Question: When is it permissible to have exterior decks supported by untreated wood that is not naturally decay-resistant? (Decks here meaning wood or composite board decking, not solid decking.)

Codes

2001 California Building Code
CBC Sec 2306.12: In geographical areas where experience has demonstrated a specific need, approved wood of natural resistance to decay or treated wood shall be used for those portions of wood members which form the structural supports of buildings, balconies, porches or similar building appurtenances when such members are exposed to the weather without adequate protection from a roof eave, overhang or other covering to prevent moisture or water accumulation on the surface or at joints between members. Depending upon local experience, such members may include horizontal members such as girders, joists and decking; or vertical members such as posts, poles and columns; or both horizontal and vertical members. (Italics added)

2007 California Building Code
CBC Sec 2304.11.5: Naturally durable or preservative-treated wood shall be utilized for those portions of wood members that form the structural supports of buildings, balconies, porches or similar appurtenances where such members are exposed to the weather without adequate protection from a roof, eave, overhang or other covering to prevent moisture or water accumulation on the surface or at joints between members.
Exception: When a building is located in a geographical region where experience has demonstrated that climatic conditions preclude the need to use durable materials where the structure is exposed to the weather. (Italics added)

Interpretation

In general, climactic conditions in our area are such that the exception above would apply only in arid-all-year micro-climates (if there are any in our area). In other than that situation, under either code, framing members must be protected by a roof eave or similar, be treated or decay-resistant wood, or protected by other covering to prevent moisture or water accumulation on the surface or at joints between members.
If permitted decks, not under eaves or other overhangs, have been built without using treated or decay-resistant wood, then the Building Official has the option, in lieu of requiring complete rebuilding, of requiring that the decking be removed and a covering added to framing members to prevent moisture or water accumulation on the surface or at joints between members. Such covering would include impervious waterproof membranes along the top edge of joists that self-seal around the deck nails or screws, along with any penetrating waterproofing that can seal the framing-board ends at joints and at ends. All fasteners shall be as permitted in this code for exterior use and, if preservative treatment is added, must comply with CBC Sec. 2304.9.5.

**FPN**

Simply painting the framing is not adequate as it does not prevent water penetration into the joist tops where the deck nails or screws penetrate, and paint does not allow water that has penetrated the wood to exit.

Since the above “added covering” is typically not as weather resistant as pressure-treated or decay-resistant wood, this solution should only be used as a last resort in situations where the deck framing is completed, and only at the discretion of the Building Official.