



Quality Control Vegetation Management for Vegetation Control Pole Clearing

MID Quality: SW- 0004
Effective Date: 07/03/2024
Rev. 04

SUMMARY

This Standard Work document describes Quality Control Vegetation Management (QCVM) criteria for Vegetation Control (VC) as defined in Vegetation Control Program (Standard), TD-7112S, and as directed in the Vegetation Control Procedure, TD-7112P-01.

STAKEHOLDERS

All QC personnel of the Quality Management teams.

PRE-REQUISITES

QC Specialist must have view and edit access in the Field Maps and Survey123 iOS applications. Microsoft Office/Excel is needed for spreadsheets.

SCOPE

QCVM conducts one yearly location review in High Fire Threat District/High Fire Risk Area (HFTD/HFRA) of subject poles with VC Technician work completion dates.

ASSOCIATED TOOLS

- Field Maps
- Survey123 application
- Measuring tools
- Binoculars

PROCESS

1. QC Assessment Planning

QC Supervisor identifies the total number of pole locations within their area and assigns poles to the designated QC Specialist for completion.

All subject poles within HFTD/HFRA with VC work completion dates can be assigned to QC team.

QC Specialist performs field review of the VC pole location for conformance to the VC Standard and Procedure, and compliance with California Public Resource Code 4292 and California Code of Regulations (CCR) Title 14 section 1254.

QC is assigned a set of poles to survey. The poles are visible within the “PROD QC Pole Clearing Map” within the Field Maps application.

NOTE:

All QC personnel must notify the property contact/owner before entering any location/property, when any of the following VM Alerts are observed in the System of Record: Bad Dog, Concerned Customer, Dog, Locked Gate, Notify 1st, PI Notify 1st, Past Refusal, and/or Past Civil Standby.

Only access properties when it is safe to do so. Specialist should follow all safety alerts from all available sources, ensuring everyone and everything is always safe.



2. QC Access Constraint

The QC Specialist determines if sample location can be reviewed by answering Yes or No. IF the answer is Yes, the survey continues as described in section 3., QC Assessment Criteria. IF the answer is No, the choices below are used to describe the reason for not reviewing the sample location. The QC Specialist must select one option and include comments to describe the situation.

The QC Specialist makes one contact attempt to obtain access to the property. IF no response or the customer refuses access, THEN the QC Specialist documents that in the survey. Once the survey is closed as “unable to access”, it is documented as a constraint. Do not make a second attempt to submit a survey if access is obtained on a later date.

Non-customer-related access restrictions considered temporary, include weather or unsafe road conditions. Determine a reasonable timeframe to attempt a second approach to access the property before closing survey and skip the review. Discuss with QC Supervisor or Manager if guidance is needed. Provide comments to explain the situation when a location is not reviewed.

Reasons for skipped review:

- Safety Concern
- Accessibility issues
- All work at location not complete
- Customer concerns or refusal
- Weather
- Other

3. QC Assessment Criteria

QC Specialist performs field review of vegetation surrounding poles for the conditions outlined below.

Question 1: Is there subject equipment present on the pole?

Reference:

TD-7112P-01 – Vegetation Control Procedure Section 7.1.6
TD-7112P-01-JA05 – Subject Equipment Vegetation Control Pole Clearing
TD-7112S – Vegetation Control Standard, Section 3, 4, and 9.

For pictures of all subject equipment, refer to Subject Equipment VC_7112P-01-JA05, California Power Line Fire Prevention Field Guide, Appendix at end of guide, and Powerline Equipment Identification Pocket Guide.



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FUSES			
Universal Fuse (FUUN)	Open Link Fuse (FUOL)	Enclosed Cutout with Universal Fuse (FUUN)	Solid Blade Disconnect (SB)*
In-Line Disconnect (SD) *			
ARRESTERS			
Lighting/Surge Arrester (LA)	Non-Porcelain Lightening Arrester (LA)	Lightening Arrester (LA)	
CLAMPS AND CONNECTORS			
Hot Tap Clamp WITHOUT spring tension (COHT)	Split Bolt Connector * (COSB)	Other Connectors that DO NOT expand or contract (OT)	
SWITCHES			
Grasshopper Air Switch (SWSG)	Transmission Air Switch (SWST)		

Risk Reduction Subject Equipment (Subject Equipment VC 7112P-01-JA05 pages 21-25)

- SMU20 Fuse (FHSM)
- Trip Saver (TRP2)
- Motorized Switch (MSO)
- Viper Reclosure (VIPR)
- Fuse Saver (FUSA)
- B&C Scada-Mate Switch

NOTE:

Risk Reduction Work: Poles in LRAs are worked the same as poles within SRAs, with these exceptions. PG&E has adopted (with exceptions) PRC § 4292 clearing requirements in High Fire-Threat Districts (HFTDs) and High Fire Risk Areas (HFRAs). These additional areas include but are not limited to Local Responsibility Areas (LRAs) within HFTDs, HFRAs, and other non-USFS Federal Responsibility Areas. VC clearing in these areas is considered Risk Reduction work.

- Poles where the only equipment installed are solid blades and/or split bolts are considered low risk.
- Poles with any other type of equipment installed but have been ranked low risk on PG&E's fire risk matrix assessment.
- Poles located outside of USFS of FRA are treated as LRA locations and therefore considered risk reduction work.

Additional poles are included in the inventory, based on PG&E guidance. (e.g. SMU20 fuses). These poles should be managed as Risk Reduction poles regardless of location.

The following applies to all Risk Reduction poles in the VC inventory:

- The VC program will not conduct 1254(c) removals of dead, diseased or dying limbs or foliage from living sound trees for Risk Reduction Work poles. However, the VC program will conduct 1254(c) removals of dead trees in their entirety.

- Select **"Yes"** if there is subject equipment present.
- Select **"No"** if subject equipment is **not present**.
 - Do not proceed with verification (optional for comments and photos).
 - *Solid Blade and Inline Disconnect (SD) will be exempt when used with voltage regulators, reclosers, and/or sectionalizers in all rated locations (14CCR Section 1255)



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- *Idle Split bolts connectors are exempt when idle on the line (Jumpers to idle split bolt connectors are disconnected; do not confuse with energized/de-energized lines).
- Risk Reduction Work poles where the only equipment installed are solid blades and/or splitbolts

NOTE:

Exceptions: When located in LRA, Solid Blade Disconnects and Split Bolts, will be treated as exempt) TD-7112S Vegetation Control Standard section 7.4). These are considered low risk and do not require work.

If Yes: Question 1.1: Is the location of the pole in the HFTD/HFRA?

- Select “**Yes**” if the pole **IS** in HFTD/HFRA.
- Select “**No**” if the pole **IS NOT** in HFTD/HFRA.
- When selecting “No”, do not proceed with verification survey. Optional for comments and photos.
- When any of the HFTD/HFRA designations overlap Local Risk Area (LRA), it is referred to operationally as “Increased Clearance Area” (ICA).
- PG&E is only required to work the United States Forest Service (USFS) portions of the FRAs like SRAs.

NOTE:

Middle of the Road Rule: When a pole is between two responsibility areas where the boundaries of those areas are along roads, highways, streets, railroads, streams, canals or rivers, the actual boundary must be the centerline of the course.

Question 2: Is the VC fire risk rating accurate for Risk Reduction poles?

Reference: TD-7112P-01-JA01 – Fire Risk Assessment: Vegetation Control Pole Clearing Reference: TD-7112P-01 Section 1 Work Cycles.

- Utility Job Aid: Fire Risk Assessment: Vegetation Control Pole Clearing (TD-7112P-01-JA01)
 - Select “**Yes**” if the fire risk rating is accurate.
 - Select “**No**” if the fire risk rating is inaccurate.
 - Select “**N/A**” if the pole is not a Risk Reduction pole.

Question 3: Does Location meet VC scope of work?

NOTE:

QC WILL APPLY PROFESSIONAL JUDGEMENT TO DETERMINE IF THE POLE WAS COMPLETED AS THE CLEAR TYPE INDICATES AT THE TIME OF THE VC TECH CLEAR DATE.



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Reference:

CCR Title 14 – 1254a, 1254b, 1254c:

1254: Minimum Clearance Provisions PRC 4292

- a. At ground level: remove flammable materials, including but not limited to, ground litter, duff and dead or desiccated vegetation that will allow fire to spread.
- b. From 0 – 2.4 m (0–8 feet) above ground level: remove flammable trash, debris or other materials, grass, herbaceous and brush vegetation. Remove all limbs and foliage of living trees up to a height of 2.4 m (8 feet).
- c. From 2.4 m (8 feet) to horizontal plane of highest point of conductor attachment: remove dead, diseased or dying limbs and foliage from living sound trees; remove any dead, diseased or dying trees in their entirety.

For more information refer to: Utility Job Aid: Illustrated Subject Pole Clearing requirements (TD-7112P-01-JA03), Vegetation Control Brochure, and Appendix.

CCR Title 14 - 1255 BMP Partial Sub-Category Definitions

- E-Field/Rows/Crop: Field planted in row crops.
- E-Plow/Cultivated: Plowed or cultivated fields.
- E-Vineyard: Producing vineyards that are plowed or cultivated.
- E-Fallow NonFlame: Field is non-flammable summer fallow.
- E-Irrigation Pstr: Irrigated pastureland
- E-Orchard: Orchards of fruit, nut, or citrus trees that are plowed or cultivated.
- E-Xmas: Christmas tree farms that are plowed or cultivated.
- E-Swamp/Marsh/Bog: Swamp, marsh, or bog land
- E-LT 12in: Where vegetation is maintained less than 12 inches in height, is fire resistant, and is planted and maintained for the specific purpose of preventing soil erosion and fire ignition.
- E-CalFire: Where a qualified CalFire employee writes an exemption letter for a portion or all of the cylinder for a given timeframe.

BMP Clear Types	Description
Clr-ChmTrt	Pole is mechanically cleared and treated with herbicide
Clr-NoChm	Pole is mechanically cleared only
Hardscape	Base of the pole is surrounded by asphalt, concrete, or base rock (no clearing required)
Full Landscape	Used as a software work-around solution to document low risk locations and refusals in Risk Reduction areas (no clearing required/able to be done)
Partial Landscape	Used as a software work-around solution to document when clearing a portion of the cylinder is being refused (clearing required but not able to clear completely to code)
Modified Clear	Reserved for sensitive locations that require special treatment
Full 1255 Exempt	Exempt from clearing requirements per CCR 1255
Partial 1255 Exempt	A Portion of the cylinder is exempt from CCR 1255 (clearing required in remainder of the cylinder)



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TD-7112P-01 – Vegetation Control Procedure Sections 4.1 and 6.2

The VC Field Technician PERFORMS the required work at each designated location during each of the three cycles.

Regrowth and accumulation of debris (leaf litter, trash, etc.) is expected in the cleared Cylinder area after work is completed. The established work cycles are intended to address these materials.

The clearing expectation is the removal or modification of vegetation and other flammable materials for the purpose of preventing the spread of fire via a Continuous Path of fuel leading outside the Cylinder. Continuous Path: For the purposes of this procedure, this phrase provides clarity for language in CCR 1254(a) that states "...that will allow fire to spread." Fire is likely to spread outside of the Cylinder if there is a continuous path of fuel. Healthy lush green regrowth, sporadic newly dropped leaf litter or pinecones found between clearing cycles does not constitute a continuous path of fuel.

The QC Specialist should assess the location and determine if the scope of work was met at the time of clearing. If it appears that the location was properly cleared based on the clear-type, the location should pass. Additional descriptions below are available in section 6.2 Clearing Notes:

- a. *The clearing expectation is the removal or modification of vegetation and other flammable materials for the purpose of preventing the spread of fire via a Continuous Path of fuel leading outside the Cylinder.*
 - b. *Jute Netting (or any other material that PG&E's VASA department has approved) that has been installed for landscaping and erosion control purposes can remain.*
 - c. *Ground disturbing work is NOT performed.*
 1. *Specifically, moss, stumps, stubs, and/or exposed roots can remain.*
 - d. *Stumps remaining within the cleared Cylinder are NOT any higher above ground than 12" on the upper slope. Exceptions may be applied to large stumps if approved by the Regional VPM and should be documented in the system of record.*
 - e. *Mistletoe alone should NOT be listed as a reason for performing 1254(c) work. Mistletoe has been found to have no effect on radial growth or survivorship on many California tree species.*
 - f. *Rhizomes (subterranean plant stems) do not have to be completely removed during clearing activities because ground disturbing work is prohibited.*
- a. Select **"Yes"** if the scope of work criteria HAS been met.
- Radial 0-10 feet (CCR Title 14 1254a):
 - The minimum clearance provisions of PRC 4292 were met on the VC clear date.
 - Risk Reduction poles that are ranked low risk on the Fire Risk Matrix.
 - Vertical 0-8 feet (CCR Title 14 1254b):
 - The minimum clearance provisions of PRC 4292 were met on the VC clear date.
 - Risk Reduction poles that are ranked low risk on the Fire Risk Matrix.
 - Vertical 8 feet to conductor (CCR Title 14 1254c):



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- The minimum clearance provisions of PRC 4292 were met on the VC clear date.
- Risk Reduction poles that are ranked low risk on the Fire Risk Matrix.
- For Risk Reduction Work, there are no entirely dead trees within this portion of the cylinder, only removal of dead trees in their entirety are required.
- b. Select “**No**” if the scope of work criteria has NOT been met.
 - Radial 0-10 feet (CCR Title 14 1254a):
 - Materials (including but not limited to ground litter, duff and dead or desiccated vegetation) within a 10-foot radius of pole at and originating from ground level, which can spread fire outside of cylinder **were not removed** or modified to meet PRC 4292 requirements **on the VC clear date**.
 - Flammable material placed within the cylinder by customer, debris blown in or **vegetation prior to the VC clear date**, which can spread fire outside of cylinder.
 - Vertical 0–8 feet (CCR Title 14 1254b):
 - Be aware of growth after work date.
 - Flammable trash, debris or other materials, grass, herbaceous and brush vegetation **not removed on the VC clear date**.
 - Any limbs and foliage of living trees within 8 feet of ground level, **not removed on the VC clear date**.
 - Vertical 8 feet to conductor (CCR Title 14 1254c):
 - Any dead, diseased, or dying limbs and foliage from 8 feet to horizontal plane of highest point of conductor attachment.
 - For Risk Reduction Work, there are Any entirely dead trees are present within the upper cylinder (8 feet above ground to conductor level).

NOTE:

If the VC Scope of work has been met, but a condition exists where a fire can spread outside of the cylinder. Then provide location details to QC supervisor. These pole locations will be collected and submitted by email to the local VC execution lead and QAP Supervisor on a weekly basis during declared fire season (summer preparedness).

If No, Question 3.1: Does this location meet the scope of work for the lower cylinder?

(Lower cylinder-1254 a, b: From pole to 10 feet [radially] to 8 feet [vertically])

- a. Select “**Yes**” if location meets scope of work.
- b. Select “**No**” if location does not meet scope of work.

If No on question 3, Question 3.2: Does the location meet the scope of work for the upper cylinder?

(Upper cylinder-1254c: 8 feet to conductor)

- a. Select “**Yes**” if location meets scope of work.
- b. Select “**No**” if location does not meet scope of work.

Definitions

Professional Judgment – A process used to reach a well-reasoned conclusion that is based on the relevant facts and circumstances available at the time of the conclusion. A fundamental part of the process is the involvement of individuals with sufficient knowledge and experience. Professional judgment involves the identification, without bias, of reasonable alternatives, therefore, careful and objective consideration of information that may seem contradictory to a conclusion is key to its application.



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Comments and Photos:

a. Comments:

- Include comments to briefly describe details of finding(s) for each pole location.
- For locations that did not meet scope of work, include a comment indicating the portion of the cylinder that did not meet scope, (1254a, 1254b, or 1254c)
- You may enter up to 2000 characters into the comments box to help explain the finding.

b. Photos:

- If desired, include up to 6 photos for each pole that has findings. You may upload up to 6 photos. Add enough photos to adequately explain the finding. Review pictures before leaving the site. One photo should show the pole number, another for the finding (e.g., equipment, vegetation around pole, site conditions). Make sure the photo of the finding shows the issue and use available tools to help depict the issue such as a measuring tape.

4. Abnormal Field Conditions:

Refer to Reporting Abnormal Field Conditions Procedure (TD-7102P-09). Add comments in the survey to indicate an abnormal condition was reported.

Immediate risk abnormal field conditions are to be reported: Call 1-866-411-4743 and refer to Reporting Abnormal Field Conditions Procedure (TD-7102P-09).

Non-immediate risk abnormal field conditions are to be submitted via email:

restorationdispatchtagcreationrequest@pge.com

End of Instructions

Appendix



Threads



Compare with Non-Exempt Hot Tap Clamps

Solid Blade Disconnect



Note: Solid Blade Disconnects are exempt under certain circumstances.

Universal Fuse



Round Pull Ring



Fusible Link

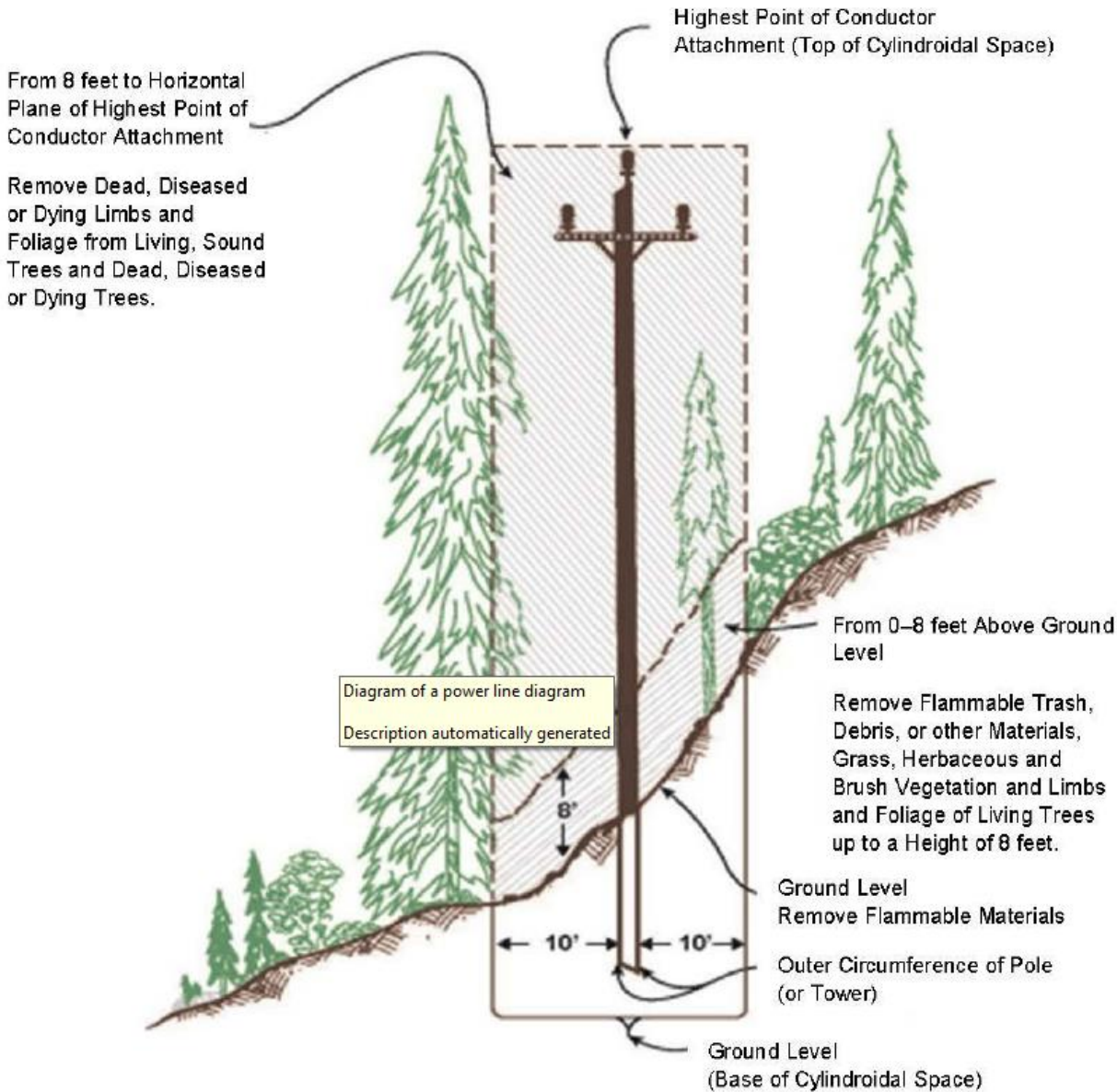


Figure 11: PRC 4292 and 14 CCR 12514 Fire Break Clearance Requirements around poles and towers California Power Line Fire Prevention Field Guide: Exemptions, Statutes, Regulations, and State Laws, 2021, page 37.

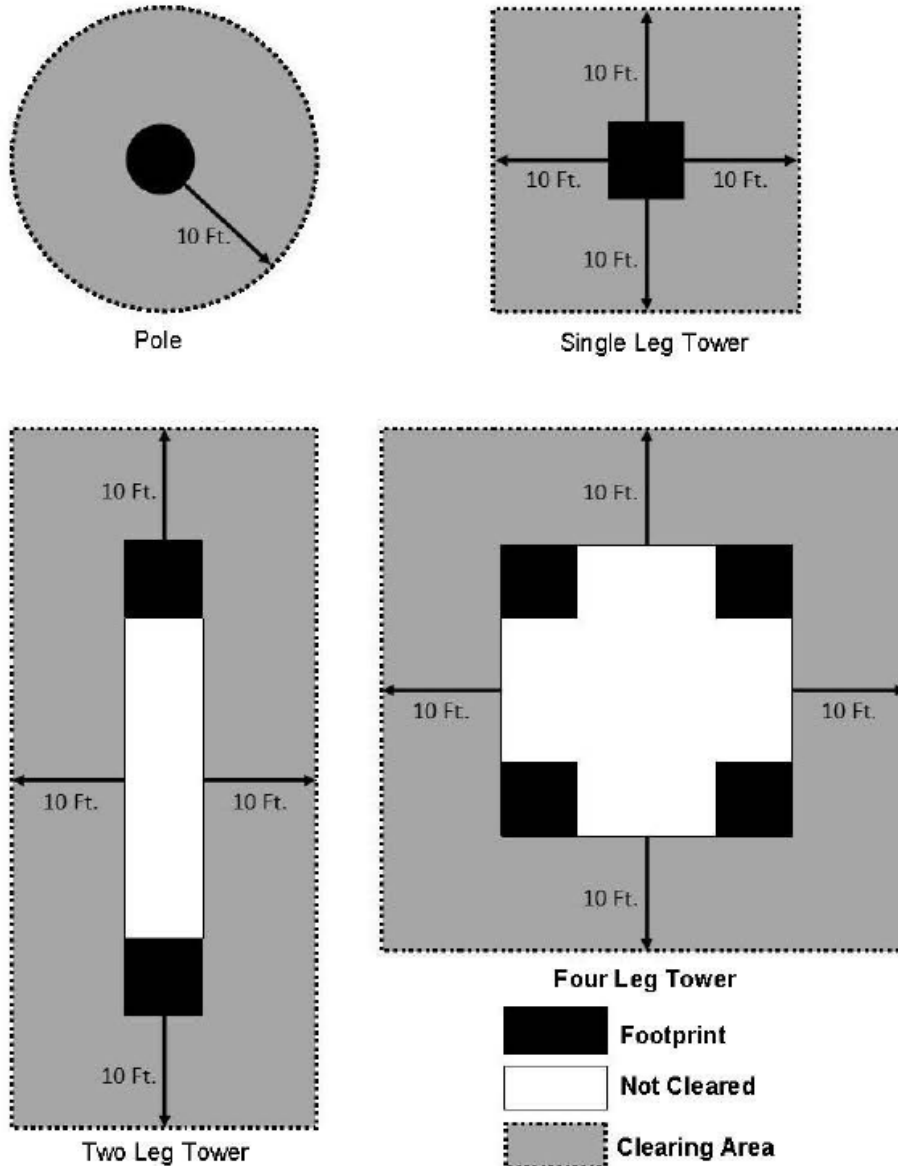


Figure 10: PRC 4292 and 14 CCR 1251 Definition of Outer Circumference Examples (Plan View at Ground Level), California Power Line Fire Prevention Field Guide: Exemptions, Statutes, Regulations, and State Laws, 2021, page 36



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Approval Requirements

Approval from QC leadership is required.

Revision Requirements

- Editorial changes – any update that does not change requirements in a document does not require reapproval.
- Requirement changes – any update that changes requirements in a document, requires the document to be reapproved.

Revision Notes

Rev #	Date	Description
0	06/14/2023	Original Publication
01	09/20/2023	Text and formatting revisions
02	02/26/2024	Remove ANSI finding question, remove timing requirement, text, and formatting revisions, clarified only review subject poles in HFTD/HFRA.
03	04/08/2024	On pg. three prior to Question 1.1, added Note Box: Exceptions...; Changed HFRA to HFRA/HFTD throughout document.
04	7/03/2024	TD 7112S and TD-7112P were updated this revision includes updates to reflect changes in the VC Standard and Procedure. Updated non-exempt to "subject" as defined in the July 3rd update to TD 7112S and TD-7112P.

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