

1 **Board of Forestry and Fire Protection**
2 **Title 14 of the California Code of Regulations (14 CCR),**
3 **Division 1.5, Chapter 7, Article 4**
4 **Utility Clearance Exemptions, 2019**

5
6 § 1250. Purpose.

7 The purpose of Article 4 is to provide specific exemptions from: electric pole and tower
8 ~~f~~Firebreak clearance standards, electric ~~e~~Conductor clearance standards, and to specify
9 when and where the standards apply.

10 Note: Authority cited: Sections 4292 and 4293, Public Resources Code. Reference:
11 Sections 4292-4296, Public Resources Code.

12
13 § 1251. Definitions.

14 ~~The following definitions apply to this Article unless the context requires otherwise.~~

15 ~~Defined word or phrase~~

16 “CAL FIRE” means the California Department of Forestry and Fire Protection.

17 “Conductor” means connector, a wire, or a combination of wires, and/or any other
18 appliance designed and manufactured for use in the transmission and distribution of
19 electrical current.

20 “Connector” means a device approved for energized electrical connections.

21 “Department-approved” means a piece of equipment approved by the Office of the State
22 Fire Marshal.

23 “Director” means the director of CAL FIRE.

24 “Duff” means partially decayed leaves, needles, grass or other organic material
25 accumulated on the ground.

1 “Firebreak” means a natural or artificial barrier usually created by the removal or
2 modification of vegetation and other flammable materials for the purpose of preventing
3 spread of fire.

4 “Hot Line Tap or Clamp Connector” means a Connector designed to be used with a
5 Grip-All Clamp stick (Shotgun) for connecting equipment jumper or tap Conductors to
6 an energized main line or running Connector.

7 “Insulated Conductors” mean supply conductors which are surrounded by an insulating
8 material, the dielectric strength of which is sufficient to withstand the maximum
9 difference of potential at normal operating voltages of the circuit without breakdown or
10 puncture. A weather-resistant covering of a supply conductor does not qualify as an
11 Insulated Conductor if it does not satisfy the dielectric strength requirement.

12 “Load Break Tool” means a tool used to safely open or close a circuit by controlling
13 the arc that is created, and is designed to interrupt the current involved.

14 “Outer Circumference” means the exterior surface of a pole or tree at ground level or a
15 series of straight lines tangent to the exterior of the legs of a tower at ground level. (See
16 Figure 1, § 1258 this Article.)

17 “Qualified Worker” means the same as section 1910.399 of the federal Occupational
18 Safety and Health Standards.

19 ~~“Self-supporting aerial cable” means an assembly of abrasion resistant insulated~~
20 ~~conductors supported by a messenger cable which is normally grounded, designed and~~
21 ~~manufactured to carry electrical current for installation on overhead pole lines or other~~
22 ~~similar overhead structures.~~

23 ~~“Tree wire” means an insulated conductor covered with a high abrasion resistant,~~
24 ~~usually non-metallic, outer covering, designed and manufactured to carry electrical~~
25 ~~current for installation on overhead pole lines or other similar overhead structures.~~

1 Note: Authority cited: Sections 4292-4293, Public Resources Code. Reference:
2 Sections 4292-4296, Public Resources Code, Section 1910.399, Federal Occupational
3 Safety and Health Standards.

4
5 § 1252.1. Official Area Maps.

6 The official maps of State Responsibility Areas defined in 14 CCR § 1220 are available
7 for viewing and copying during normal business hours at the California Department of
8 Forestry and Fire Protection (CAL FIRE), 1416 Ninth Street, Sacramento, California,
9 95814, in the Fire Protection Section. The official maps are also available on the CAL
10 FIRE Fire Resource and Assessment Program webpage.

11 ~~When, pursuant to PRC 4125-4128, the Board revises State Responsibility Area~~
12 ~~boundaries, the Director will forward a legal description of a boundary change(s) to the~~
13 ~~respective electric utility(s) serving the area(s).~~

14 Note: Authority cited: Sections 4292, 4293, Public Resources Code. Reference:
15 Sections 4125-4128, 4292, 4293, Public Resources Code.

16
17 § 1252.3. Boundary Location -Section Lines, Etc.

18 Where the boundaries of the area described in 14 CAC 1252 are on section, township
19 or range lines, or on powerline rights-of-way, the poles, towers and eConductors located
20 thereon are within the area described.

21 Note: Authority cited: Sections 4292 and 4293, Public Resources Code. Reference:
22 Sections 4125-4128, 4292 and 4293, Public Resources Code.

1 § 1253. Time When PRC 4292-4296 Apply.

2 The minimum ~~f~~Firebreak and clearance provisions ~~in~~ of PRC 4292-4296 are applicable
3 ~~during when declared-CAL FIRE requires burn permits as described in PRC 4423,~~
4 ~~including when burn permits are suspended.~~ fire season for a respective county. The
5 ~~Director shall post the declaration on the official Department web site.~~

6 Note: Authority cited: Sections 4292 and 4293, Public Resources Code. Reference:
7 Sections 4125-4128, 4292 and 4293, Public Resources Code.

8
9 § 1254. Minimum Clearance Provisions - PRC 4292.

10 The ~~f~~Firebreak clearances required by PRC 4292 are applicable within an imaginary
11 cylindroidal space surrounding each pole or tower on which a switch, fuse, transformer
12 or lightning arrester is attached and surrounding each dead end or corner pole unless
13 such pole or tower is exempt from minimum clearance requirements by provisions of 14
14 CCR 1255 or PRC 4296. The radius of the cylindroid is 3.1 m (10 feet) measured
15 horizontally from the ~~e~~Outer ~~e~~Circumference of the specified pole or tower with height
16 equal to the distance from the intersection of the imaginary vertical exterior surface of
17 the cylindroid with the ground to an intersection with a horizontal plane passing through
18 the highest point at which a conductor is attached to such pole or tower. (See Figure 2 ~~§~~
19 ~~1258 this Article.~~) Flammable vegetation and materials located wholly or partially within
20 the ~~f~~Firebreak space shall be treated as follows:

21 (a) At ground level -remove flammable materials, including but not limited to, ground
22 litter, ~~d~~Duff and dead or desiccated vegetation that will allow fire to spread, and;

23 (b) From 0-2.4 m (0-8 feet) above ground level -remove flammable trash, debris or other
24 materials, grass, herbaceous ~~herbaceous~~ and brush vegetation. All limbs and foliage of
25 living trees shall be removed up to a height of 2.4 m (8 feet).

1 (c) From 2.4 m (8 feet) to horizontal plane of highest point of conductor attachment -
2 remove dead, diseased or dying limbs and foliage from living sound trees and any dead,
3 diseased or dying trees in their entirety.

4 Note: Authority cited: Section 4292, Public Resources Code. Reference: Section 4292,
5 Public Resources Code.

6
7 § 1255. Exemptions to Minimum Clearance Provisions -PRC 4292.

8 The minimum clearance provisions of PRC 4292 are not required around poles and
9 towers, including line junction, corner and dead end poles and towers:

10 (a) Where all conductors are continuous over or through a pole or tower; or

11 (b) Where fire will not propagate in the following areas:

12 (1) fields planted to row crops;

13 (2) plowed or cultivated fields;

14 (3) producing vineyards that are plowed or cultivated;

15 (4) fields in nonflammable summer fallow;

16 (5) irrigated pasture land;

17 (6) orchards of fruit, nut, or citrus trees that are plowed or cultivated;

18 (7) Christmas tree farms that are plowed or cultivated; and

19 (8) swamp, marsh or bog land; or

20 (c) Where vegetation compatible with surrounding utility infrastructure is planted or
21 maintained for the specific purpose(s) of protecting sensitive habitat; preventing soil
22 erosion; or aesthetics or residential landscape improvement, the vegetation shall be of
23 types that are fire-retardant or fire-resistant (such as rockrose, ice plant, or aloe;
24 hedging roses, bush honeysuckles, or California lilac; or those recommended by a
25

1 county's University of California Cooperative Extension Specialist), and shall be
2 maintained or modified at an appropriate height to eliminate ladder fuels.

3 (bd) Where all eConductors are not continuous over or through a pole or tower,
4 provided, all eConductors and subordinate equipment are of the types listed below and
5 are properly installed, maintained, and used for the purpose for which they were
6 designed and manufactured;

7 (1) compression eConnectors,

8 (2) automatic eConnectors that are not splices,

9 (3) parallel groove eConnectors,

10 (4) hHot lLine tTap or eClamp eConnectors that were designed to absorb any expansion
11 or contraction by applying spring tension on the main line or running eConductor and
12 tap eConductor,

13 (5) ~~Fargo GA 300 series~~ piercing eConnectors, designed and manufactured for
14 Insulated Conductors, use with tree wire,

15 (6) flat plate eConnectors installed with not less than two bolts,

16 (7) tapered C-shaped member and wedge eConnectors,

17 (8) automatic dead-ends,

18 ~~(89)~~ solid blade single phase bypass switches and solid blade single phase disconnect
19 switches associated with circuit reclosers, sectionalizers, and line regulators, or when
20 solid blade single phase bypass switches and solid blade single phase disconnect
21 switches are operated by a Qualified Worker using a Load Break Tool,

22 ~~(910)~~ equipment that is completely sealed and liquid-filled; or uses Vacuum Interrupter
23 (VI) technology; or uses air insulation technology with Department-approved spark
24 prevention units.

25 ~~(4011)~~ current limiting non-expulsion fuses, ~~or~~

1 (12) pole line hardware that does not carry current, or

2 (13) lightning/surge protection devices with Department-approved spark prevention
3 units.

4 ~~(c) On the following areas if fire will not propagate thereon;~~

5 ~~(1) fields planted to row crops;~~

6 ~~(2) plowed or cultivated fields;~~

7 ~~(3) producing vineyards that are plowed or cultivated;~~

8 ~~(4) fields in nonflammable summer fallow;~~

9 ~~(5) irrigated pasture land;~~

10 ~~(6) orchards of fruit, nut or citrus trees that are plowed or cultivated;~~

11 ~~(7) Christmas tree farms that are plowed or cultivated; and~~

12 ~~(8) swamp, marsh or bog land; or~~

13 ~~(d) Where vegetation is maintained less than 30.48 cm (12 inches) in height, is fire~~
14 ~~resistant, and is planted and maintained for the specific purpose of preventing soil~~
15 ~~erosion and fire ignition.~~

16 Note: Authority cited: Section 4292, Public Resources Code. Reference: Section 4292,
17 Public Resources Code, Section 1910.399, Federal Occupational Safety and Health
18 Standards.

19
20 § 1256. Minimum Clearance Provisions -PRC 4293.

21 Minimum clearance required by PRC 4293 shall be maintained with the specified
22 distances measured at a right angle to the conductor axis at any location outward
23 throughout an arc of 360 degrees. (See Figure 3 § 1258this Article.)

24 Minimum clearance shall include:
25

1 (1) any position through which the eConductor may move, considering, among other
2 things, the size and material of the eConductor and its span length;

3 (2) any position through which the vegetation may sway, considering, among other
4 things, the climatic conditions, including such things as foreseeable wind velocities and
5 temperature, and location, height and species of the vegetation.

6 Note: Authority cited: Section 4293, Public Resources Code. Reference: Sections 4293
7 and 4296, Public Resources Code.

8
9 § 1257. Exempt Minimum Clearance Provisions - PRC 4293.

10 (a) The minimum clearance provisions of PRC 4293 applicable in State Responsibility
11 Areas are exempted where Conductors are:

12 ~~(1) Where conductors are:~~

13 ~~(A) insulated tree wire, maintained with the high density, abrasion resistant outer
14 covering intact, or~~

15 ~~(B) insulated self-supporting aerial cable, maintained with the insulation intact, or~~

16 ~~(C1) supported by sound and living tree trunks from which all dead or decadent
17 branches have been removed.~~

18 (i) Where Conductor spans are newly constructed or re-constructed after July 1,
19 2020 in the California Public Utility Commission High Fire Threat District Tiers 2
20 and 3, they shall not be attached to or supported by tree trunks.

21 (ii) All Conductors shall be removed and fastened to free-standing poles by July
22 1, 2025, or otherwise in accordance with a timeline approved by the Director.

23 Reports on the implementation of this section shall be submitted with the report
24 required in 14 CCR 1257(c).

25 (2) On areas described in 14 CCR 1255(ea), or

1 (3) For mature trees (“Exempt Trees”) whose trunks and major limbs are located more
2 than six (6) inches, but less than the distance required for clearance by PRC 4293, from
3 primary distribution equipment (Conductor and energy carrying hardware, generally less
4 than 35 kilovolts).

5 (bA) Exempt Trees must meet all of the following criteria, as confirmed by a Certified
6 Arborist or a Registered Professional Forester:

7 (1)- The tree or limb must be six (6) inches or more from the line at all times.

8 (2)- The size of the tree or limb at the Conductor level must be at least six (6) inches in
9 diameter.

10 (3)- The tree must not have “scaffold branches,” below eight and one-half feet from the
11 ground (so the tree can not be easily climbed).

12 (cB) All Utility Companies with primary distribution Conductors in State Responsibility
13 Areas (SRA) of California shall:

14 (1)- Inspect Exempt Trees annually to verify they continue to meet the criteria in 14 CCR
15 1257(a)(3).

16 (2)- Maintain a database of information about Exempt Trees that includes 1) location,
17 using the format of latitude/longitude in decimal degrees (DDD.DDDD Datum WGS84);

18 2) species; and 3) last date of inspection. If any Utility does not currently maintain such
19 a database it must establish one and provide its initial report to CAL FIRE by July 1,
20 2013. Utilities may request, and the Director may approve, an extension of time in which
21 to achieve compliance with this reporting requirement.

22 (3)- Report the information required pursuant to 14 CCR 1257(c)(~~a~~)(~~B~~)(2) above, in an
23 electronically searchable format, annually to CAL FIRE by July 1 of each year for the
24 previous calendar year.

1 (4)- When constructing, installing, replacing, or maintaining primary distribution
2 equipment, prevent the creation of new Exempt Trees, to the extent feasible.

3 (d) Where there are site specific indications that a Conductor has or will come into
4 contact with an Exempt Tree, or portion thereof as described above, the condition will
5 be corrected either by altering the tree or by applying an engineering solution, such as a
6 non-conductive cross arm. The actions taken will be documented in that utility's Exempt
7 Tree database.

8 (e) When subordinate elements, such as tree anchors, are fastened to living, sound
9 trees, the requirements of PRC 4292 and 4293 shall apply the same as to a pole or
10 tower line.

11 (f) These exemptions do not apply to trees subject to injury, disease, death, or insect
12 or fungus attacks. "Hazard Trees" as identified and explained on pages 1-20 through 1-
13 24 in the Department's "Powerline Fire Prevention Field Guide" dated November 2008
14 and posted on the Department's website at:

15 <http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fppguidepdf126.pdf>.

16 Note: Authority cited: Sections 4111 and 4293, Public Resources Code. Reference:
17 Sections 4293 and 4296, Public Resources Code.

18
19 § 1258. Tree Lines. Figures

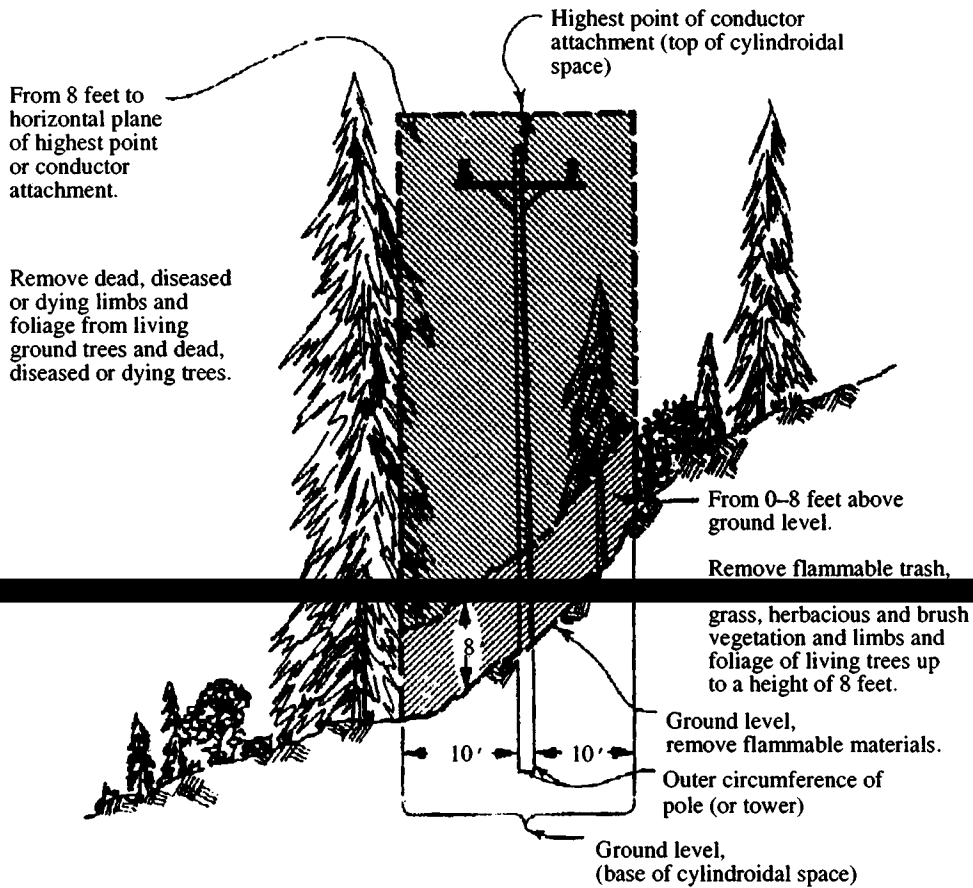
20 ~~When electric conductors and subordinate elements are fastened to living, sound trees,~~
21 ~~commonly referred to as tree lines, the requirements of PRC 4292 and 4293 shall apply~~
22 ~~the same as to a pole or tower line.~~

23 Figure 1-Image 1 within § 1258. Tree Lines.

24 *****No change to this image*****

Figure 2-Image 2 within § 1258. Tree Lines.

Figure 2



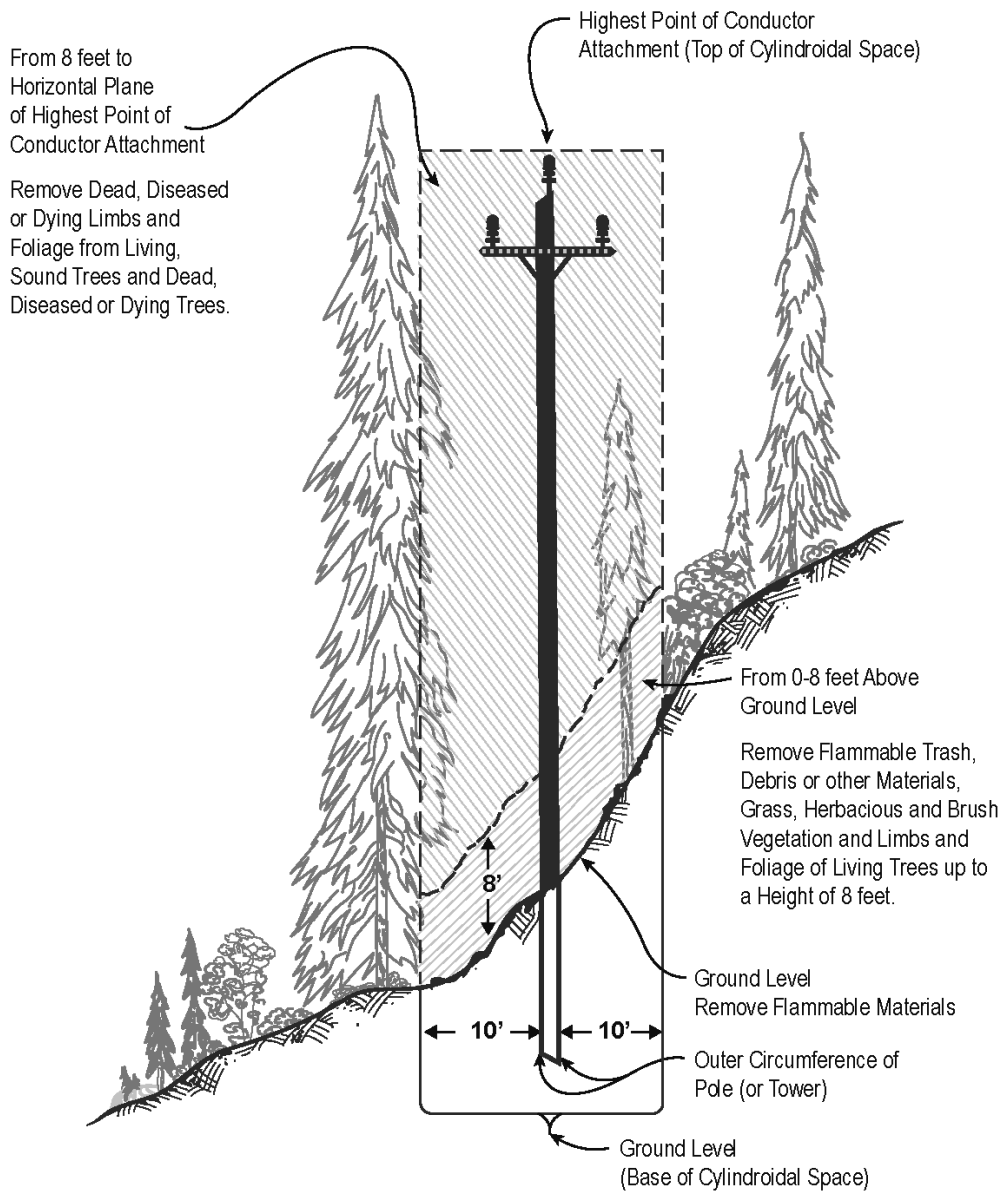
ELEVATION VIEW

PRC 4292
14 CAC 1254

**FIRE BREAK CLEARANCE
REQUIREMENTS
AROUND POLES AND TOWERS**

APRIL 1980

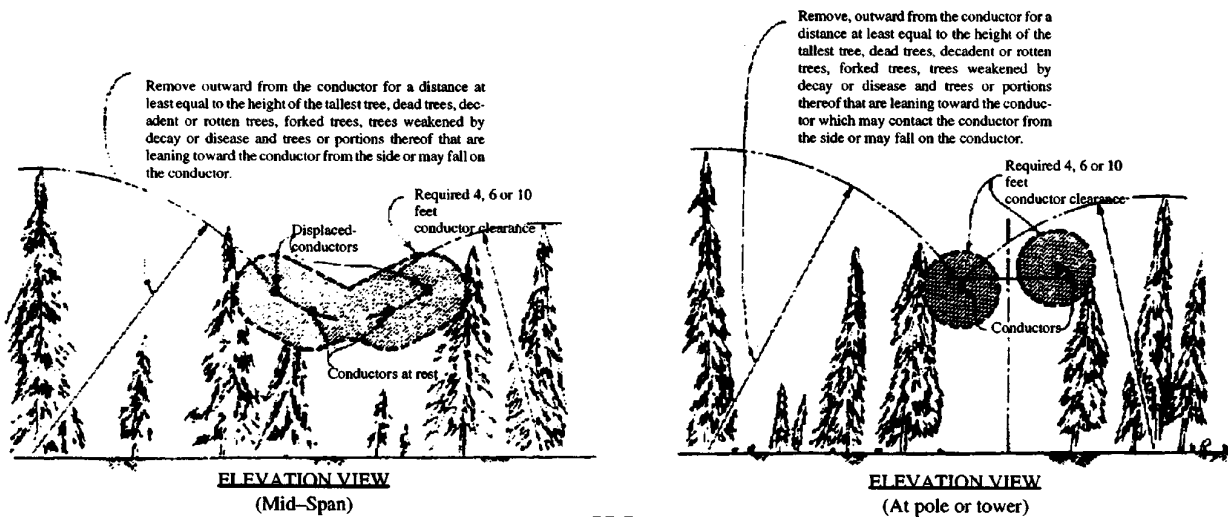
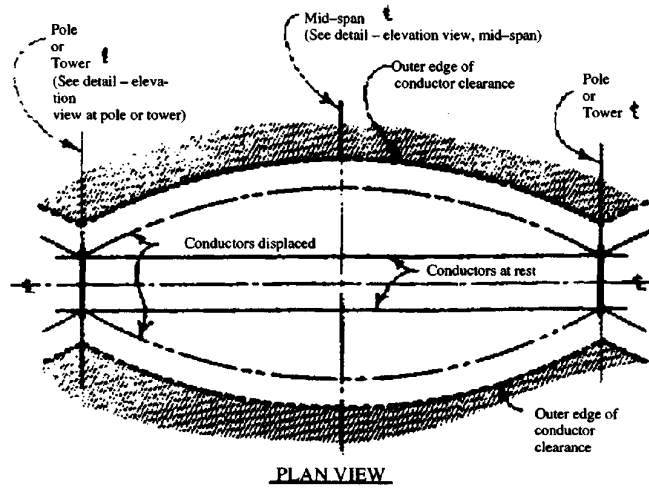
PRC 4292
14 CCR 1254
Fire Break Clearance Requirements
Around Poles and Towers



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1 Figure 3 Image 3 within § 1258. Tree Lines.

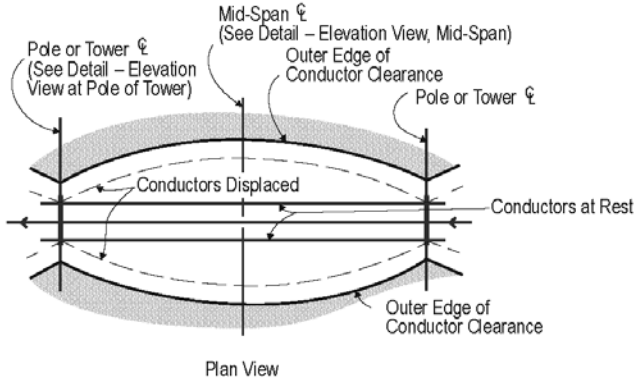
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4 Figure 3



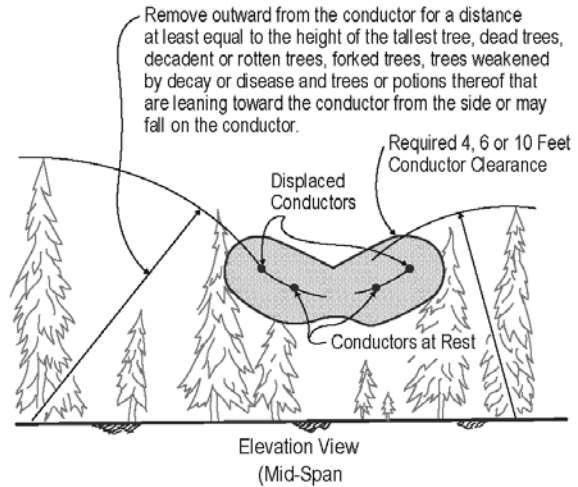
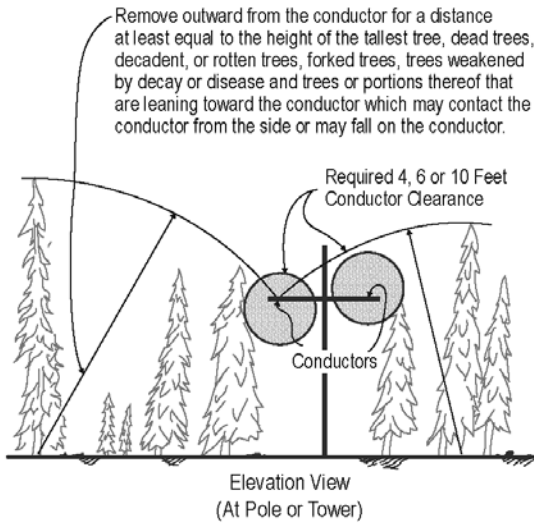
23 PRC
14 CAC 1256
CONDUCTOR CLEARANCE

24 April 1980

PRC 4293
14 CCR 1256
Conductor Clearance



Plan View



Note: Authority cited: Sections 4292 and 4293, Public Resources Code. Reference: Sections 4292, 4293, and 4296, Public Resources Code.

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