 fire zone.	<ul> <li>Initiate an IF notification for investigation.</li> <li>Initiate a Priority B, 3-month EC notification to de-energize the facility.</li> </ul>	Medium
Potential use for agricultural pumps or vacant buildings.	<ul> <li>Initiate an IF notification for investigation.</li> <li>Initiate a Priority B, 3-month EC notification to de-energize the facility</li> </ul>	Low
Entire primary tap is identified as idle and is unfused. No future work is required to maintain the existing idle facility.	<ul> <li>Initiate an IF notification for investigation.</li> <li>Initiate a Priority B, 3-month EC notification to de-energize the line.</li> </ul>	Low



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#### 4) You may find coding already annotated on the maps when inspecting idle

	Table 2.	TOS/TIF	Classifications	
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Temporary Out of Service (TOS) De-Energized Temporary Idle Facility (TIF) Energized						
acilities with a	a future use are grouped into one of the following classifica	ations:				
TOS-AG	Potential agricultural use	De-energized				
TIF-AG	Potential agricultural use	Energized				
TOS-V	Potential service to an existing vacant building	De-energized				
TIF-V	Potential service to an existing vacant building	Energized				
TOS-CAP	Potential PG&E use for capacity or reliability	De-energized				
TIF-CAP	Potential PG&E use for capacity or reliability	Energized				
TOS-F	Future customer use identified by service planning	De-energized				
TIF-F	Future customer use identified by service planning	Energized				
TOS-MLX	Current Main Line Extension Agreement	De-energized				
TIF-MLX	Current Main Line Extension Agreement	Energized				
TOS-SFA	Current Special Facilities Agreement	De-energized				
TIF-SFA	Current Special Facilities Agreement	Energized				

2 to help in understand the mapping annotations

- 5) When new maintenance is identified on energized idle facilities, write **THREE** notifications:
  - One IF Notification (<u>TD-2459S-F01</u>) for the entire idle line
  - One EC Notification to de-energize the entire idle line
  - One EC Notification per location requiring maintenance or veg work
- 6) After identifying pending maintenance on idle facilities, ensure that the IF Notification has the Field Condition box "Future work required to maintain existing idle facility" checked.
  - Enter the following note in the EC Notification comments section: "IDLE notification created."
  - Enter a note in both IF Notification and EC Notification comments with corresponding notification numbers, when available.
- Always ask your PG&E Lead, IRS, or Supervisor for help in determining priority, creating the IF Notification, and creating an EC Notification to de-energize the idle line.





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#### Raptor Concentration Zone (RCZ) Guidance:

- Raptor Concentration Zone becomes important to help determine the priority of deenergization and whether de-energization includes removal of jumpers.
- In the Inspect App, do the following:
  - A. Go to Map Preferences
  - B. Set the Raptor Concentration Zone "ON"
  - C. View the map with purple RCZ layer displayed
  - D. The IF Program administrators use all the information you provide on the IF Notification in conjunction with RCZ flag indicating if this location is or is not in an RCZ area to further assess risk

#### Minor Work: No

**EC Notification:** No

#### **Idle Facility Form: Yes**

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: TD-2459P-01



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#### 2. Energized Electric Line Facility No Longer Used to Serve Customer Load General Guidance: It may be necessary to de-energize the idle facility:

 If primary lines are energized, de-energize line sections by opening cut-outs when possible and safe to do so. If you are unable to safely de-energize OR you are in raptor concentration zones (RCZs) OR if the primary tap line is unfused, create a Priority B, 3-month Electric Corrective (EC) Notification to de-energize t

#### NOTE:

When idle transformers or sections of the line de-energized by cut-outs, are located in non-raptor areas, an EC Notification is <u>NOT REQUIRED</u> to de-energize the jumpers.

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cilities (AND de-energize jumpers if in RCZ).

**Do not** initiate an IF Notification or an EC Notification when attachments to poles (crossarms, miscellaneous hardware, brackets, insulators, etc.) do not pose a safety or reliability risk to an idle facility. If it is not necessary to de-energize the idle facility, create a Priority "F" EC Notification.

Continue to document safety or reliability issues that meet criteria for vegetation notifications.

Minor Work: No

**EC Notification:** Yes, to de-energize

Idle Facility Form: Yes

Related Documents: TD-2459P-01





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#### 3. De-Energized Electric Line Facility Already Identified on a Pending EC

Notification but Not Mapped

General Guidance: Create a map change request if the facility is not mapped as idle.

Minor Work: No

Map Correction: Yes

Related Documents: TD-2459P-01

#### 4. Idle Hardware

#### **General Guidance:**

When a field employee encounters extra unused hardware on a pole (cross-arms, miscellaneous hardware, brackets, insulators, etc.)

- If Hardware poses or could pose safety or reliability issue
- If Hardware poses no safety or reliability issue, then no action required.
- Do not write up IF notification solely due to "idle hardware"

#### Minor Work: No

#### **EC Notification:** Yes

Select the Priority and Due date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.



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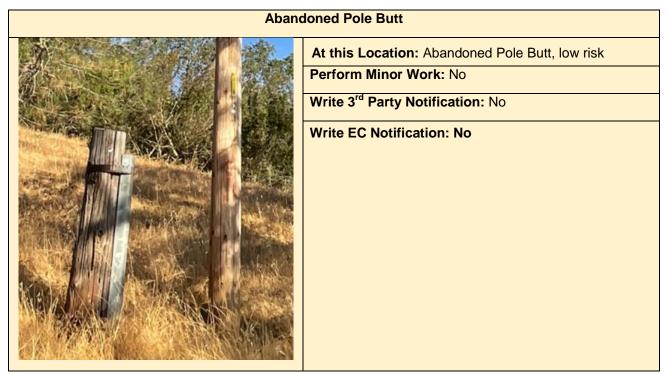
#### 5. Abandoned Pole Butt

**General Guidance:** If there is any compelling safety related issue regarding an abandoned pole butt, <u>not just the existence of an abandoned pole butt</u>, write EC notification.

#### Minor Work: No

#### **EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.



Example

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#### Abandoned Pole Butt – Hollowed Out Below Ground Level



At this Location: Abandoned Pole Butt with a safety issue such as a tripping hazard, hollowed out below ground level.

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes FDA= Relinquished Pole / Decayed / Rotten / Remove

**Priority=** E Tag, 3-12 months depending on exposure

Relinquished Pole				
	At this Location: Relinquished Pole, no compelling abnormal conditions			
	Perform Minor Work: No			
Y	Write 3 rd Party Notification: No			
	Write EC Notification: No			
an and a date				

#### Insulators

1. Damaged Insulators

General Guidance Are Insulators chipped, cracked, corroded, contaminated, flashed, have signs of tracking/arcing, broken, or damaged? If yes, create EC notification.





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Replace ALL insulators if one is chipped, cracked, contaminated, broken, or damaged. **Do Not** mismatch insulators.

Note for construction: If an insulator is damaged due to gunshot, replace with epoxy or polymer insulators.

Note for construction: Cannot mix insulator types, always replace full set of insulators.

**Note:** Inspector should always consider replacing wood crossarm with composite crossarm, based on condition of crossarm.

Minor Work: No

**EC Notification: Yes** 

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: <u>022088</u>, <u>068180</u> (composite crossarm), <u>Crossarm Evaluation Job</u> <u>Aid</u> in this document.



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DAMAGED INSULATOR	INSULATOR LAYING ON ITS SIDE / PRIMARY ON THE ARM
At this Location: Damaged insulator, Replace	At this Location: Insulator lying on its side. Primary
all insulators and the arm	on the arm.
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
FDA= Crossarm / Decayed/Rotten / Replace	FDA= Crossarm / Decayed/Rotten / Replace
FDA=Insulator / Broken/ Damage / Replace	FDA= Conductor / Floater / Repair
<b>Priority=</b> E Tag, 3-12 months depending upon exposure	<b>Priority=</b> A Tag, follow Emergency Process

Examples

#### FLASHED INSULATOR POTHEAD



At this Location: Flashed pothead Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes, or COE (see a set of combo cutouts at location follow COE process)

FDA= Riser/Pothead / Flashed / Replace

**Priority=** F Tag At minimum, next inspection cycle; based on field condition and exposure, corrosion, etc.; prioritize as needed (A, B, E, or F)

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FLASHED INSULATOR ON TRANSFORMER	BROKEN WOOD PIN ON PRIMARY
At this Location: Flashed insulator on transformer	At this Location: Broken wood pin. Conductor on arm. Replace all insulators and the crossarm with a composite arm.
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
FDA= Transformer / Flashed / Replace	FDA= Crossarm / Decayed/Rotten / Replace
<b>Priority=</b> E Tag, 3-12 months depending upon exposure	FDA= Conductor / Floater / Repair
	<b>Priority=</b> A Tag, follow Emergency Process, (Conductor contacting crossarm)

Priority= E Tag, 3-12 months depending on exposure

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**BROKEN WOOD PIN ON SECONDARY** BROKEN SECONDARY INSULATOR 12/28/2012 At this Location: Broken secondary insulator. Strain At this Location: Broken secondary wood pin. is controlled by the second insulator on the Double arm Conductor lying on the arm, tangent pole. construction. (Excluding urban wildfire areas, use risk priority matrix). Wood pin arm at end of life replace arm with composite arm Perform Minor Work: No Perform Minor Work: Yes, if safe to do so Write 3rd Party Notification: No Write 3rd Party Notification: No Write EC Notification: Yes, if minor work not Write EC Notification: Yes possible FDA= Crossarm / Decayed/Rotten / Replace FDA= Crossarm / Decayed/Rotten / Replace FDA= Insulator / Broken/ Damage / Replace FDA= Conductor / Floater / Replace

**Priority=** A Tag, Follow emergency process





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#### 2. Squatters – Primary or Secondary

**General Guidance:** Are primary or secondary insulators squatting? If yes, create EC Notification.

Minor Work: No

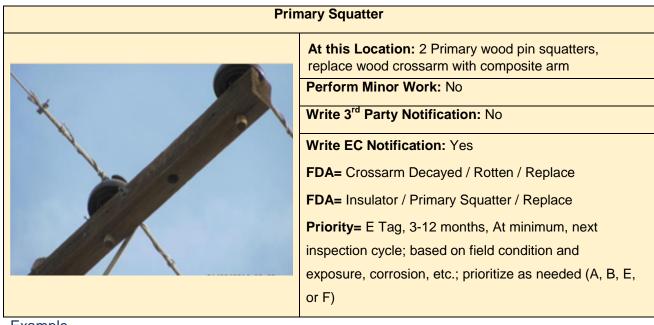
#### **EC Notification: Yes**

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

#### Notes:

- Inspector should always replace wood crossarm with composite crossarm when needed.
- Cannot mix insulator types, always replace full set of insulators.

#### Related Documents: 022088, Crossarm Evaluation



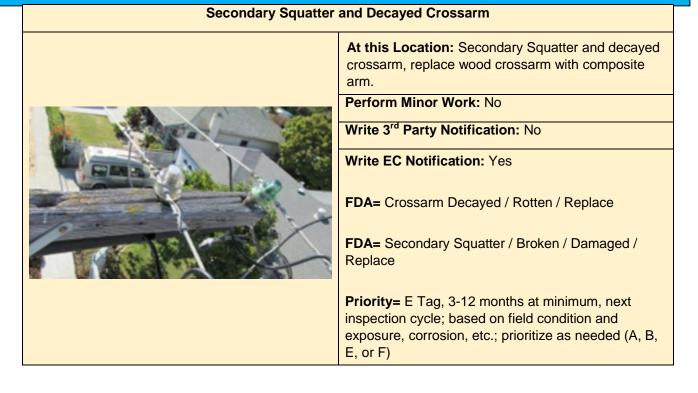
Example

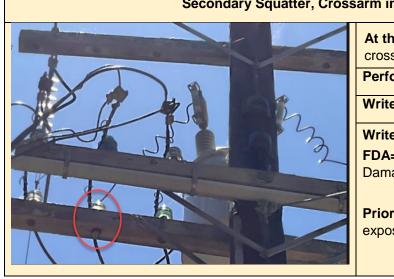


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#### Secondary Squatter, Crossarm in good shape

At this Location: Secondary Squatter, crossarm in good shape

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes FDA= Secondary Squatter / Broken / Damaged / Replace

**Priority=** E Tag, 3-12 months Depending on exposure



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#### 3. Flying Bells

General Guidance: Are flying bells broken or damage? If yes, create EC notification.

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Note: If flying bells were installed to de-energize idle facilities, assess vegetation around idle conductor; create EC notification to trim, as vegetation management does not perform trimming on idle facilities.

Minor Work: No

**EC Notification: Yes** 

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Refer to the Glossary for Flying Bell picture



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**General Guidance:** Loose or missing condition, Is Retainer Pin fully seated? Use binoculars. If observed, create EC Notification.

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#### Minor Work: No

4. Cotter Key

#### **EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.



Example



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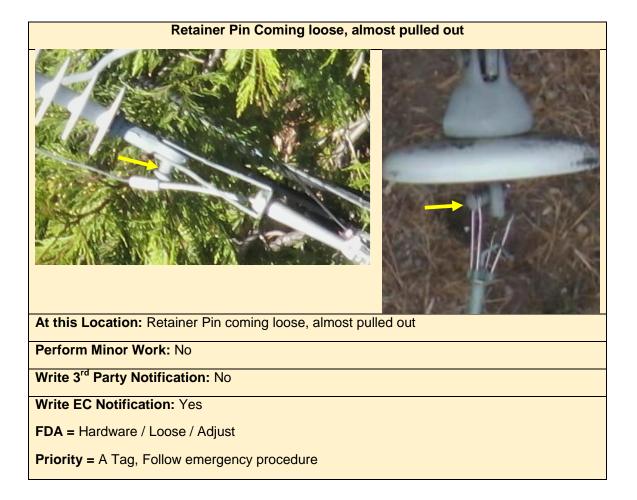
#### Cotter Key Backed Out

At this Location: Cotter Key partially backed out Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes FDA= Hardware / Loose / Adjust

Priority= E Tag, 3-12 months, depending on exposure





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## Surge "Lightning" Arrestors

1. Broken or Flashed

**General Guidance:** Are arrestors broken, damaged, flashed, or is the ground lead disconnect activated? If yes, Create EC notification to replace lightning arrestor.

Minor Work: Yes

**EC Notification: Yes** 

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: 031822



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Non-Exempt Surge Arrestor Blown	Exempt ABB-type Arrestor Blown
At this Location: Non-Exempt Surge Arrestor Blown	At this Location: Exempt ABB arrestor operated / blown indicated by the orange marker sticking out the bottom
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
FDA= Lightning Arrestor / Broken / Damaged / Replace	<b>FDA=</b> Lightning Arrestor / Broken / Damaged / Replace
Priority= E Tag, 3-12 months, depending on exposure	<b>Priority=</b> E Tag, 3-12 months, depending on exposure

Examples

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## Markings

#### 1. High Voltage Sign Not Installed as Required

**General Guidance:** Inspectors are required to look for missing or broken high voltage signs during inspections. If inspectors find missing or broken signs, they should install new signs as minor work if they have the appropriate materials and equipment and can perform the work safely. If the inspector cannot install a sign as minor work, the inspector must create a Priority 'F' EC notification. Below is guidance on how to evaluate high voltage signage.

#### Minor Work: Yes

EC Notification: Yes, if cannot be completed as minor work

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

#### Related Documents: 022168

#### High Voltage Sign Requirements:

Poles that support line conductors or risers energized at more than 750 volts must be marked with high voltage signs.

**IMPORTANT:** If a pole is marked under **any of the options below**, it satisfies the high voltage marking requirement.

When installing *new* high voltage signs using one option, inspectors are not required to remove signs previously installed under different options.



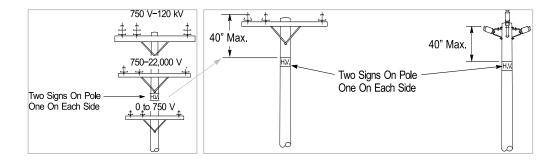
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#### **Marking Options**

A. Sign the Pole Below the Lowest 750V+ Line Conductor (Preferred Method)

Marking requirements are satisfied under this option if:

- There are two signs, attached to the surface of each side of the poleP¹P.
- The top of each sign is no more than 40" below the lowest level line conductor that exceeds 750V.



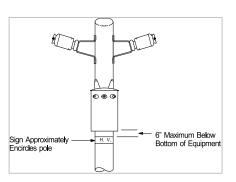
¹**Exception:** If an inspector finds only one high-voltage sign within 40" below the lowest 750V or greater conductor, the inspector <u>is not required to install a second sign</u>. However, when performing work at the lowest crossarm level, a second sign must be installed.

B. Sign the Pole Below Equipment

Marking requirements are satisfied under this option if:

- There are two signs attached to the surface of each side of the pole².
- The top of each sign is no more than 6" below the equipment.
- The signs are above all 0-750V supply and communication line conductors.

Exception: If an inspector finds only one high-voltage sign installed within 6" below the equipment, the inspector is not required to install a second sign. However, when



performing work at the equipment level, a second sign must be installed.

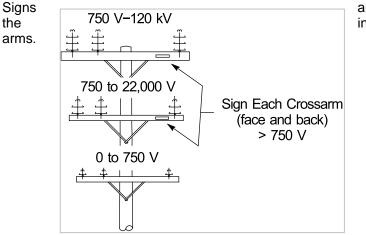


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C. Sign Each Crossarm

Marking requirements are satisfied under this option <u>if each crossarm</u> (line arm) supporting line conductors in excess of 750V are signed both front and back.



are not required on inside faces of double

The exceptions in Sections A and B do not apply when, in the judgment of the inspector, the two high voltage signs should be installed so that they may be visible from all sides of the pole.

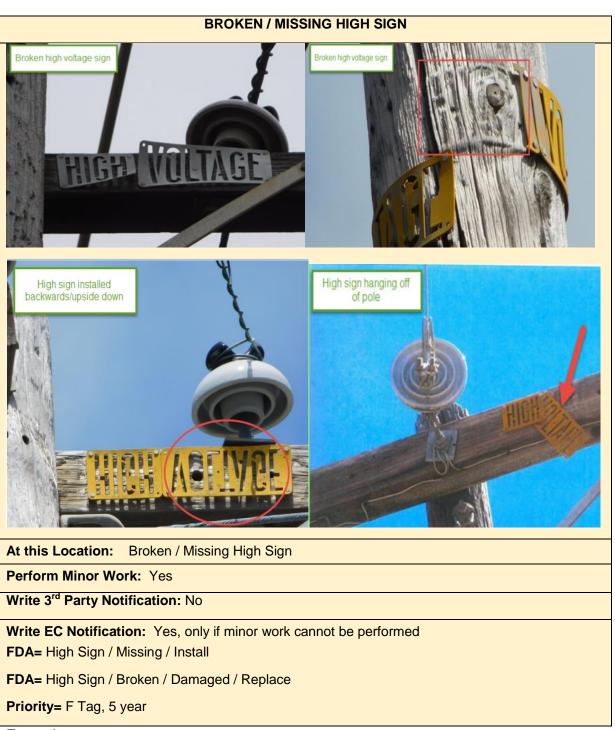
Typical examples are poles near water areas suitable for sailboats, near established boat ramps and associated rigging areas, adjacent to swimming pools, and in agricultural areas with moveable irrigation piping.



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Examples



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2. Operating Number Incorrect / Illegible / Missing

**General Guidance:** 

IF the operating number on the field equipment does **not** match the operating number printed on inspection map:

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THEN contact the local Distribution Operation (DO) to confirm the discrepancy and to get further instructions

- I. Equipment has a number, does not match GIS mapping records
  - A. DO confirms the field equipment number is **correct**; then complete a **map correction** 
    - Field employee confirmed with DO the field equipment number is correct
    - Mapping corrects number in GIS
  - B. DO confirms the field equipment number is **not correct**; then **perform minor work to correct the operating numbers** on the field equipment
    - Field employee has the ability to perform the minor work
    - If minor work cannot be performed, create EC to install correct operating number
      - FDA = Marking / Missing / Install
      - Priority "E" 12M
- II. Equipment does not have a number
  - A. DO cannot confirm the operating number
    - Get a PIN from DO
    - Create EC Notification to get an operating number assigned

o FDA = Marking / Missing / Install

o Priority "E" 12M



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(Estimating will assign number, crew to complete, and mapping to update GIS)

- B. DO confirms the operating number for the field equipment then:
  - complete minor work to install the equipment number

#### OR if unsafe to complete

• Create EC notification for M&C to install number

o FDA = Marking / Missing / Install

o Priority "E" 12M

- Create a RW for a mapping change, for either minor work or EC
- Inspector or crew will install operating number in the field, mapping will update GIS.

#### Notes:

- Alpha characters may differ between divisions. Be sure to confirm the "number" with the local DO
- Operating number should be installed in the operating position; if missing, they should be installed on the operating position, not at the 6' level. Consider also adding the # at the 6' level for ease of identification for field EE's.
- If operating number exists, is it legible (faded, etc.); if not legible replace them as minor work or create an EC notification.
- If operating number is not installed in the field, but on the inspection map call the DO to confirm the correct number before installing.
- If confirmed that the field is wrong, correct as minor work or create an EC to have corrected.
- If confirmed that the operating number is mapped but not installed in the field,

instal



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I the operating number as minor work.

- If operating number is not installed in the field, but on the inspection map and/or in GIS - call the team lead who will contact the DO to confirm the correct number before installing.
- If confirmed that the number is mapped but not installed in the field, or the field is incorrect, correct as minor work if possible, or write EC notification.
- Please include detailed comments on what is needed at location.

#### Minor Work: Yes

Map Correction: Yes, if operating number needs to be corrected

EC Notification Yes, if you cannot perform minor work

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: 057352



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FADED OPERATING NUMBER						
Before: Faded operating number	Close Up	After: Minor work completed, operating number applied below operating position.				
		THAT				
At this Location: Operating num	ber is faded					
Perform Minor Work: Yes						
Write 3 rd Party Notification: No						
Write EC Notification: Yes, only i	f minor work cannot be performed					
FDA= Marking / Broken / Damageo	I / Replace					
Priority= E Tag, 12 months						
Example						



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#### 3. Damaged or Missing Visibility Strips on Poles / Guy Markers

**General Guidance:** Reflective visibility strips shall be installed on wood, fiberglass, or steel poles, streetlight poles, and guy markers as follows:

- A. On poles and guy markers installed on state highways.
- B. On poles and guy markers located within 15 feet from the paved surface or 15 feet from the edge of the traveled, unpaved portion of city or county roads (streets) where not protected by curbs.
- C. On poles and guy markers within 6 feet of an adjacent driveway, private roadway (street), turnaround, parking lot, or thoroughfare in rural district, capable of being traversed by vehicles, where these are not protected by curbs.

#### Notes:

Visibility strips are not required on poles or guy markers behind a curb, approximately 5-1/2" x 5-1/2" and 90 degrees to the surface.

Visibility strips should not be installed if there is no reasonable expectation of traffic. For example: Cross country poles, poles through waterways or wetlands, rear easements poles, poles behind guardrails, or poles on embankments that are well above or below the road.

#### **Reminders:**

- Do not install visibility strips on top of the old one. Inspectors must remove the old strip first.
- If the old strip is in good condition, but became loose, re-secure the strip to the structure.
- Do not install metal visibility strips over any vertical molding/riser.
- If any visibility strip work is required, bring the location up to the current visibility strip standard (all must be the same color yellow)
- Install visibility strips on the side facing oncoming traffic when known.
- Do not install visibility strips within 1-1/2" of U-shaped molding
- Visibility strips cannot be installed over wood molding, including third party installations.
- If existing visibility strips become damaged or otherwise do not serve their intended purpose, they shall be replaced.
- If unable to install at time of inspection due to lack of material, create EC notification



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Minor Work: Yes

**EC Notification:** Yes, if cannot be completed as minor work.

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

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Related Documents: <u>022168</u>, GO 95 Rule 56.9 (1964, 1990, 1996 Change to Guy Marker)

ACCEPTIBLE					
ADHESIVE VISIBILITY STRIPS	CLEARANCE FROM GROUND				
At this Location: Acceptable application of plastic and adhesive visibility strips	<b>At this Location:</b> Acceptable metal visibility strips attached 1 ½" from ground.				
Examples					



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At this Location: Pole with vehicular exposure. Two small sections of yellow adhesive visibility strips.

#### Perform Minor Work: Yes

apply 3 adhesive visibility strips on the pipe.

apply 3 adhesive visibility strips to the plastic molding.

Write 3rd Party Notification: No

Write EC Notification: Yes, if minor work cannot be performed

FDA= Vis-Strips / Broken / Damaged / Replace

**Priority=** At minimum –must write up as Priority F Tag next inspection cycle; based on field condition and exposure, corrosion, etc.; prioritize as needed (A, B, E, or F)

#### VISIBILITY STRIPS PAINTED OVER NO LONGER REFLECTIVE



**At this Location:** Visibility strips painted brown (3PrdP visibility strip located above not shown in picture).

#### Perform Minor Work: Yes

Remove old visibility strips and install new

Write 3rd Party Notification: No

Write EC Notification: Yes, if minor work cannot be performed

FDA= Vis-Strips / Broken / Damaged / Replace

**Priority=** At minimum – must write up as Priority F Tag next inspection cycle; based on field condition and exposure, corrosion, etc.; prioritize as needed (A, B, E, or F)



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At this Location: Metal visibility strips under wood molding and over wood molding with protruding edge.

**Perform Minor Work:** Yes, remove old metal visibility strips and apply new visibility strips; **visibility strips installed in "after" photo are fiber, not metal** (coded item)

Write 3rd Party Notification: No

Write EC Notification: Yes, only if minor work cannot be performed FDA= Vis-Strips / Broken / Damaged / Replace

**Priority=** At minimum – must write up as Priority F Tag next inspection cycle; based on field condition and exposure, corrosion, etc.; prioritize as needed (A, B, E, or F)

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OLD METHOD VISIBILITY STRIPS NOT YELLOW	OLD AND NEW VISIBILITY STRIPS NOT YELLOW		
At this Location: Aged visibility strips have lost reflectivity.	At this Location: Yellow visibility strips mounted over old white visibility strips.		
Perform Minor Work: Yes, Replace with 3 yellow visibility strips	Perform Minor Work: Yes, remove old visibility strips		
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No		
Write EC Notification: Yes, if minor work cannot be performed.	Write EC Notification: Yes, if minor work cannot be performed.		
FDA= Vis-Strips / Broken / Damaged / Replace	<b>FDA=</b> Vis-Strips / Broken / Damaged / Replace		
<b>Priority=</b> At minimum – must write up as Priority F Tag next inspection cycle; based on field condition and exposure, corrosion, etc.; prioritize as needed (A, B, E, or F)	<b>Priority=</b> At minimum – must write up as Priority F Tag next inspection cycle; based on field condition and exposure, corrosion, etc.; prioritize as needed (A, B, E, or F)		



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### **Oil-filled Equipment**

1. Equipment Oil: Leaking/Weeping Stain

**General Guidance:** Refer to TD-2305M EDPM Manual - Assessments and Notifications Section for additional information about addressing oil in the field.

IF you observe a stain or leak

THEN (1) Look for exposure or contamination

**Refer to the PCB Spill/Leak Category Response Matrix** to determine the appropriate action and priority.

• Field employees must comply with the oil spill matrix table for how to handle oil conditions. Field employees should use the oil "indicator" language from the oil spill matrix table to describe the oil condition in the comments of the EC notification.

#### **Reminders:**

- The field employee must create an emergency notification if the table directs creation of an A tag.
- If an Inspector identifies the emergency condition, they must create the A tag (do not wait for responder to create the A tag).
- WHEN the table directs you to contact EFS, the field employee must provide information and photos for EFS to make an informed decision.
- If identified after working hours, contact Environment Emergency Hotline, 1-800-874-4043.
- The field employee must note results of discussion with EFS in the notification:
  - o Name of EFS
  - o Guidance from EFS
- If you are unsure how to handle an oil condition, contact your supervisor or Lead for guidance.

#### Minor Work: No



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#### EC Notification: Yes

**Related Documents:** <u>TD-2320P-01</u>, <u>Attachment 1 - PCB Spill/Leak Category Response</u> Matrix for Overhead, Sub-Surface, and Padmount Equipment

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#### PCB Spill/Leak Category Response Matrix – Overhead & Sub-Surface Equipment

Indicator	PCB Equipment Manufactured Before July 1979		Non-PCB Equipment Manufactured July 1979 or later		
multator	EC Notification Priority	Standby at Site	EC Notification Priority	Standby at Site	
Equipment has failed and insulating fluid has run off the surface of the equipment and is in contact with the soil, vegetation, or water.	A Replace	Yes	A Replace	Yes	
Insulating fluid has run off the surface of the equipment and is in contact with the soil, vegetation, or water OR Insulating fluid Is actively dripping.	A Replace	Yes	A Replace	Supervisor discusses with EFS to determine a need to standby based on the location and size of spill.	
Insulating fluid is about to run off the surface of the equipment but has not made contact with the soil, vegetation, water, or structure.	A Replace	Yes	A Replace	Supervisor discusses with EFS to determine a need to standby based on the location and size of spill.	



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#### PCB Spill/Leak Category Response Matrix - Overhead & Sub-Surface Equipment (continued)

Indicator	PCB Equipment Manufactured Before July 1979			Non-PCB Equipment Manufactured July 1979 or later	
	EC Notification Priority		Standby at Site	EC Notification Priority	Standby at Site
	Supervisor discusses with EFS to determine EC notification category based on sensitivity of location and upcoming weather.				
Insulating fluid is on the surface of the equipment and is not about to run off the surface and has sheen (Weeps or Seeps).	Sensitive Areas	A Replace		B 3 Month Recheck	
	Non-sensitive Areas	B 30 day Replace IF estimating cannot be completed in time to meet 30 day deadline, THEN replace with like.	Not needed	<ul> <li>Describe sheen in notification</li> <li>Re-check in 3 months.</li> </ul>	Not needed
Residual stain is a mark on the equipment that appears dried. Examples: • Stain on side of overhead transformer • Stain on concrete	No further	r action needed	Not needed	No further action needed	Not needed



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#### LEAKING OH TRANSFORMER

**At this Location:** Leaking OH Transformer, Residual Stain mark that appears dried, no sign of oil on ground. Oil has leaked out of the high side bushing, appears dried.

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: No No further action

#### LEAKING OH TRANSFORMER

At this Location: Leaking OH Transformer, Residual Stain mark that appears dried on IFD (Internal Fault Detection)

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: No No further action

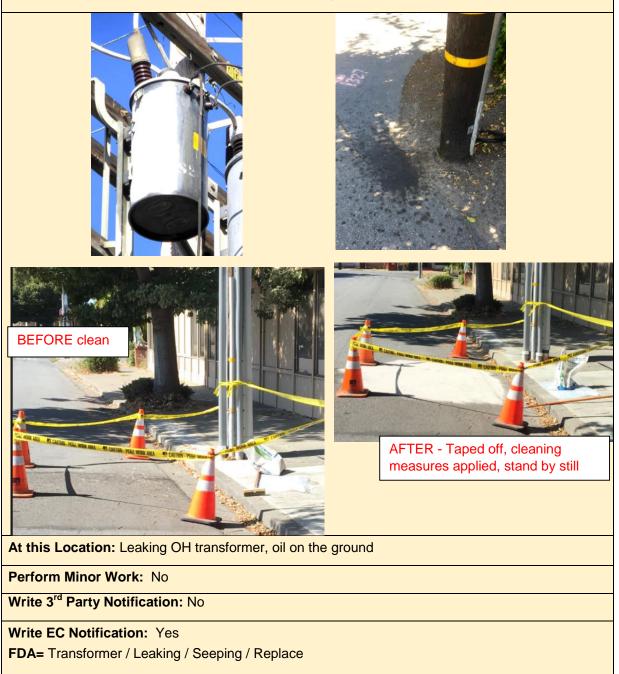
Example



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#### LEAKING OH TRANSFOMER, OIL ON THE GROND



**Priority=** A Tag, Follow the emergency process

2. Corrosion

General Guidance: In many parts of PGE's service territory, facilities are exposed to cond



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itions that both cause and accelerate corrosion of metal components.

During detailed inspections, examine facilities and assess their condition for corrosion. If corrosion is minor, repairs to the protective coatings that cover the metal surfaces on the equipment should be made. In addition, during the diagnostic testing for specific types of distribution line equipment, perform an examination for corrosion.

Minor Work: Yes

#### **EC Notification:** Yes, if compelling

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

#### IF you observe corrosion:

#### THEN:

- I. Look for exposure
- II. Refer to the below table for to determine the corrosion rating and the required

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c	l		
-			

Description	Symptoms	Required Actions
t Inte ⁱ grity is breached o	Hole(s) in metal (public exposure to High Voltage, Cover not securable, significant oil leak or spill, etc)	EC notification Priority A - replace immediately or make safe and issue Priority B - Replace/Repair
Metal is damaged	Separation, layering, bubbling	EC notification Priority E - replace/repair. Not to exceed 12 months
t Moderate to little or no corrosion	No sight of metal degradation, Discolored paint, staining	Inspect at next interval. No action required

perform. Visual examples follow:

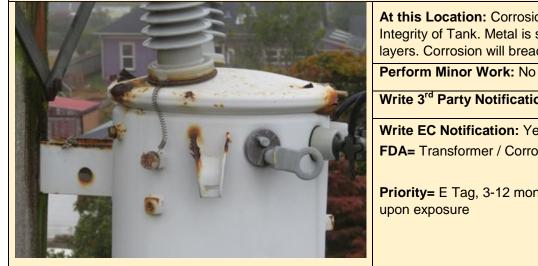


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### **OH CORROSION**



At this Location: Corrosion Weakening Integrity of Tank. Metal is separating into layers. Corrosion will breach tank

Write 3rd Party Notification: No

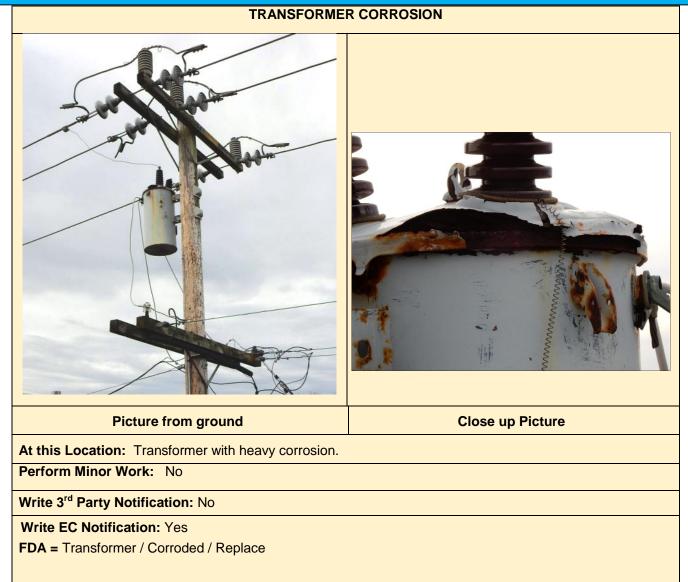
Write EC Notification: Yes FDA= Transformer / Corroded / Replace

**Priority=** E Tag, 3-12 months depending

**Examples** 

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**Priority =** A Tag, Follow Emergency Process



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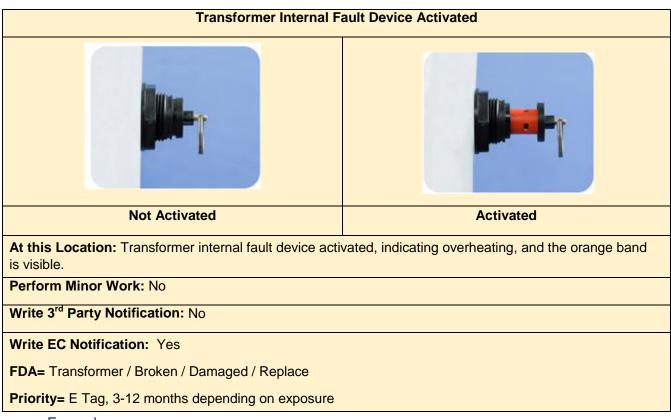
### 3. Internal Fault Device Activated

**General Guidance**: Is the Internal Fault Device activated (overheated) on the transformer (orange band is visible).

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Minor Work: No

### **Related Documents: N/A**



Example



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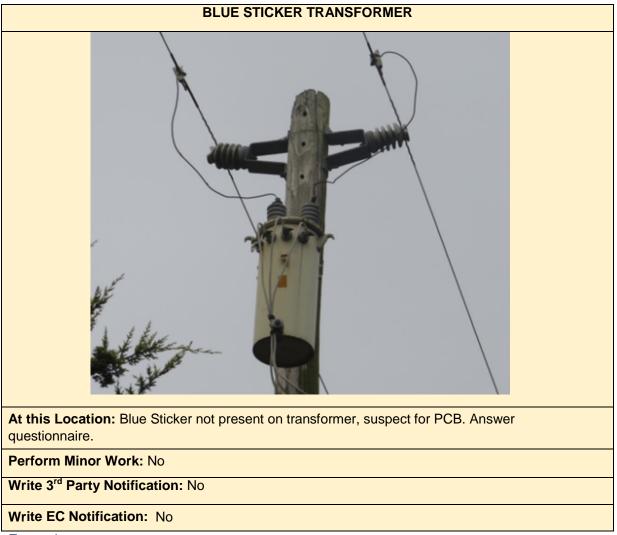
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### 4. PCB Transformer

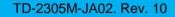
**General Guidance**: Use binoculars to confirm the presence or absence of a blue sticker or Non-PCB indicator. If Blue or Non-PCB sticker is absent, then transformer is suspect of having PCB oil.

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.



Example

5. Transformer – Parallel





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Is there an obvious paralleled transformer condition at this location? If yes, create EC notification to address parallel condition in the field.

Always determine if the transformer is a SP (self-protecting) transformer or not.

Minor Work: No

**Related Documents: N/A** 

**2022 Checklist Equipment Section:** 

**General Guidance**: Use a combination of the mapping symbols and the actual field observations to properly assess the condition, priority (B or E) when creating an EC Notification.

A. If you observed the following conditions:

In the field:	You observed Conventional transformers in	
	obvious parallel connection, with no self-	
	protected (SP) transformer present.	

- Create EC: FDA = Transformer / Parallel / Replace with Priority E
- B. If you observed the following conditions:
  - In the field: You observed transformers in <u>obvious parallel</u> <u>connection</u>, and at least one is a Self-Protected (SP) transformer.
  - Create EC: FDA = Transformer / Parallel / Replace with Priority B



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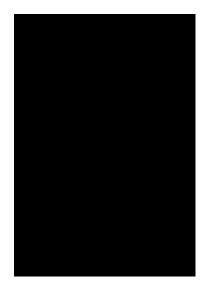
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### Examples

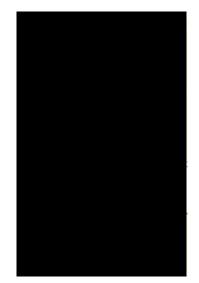
Banked transformers on separate poles should be identified as banked.



**OH Paralleled Transformers** 



OH Transformers separated by bobs are ok





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### Poles

### 1. Solely Owned Poles with Third-Party Utility Attachments

**General Guidance:** Identify all solely owned pole with third-party attachments (based on how it is mapped). Write a standalone EC Notification for Pole / Overloaded / Test, for Estimating to confirm pole loading.

Minor Work: No

**EC Notification:** Yes

Related Documents: <u>TD-2305M</u> EDPM Pole Inspection, <u>TD-2325S</u>

### 2. Broken, Deteriorated, Deformed Poles

**General Guidance:** Observations in the field may include the following types of pole damage:

- Broken
- Split
- Decayed / Rotten
- Woodpecker / Animal / Vehicle damage
- Vandalized
- Any pole deformity
- Any condition that may impair conductor clearance
- Cracked poles: assess for potential failure
- Significant reduced circumference
- Buddy poles
- Animal
- Vehicle

### Minor Work: No

Is pole damaged, broken, burnt, deformed, corroded, gunshot, or showing signs of cracking, or decay that needs to be addressed in the next 5 years? If yes, create EC notification.

**EC Notification:** Yes

Related Documents: TD-2305M EDPM Pole Inspection, TD-2325S, 066209



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An 'N' tag indicates previously identified damaged pole.

### Examples

A. Broken

POLE BROKEN AT THE COMMUNICATION LEVEL	POLE BROKEN AT MIDDLE SECTION
At this Location: Pole broken at the	At this Location: Broken pole, Supported by guy.
communication level.	Complete Pole Inspection Test Report
Complete Pole Inspection Test Report	
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
FDA= Pole / Broken/Damaged / Replace	FDA= Pole / Broken/Damaged / Replace
Priority= A Tag, Follow the emergency process	Priority= B Tag, 0-3 months, depending on exposure



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### **BROKEN POLE**

**At this Location:** Broken pole, Rural area, low public exposure, Pole supported in four directions equal tension in all directions.

Complete the Pole Inspection Test Report.

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes FDA= Pole / Broken/Damaged / Replace

Priority= B Tag, 0-3 months, depending on exposure

### B. Split

Split at Communication Level - Whole length or location near equipment, supporting structure. A vertical "Check" is a normal process of wood pole drying out. See example below.



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POLE SPLIT AT COMMUNICATION LEVEL	Pole Check
<b>At this Location:</b> Pole split at communication level. Joint pole. Complete the Pole Inspection Test Report.	At this Location: Pole Check
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: No
FDA= Pole / Broken/Damaged / Replace	
<b>Priority=</b> B Tag, 0-3 months, depending on exposure	



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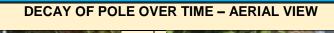
DECAY OF POLE OVER TIME	SEVERE DETERIORIATION AT GROUND LEVEL
At this Location: Pole top decayed	At this Location: Deteriorated condition found during inspection.
Complete the Pole Inspection Test Report	Complete Pole Inspection Test Report.
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
FDA= Pole Decayed/Rotten/Replace	FDA= Pole Decayed/Rotten/Replace
Priority= B Tag, 0-3 months, depending on exposure	<b>Priority=</b> A Tag, Follow the emergency process.

C. Decayed / Rotten



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At this Location: Pole top decayed. Complete the Pole Inspection Test Report

Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
FDA= Pole Decayed/Rotten/Replace	FDA= Pole Decayed/Rotten/Replace
<b>Priority=</b> A Tag, Follow emergency Procedure	<b>Priority=</b> B Tag, 0-3 Months depending on exposure

### DECAY OF POLE OVER TIME – AERIAL VIEW



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At this Location: Pole top decayed. Complete the Pole Inspection Test Report

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA= Pole Decayed/Rotten/Replace

Priority= E Tag, 3-12 Months depending on exposure



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### D. Woodpecker

**General Guidance:** Visually inspect poles for woodpecker damage that needs to address in the next 5 years.

Refer to "Assess Woodpecker Damage Guidelines" below.

Minor Work: No

Write 3rd Party Notification: No

**EC Notification:** Yes – Create EC notification to repair, assess, or replace pole (E, 3-12mo).

Reference: 066209 – Repair of Damaged Pole Tops

### Per <u>066209</u>:

### Active Nests:

- Active Nests are ones with eggs or young in them.
- Do not disturb active nests unless they present an immediate safety or operating hazard.

### Inactive Nests:

- Inactive nests are those nests without viable eggs or young.
- Inactive nests, except eagle nests or T&E species' nests, can be removed; however, do not remove an inactive nest without notifying avian program management personnel or governmental agencies. Nests may be difficult to identify.

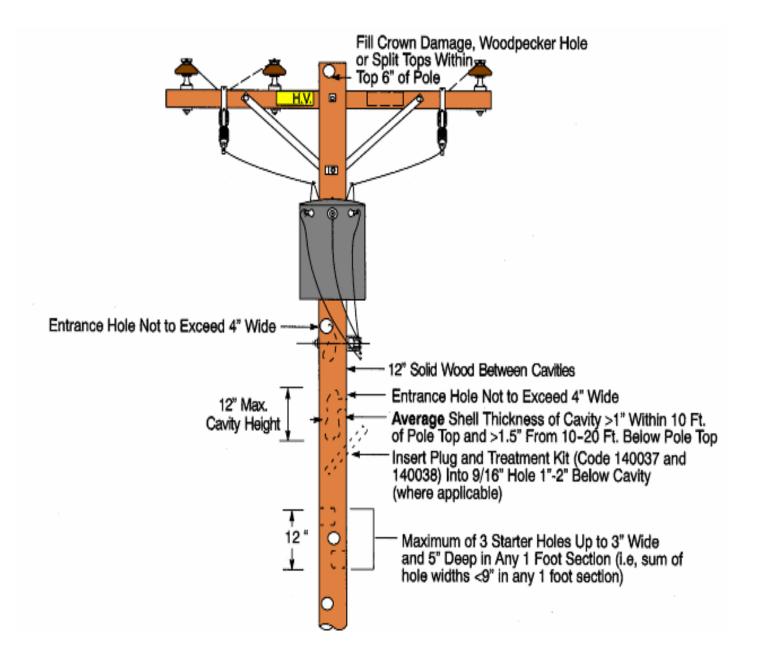
<u>If there is any uncertainty</u> about the type of nest, contact Lead / Supervisor or the avian program management personnel or the Bird Hotline at (415) 973-9453 for assistance with an active nest removal or relocation.

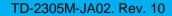


Job Aid: Overhead Assessment

Release Date: Feb 02, 2023 Effective Date: Feb 02, 2023

Repair of Woodpecker-Damaged Pole Tops







Release Date: Feb 02, 2023 Job Aid: Overhead Assessment

Effective Date: Feb 02, 2023

Assessing Woodpecker Damage Guidelines

The QCR should note the approximate location, number, and size of woodpecker holes to use in the evaluation of the pole.

Determine whether identified above-ground or pole-top damage is suitable for restoration. Poles are suitable for restoration and can remain in service if they meet the criteria listed below and are repaired by a construction crew with the epoxy method per 066209:

- There is 1 vertical inch of solid wood directly below any through bolt to support existing or proposed attachments.
- Nesting cavities or other open pockets have an outside hole diameter that is less than 4 inches wide.
- Internal cavities are estimated to be less than 12 inches high and 7 inches in diameter.
- The average shell thickness of the cavity is greater than 1 inch within the top 10 feet of the pole, and greater than 1½ inches between 10 feet and 20 feet from the top. See Exhibit B, Part 1, for shell thickness between 20 feet of the pole top and the groundline.
- There is more than 12 inches of sound wood vertically between nesting cavities. •
- There are three or fewer starter holes less than 3 inches wide, 3 inches high, and 5 • inches deep within any 1-foot vertical section of the pole. The maximum sum of the diameters of the holes must be less than 9 inches wide in a 1-foot vertical section.
- The pole-top crown damage or split tops extend downward less than 6 inches from the pole top.



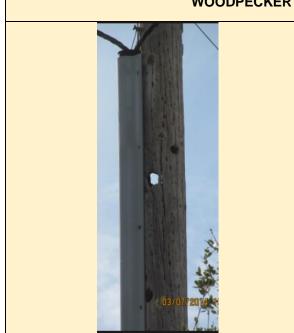
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#### Examples

Poles with woodpecker damage – assess using woodpecker assessment guidelines.



### WOODPECKER DAMAGE NESTNG CAVITY

At this Location: Obvious sign of a cavity in the pole by seeing daylight through the pole. Unable to determine the depth of the cavity.

Perform Minor Work: No

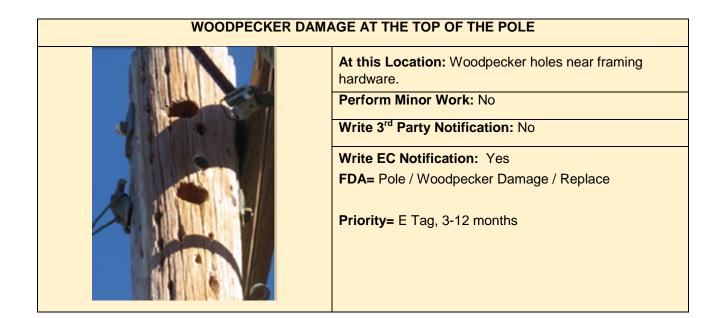
Write 3rd Party Notification: No

### If unable to determine damage:

- Write EC Notification: Yes
- FDA= Pole / Woodpecker Damage / Assessment
- Priority= E Tag, 3-12 months

If dagame is determined sufficient:

- Write EC Notification: Yes
- FDA= Pole / Woodpecker Damage / Replace
- Priority= E Tag, 3-12 months







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### WOODPECKER DAMAGE MEDIUM CAVITY

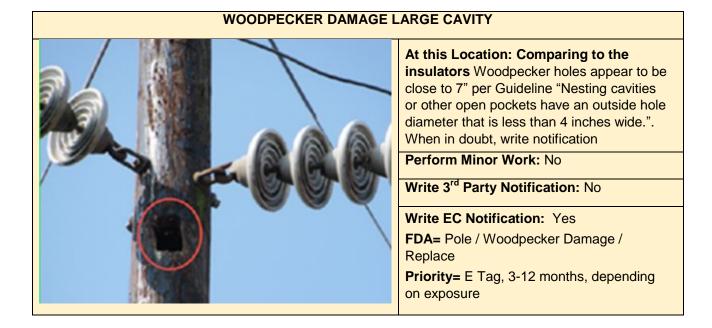
At this Location: Woodpecker holes near framing hardware, per Guidance "There is 1 vertical inch of solid wood directly below any through bolt to support existing or proposed attachments".

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes FDA= Pole / Woodpecker Damage / Replace

**Priority=** E Tag, 3-12 months, depending on exposure





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### **CUT INTO POLE**





At this Location: Vandalized pole. Chain saw cut into lower portion of pole. <u>Half of pole circumference cut</u> <u>into</u>. Complete Pole Inspection Test Report

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA= Pole / Broken / Damaged / Replace

Priority= A Tag, Follow the emergency process

E. Vandalized

### **CUT INTO POLE**

At this Location: Cut into pole. Not a deep cut, no strain on pole, no public exposure. Complete the Pole Inspection Test Report.

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA= Pole / Broken/Damaged / Replace

**Priority=** E Tag, 3-12 months, depending on exposure send to estimating for pole loading calc. (pole overload test)



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### F. Significant reduced circumference

Does pole have significant reduced circumference?

**General Guidance:** For example, animal, vehicle, vandalism, burnt, shell rot, that has caused a pole circumference reduction that could cause the pole to be overloaded or deformed needs to be written up on an EC Notification, FDA = Pole Overloaded Test. If circumference is significant and needs to be addressed in the next 12 months, create EC notification to replace pole.

### Example

DAMAGE TO POLE FROM SPECIFIC EVENT	
	At this Location:
	Pole has reduced circumference, write EC notification for estimating to confirm pole loading.
	Perform Minor Work: No
	Write 3 rd Party Notification: No
	Write EC Notification: Yes
	FDA= Pole / Overloaded / Test
	<b>Priority=</b> E Tag, 3-12 months depending on exposure

### Significant Reduced Circumference (Tractor Damage)



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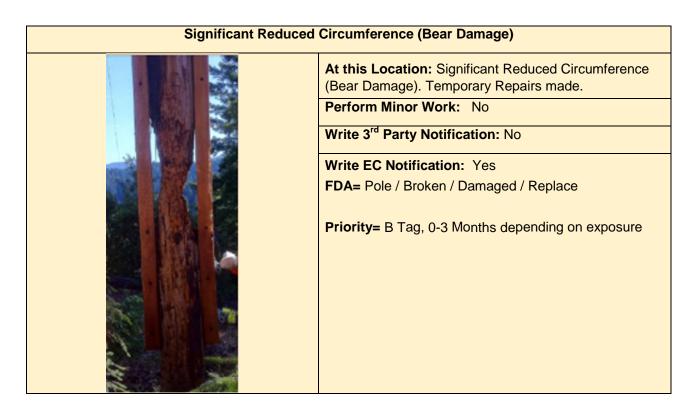
At this Location: Significant Reduced Circumference (Tractor Damage)

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes FDA= Pole / Overloaded / Test

Priority= E Tag, 12 months, depending on exposure



G. Vehicle

### VEHICLE DAMAGE, TEMP REPAIRS MADE



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At this Location: Pole damaged by vehicle. Cross-arm acting as Splint installed as temporary repair Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes FDA= Pole / Broken / Damaged / Replace

Priority= E Tag, 3-12 Mo depending on exposure



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### 3. Leaning Pole

General Guidance: Consider the following when evaluating a leaning pole:

- Is the pole leaning/out of plumb by more than 10% of its height above the ground?
- Is the leaning pole causing excessive conductor sag or reduced clearance issues that could result in contact, fire risk, or public safety?
- Does the lean appear as if it will become worse or affect safety or reliability in the next 5 years (considering environmental and configuration factors -soil, wind, pole attachments, equipment, guying)?

If the answer is **yes** to any of these questions, at minimum **create an EC Notification** (**Pole /Overloaded /Test**). All poles need to be load calculated prior to straightening. Estimating will create an EC to straighten (Pole/Lean/Adjust) or replace (Pole/Lean/Replace). If Inspector determines that pole needs to be replaced, create EC notification to replace pole.

**Note:** If the Inspector suspects that a third-party attachment is causing the pole to lean, consider writing a Third-Party Utility notification in addition to an EC Notification.

Minor Work: No

**EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: 023058, TD-2014S – Third Party Damage



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LEANING POLE	LEANING SLACK SPAN
At this Location: Leaning pole greater than 10% out of plumb. Pole is stable. No equipment, in rural area. Causing reduced clearance.	<b>At this Location:</b> Leaning towards a tree more than 10% out of plumb. Inspector pulled plug and confirmed pole is solid below ground. Probability of equipment failure is moderate.
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
FDA= Pole / Leaning / Replace	FDA= Pole / Leaning / Replace
<b>Priority=</b> E Tag, 3-12 months, depending on exposure	<b>Priority=</b> B Tag, 0-3 months, depending on exposure
Examples	

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STUBBED POLE LEANING TOWARDS SCHOOL

POLE LEANING 3 POT TRANSFORMER IN

**BUCK POSITION** 

At this Location: Stubbed pole leaning towards school, supported by down guy. Pole Bands are	At this Location Pole is leaning less than 10% out of plumb, leaning in direction of offset equipment.
loose due to additional deterioration of the pole.	
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: No
FDA= Pole / Decayed / Rotten / Replace	
<b>Priority=</b> B Tag, 0-3 months, depending on exposure	

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### POLE LEANING NEAR RAILROAD TRACKS

At this Location: Severe lean being held up by the primary conductors. Low clearance over an active railroad track. Pole located in a swamp area with standing water.

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes FDA= Pole / Decayed / Rotten / Replace

Priority= A Tag, follow the emergency process



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### 4. Deformed Pole

### **General Guidance:**

For deformed poles, write EC Notification for Pole / Overloaded / Test, to confirm pole loading.

If the deformity appears as if it will become worse or affect safety or reliability in the next 5 years (considering environmental and configuration factors - soil, wind, pole attachments, equipment, guying) - write EC notification to replace pole.

Common drivers for deformed poles: Improper/lack of guying, third party attachment.

Review clearances to verify no reduced clearance issues, all levels of clearance requirements that could result in contact, fire risk, or public safety.

Minor Work: No

### **EC Notification: Yes**

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: <u>TD-2305M</u> EDPM Pole Inspection



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Examples

### POLE BENT 4 FEET OUT OF LINE

At this Location: Pole bent 4 feet out of line, less than 10% lean, deformed in the middle of the pole, towards vegetation

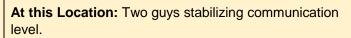
Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes FDA= Pole / Overload / Test

**Priority=** B Tag, 0-3 months depending on exposure

### INADEQUATE SUPPORT AT COMMUNICATIONS LEVEL



Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes FDA= Pole / Overload / Replace

Priority= E Tag, 3-12 months depending on exposure





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OVER STRESSED POLE	UNBALANCED LOAD AT TOP
<b>At this Location:</b> Pole is twisted, cracked, due to communication. Field comments "overloaded by communications"	<b>At this Location:</b> Deformed pole with bowed top in line with conductor.
Perform Minor Work: No	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
Write EC Notification: Yes	Write EC Notification: Yes
FDA= Pole / Overloaded / Replace	FDA= Pole / Overloaded / Replace
Pole Test Data Sheet is Required	Pole Test Data Sheet is Required
<b>Priority=</b> E Tag, 3-12 months, depending on exposure	<b>Priority= E</b> Tag, 3-12 months, depending on exposure



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### 5. Soil Excessively Eroded or Washed Away at Base of Pole

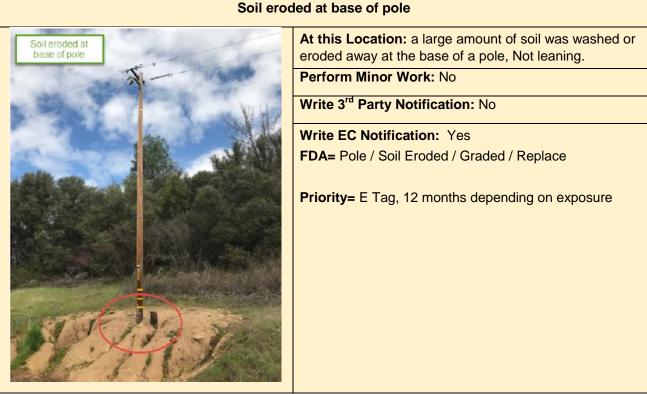
**General Guidance:** If the inspector notices that a large amount of soil was washed or eroded away at the base of a pole, consider writing an EC notification to investigate whether the pole still meets its designed set depth.

### Minor Work: No

### **EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

### Related Documents: 015203, page 2, table 1



Example

### 6. Pole Steps

General Guidance: Remove any pole steps less than 8 feet 6 inches above the ground

or



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any other accessible surface; this allows for grading, landscaping, etc.

Minor Work: Yes

**EC Notification:** Yes, if cannot be completed as minor work.

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: 022616 page 2, section 5

7. Mud sill

General Guidance: Repair/replace deteriorated mud sill.

Minor Work: No

EC Notification: Yes, if cannot be completed as minor work.

Related Documents: 030109



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### 8. Buddy Pole

Buddy Pole: A short section of pole, cut above and below the communication facilities,

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that are not being transferred to the new pole, and supported entirely by connections to the new pole.

Cut-and-kick: The wood pole replacement process where a new pole is placed in the same hole as the old pole and the old pole is temporarily secured to the new pole.

**General Guidance:** If there is a compelling abnormal condition (e.g. buddy pole not properly supported), then write EC notification. When in doubt call your supervisor or PG&E Lead

Minor Work: No

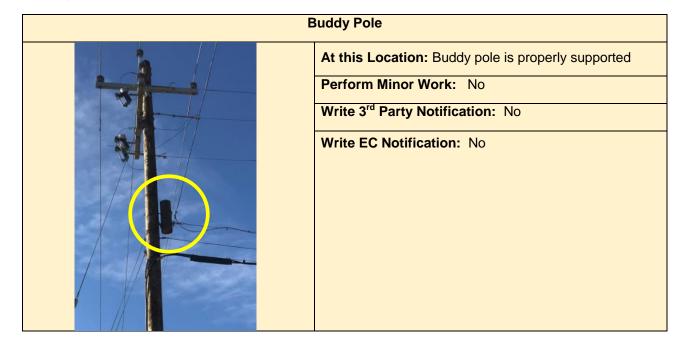
3rd Party Notification: No

### EC Notification: Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

Related Documents: TD-2326P-01, TD-2326P-01-JA01

### Example





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### 9. Transmission Poles

**General Guidance:** At minimum, when performing GO 165 patrols or inspections, Inspectors should perform a "patrol" of the transmission assets in the area being patrolled or inspected in order to identify any **obvious structural problems or hazards** that need to be addressed by the Transmission Organization. Review clearances to verify no reduced clearance issues, all levels of clearance requirements that could result in contact, fire risk, or public safety.

### When in doubt call your supervisor or PG&E Lead

- Examples of the types of issues that could be identified:
- Damaged or broken poles
- Broken or decayed crossarms
- Broken insulators
- Damaged tie wire
- Vegetation issues

### Minor Work: No

# If you identify an obvious structural problem or hazard in the field that is NOT an emergency:

### Write EC Notification: Yes

• Generate an EC to generate an LC



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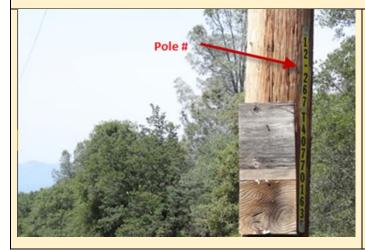
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### Example

### Take a picture of Transmission pole

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In the process of creating the EC Notification, include a photo of the Transmission pole number.



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### 10. Transmission Pole with Distribution Underbuilds

**Inspect App:** Use the Inspect App to document adverse field conditions as follows: **Structure Section:** Select Transmission with Distribution Underbuild

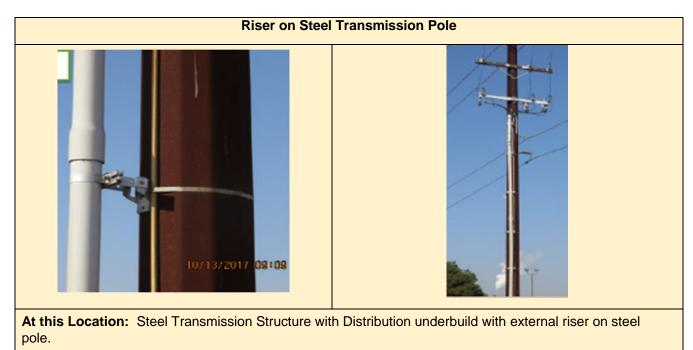
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### Example 1

A. Checklist item: Distribution riser on structure

**General Guidance**: Steel Transmission Structure with Distribution Underbuilds with **external** riser present. If observed, yes, create EC notification to relocate riser.

### Minor Work: No



### Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA= Riser / Pothead / Installed in Error / Relocate

Priority= E Tag, 3-12 months, depending on exposure

**EC Notification:** Yes

B. Checklist item: Distribution riser on structure

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Internal





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**General Guidance**: Structure must be steel Transmission Structure with Distribution Underbuild with internal riser within steel pole. If observed, yes, create EC notification to relocate riser.

Minor Work: No

### **EC Notification:** Yes

### Steel Transmission Structure with Distribution Underbuild with internal riser within steel pole



At this Location: steel Transmission Structure with Distribution underbuild with internal riser within steel pole

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes FDA= Riser / Pothead / Installed in Error / Relocate

**Priority=** E Tag, 3-12 months depending upon exposure



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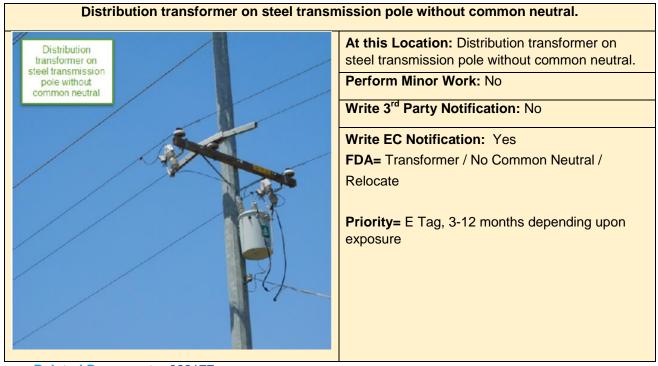
#### Example 2

A. **Checklist item**: Distribution transformer serving an external customer installed without a common neutral present

General Guidance: If observed, yes, create EC notification to relocate the transformer.

Minor Work: No

#### **EC Notification:** Yes



Related Documents: 068177



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## Example 3

A. Checklist item: Missing or Broken Distribution Bridging

**General Guidance:** If observed, yes, create EC notification to repair or install missing bridging.

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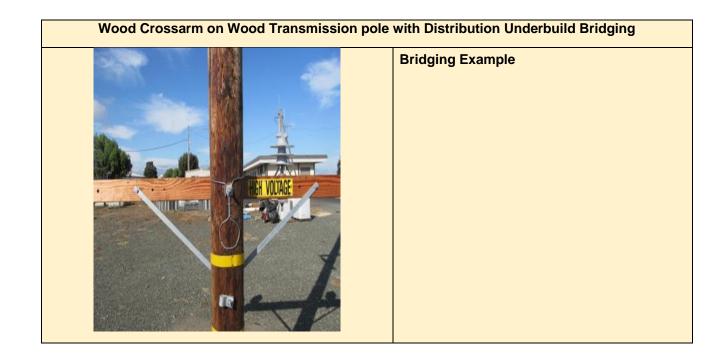
**Note:** If bridging is not installed on a distribution wood cross-arm on a transmission wood pole, then create an EC tag to install bridging.

Minor Work: No

**EC Notification:** Yes

Select the Priority and Due Date based upon compelling abnormal condition that may adversely impact public safety and/or service reliability in the next 5 years.

#### Related Documents: TD-2305M-B009



## BURNT POLE DUE TO MISSING BRIDGING



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At this Location: Transmission pole with missing bridging on the distribution cross-arm, burnt pole, assess pole

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA= OH Facility / Transmission issue / Create LC Priority= B Tag, 0-3 months, depending on exposure



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#### Example 4

A. **Checklist item**: Inadequate Clearance between Transmission and Distribution Conductors, follow the <u>Clearance Evaluation Job Aid</u>

**General Guidance:** If observed, yes, create EC notification to create an LC. Provide detailed supporting comments of the issue. When in doubt call your supervisor or PG&E Lead.

Minor Work: No

**EC Notification:** Yes



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## UNSUPPORTED TRANSMISSION LINE WITH DIMINISHED CLEARANCE



At this Location: Unsupported transmission line with diminished clearance to the distribution level seen from the ground or aerial.

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA= OH Facility / Transmission Issue / Create LC

Priority= E Tag, 3-12 months, depending on exposure



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## **Riser Molding**

1. Broken/Missing Riser Ground

General Guidance: See 'Ground / Ground Molding'iii1 in this job Aid

Minor Work: None

Related Documents: 027742

 U-Shape Riser Molding Broken/Damaged or Unsecured General Guidance – Existing Molding:

Ensure bottom section of ground molding is flush against the pole

**IF** molding is NOT firmly attached to pole

**THEN** Perform Minor Work to secure molding to pole by attaching all lags **OR** Create EC Notification

Address any gaps identified via minor work or create an EC notification

General Guidance if Installing New Molding or Repairing Existing Molding:

- **Below 8 feet:** Both sides of the molding must be secured to the pole at least every 18 inches (a lag in every hole).
- **Above 8 feet:** Both sides of the molding must be secured to the pole at least every 36 inches

Minor Work: Yes

**EC Notification:** Yes

Related Documents: 021924





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Example



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## SmartMeter / SCADA Equipment/Other Equipment on Poles

1. Broken/Damaged SmartMeter Relay/Access Point/Data Collector Unit or SCADA Equipment

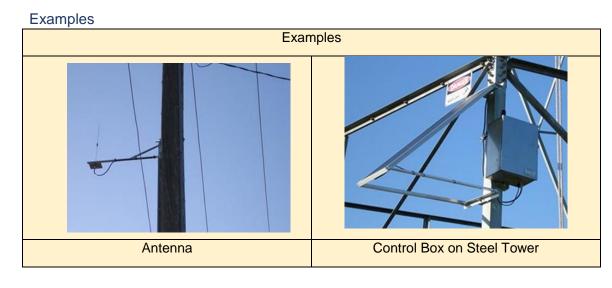
**General Guidance:** If, through visual inspection, an inspector sees broken or damaged SmartMeter, antenna, DCU, or SCADA equipment, create EC notification. Be sure to check the SmartMeter box on the EC Form. If visible, note the operating number and/or serial number of the equipment.

Supervisors will contact SmartMeter Operations to notify them of the issue.

Minor Work: No

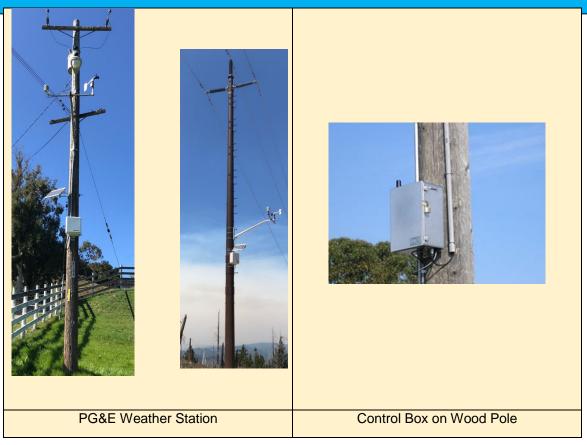
**EC Notification: Yes** 

#### Related Documents: 072145, 072150, 068190, 054421





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## Streetlights

## 1. Broken or Damaged Streetlight Pole

**General Guidance:** While streetlights aren't part of an inspection list, if one is seen with a compelling abnormal condition, then create EC notification.

Minor Work: No

**EC Notification:** Yes

Related Documents: TD-2309S, TD-2307M

Example



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MISSING STREET LIGHT	LEANING AGGREGATE POLE
At this Location: Cone indicates location of missing decorative streetlight and pole. Exposed wire is de-energized.	<b>At this Location:</b> Leaning aggregate pole more than 10% out of plumb. Pole is broken at base and not stable. Light still working.
Perform Minor Work: Yes, make safe	Perform Minor Work: No
Write 3 rd Party Notification: No	Write 3 rd Party Notification: No
<ul> <li>Write EC Notification: Yes, only if minor work cannot be performed</li> <li>FDA= Decorative Streetlight / Broken/Damaged / Replace</li> <li>Priority= E Tag, 6 months, add in field comment section – describe if pole is missing.</li> </ul>	Write EC Notification: Yes FDA= Pole / Broken/Damaged / Replace Priority= B Tag, 0-3 months, depending on exposure



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## 2. Day Burner

**General Guidance:** <u>Do not</u> create an EC Notification for a day burner. Call Restoration Dispatch or PBX hotline internal non-emergency 1-415-973-7000 to get a T-Man to respond. This is to ensure correct accounting for streetlight work (depending on the rate that the customer is one, etc.).

Minor Work: Yes; if you have the materials on your truck

**EC Notification:** No

Related Documents: Utility S2309

3. Missing Streetlight Head

**General Guidance:** If the inspector notices that a missing streetlight, first, make safe then create EC notification to install a missing streetlight.

Minor Work: No EC Notification: Yes Related Documents: Utility S2309



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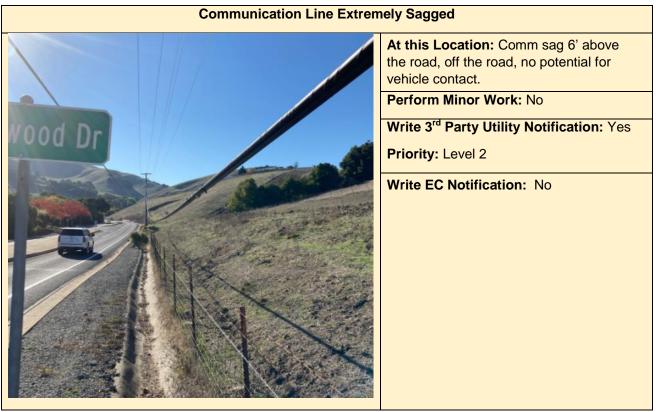
## 3rd Party Notification

1. Utility - Cable, Phone, and other Electric Utility Partners

**General Guidance:** If issues are encountered with joint utility or tenant facilities on structures, create a 3rd party utility notification.

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Minor Work: No EC Notification: No 3rd Party Utility Notification: Yes References: TD-2014P-01-F01



Example



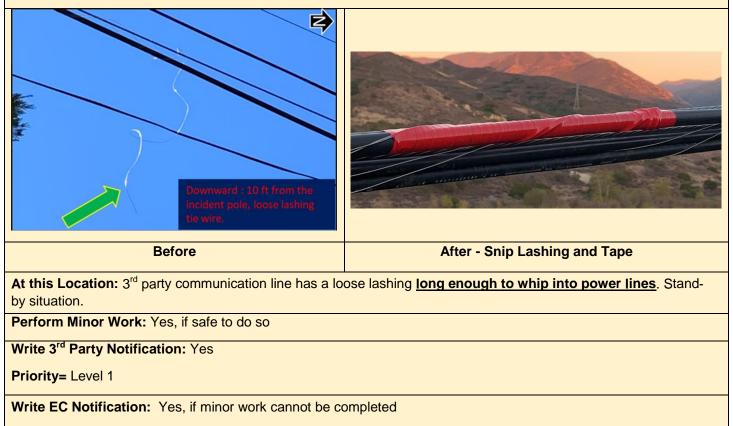
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## 3rd Party Cable Loose Lashing Long Enough to Whip into Power Lines

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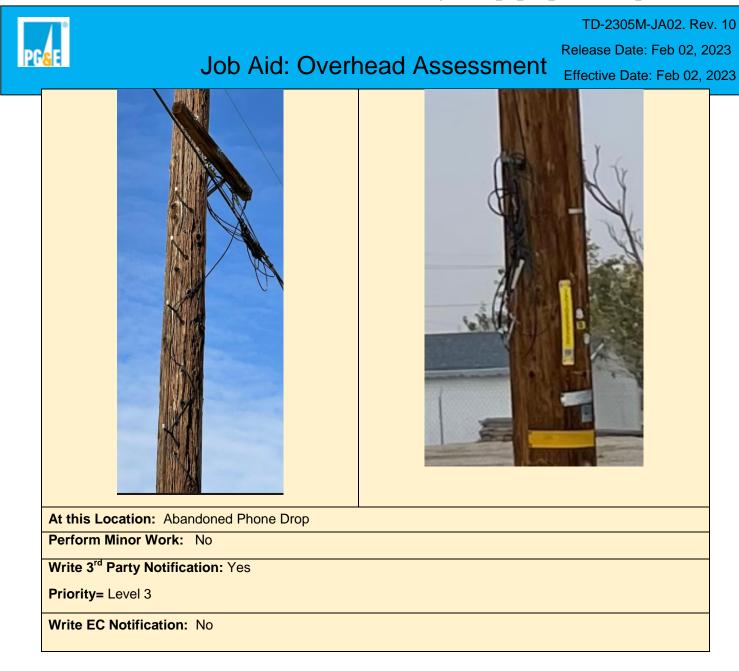


FDA= Conductor / Loose Lashing / Repair

Priority= A Tag. Follow the emergency procedure.

*Contact Lead/Supervisor for guidance

#### Abandoned Phone Drop





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Antennas - Third Party Communication

A. Broken/Damaged Cellular Antenna

**General Guidance:** If the broken antenna is creating a non-emergency safety or reliability issue, create a third-party notification.

If the antenna is causing an emergency safety or reliability issue, contact your supervisor for instructions. Do not leave the location until it is made safe.

Minor Work: No EC Notification: No Third Party Notification: Yes Related Documents: 027911

B. Third Party Communication Antenna - Inadequate Clearance

**General Guidance:** Create a third-party notification if a cellular antenna does not have adequate clearance from supply lines or equipment.

If the antenna is causing an emergency safety or reliability issue, contact your supervisor for instructions. Do not leave the location until it is made safe.

Minor Work: No

EC Notification: No

**Third Party Notification: Yes** 

Related Documents: 027911



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## 2. Non - Utility

General Guidance: Unauthorized attachment installed on a PG&E pole such a mailbox,

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basketball hoops, etc.

Minor Work: Yes, as long as it can be done safely and doesn't create a safety hazard, <u>DO NOT</u> remove mirrors on windy roads/driveways, street/stop signs, camera equipment, etc.

#### EC Notification: No

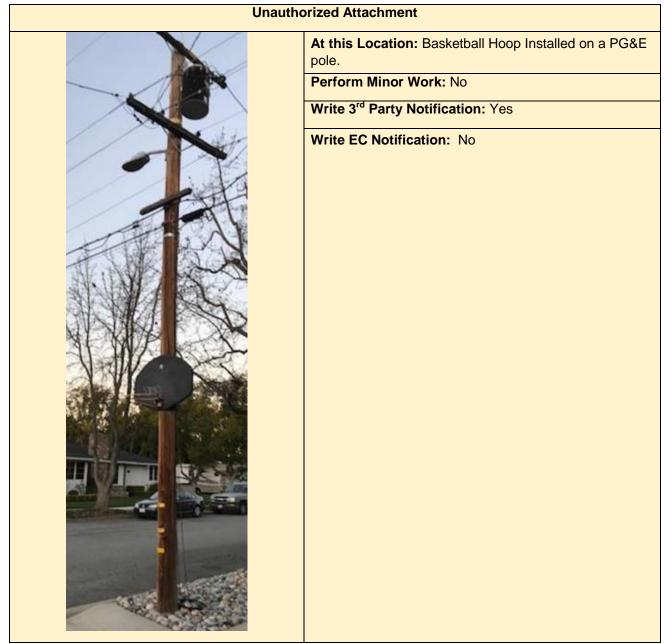
3rd Party Non-Utility Notification: Yes, comments need to be created and will be attached to the letter to the customer / homeowner.



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Example



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## Trees

## 1. Trees within 4 Feet of a Primary Line

**General Guidance:** If you have any questions about the integrity of tree that could impact electric facilities, (causing damage to our facilities, dead or dying, causing conductor height issue, could fall into line etc.), write a Vegetation Notification to remove dead/dying tree.

Job Aid: Overhead Assessment

**Broken Limb on Conductor that has potential to cross-phase or has strain:** Remove the limb as minor work with a hot stick if it is safe to do so. If minor work cannot be completed, and has potential to cross phase or strain, then create EC Notification A tag Emergency.

**Vegetation Touching Bare Conductor or Signs of Burning or Arcing:** Create an emergency Priority "A" Vegetation Management Tag and call supervisor or lead for assistance in contacting vegetation management. Wait at the location until relieved.

**Vegetation Not Touching Bare Conductor and No Signs of Burning or Arcing:** Create a Vegetation Management notification.

Minor Work: Yes

**EC Notification: Yes** 

**Related Documents: None** 



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Large Branch Broken

At this Location: Large branch broken on cross-arm. Cross-arm in poor condition, immediate response required. Perform Minor Work: No

Write 3rd Party Notification: No

Write Vegetation Notification: No

Write EC Notification: Yes

FDA= Cross-arm / broken / damaged / Replace

FDA= Tree / clearance / Remove

**Priority=** A Tag, follow the emergency process

Examples



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Dead Tree Branch fell into Primary

At this Location: Dead tree branch fell into primary

Perform Minor Work: No

Write 3rd Party Notification: No

Write Vegetation Notification: No

Write EC Notification: Yes FDA= Tree / clearance / Remove

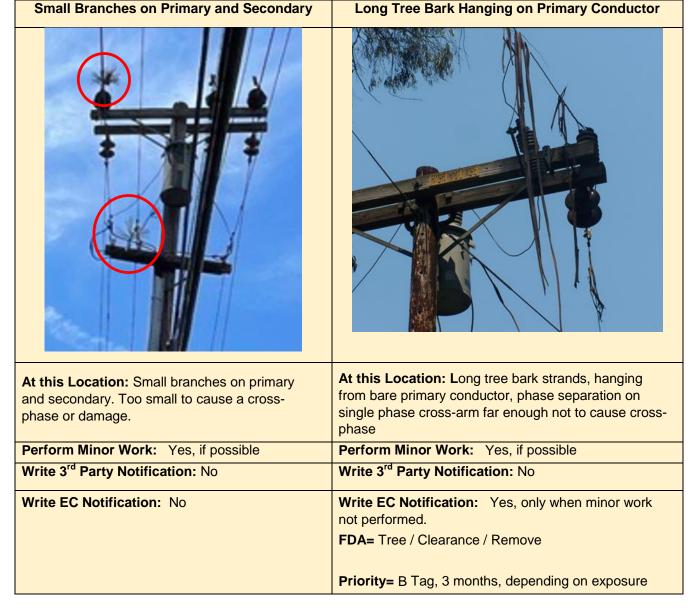
**Priority=** A Tag, follow the emergency process

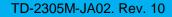


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ng Tree Bark Hanging on Drimony Conductor







## Job Aid: Overhead Assessment

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## 2. Tree Attachments

**Definition:** A Tree Connect is a PG&E asset because the tree which is not owned by PG&E has one or more attachments connected to it.

PG&E Attachments may include:

- Primary Conductor
- Secondary Conductor
- Service Conductor
- Streetlight Conductor
- Hardware
- Anchor
- Guy Assemblies

**General Guidance:** As you perform a visual inspection of all associated conductor(s) from structure to midspan in all directions or to weather head or termination point in all directions, look for tree attachments (Mapped or Un Mapped).

The Ultimate Goal is to have all Tree Connects mapped, have an Orange Inspection Halo and record the Inspection of each Tree Connect using the Inspection Checklist.

Note: When performing an inspection for a tree connect, tree connects should be recorded as PG&E owned and not customer owned.

Minor Work: No

Related Documents: TD-2999B-044

Common Scenarios: Follow process for each:

- (1) Tree Connect <u>is Mapped</u> and has an Orange Inspection Halo (Complete inspection)
  - (a) Reference: Mapped tree symbol



(2) Tree Connect is Mapped as a proposed Clearance Pole (Red dotted circle) With

No Halo:

(a) Follow Adhoc Inspection Process



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- (3) Tree Connect is Un-mapped:
  - (a) Follow Adhoc Inspection Process
- (4) Tree Connect <u>is mapped</u> but does not have an Orange Inspection Halo:
  - (a) Request Halo mailto:SystemInspectionHaloIssues@pge.com
- (5) Tree connect is mapped but does not exist in field:
  - (a) Complete inspection record indicating structure does not exist in field.

## Tree Attachments Found in the Field Procedure

Identification by System Inspections:

- Assess the tree condition per Vegetation Management (VM) guidance provided in Job Aid, "Utility Bulletin TD-2999B-044, Guidance on Tree Health Priority Job Aid".
- If tree is "Green" and considered to be in Good Condition, NO EC is required.
  - If open EC exists for location and field conditions are NOT compelling or NOT a regulatory condition, process cancellation request in accordance with <u>TD-</u>2305M-JA13, "EC Job Aid: Create, Complete, Cancel EC Notifications".
- If an immediate hazard exists, Create an Emergency "A" Tag.
  - The location cannot be made safe to the public without additional Qualified
     Company Representative (QCR) support, the first responder *MUST* standby until
     relieved by the additional QCRs *OR* until the hazard has been made safe

Category	Priority	МАТ	Wort Type Code	Tree Mortality
Emergency	А	17B	501	Dead or Dying <b>OR</b> Green

- Under Item Details, the Facility Type / Damage / Action (FDA) of notification should be:
  - Tree/Vine / Decayed/Rotten / Install CL Pole
- Notification **Cause** should be:
  - Tree Contact

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Job Ald: Overnead Assessment	Effe

Object	Damage	Cause	Activity
Tree / Vine	Decayed / Rotten	Tree Contact	Install CL Pole

• If tree is "Dead or Dying" or "Green" and considered to NOT be in Good Condition,

Category	Priority	ΜΑΤ	Wort Type Code	Tree Mortality
EC	B or E	07C	311C	Dead or Dying <b>OR</b> Green

- EC "B" or "E" Tags:
  - Under Item Details, the Facility Type / Damage / Action (FDA) of notification should
    - Tree/Vine / Decayed/Rotten / Install CL Pole

Object	Damage	Activity
Tree / Vine	Decayed / Rotten	Install CL Pole

- If open EC exists for location and field conditions warrant an expedited Priority, update Pending EC as appropriate.
- If tree condition cannot be adequately assessed, Create an EC Assessment Tag for VM Review:

Category	Priority	MAT	Wort Type Code	Tree Mortality
EC	В	07A	311A	Dead or Dying <b>OR</b> Green

- The EC Assessment Tag MUST ONLY have the designated FDA for Tree Assessment.
- Under Item Details, the Facility Type / Damage / Action (FDA) of notification should be:
  - Tree/Vine / Tree Connect / Assessment

Object	Damage	Activity
Tree / Vine	Tree Connect	Assessment



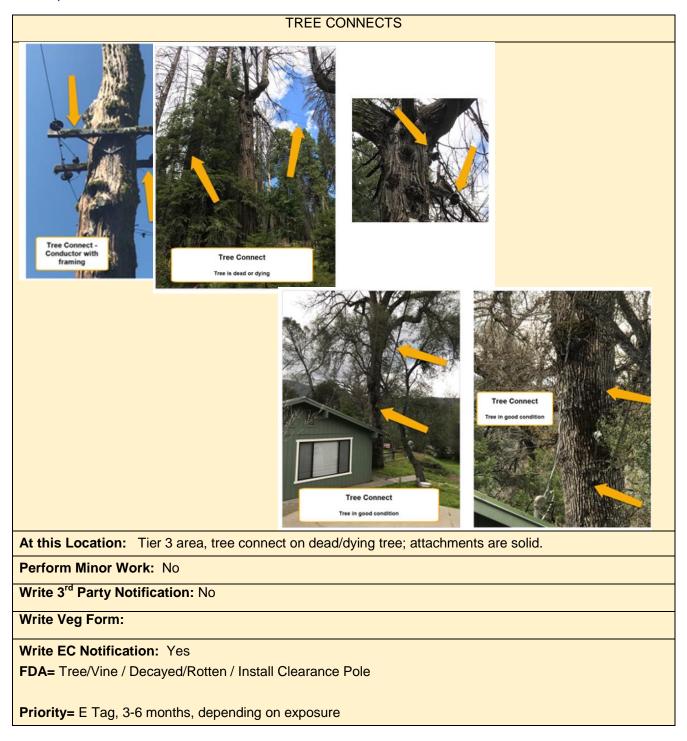
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Examples



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# Job Aid: Overhead Assessment

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## TREE CONNECT ON DEAD/DYING TREE

At this Location: Tier 2 area, tree connect on dead/dying tree with multiple woodpecker holes and damaged primary insulators

Perform Minor Work: No

Write 3rd Party Notification: No

Write Vegetation Notification: No

Write EC Notification: Yes

**FDA=** Tree/Vine / Decayed/Rotten / Install Clearance Pole

**Priority=** A Tag, follow the emergency process





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# 3. Trees Causing Strain or Abrasion to a Secondary Conductor or Service **General Guidance:**

#### If vegetation is:

- A. Causing damage to the conductor insulation due to friction (Note: scuffing and polishing is NOT damaged) <u>OR</u>
- B. Causing strain on the conductor that is adversely affecting other supply facilities.

**Note:** The inspector should clear the vegetation or move the conductor as minor work if possible. Inspectors should leave the trimmings at the location; use door hanger to notify customer.

#### If the inspector cannot clear the vegetation or move the conductor:

- For service drops: Create an EC notification
- For secondary conductor spans serving 2 or more customers: Write a Vegetation Management notification with priority based on severity.

**Note:** Vegetation Management considers secondary as conductor that feeds more than one physical address (per Rule 16); i.e., multiple "service" conductors feeding the same customer/property are considered service, not secondary; Inspector will need to create an EC in this scenario.

If the inspector sees a hazardous vegetation issue on communication facilities, create a third- party notification.

Minor Work: Yes

**EC Notification: Yes** 

**Related Documents: None** 



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## PHONE TREE CONDITION

At this Location: Tree putting strain on the pole, due to communication line

Perform Minor Work: No

Write 3rd Party Notification: Yes

Write EC Notification: No

Examples

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At this Location: Secondary conductor resting on tree/vegetation. Tree causing strain on open wire secondary, feeding more than one customer.

Perform Minor Work: No

Write 3rd Party Notification: No

Write Vegetation Notification: Yes

FDA= Tree / Strain or Abrasion Secondary / Trim

**Priority=** E Tag, 3-12 months depending on exposure

Write EC Notification: No



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**Tree Strain on Service Drop** 

At this Location: Tree strain on service drop

Perform Minor Work: No

Write 3rd Party Notification: No

Write Vegetation Notification: No

Write EC Notification: Yes FDA= Tree / Vine / Overgrown / Trim

**Priority=** E Tag, 3-12 months depending on exposure



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4. Trees Overgrown, <u>NOT</u> Causing Strain or Abrasion to a Secondary Conductor or Service

**General Guidance:** If trees are in contact with bare <u>open wire secondary or bare open</u> <u>wire service</u> **not** causing strain or abrasion, write an EC tag or complete under minor work "trimming" if safe to do so. If trees are in contact with <u>a covered service conductor</u> not causing strain or abrasion, no EC tag is necessary

Minor Work: Yes, If safe to do so

**EC Notification:** Yes

Related Documents: None



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## TREE GROWING INTO BARE OPEN WIRE SECONDARY OR BARE OPEN WIRE SERVICE, NO STRAIN **OR ABRASION**



At this Location: Tree grown around bare open wire secondary, no strain or abrasion. Spreader bracket already installed.

Perform Minor Work: No

Write 3rd Party Notification: No

Write Vegetation Notification: No

Write EC Notification: Yes

FDA= Tree / Vine / Overgrown / Trim

FDA= Conductor/ Sag / Clearance / Replace

Priority= E Tag, 3-12m depending on exposure

Examples

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## TREE GROWING AROUND SERVICE, NO STRAIN OR ABRASION



At this Location: Tree grown around service, no strain or abrasion.

Perform Minor Work: No

Write 3rd Party Notification: No

Write Vegetation Notification: No

Write EC Notification: No



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# Job Aid: Overhead Assessment

## Wildlife Protection

## 1. Existing Migratory Bird Protection Damaged

**General Guidance:** Evaluate locations where bird protection has previously been installed to assess if it is adequate or is missing or broken. If not adequate or needs repair, create EC notification to repair or install.

When in doubt reach out to Supervisor / Lead to reach out to avian specialist.

Note: If there is a nest at the location, write EC Notification to install bird protection if nest is already abandoned.

Minor Work: No

Related Documents: Utility S2321, 061149

Reference: 066209 – Repair of Damaged Pole Tops

#### Per <u>066209</u>:

#### Active Nests:

- Active Nests are ones with eggs or young in them.
- Do not disturb active nests unless they present an immediate safety or operating hazard.

Contact Lead / Supervisor or the avian program management personnel or the Bird Hotline at (415) 973-9453 for assistance with an active nest removal or relocation.

#### Inactive Nests:

- Inactive nests are those nests without viable eggs or young.
- Inactive nests, except eagle nests or T&E species' nests, can be removed; however, do not keep an inactive nest without notifying avian program management personnel or governmental agencies. Nests may be difficult to identify.

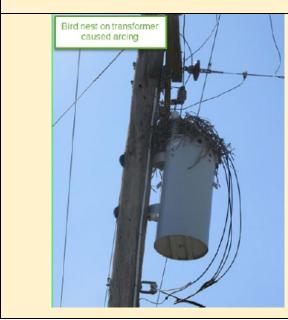
<u>If there is any uncertainty</u> about the type of nest, contact Lead / Supervisor or the avian program management personnel or the Bird Hotline at (415) 973-9453 for assistance with an active nest removal or relocation.



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#### **BIRD NEST ON TRANSFORMER**

At this Location: Bird Nest on transformer, abandoned, touching high side jumper.

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA= Overhead facility / Bird Nest / RemoveFDA= Bird protection / Bird ProtectionDeteriorated / Install

**Priority=** A tag, Follow emergency procedure

Examples



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ACTIVE RAPTOR NEST ON POLE



At this Location: Active Nest, missing cutout covers. Notify lead or supervisor to contact bird program manager

Perform Minor Work: No

Write 3rd Party Notification: No

Write EC Notification: Yes

FDA= Overhead facility / Bird Nest / Remove

FDA= Bird protection / Bird Protection Deteriorated / Install

Priority= E Tag, 3-12 months depending on exposure

# BROKEN INSULATOR COVERS At this Location: Broken insulator covers Perform Minor Work: No Write 3rd Party Notification: No Write EC Notification: Yes FDA= Bird protection / Bird protection deteriorated / Replace Priority= E Tag, 3-12 months depending on exposure

## 2. Exiting Wildlife Protection Damaged

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**General Guidance:** Inspector should create EC notification to replace damaged or missing existing wildlife protection installed in the field (e.g., Cattle Guard, Squirrel Guard).

Minor Work: No

**EC Notification:** Yes

FDA: Animal Mitigation / Broken / Damaged / Replace

Related Documents: 061149

Note: For these kinds of conditions, use:



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### Job Aid: Overhead Assessment

### Clearance Evaluation Job Aid

This section is developed based on:

- TD-2305M-JA12 Overhead Clearance Evaluation
- <u>022158 Clearance Tables CPUC GO95</u>
- <u>022187-Vertical Separation of Overhead Transmission, Distribution, and Telephone</u>
   <u>Circuits</u>

to assist Electric Distribution Compliance Inspectors, PG&E Employees, and Contractors in assessing and evaluating conductor clearance issues they visually identify in the field. While this section does not show all examples of allowed clearances, please review the references above for GO95 conductor clearance tables or contact your lead / supervisor for guidance.

This section addresses common conductor clearances such as:

- Wire/Ground minimum allowed clearance (ft)
- Service Drop minimum allowed clearance (ft)
  - o Residential
  - o Commercial
- Wire/Wire minimum allowed clearance (ft)
  - o On same pole
  - On crossing poles
- Wire/Building minimum allowed clearance (ft)





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Ground Clearances

**Guidance Document References:** 

**TD-2305M – EDPM 2011 Manual** 

Engineering Document 022158 – Clearance Tables CPUC General Order 95

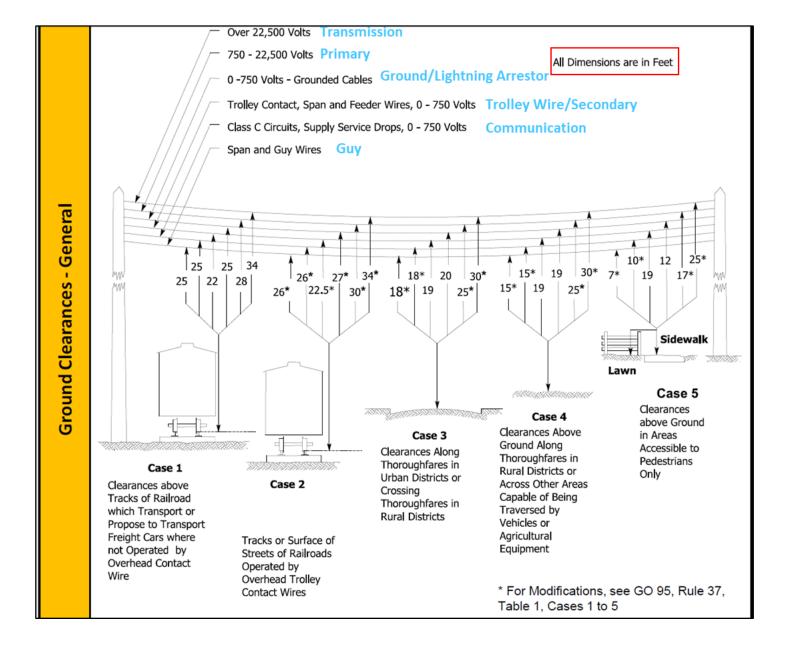


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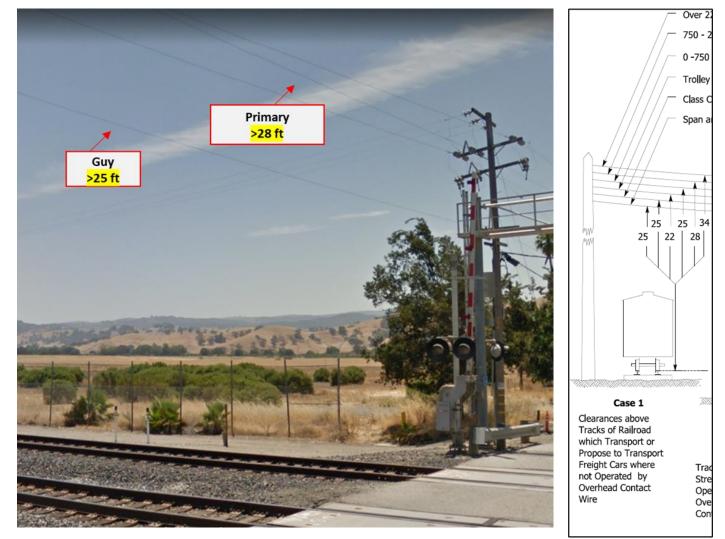




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#### Case 1: Non-Contact Railroad

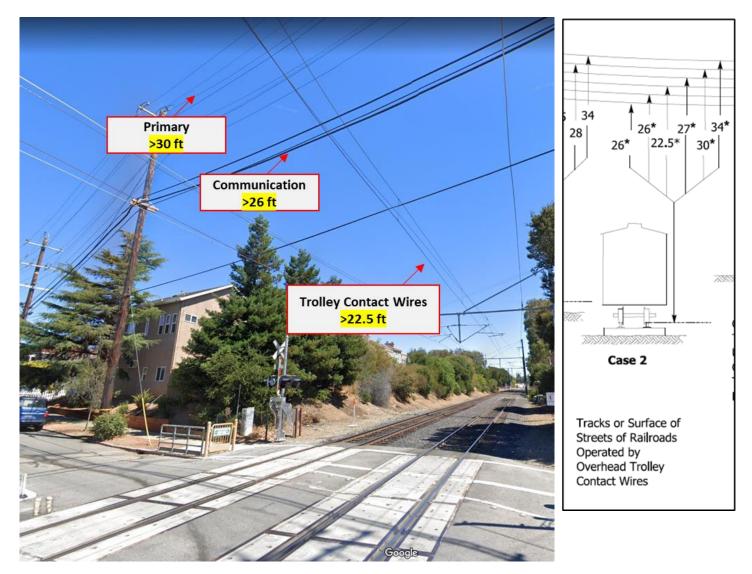




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Case 2: Contact Railroad



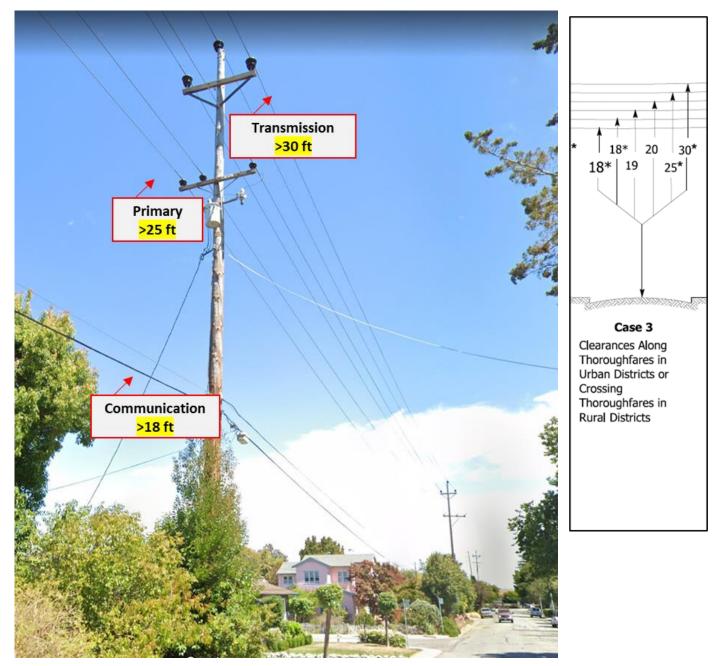
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### Case 3: Along or Crossing an Urban Road





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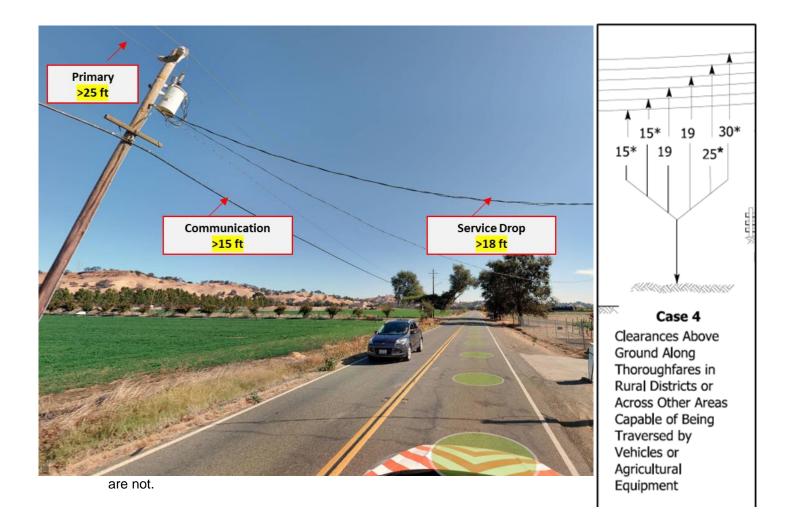
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### Case 4: Along or Crossing a Rural Road

NOTE: Due to the fisheye lens and the online street view, the poles appear to be leaning but



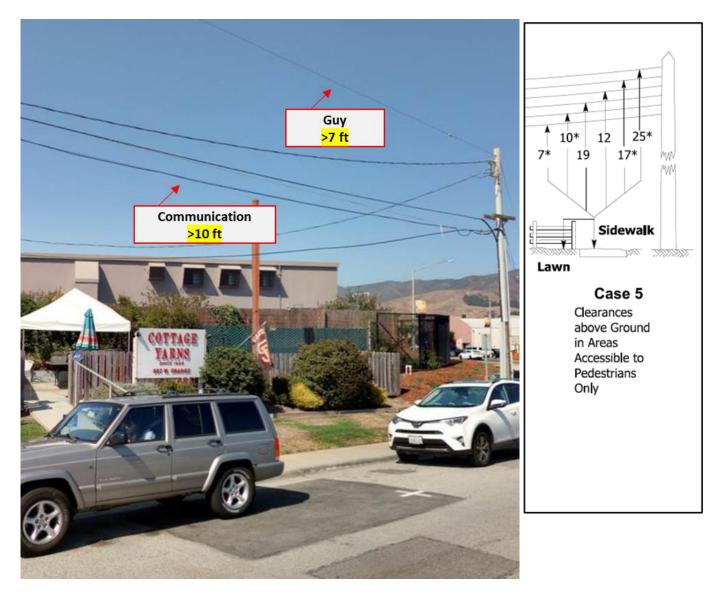


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### Case 5: Pedestrian Access - Sidewalk



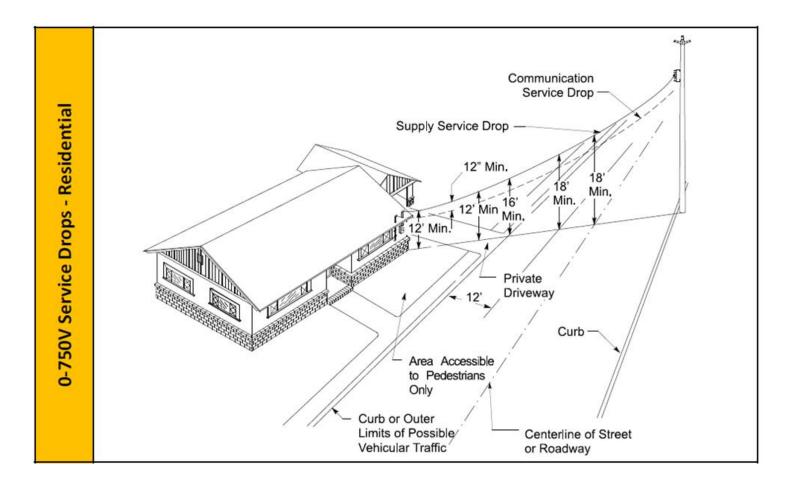


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0-750V Service Drops - Residential





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Service Drop – Residential

**NOTE:** Due to the fisheye lens and the online street view, the poles appear to be leaning but are not.



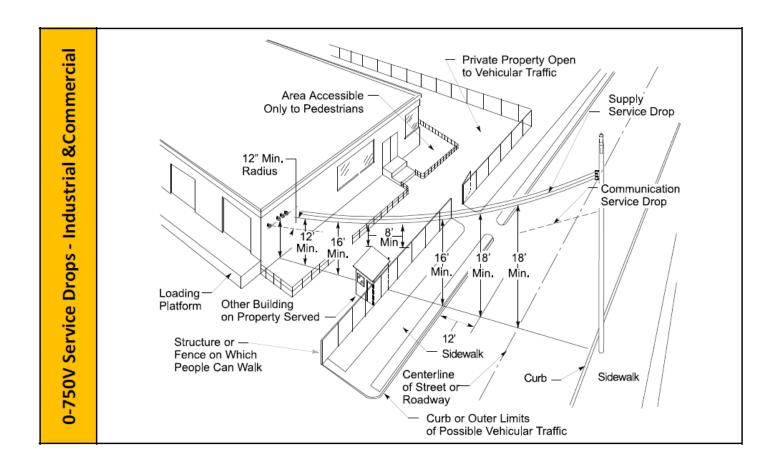


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0-750V Service Drops - Industrial and Commercial





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Service Drop – Commercial



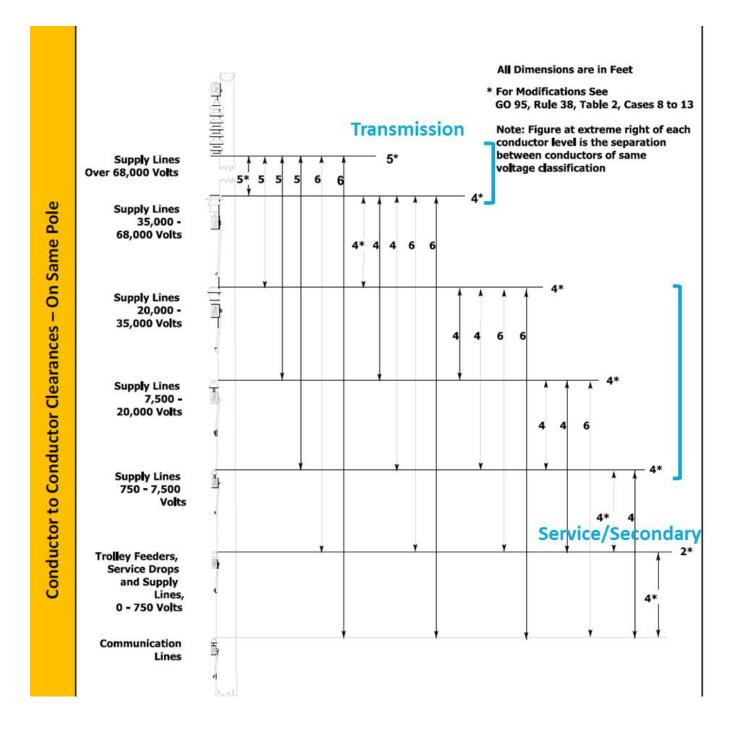


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#### Conductor to Conductor Clearance - On Same Pole



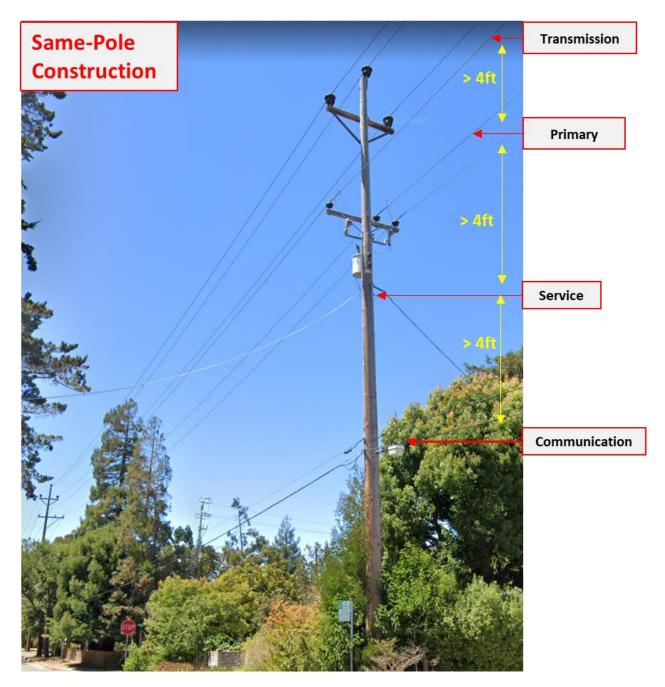


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#### Same Pole Conductor Clearances





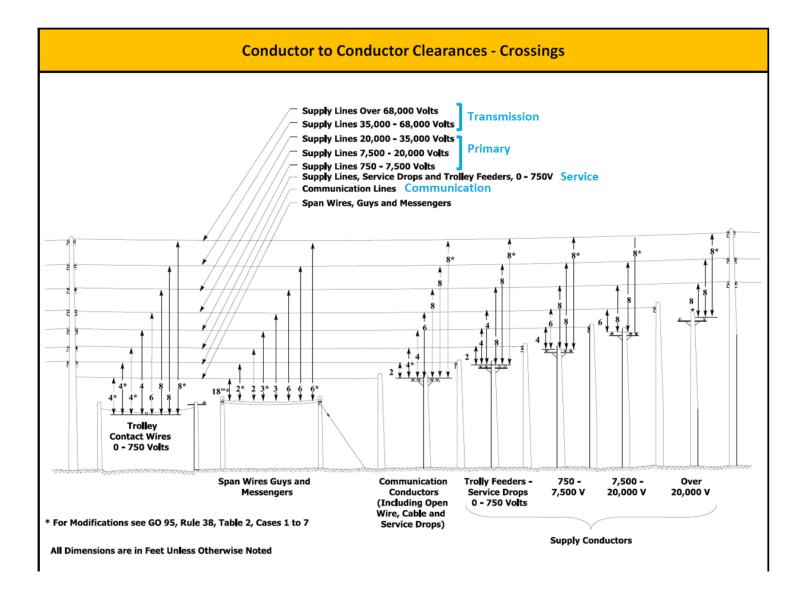
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Conductor to Conductor Clearance on Crossing Poles



• 300kV plus transmission circuits require 156 inches of clearance to the primary.

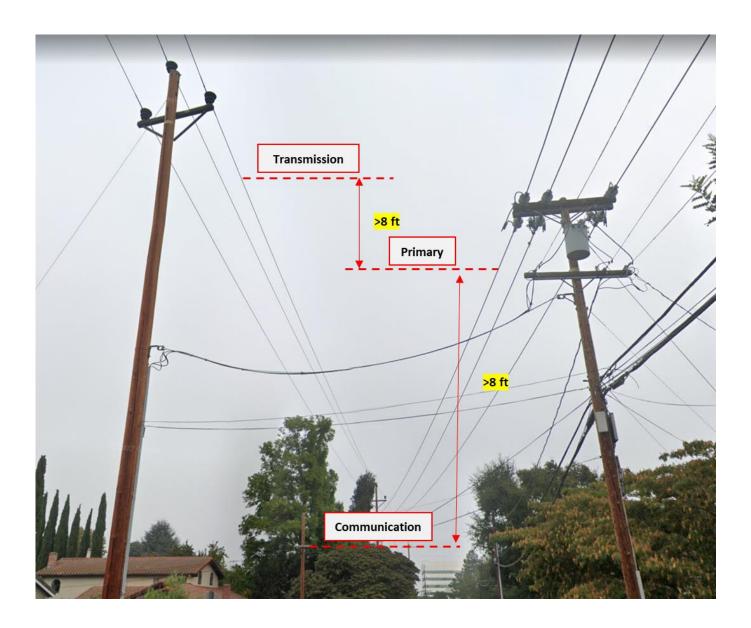


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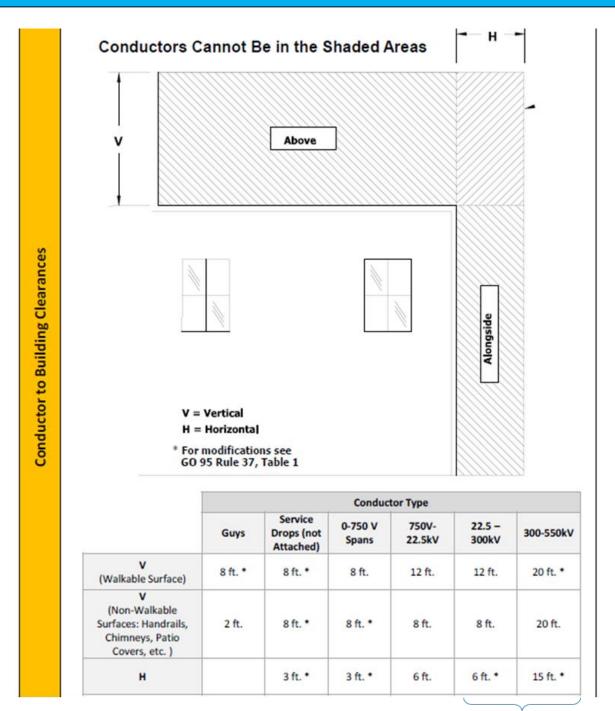
**Crossing Poles Clearances** 





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Service Secondary Primary Transmission

### **Conductor to Building Clearances**



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#### Above Building Clearance





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Alongside Building Clearance





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### FDA - Distribution OH Facility Damage Action Table Table 1

Overhead Facility	Damage	Action	Default Priority
	Broken/Domogod	Repair	E
	Broken/Damaged	Replace	E
	Corroded	Repair	E
Anchor	Conoded	Replace	E
	Missing	Install	F
	Soil/Eroded/Graded	Adjust	F
	Soll/Eroded/Graded	Replace	F
Animal Mitigation	Broken/Damaged	Replace	E
Animal Mitigation	Mitigation Missing	Install	E
<b>Divid Desta stism</b>	Bird Protection	Replace	E
Bird Protection	Deteriorated	Install	E
Donding	Broken	Repair	E
Bonding	Broken	Replace	E
	Brokon/Damagod	Repair	E
	Broken/Damaged —	Replace	E
	Burnt	Repair	E
Booster/Regulator	Excessive Operation	Overhaul	E
	Leaks/Seeps/Weeps	Clean	E
		Repair	E
		Replace	E
Buddy Pole	Improperly Supported	Repair	E
	Broken/Damaged	Repair	E
	Bioken/Damageu	Replace	E
	Burnt	Repair	E
Capacitor	Dunit	Replace	E
		Clean	В
	Leaks/Seeps/Weeps	Repair	E
		Replace	E
	Broken/Damaged	Replace	F
CB Pole	Burnt	Replace	E
	Decayed/Rotten	Replace	F
Climbing Space	Obstructed	Adjust	F
Conductor	Broken/Damaged	Repair	E



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		Replace	E
	Durant	Repair	E
	Burnt	Replace	E
		Adjust	E
	Clearance Impaired	Install CI Pole	E
		RayChem	E
	Floater	Repair	E
	Idle Facility	Remove	E
	Improper Connection	Adjust	E
	Overloaded	Test	E
		Adjust	E
	Sag/Clearance	Install Spreader Bracket	E
		Replace	E
	Loose Lashing	Repair	E
	Broken Splice	Replace	В
	Splice Tied In	Replace	E
	Burnt	Replace	E
	Corroded	Repair	E
		Replace	E
Connector	Incorrectly Installed	Replace	E
	Temp Differential	Replace	E
	Insulation Deteriorated	Repair	E
	Broken/Damaged	Repair	E
	Dioken/Damaged	Replace	E
Crossarm	Burnt	Repair	E
Grossarm	Buill	Replace	E
	Decayed/Rotten	Repair	E
		Replace	E
	Broken/Damaged	Repair	E
		Replace	E
Cutout	Clearance Impaired	Adjust	E
	Flashed	Repair	E
		Replace	E
Decorative Streetlight	Broken/Damaged	Replace	E
	Missing	Install	E
Dead-End Cover	Broken / Damaged	Replace	F
(DCOV)	Broken / Damaged	Repair	F



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Fault Indicators	Broken/Damaged	Replace	E
	Flashed	Repair	E
	Flashed	Replace	E
Fuse	Clearance Impaired	Adjust	E
	Broken	Repair	E
	Broken	Replace	E
	Droken/Demograd	Repair	В
Ground	Broken/Damaged	Replace	В
Ground	Exposed	Repair	F
	Missing	Install	E
	Broken/Damaged	Repair	E
	Bioken/Damayeu	Replace	E
	Clearance Impaired	Adjust	F
	Corroded	Repair	E
Guy	Conoded	Replace	E
Guy	Loose	Adjust	F
	Missing	Install	F
	Overgrown	Trim	E
	Strain/Abrasion	Adjust	F
		Remove	F
Guy Marker	Missing	Install	F
Guy Warker		Replace	F
	Bird Prot. Required	Install	E
	Birdcage	Install	E
	Broken/Damaged	Repair	E
Hardware/Framing		Replace	E
		Remove	E
	Loose	Adjust	E
	Missing	Install	E
High Sign	Missing	Install	F
High Sign	Broken	Replace	F
	Broken/Damaged	Replace	E
	Flashed	Replace	E
Insulator	Primony Squattor	Repair	E
	Primary Squatter	Replace	E
	Secondary Squatter	Repair	E
		Replace	E
Jumper	Burnt	Replace	E
Juliper	Clearance Impaired	Adjust	E



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		Replace	E
LAPP Insulator	Broken/Damaged	Replace	E
	Ductors (Descended	Repair	E
Linktning American	Broken/Damaged	Replace	E
Lightning Arrester	<b>F</b> lashed	Repair	E
	Flashed	Replace	E
Maulting	Broken/Damaged	Replace	F
Marking	Missing	Install	F
	Ductors (Democratic	Repair	F
	Broken/Damaged	Replace	F
Molding	Loose	Adjust	F
	Missing	Install	F
	Bird Prot. Required	Install	E
		Access	В
	Customer Related	Appointment	В
		Refusal	В
	Graffiti	Paint	E
		De-Energ	E
	Idle Facilities	Remove	F
OH Facility		Transfer	F
On raciiity	Limited Access	Inspect	В
		Patrol	E
		Remove	E
	Obstructed	Inspect	В
		Remove	E
		Replace	В
	Transmission Issue	Create LC	В
	Bird Nest	Remove	E
Operating Number	Broken / Damaged	Replace	E
	Missing	Install	E
		Pole Stub	E
	Broken/Damaged	Re-Frame	E
	Dioken/Damageu	Repair	E
		Replace	E
Pole	Burnt	Pole Stub	E
		Repair	E
		Replace	E
	Clearance Impaired	Repair	E
		Replace	E



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		Pole Stub	E
		Pole Top Repair	E
	Decayed/Rotten	Repair	E
		Replace	E
	Idle Facilities	Remove	F
	Looping	Adjust	E
	Leaning	Replace	E
	No Safe Access	Inspect	В
	Overloaded	Replace	E
		Test	E
	Woodpecker Damage	Assessment	Е
	Woodpecker Damage	Repair	Е
	Woodpecker Damage	Replace	E
	Soil Eroded	Replace	E
Pole Step	Clearance Impaired	Remove	F
	Broken/Damaged - Excessive Operation	Repair	E
		Replace	E
		Overhaul	E
Recloser/Sectionalizer	Flashed	Repair	E
Reclosel/Sectionalizer	FIASITEU	Replace	E
		Clean	E
	Leaks/Seeps/Weeps	Repair	E
		Replace	E
Relinquished Pole	Decayed / Rotten	Remove	E
	Brokon/Domogod	Repair	E
	Broken/Damaged Flashed	Replace	F
<b>Riser/Pothead</b>		Repair	E
		Replace	F
	Installed in Error	Relocate	E
RTVI	Interference	Repair	E
	Interrerence	Replace	E

SCADA/PDAC	Drokon/Domogod	Repair	F
	Broken/Damaged	Replace F	
	Looko/Soopo/Moopo	Repair	F
	Leeks/Seeps/Weeps	Replace	F



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		Test	В
Secondary Service Conductor (SEC_SVC Conductor)	Splice Installed	Replace	F
Steel Lattice Pole	Guarding Missing	Install	E
Steel Lattice Tower	Broken/Damaged	Replace	E
	Broken/Domogod	Repair	E
Streetlight	Broken/Damaged	Replace	E
	Missing	Install	E
Switch	Drokon/Domogod	Repair	E
Switch	Broken/Damaged	Replace	E
Tree Wire	Exposed	Repair	F
	Broken/Damaged	Replace	E
<b>T</b> 's \4/ims	Loose	Replace	E
Tie Wire	Improperly Installed	Replace	E
	Corroded	Replace	E
	Bridging Broken	Repair	E
Trans_Dist Pole	Bridging Missing	Install	E
	Broken/Damaged	Repair	E
		Replace	F
	Corroded	Replace	E
	Flashed	Repair	E
	Flasheu	Replace	E
	Idle Facilities	Remove	F
Transformer		Clean	В
	Leeks/Seeps/Weeps	Repair	F
		Replace	E
		Re-Check	В
	No Common Neutral	Relocate	E
	Overloaded	Test	E
	Parallel	Replace	E
	Clearance Impaired	Remove	E
		Trim	E

Tree/Vine	Clearance Impaired	Remove	E
	Clearance Impaired	Trim	E
	Decayed/Rotten	Install CI Pole	E
	Overgrown	Remove	E
		Trim	E



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	Broken/Damaged Repair Replace	Repair	E
Trip Saver		Replace	E
Under-Arm Bus	Broken/Damaged	Repair	F
Vis-Strips	Broken / Damaged	Replace	F



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### Adhoc Inspection Process

**General Guidance:** The Adhoc Inspection Process can be used for any unmapped distribution structure i.e., a structure without an SAP number.

<u>Warning</u>: Once Adhoc inspection process is submitted, there is <u>NOT</u> a process to cancel if a mistake is made. The cancellation must be done manually by a distribution asset strategist by emailing DistributionAssetStrategist@pge.com.

In the Inspect App:

Come across a Distribution Structure / Tree Connect that is unmapped within the map and have already started the work order:

- 1. Investigate to ensure that the structure is not located somewhere else on the map
  - a) If mapped but in the wrong location:
    - Perform the inspection on the map structure and create a map change to move the structure to the correct location.
    - b) If confirmed unmapped
      - On map screen long touch screen at the exact location that the structure exists to drop a pin.
      - Actions Button
        - Start Adhoc Inspections Button
          - o Complete "Add-Pole" Map correction form
          - Complete Inspection Form

<u>Note</u>: Customer owned pole should only be selected when the pole being inspected is customer owned with PG&E equipment.



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### Glossary

#### California Power Line Fire Prevention Field Guide

### Open Wire Secondary

Field condition of open wire secondary built on a cross-arm



### Vibration Damper



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Bird protection Center installed on



phase cover conductor

### Flying Bells



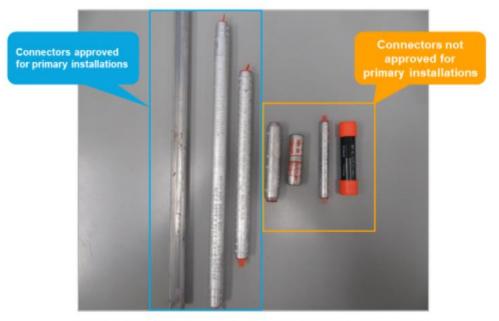


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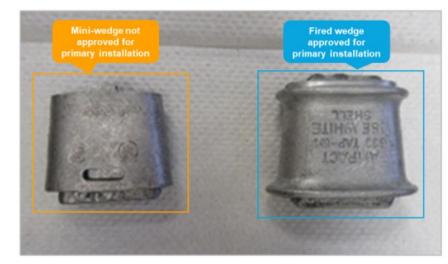
### **Connectors / Splices**



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### Wedge Connectors



Example slide 132: Approved and Unapproved connectors for primary.

Here

Needed Pictures are questions that

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Internal



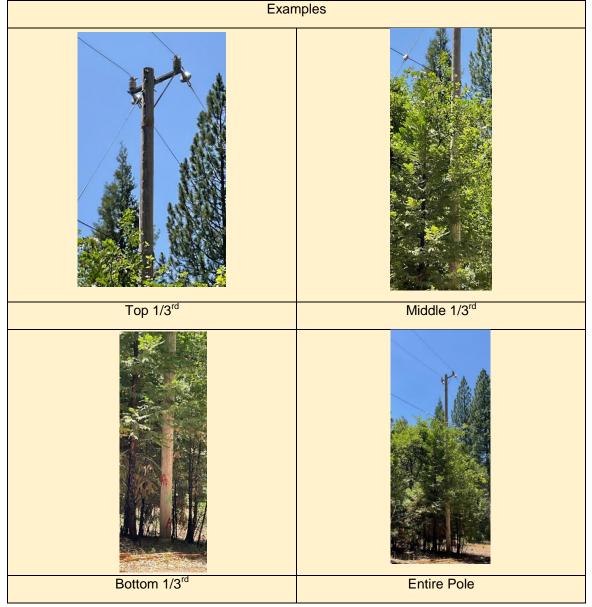
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#### may be asked in the checklist

- 1. Pole
  - Top 1/3rd
  - Middle 1/3rd
  - Bottom 1/3rd
  - Entire Pole



- 2. Pole Age
  - Manufacture plate



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Install





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- 3. PTT Records (if available)
  - Most recent Intrusive Test year
  - Confirm no "S" Stubbable Pole or "N" Non-Stubbable Pole
  - C

OSMOSI: USP 2002		Non-Stubbable Pole
Intrusive Test Oval Plate – Partial Dig	S Tag PTT Plate – Pole needs to be stubbed	N Tag PTT Plate – Pole cannot be stubbed and needs to be replaced
	Stubbable Pole Non-Stubbable Figure 1	e Pole Deteriorated Pole Void Below Tag I. Deteriorated Pole Tag
Intrusive Test Circle Plate – Full Dig	L	egend

upgraded (arrow)



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#### 4. Anchor

- Close up Unobstructed View of anchor(s)
- May need to unearth anchor, if possible
- If anchor is buried, still provide picture



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PG<mark>s</mark>e

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