

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

5
6 § 1251. Definitions.

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

9 ~~Defined word or phrase~~

10 "Conductor" means connector, a wire, or a combination of wires, and/or any
11 other appliance designed and manufactured for use in the transmission and
12 distribution of electrical current.

13 "Connector" means a device approved for energized electrical connections.

14 "Department-approved" means a piece of equipment approved by the Office of
15 the State Fire Marshal.

16 "Duff" means partially decayed leaves, needles, grass or other organic
17 material accumulated on the ground.

18 "Firebreak" means a natural or artificial barrier usually created by the
19 removal or modification of vegetation and other flammable materials for the
20 purpose of preventing spread of fire.

21 "Hot line tap or clamp connector" means a connector designed to be used with
22 a Grip-All Clamp stick (Shotgun) for connecting equipment jumper or tap
23 conductors to an energized main line or running connector.

24 "Insulated conductors" mean supply conductors which are surrounded by an
25 insulating material, the dielectric strength of which is sufficient to
withstand the maximum difference of potential at normal operating voltages of

1 the circuit without breakdown or puncture. A weather-resistant covering of a
2 supply conductor does not qualify as an insulated conductor if it does not
3 satisfy the dielectric strength requirement.

4 "Load break tool" means a tool used to safely open or close a circuit by
5 controlling the arc that is created, and is designed to interrupt the current
6 involved.

7 "Outer Circumference" means the exterior surface of a pole or tree at ground
8 level or a series of straight lines tangent to the exterior of the legs of a
9 tower at ground level. (See Figure 1, this Article.)

10 "Qualified Electrical Worker (QEW)" means a worker who has received training
11 in and has demonstrated skills and knowledge in the construction,
12 maintenance, and/or and operation of electric equipment and installations and
13 the hazards involved.

14 "Self-supporting aerial cable" means an assembly of abrasion resistant
15 insulated conductors supported by a messenger cable which is normally
16 grounded, designed and manufactured to carry electrical current for
17 installation on overhead pole lines or other similar overhead structures.

18 ~~"Tree wire" means an insulated conductor covered with a high abrasion~~
19 ~~resistant, usually non-metallic, outer covering, designed and manufactured to~~
20 ~~carry electrical current for installation on overhead pole lines or other~~
21 ~~similar overhead structures.~~

22 Note: Authority cited: Sections 4292-4293, Public Resources Code. Reference:
23 Sections 4292-4296, Public Resources Code.

24
25 § 1252.1. Official Area Maps.

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

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

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

12
13 § 1253. Time When PRC 4292-4296 Apply.

14 The minimum firebreak and clearance provisions of PRC 4292-4296 are
15 applicable ~~during when~~ the declared California Department of Forestry and
16 Fire Protection requires burn permits as described in PRC 4423. These
17 requirements are applicable when burn permits are suspended. ~~fire season for~~
18 ~~a respective county. The Director shall post the declaration on the official~~
19 ~~Department web site.~~

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

21 Reference: Sections 4125-4128, 4292 and 4293, Public Resources Code.

22
23 § 1254. Minimum Clearance Provisions - PRC 4292.

24 The firebreak clearances required by PRC 4292 are applicable within an
25 imaginary cylindroidal space surrounding each pole or tower on which a
switch, fuse, transformer or lightning arrester is attached and surrounding

1 each dead end or corner pole unless such pole or tower is exempt from minimum
2 clearance requirements by provisions of 14 CCR 1255 or PRC 4296. The radius
3 of the cylindroid is 3.1 m (10 feet) measured horizontally from the outer
4 circumference of the specified pole or tower with height equal to the
5 distance from the intersection of the imaginary vertical exterior surface of
6 the cylindroid with the ground to an intersection with a horizontal plane
7 passing through the highest point at which a conductor is attached to such
8 pole or tower. (See Figure 2 this Article.) Flammable vegetation and
9 materials located wholly or partially within the firebreak space shall be
10 treated as follows:

11 (a) At ground level -remove flammable materials, including but not limited
12 to, ground litter, duff and dead or desiccated vegetation that will allow
13 fire to spread, and;

14 (b) From 0-2.4 m (0-8 feet) above ground level -remove flammable trash,
15 debris or other materials, grass, herbacious and brush vegetation. All limbs
16 and foliage of living trees shall be removed up to a height of 2.4 m (8
17 feet).

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

21 Note: Authority cited: Section 4292, Public Resources Code. Reference:
22 Section 4292, Public Resources Code.

23
24 § 1255. Exemptions to Minimum Clearance Provisions -PRC 4292.

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

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

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

3 (1) fields planted to row crops;

4 (2) plowed or cultivated fields;

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

6 (4) fields in nonflammable summer fallow;

7 (5) irrigated pasture land;

8 (6) orchards of fruit, nut, or citrus trees that are plowed or

9 cultivated;

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

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

12 (c) Where vegetation compatible with surrounding utility infrastructure is

13 planted or maintained for the specific purpose(s) of

14 (1) protecting sensitive habitat;

15 (2) preventing soil erosion; or

16 (3) aesthetics or residential landscape improvement,

17 the vegetation shall be of types that reduce the risk of fire ignition and

18 rapid fire spread, and shall be maintained or modified at an appropriate

19 height to eliminate ladder fuels.

20 (d) Where all conductors are not continuous over or through a pole or tower,

21 provided, all conductors and subordinate equipment are of the types listed

22 below and are properly installed, maintained, and used for the purpose for

23 which they were designed and manufactured.

24 (1) compression connectors,

25 (2) automatic dead-ends, ~~connectors,~~

(3) parallel groove connectors,

- 1 (4) hot line tap or clamp connectors that were designed to absorb any
2 expansion or contraction by applying spring tension on the main line or
3 running conductor and tap connector,
- 4 (5) ~~Fargo GA 300 series~~ piercing connectors designed and manufactured for
5 use with ~~tree wire~~ covered and/or insulated conductors,
- 6 (6) flat plate connectors installed with not less than two bolts,
- 7 (7) tapered C-shaped member and wedge connectors,
- 8 (8) solid blade single phase bypass switches and solid blade single phase
9 disconnect switches associated with circuit reclosers, sectionalizers, and
10 line regulators or, when operated by a Qualified Electrical Worker using a
11 Load Break Tool,
- 12 (9) equipment that is completely sealed and
13 (i) liquid-filled, or
14 (ii) use Vacuum Interrupter (VI) technology, or
15 (iii) use air insulation technology with Department-approved spark
16 prevention units.
- 17 (10) current limiting non-expulsion fuses, ~~or~~
- 18 (11) pole line hardware that does not carry current, or
- 19 (12) lightning/surge protection devices with Department-approved spark
20 prevention units.
- 21 ~~(c) On the following areas if fire will not propagate thereon;~~
- 22 ~~(1) fields planted to row crops;~~
- 23 ~~(2) plowed or cultivated fields;~~
- 24 ~~(3) producing vineyards that are plowed or cultivated;~~
- 25 ~~(4) fields in nonflammable summer fallow;~~
- ~~(5) irrigated pasture land;~~

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

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

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

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

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

8 Section 4292, Public Resources Code.

9
10 § 1256. Minimum Clearance Provisions -PRC 4293.

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

14 Minimum clearance shall include:

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

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

21 Note: Authority cited: Section 4293, Public Resources Code. Reference:

22 Sections 4293 and 4296, Public Resources Code.

23
24 § 1257. Exempt Minimum Clearance Provisions - PRC 4293.

25 (a) The minimum clearance provisions of PRC 4293 applicable in State
Responsibility Areas are exempted:

1 (1) Where conductors are:

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

4 (B) insulated self-supporting aerial cable systems, maintained with the
5 insulation and the high density, abrasion resistant, outer covering intact,
6 or

7 (C) supported by sound and living tree trunks from which all dead or decadent
8 branches have been removed. Where conductor spans are newly constructed,
9 repaired, or upgraded after July 1, 2020 in the CPUC HFTD Tiers 2 and 3, they
10 shall not be attached to or supported by tree trunks.

11 (~~D2~~) On areas described in 14 CCR 1255(c).

12 (~~23~~) For mature trees ("Exempt Trees") ~~whose~~ where the outer edge of trunks
13 and major limbs are located more than six (6) inches, but less than the
14 distance required for clearance by PRC 4293, from primary distribution
15 equipment (conductor and energy carrying hardware, generally less than 35
16 kilovolts).

17 (A) Exempt Trees must meet all of the following criteria, as confirmed by a
18 Certified Arborist or a Registered Professional Forester:

19 1. The outer edge of the tree or limb must be six (6) inches or more from the
20 line at all times.

21 2. The size of the tree or limb at the conductor level must be at least six
22 (6) inches in diameter.

23 3. The tree must not have "scaffold branches," below eight and one-half feet
24 from the ground (so the tree can not be easily climbed).

25 (B) All Utility Companies with primary distribution conductors in State
Responsibility Areas (SRA) of California shall:

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

3 2. Maintain a database of information about Exempt Trees that includes 1)
4 location, using the format of latitude/longitude in decimal degrees (DDD.DDDD
5 Datum WGS84); 2) species; and 3) last date of inspection. If any Utility does
6 not currently maintain such a database it must establish one and provide its
7 initial report to CAL FIRE by July 1, 2013. Utilities may request, and the
8 Director may approve, an extension of time in which to achieve compliance
9 with this reporting requirement.

10 3. Report the information required pursuant to 14 CCR 1257(a)(B)(2) above, in
11 an electronically researchable format, annually to CAL FIRE by July 1 of each
12 year for the previous calendar year.

13 4. When constructing, installing, replacing, or maintaining primary
14 distribution equipment, prevent the creation of new Exempt Trees, to the
15 extent feasible.

16 (C) Where there are site specific indications that a conductor has or will
17 come into contact with an Exempt Tree, or portion thereof as described above,
18 the condition will be corrected either by altering the tree or by applying an
19 engineering solution, such as a non-conductive cross arm. The actions taken
20 will be documented in that utility's Exempt Tree database.

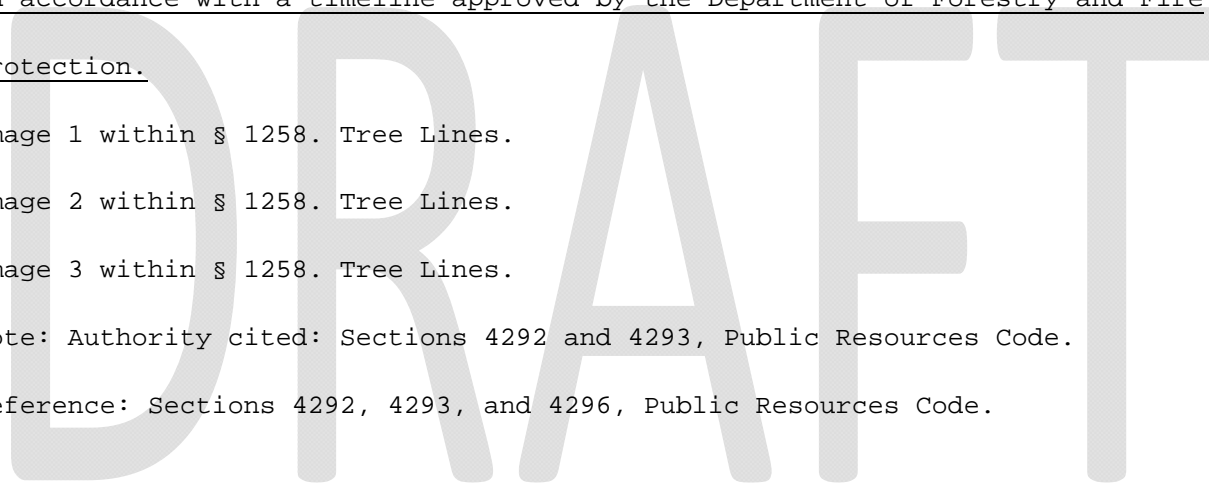
21 (b) These exemptions do not apply to hazardous trees subject to injury,
22 disease, death, or insect or fungus attacks. ~~"Hazard Trees" as identified and~~
23 ~~explained on pages 1-20 through 1-24 in the Department's "Powerline Fire~~
24 ~~Prevention Field Guide" dated November 2008 and posted on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

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

1 Note: Authority cited: Sections 4111 and 4293, Public Resources Code.
2 Reference: Sections 4293 and 4296, Public Resources Code.
3
4 § 1258. Tree Lines.
5 When electric conductors and subordinate elements are fastened to living,
6 sound trees, commonly referred to as tree lines, the requirements of PRC 4292
7 and 4293 shall apply the same as to a pole or tower line. All tree line shall
8 be removed and fastened to free-standing poles by July 1, 2022, or otherwise
9 in accordance with a timeline approved by the Department of Forestry and Fire
10 Protection.

11 Image 1 within § 1258. Tree Lines.
12 Image 2 within § 1258. Tree Lines.
13 Image 3 within § 1258. Tree Lines.

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



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