

**RULE §535.229**

**Standards of Practice: Minimum Inspection Requirements for Electrical Systems**

- (a) Service entrance and panels. The inspector shall report as Deficient:
- (1) a drop, weatherhead, or mast that is not securely fastened to the structure;
  - (2) the lack of a grounding electrode system;
  - (3) the lack of a grounding electrode conductor;
  - (4) the lack of a secure connection to the grounding electrode system;
  - (5) deficiencies in the insulation of the service entrance conductors, drip loop, separation of conductors at weatherheads, and clearances;
  - (6) electrical cabinets, gutters, meter cans, and panel boards that:
    - (A) are not secured to the structure;
    - (B) are not appropriate for their location;
    - (C) have deficiencies in clearances and accessibility;
    - (D) are missing knockouts; or
    - (E) are not bonded and grounded;
  - (7) cabinets, disconnects, cutout boxes, and panel boards that do not have dead fronts secured in place with proper fasteners;
  - (8) conductors not protected from the edges of electrical cabinets, gutters, or cutout boxes;
  - (9) trip ties not installed on 240 volt circuits;
  - (10) deficiencies in the type and condition of the wiring in the cutout boxes, cabinets, or gutters;
  - (11) deficiencies in the compatibility of overcurrent devices and conductors;
  - (12) deficiencies in the overcurrent device and circuit for labeled and listed 240 volt appliances;
  - (13) a panel that is installed in a hazardous location, such as a clothes closet, a bathroom, where there are corrosive or easily ignitable materials, or where the panel is exposed to physical damage;
  - (14) the absence of appropriate connections, such as copper/aluminum-approved devices;
  - (15) the absence of anti-oxidants on aluminum conductor terminations;
  - (16) the lack of a main disconnecting means;
  - (17) the lack of arc-fault circuit interrupting devices serving family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreations rooms, closets, hallways, or similar rooms or areas; and
  - (18) failure of operation of installed arc-fault circuit interrupter devices.
- (b) Specific limitations for service entrance and panels. The inspector is not required to:
- (1) determine present or future sufficiency of service capacity amperage, voltage, or the capacity of the electrical system;
  - (2) test arc-fault circuit interrupter devices when the property is occupied or damage to personal property may result, in the inspector's reasonable judgment;
  - (3) report the lack of arc-fault circuit interrupter protection when the circuits are in conduit;
  - (4) conduct voltage drop calculations;
  - (5) determine the accuracy of overcurrent device labeling;
  - (6) remove covers where hazardous as judged by the inspector;

- (7) verify the effectiveness of overcurrent devices; or
- (8) operate overcurrent devices.
- (c) Branch circuits, connected devices, and fixtures. The inspector shall:
  - (1) report the type of branch circuit conductors;
  - (2) manually test the accessible smoke alarms by use of the manufacturer's approved test or by the use of canned smoke; and
  - (3) report as Deficient:
    - (A) the lack of ground-fault circuit interrupter protection in all:
      - (i) bathroom receptacles;
      - (ii) garage receptacles;
      - (iii) outdoor receptacles;
      - (iv) crawl space receptacles;
      - (v) unfinished basement receptacles;
      - (vi) kitchen countertop receptacles; and
      - (vii) laundry, utility, and wet bar sink receptacles located within 6 feet of the outside edge of a laundry, utility, or wet bar sink; and
    - (B) the failure of operation of ground-fault circuit interrupter protection devices;
    - (C) receptacles that:
      - (i) are damaged;
      - (ii) are inoperative;
      - (iii) have incorrect polarity;
      - (iv) are not grounded, if applicable;
      - (v) display evidence of arcing or excessive heat;
      - (vi) are not securely mounted; or
      - (vii) have missing or damaged covers;
    - (D) switches that:
      - (i) are damaged;
      - (ii) are inoperative;
      - (iii) display evidence of arcing or excessive heat;
      - (iv) are not securely mounted; or
      - (v) have missing or damaged covers;
    - (E) deficiencies in or absences of conduit, where applicable;
    - (F) appliances and metal pipes that are not bonded or grounded;
    - (G) deficiencies in wiring, wiring terminations, junctions, junction boxes, devices, and fixtures, including improper location;
    - (H) the lack of equipment disconnects;
    - (I) the absence of appropriate connections, such as copper/aluminum approved devices, if branch circuit aluminum conductors are discovered in the main or sub-panel based on a random sampling of accessible receptacles and switches;
    - (J) improper use of extension cords;
    - (K) deficiencies in smoke alarms that are not connected to a central alarm system; and
    - (L) the lack of smoke alarms:
      - (i) in each sleeping room;
      - (ii) outside each separate sleeping area in the immediate vicinity of the sleeping rooms; and

(iii) on each additional story of the dwelling, including basements but excluding crawl spaces and uninhabitable attics (in dwellings with split levels and without an intervening door between the levels, a smoke alarm installed on the upper level and the adjacent lower level shall suffice provided that the lower level is less than one full story below the upper level).

(d) Specific limitations for branch circuits, connected devices, and fixtures. The inspector is not required to:

- (1) inspect low voltage wiring;
- (2) disassemble mechanical appliances;
- (3) verify the effectiveness of smoke alarms;
- (4) verify interconnectivity of smoke alarms
- (5) activate smoke alarms that are being actively monitored or require the use of codes; or
- (6) verify that smoke alarms are suitable for the hearing-impaired.

**Source Note:** The provisions of this §535.229 adopted to be effective February 1, 2009, 33 TexReg 9242