

## STATE BUILDING CODE INTERPRETATION NO. I-24-99

May 10, 1999

**Question 1:** “Does gas piping in an existing structure or building have to be bonded when any electrical work is done?”

**Answer 1:** No. The 1999 State Building Code, Chapter 34, Section 3404.1, *Requirements*, states in part: Portions of the structure not altered and not affected by the alteration are not required to comply with the code requirements for a new structure.

**Question 2:** “Does gas piping have to be bonded when a replacement electrical service is installed in an existing structure?”

**Answer 2:** No. The 1999 State Building Code, Chapter 34, Section 3404.1, *Requirements*, states in part: Portions of the structure not altered and not affected by the alteration are not required to comply with the code requirements for a new structure.

**Question 3:** “Does gas piping have to be bonded when installing a new electrical service in a new structure?”

**Answer 3:** Yes. Section 250-104(b), *Metal Gas Piping*, states: Each above ground portion of a gas piping system upstream from the equipment shutoff valve shall be electrically continuous and bonded to the grounding electrode system.

**Exception:** The equipment grounding conductor of an electrically connected appliance shall serve as the bonding means of a gas piping system.

**Question 4:** “Does gas piping have to be bonded when the piping is feeding an electrically connected appliance?”

**Answer 4:** The equipment grounding conductor for the circuit that may energize the gas piping shall be permitted to serve as the bonding means. Table 250-122, *Minimum Size Equipment Grounding Conductor*, shall be used for sizing the equipment grounding conductor to electrically connected appliances.

**Question 5:** “In all of the above instances, what size must the bonding conductors be?”

**Answer 5:** Table 250-122, *Minimum Size Equipment Grounding Conductor*, shall be used for sizing the equipment grounding conductor to electrically connected appliances in commercial, industrial and residential applications.

Table 250-66, *Grounding Electrode Conductor for Alternating-Current Systems*, shall be used to size the bonding conductor to metallic gas piping in commercial, industrial and residential applications where the gas appliance is not electrically connected.

**NOTE:** The 1996 International Mechanical Code, Section 1304.4, *Grounding*, states: Gas piping shall not be used as a grounding electrode.