

**Effective 5/9/2017**

**15A-6-102 Nitrogen Oxide emission limits for natural gas-fired water heaters.**

- (1) As used in this section:
  - (a) "BTU" means British Thermal Unit.
  - (b)
    - (i) "Heat input" means the heat of combustion released by fuel burned in a water heater based on the heating value of the fuel.
    - (ii) "Heat input" does not include the enthalpy of a water heater's incoming combustion air.
  - (c) "Heat output" means the enthalpy of a water heater's working fluid output.
  - (d) "Natural gas-fired water heater" means a device that heats water:
    - (i) using natural gas combustion;
    - (ii) for use external to the device at a pressure that is less than or equal to 160 pounds per square inch gage; and
    - (iii) to a thermostatically controlled temperature less than or equal to:
      - (A) 210 degrees Fahrenheit; or
      - (B) 99 degrees Celsius.
  - (e) "ppm" means parts of Nitrogen Oxide per million parts of water heater air output.
  - (f) "Recreational vehicle" means the same as that term is defined in Section 13-14-102.
- (2) On and after July 1, 2018, a person may not sell or install a natural gas-fired water heater with an emission rate greater than the following limits:
  - (a) for a water heater that has a heat input of less than or equal to 75,000 BTU per hour that is not installed in a mobile home, a limit of:
    - (i) 10 nanograms per Joule of heat output; or
    - (ii) 15 ppm, corrected to 3% oxygen;
  - (b) for a water heater that has a heat input of greater than 75,000 BTU per hour and less than 2,000,000 BTU per hour that is not installed in a mobile home, a limit of:
    - (i) 14 nanograms per Joule of heat output; or
    - (ii) 20 ppm, corrected to 3% oxygen;
  - (c) for a water heater installed in a mobile home, a limit of:
    - (i) 40 nanograms per Joule of heat output; or
    - (ii) 55 ppm, corrected to 3% oxygen;
  - (d) for a pool or spa water heater with a heat input that is less than or equal to 400,000 BTU per hour, a limit of:
    - (i) 40 nanograms per Joule of heat output; or
    - (ii) 55 ppm, corrected to 3% oxygen; and
  - (e) for a pool or spa water heater with a heat input of greater than 400,000 BTU per hour and less than 2,000,000 BTU per hour, a limit of:
    - (i) 14 nanograms per Joule of heat output; or
    - (ii) 20 ppm, corrected to 3% oxygen.
- (3) A water heater manufacturer shall use California South Coast Air Quality Management District Method 100.1 to calculate the emissions rate of a water heater subject to this section.
- (4) A water heater manufacturer shall display on a water heater subject to this section, as a permanent label, the model number and the Nitrogen Oxide emission rate of the water heater.
- (5) The requirements of this section do not apply to:
  - (a) a water heater using a fuel other than natural gas;
  - (b) a water heater used in a recreational vehicle;
  - (c) a water heater manufactured in the state for sale and shipment outside of the state; or
  - (d) a water heater manufactured before July 1, 2018.

Amended by Chapter 236, 2017 General Session