

**RULE §535.230**

**Standards of Practice: Minimum Inspection Requirements for Heating, Ventilation, and Air Conditioning Systems**

(a) Heating equipment. The inspector shall:

(1) report:

- (A) the type of heating system(s); and
- (B) the energy source(s);

(2) report as Deficient:

- (A) an inoperative unit;
- (B) deficiencies in the controls and operating components of the system;
- (C) the lack of protection from physical damage;
- (D) burners, burner ignition devices or heating elements, switches, and thermostats that are not a minimum of 18 inches above the lowest garage floor elevation, unless the unit is listed for garage floor installation;
- (E) inappropriate location;
- (F) inadequate access and clearances;
- (G) deficiencies in mounting and operation of window units; and
- (H) deficiencies in thermostats;

(3) in electric units, report as Deficient deficiencies in:

- (A) operation of heating elements; and
- (B) condition of conductors; and

(4) in gas units, report as Deficient:

- (A) gas leaks;
- (B) the presence of forced air in the burner compartment;
- (C) flame impingement, uplifting flame, improper flame color, or excessive scale buildup;
- (D) the lack of a gas shut-off valve; and
- (E) deficiencies in:
  - (i) conditioned, combustion, and dilution air;
  - (ii) gas shut-off valves and locations;
  - (iii) gas connector materials and connections; and
  - (iv) the vent pipe, draft hood, draft, proximity to combustibles, and vent termination point and clearances.

(b) Cooling equipment other than evaporative coolers. The inspector shall:

(1) report the type of system(s); and

(2) report as Deficient:

- (A) inoperative unit(s);
- (B) inadequate cooling as demonstrated by its performance in the reasonable judgment of the inspector;
- (C) inadequate access and clearances;
- (D) noticeable vibration of the blower fan or condensing fan;
- (E) deficiencies in the condensate drain and auxiliary/secondary pan and drain system;
- (F) water in the auxiliary/secondary drain pan;
- (G) a primary drain pipe that terminates in a sewer vent;

- (H) missing or deficient refrigerant pipe insulation;
- (I) dirty evaporator or condensing coils, where accessible;
- (J) damaged casings on the coils;
- (K) a condensing unit lacking adequate clearances or air circulation or that has deficiencies in the condition of fins, location, levelness, or elevation above ground surfaces;
- (L) deficiencies in mounting and operation of window or wall units; and
- (M) deficiencies in thermostats.

(c) Evaporative coolers. The inspector shall:

(1) report:

- (A) type of system(s) (one- or two-speed);
- (B) the type of water supply line; and
- (C) winterized units that are drained and shut down; and

(2) report as Deficient:

- (A) inoperative units;
- (B) inadequate access and clearances;
- (C) corrosive and mineral build-up or rust damage/decay at the pump, louvered panels, water trays, exterior housing, or the roof frame;
- (D) less than a one-inch air gap between the water discharge at the float and water level in the reservoir;
- (E) corrosion, decay, or rust on the pulleys of the motor or blower;
- (F) the lack of a damper; and
- (G) deficiencies in the:
  - (i) function of the pump;
  - (ii) interior housing, the spider tubes, tube clips, bleeder system;
  - (iii) blower and bearings;
  - (iv) float bracket;
  - (v) fan belt;
  - (vi) evaporative pad(s);
  - (vii) installation and condition of the legs on the roof rails and fasteners to the roof structure and the unit;
  - (viii) roof jack; and
  - (ix) thermostats.

(d) Duct system, chases, and vents. The inspector shall report as Deficient:

- (1) damaged ducting or insulation, improper material, or improper routing of ducts;
- (2) the absence of air flow at accessible supply registers in the habitable areas of the structure;
- (3) improper or inadequate clearance from the earth; and
- (4) deficiencies in:
  - (A) duct fans;
  - (B) filters;
  - (C) grills or registers;
  - (D) the location of return air openings; and
  - (E) gas piping, sewer vents, electrical wiring, or junction boxes in the duct system, plenum(s), and chase(s).

- (e) Specific limitations for the heating equipment, cooling equipment, duct system, chases, and vents. The inspector is not required to:
- (1) program digital thermostats or controls;
  - (2) inspect:
    - (A) for pressure of the system refrigerant, type of refrigerant, or refrigerant leaks;
    - (B) winterized evaporative coolers; or
    - (C) humidifiers, dehumidifiers, air purifiers, motorized dampers, electronic air filters, multi-stage controllers, sequencers, heat reclaimers, wood burning stoves, boilers, oil-fired units, supplemental heating appliances, de-icing provisions, or reversing valves;
  - (3) operate:
    - (A) setback features on thermostats or controls;
    - (B) cooling equipment when the outdoor temperature is less than 60 degrees Fahrenheit;
    - (C) radiant heaters, steam heat systems, or unvented gas-fired heating appliances; or
    - (D) heat pumps when temperatures may damage equipment;
  - (4) verify:
    - (A) compatibility of components;
    - (B) the accuracy of thermostats; or
    - (C) the integrity of the heat exchanger; or
  - (5) determine:
    - (A) sizing, efficiency, or adequacy of the system;
    - (B) uniformity of the supply of conditioned air to the various parts of the structure; or
    - (C) types of materials contained in insulation.

**Source Note:** The provisions of this §535.230 adopted to be effective February 1, 2009, 33 TexReg 9242