

**General Order
Number 165**

Prescribed by the
Public Utilities Commission
of the
State Of California

California Public Utilities Commission
505 Van Ness Avenue
San Francisco, Ca 94102

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Public Utilities Commission of the State of California Inspection Requirements for Electric Distribution and Transmission Facilities

Adopted March 31, 1997

Effective March 31, 1997

(D.97-03-070 in I.95-02-015 and R.96-11-004)

Amended August 20, 2009 by D.09-08-029 in R.08-11-005

Amended January 12, 2012 by D.12-01-032 in R.08-11-005

I. Purpose

The purpose of this General Order is to establish requirements for electric distribution and transmission facilities (excluding those facilities contained in a substation) regarding inspections in order to ensure safe and high-quality electrical service.

II. Applicability

This General Order applies to all electric distribution and transmission facilities (excluding those facilities contained in a substation) that come within the jurisdiction of this Commission, located outside of buildings, including electric distribution and transmission facilities that belong to non-electric utilities. The requirements of this order are in addition to the requirements imposed upon utilities under General Orders 95 and 128 to maintain a safe and reliable electric system. Nothing in this General Order relieves any utility from any requirements or obligations that it has under General Orders 95 and 128.

This General Order does not apply to facilities of communication infrastructure providers.

III. Distribution Facilities

A Definitions

For the purpose of this General Order,

- (1) **"Urban"** shall be defined as those areas with a population of more than 1,000 persons per square mile as determined by the United States Bureau of the Census.
- (2) **"Rural"** shall be defined as those areas with a population of less than 1,000 persons per square mile as determined by the United States Bureau of the Census.

- (3) **"Patrol inspection"** shall be defined as a simple visual inspection, of applicable utility equipment and structures, that is designed to identify obvious structural problems and hazards. Patrol inspections may be carried out in the course of other company business.
- (4) **"Detailed"** inspection shall be defined as one where individual pieces of equipment and structures are carefully examined, visually and through use of routine diagnostic test, as appropriate, and (if practical and if useful information can be so gathered) opened, and the condition of each rated and recorded.
- (5) **"Intrusive"** inspection is defined as one involving movement of soil, taking samples for analysis, and/or using more sophisticated diagnostic tools beyond visual inspections or instrument reading.
- (6) **"Corrective Action"** shall be defined as maintenance, repair, or replacement of utility equipment and structures so that they function properly and safely.

B Standards for Inspection

Each utility subject to this General Order shall conduct inspections of its distribution facilities, as necessary, to ensure reliable, high-quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in Table 1.

C Record Keeping

The utility shall maintain records for (1) at least ten (10) years of patrol and detailed inspection activities, and (2) the life of the pole for intrusive inspection activities. Such records shall be made available to parties or pursuant to Commission rules upon 30 days notice. Commission staff shall be permitted to inspect such records consistent with Public Utilities Code Section 314 (a).

For all inspections records shall specify the circuit, area, facility or equipment inspected, the inspector, the date of the inspection, and any problems (or items requiring corrective action) identified during each inspection, as well as the scheduled date of corrective action.

D Reporting

By July 1st each utility subject to this General Order shall submit an annual report for the previous year under penalty of perjury.

The report shall list four categorical types of inspections: Patrols, Overhead Detailed, Underground Detailed and Wood Pole Intrusive. The report shall denote the total units of work by inspection type for the reporting period and the number of outstanding (not completed) inspections within the same reporting period for each of the four categories.

Sample Report Template:

Type of Inspections (1)	Due (2)	Outstanding (3)
Patrols	xxx	xxx
OH Detailed	xxx	xxx
UG Detailed	xxx	xxx
Wood Pole Intrusive	xxx	xxx

Notes:

- 1) Each utility will define its reporting unit basis (e.g., circuit, grid, facility / equipment).
- 2) Total inspections due in the reporting period. (Does not include outstanding inspections from prior years.)
- 3) Total inspections required that were not completed in the reporting period. (Does not include outstanding inspections from prior years.)

IV. Transmission Facilities

Each utility shall prepare and follow procedures for conducting inspections and maintenance activities for transmission lines.

Each utility shall maintain records of inspection and maintenance activities. Commission staff shall be permitted to inspect records and procedures consistent with Public Utilities Code Section 314 (a).

/s/ Paul Clanon
Paul Clanon
Executive Director

**Table 1
Distribution Inspection Cycles (Maximum Intervals in Years)**

	Patrol		Detailed		Intrusive	
	Urban	Rural	Urban	Rural	Urban	Rural
Transformers						
Overhead	1	2 ¹	5	5	---	---
Underground	1	2	3	3	---	---
Padmounted	1	2	5	5	---	---
Switching/Protective Devices						
Overhead	1	2 ¹	5	5	---	---
Underground	1	2	3	3	---	---
Padmounted	1	2	5	5	---	---
Regulators/Capacitors						
Overhead	1	2 ¹	5	5	---	---
Underground	1	2	3	3	---	---
Padmounted	1	2	5	5	---	---
Overhead Conductor and Cables						
Overhead Conductor and Cables	1	2 ¹	5	5	---	---
Streetlighting						
Streetlighting	1	2	x	x	---	---
Wood Poles under 15 years						
Wood Poles under 15 years	1	2	x	x	---	---
Wood Poles over 15 years which have not been subject to intrusive inspection						
Wood Poles over 15 years which have not been subject to intrusive inspection	1	2	x	x	10	10
Wood poles which passed intrusive inspection						
Wood poles which passed intrusive inspection	---	---	---	---	20	20

(1) Patrol inspections in rural areas shall be increased to once per year in Extreme and Very High Fire Threat Zones in the following counties Imperial, Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, and Ventura. Extreme and Very High Fire Threat Zones are designated on the Fire and Resource Assessment Program (FRAP) Map prepared by the California Department of Forestry and Fire Protection or the modified FRAP Map prepared by San Diego Gas & Electric Company (SDG&E) and adopted by Decision 12-01-032 in Phase 2 of Rulemaking 08-11-005. The fire-threat map is to be used to establish approximate boundaries and Utilities should use their own expertise and judgment to determine if local conditions require them to adjust the boundaries of the map.

Note: This General Order does not apply to cathodic protection systems associated with natural gas facilities.

Note: For the purpose of implementing the patrol and detailed inspection intervals in Table 1 above, the term “year” is defined as 12 consecutive calendar months starting the first full calendar month after an inspection is performed, plus or minus two full calendar months, not to exceed the end of the calendar year in which the next inspection is due.