



CITY OF SAN JOSE

**BUILDING DIVISION POLICY**

**Policy on Inspection of Knob-and-Tube  
Wiring prior to Installing Insulation**

**Policy No. NEC 324-4-1-93**  
**Effective: December 12, 1994**  
**Revised: February 10, 1996**

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Insulation around knob-and-tube wiring is prohibited by Section 324-4 of the National Electric Code. However, the Department of Housing and Community Development of the State of California and the State Building Standards Commission on 2/15/91 adopted an ordinance amending NEC Section 324-4, to provide a safe method by which loose or rolled insulation may be installed in enclosed spaces of homes with knob-and-tube wiring. A copy of the California Electrical Code article is attached. Note that a State licensed electrical contractor (C-10) must provide written certification to the authority having jurisdiction (i.e. the City of San Jose) that the existing wiring is in good condition with no evidence of deterioration or improper over-current protection, and has no improper connections or splices.

This certification shall be submitted to the City of San Jose Building Division in a form similar to the attached example, and must be signed by both the licensed electrical contractor and the customer. If the existing installation is certified to be in good condition, with no evidence of deterioration, improper connections or splices, nor improper over-current protection, no additional permits and/or inspections will be required by the City.

If any repairs, alterations and/or modifications are required to bring the existing wiring into compliance with the above life safety conditions an electrical permit, inspection and approval of the repairs must be obtained from the City of San Jose's Building Division prior to installation of any insulation. All appropriate work shall be permitted in accordance with the current permit fee schedule.

The approved certification letter should be filed in Building Division records by address with the other permit(s). If there are no other permits required, the certification letter shall be dead filed and permanently archived.

Initiated by:  
D.J. Doody,  
Supervising Electrical Inspector

Approved by:

Chief Building Official

## ARTICLE 324-CONCEALED KNOB-AND-TUBE WIRING 70-197

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**324-4. Uses Not Permitted.** Concealed knob-and-tube wiring shall not be used, in commercial garages, theaters and similar locations, motion picture studios, hazardous (classified) locations or in the hollow spaces or walls, ceilings and attics when such spaces are insulated by loose, rolled, or foamed in place insulating material that envelops the conductors.

Note: Underscored words NOT ADOPTED by State of California.

*Exception: This article is not intended to prohibit the installation of insulation where knob-and-tube wiring is present, provided the following are complied with:*

*(1) The wiring shall be surveyed by an electrical contractor licensed by the State of California.*

*Certification shall be provided by the electrical contractor that the existing wiring is in good condition with no evidence of deterioration or improper over-current protection, and no improper connections or splices.*

*Repairs, alterations or extensions to the electrical system will require permits and inspections by the authority having jurisdiction for the enforcement of this code.*

*(2) The certification form shall be filed with the authority having jurisdiction for the enforcement of this code and a copy furnished to the property owner.*

*(3) All accessible areas in the building where insulation has been installed around knob-and-tube wiring shall be posted with a notice, clearly visible, stating that caution is required when entering these areas.*

*(4) The insulation shall be noncombustible as defined by Section 415(b) of Part 2 of this Title.*

*(5) The insulation shall not have any electrical conductive material as part of or supporting the insulation material.*

*(6) Nothing in this exception will prohibit the authority, having jurisdiction for the enforcement of this code, from requiring permits and inspections for the installation of thermal insulation.*

### **324-5. Conductors.**

(a) **Type.** Conductors shall be of a type specified by Article 310.

(b) **Ampacity.** The ampacity shall be determined by Section 310-15.

**324-6. Conductor supports.** Conductors shall be rigidly supported on noncombustible, nonabsorbent insulating materials and shall not contact any other objects. Supports shall be installed as follows: (1) within 6 inches (152mm) of each side of each tap or splice, and (2) at intervals not exceeding 4 1/2 feet (1.37m).

*Exception: If it is not practicable to provide supports in dry locations it shall be permissible to fish conductors through hollow spaces if each conductor is individually enclosed in flexible nonmetallic tubing.*

*The tubing shall be in continuous lengths between supports, between boxes, or between a support and a box.*

**324-7 Tie Wires.** Where solid knobs are used, conductors shall be securely tied thereto by tie wires having insulation equivalent to that of the conductor.

**324-8. Conductor Clearances.** A clearance of not less than 3 inches (76mm) shall be maintained between conductors and of not less than 1 inch (25.4mm) between the conductor and the surface over which it passes.

*Exception: Where space is too limited to provide the above minimum clearances, such as at meters, panel boards, outlets, and switch points, the conductors shall be individually enclosed in flexible nonmetallic tubing, which shall be in continuous lengths between the last support or box and the terminal point.*

**324-9. Through Walls, Floors, Wood Cross Members, etc.** Conductors shall comply with Section 320-11 where passing through holes in structural

**PG&E ENERGY PARTNERS PROGRAM  
NOTICE OF SURVEY BY ELECTRICAL CONTRACTOR**

This is a verification that the existing knob-and-tube wiring at:

\_\_\_\_\_

Address	City	Zip
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has been surveyed this date and found to be:

- In good condition with:
  - No evidence of deterioration
  - No improper connections or splices
  - No evidence of improper over-current protection
  
- In poor condition and was brought up to acceptable standards by:
  - Installing proper non-tamperable over-current protection
  - Installing a new service panel with breaker
  - Other-Explain: \_\_\_\_\_
  
- Unable to meet acceptable standards because of:

DESCRIPTION

  - Evidence of deterioration
  - Evidence of improper connections or splices
  - Evidence of improper over-current protection
  - Other-Explain: \_\_\_\_\_
  
- Estimated cost of repairs described above: \_\_\_\_\_
  
- A copy of this certification will be filed with the local authority having jurisdiction for this code.

Date \_\_\_\_\_ Print Name \_\_\_\_\_ Signature \_\_\_\_\_

Firm \_\_\_\_\_ Lic. No. \_\_\_\_\_

Notice to customer: This survey is required before your attic can be weatherized by PG&E's Energy Partners Program, and is in compliance with Article 324-4 of the National Electrical Code, 1990 Edition, Part 3 Title 24, California Code of Regulations.

You are advised that if non-tamperable over-current protection has been installed to protect the wiring system, your electrical usage habits by require modification to avoid nuisance tripping of the fuses. Before installing the devices and certifying the eligibility of your home, the Electrical Contractor performing this survey is required to explain difficulties you may experience.

**I CERTIFY THAT I HAVE READ AND UNDERSTAND THE NOTICE ABOVE:**

CUSTOMER SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_