LETTERS

Safe Wiring Practice

To the Editor:

Rex Cauldwell states that multiwire branch circuits must be ganged together in the panel (*On the House*, 9/94). I know of no *National Electric Code* requirement mandating this. The *NEC* definition of "Branch Circuit — Multiwire" in Article 100 merely requires that they be on opposite phases. A safety-conscious installer would place the breakers adjacent to one another, but it is not mandatory, and I routinely find them apart from one another.

John R. Grau
Affordable Electric Inc.
Mequon, Wis.

Rex Cauldwell responds:

Most of the time my recommendations go beyond minimum code requirements, and are based on considerations of safety, good workmanship, and common sense. I often exceed code by a substantial safety margin so I don't have to worry about memorizing what is the absolute minimum I can get away with.

In most situations, however, ganging together multiwire branch circuit breakers is not just good practice, but is required by code. NEC *Section 210-4b, in reference to multiwire branch circuits supplying more than one device or appliance on the same yoke (receptacle), states, in effect, that all ungrounded conductors must be able to be disconnected simultaneously. That means one breaker to turn off both circuits.*

However, there is no discussion of what to do if the loads are not on the same receptacle — which is where I go beyond code and follow my common sense. If two multiwire circuits are on separate single pole breakers, they can be moved around independently within the panel. If an unsuspecting electrician or homeowner moves one or both of the breakers so that they wind up on the same phase, this could cause the neutral wire to overheat and possibly cause a fire. Also, if one breaker is thrown and the other is not, someone working in the panel could make the mistake of thinking that the open circuit is dead when in fact current is still flowing through the neutral, which also serves the other circuit. (I've seen this happen — an unsuspecting electrical inspector was knocked across the room when he placed himself across the live neutral.)

When both breakers of the multiwire circuit are on the same gang, they will always be on opposite phases (a Federal Pacific box is an exception), and both circuits will be safe to work on when the breaker is thrown.

Blowing Cellulose

To the Editor:

I'm a small insulation contractor who works with both fiberglass and cellulose. Regarding "Cellulose Solves Attic Heat Loss" (*Eight-Penny News*, 10/94): Cellulose settles — everyone knows that — but did you know it settles by a predictable amount? Fortunately, many manufacturers are printing a "recommended installed depth" on their bags to keep us all honest, and a list of them is available from Cellulose Insulation Manufacturers Association (513/222-2462).

For the most accurate installation, your installer will keep a count of bags used per 1,000 sq. ft. and adjust the depth accordingly. Blown insulation will yield the advertised R-value if it is installed at the right depth.

Patrick W. Dundon
Dundon Insulation Inc.
Windsor, N.Y.

Radon Policy Unobtrusive

To the Editor:

The article "Senate Puts Brakes on Radon Bandwagon" (*Eight-Penny News*, 12/94) contains misconceptions about radon science and policy. While some individual scientists have disagreed with central aspects of federal radon policy, there is broad agreement among mainstream scientific organizations on the health effects of radon. The carcinogenicity of radon is based on data from studies of 60,000 underground miners, which consistently show that radon exposure increases lung cancer risk. This has been well established by the scientific community, including the World Health Organization, the National Academy of Sciences, and the International Commission on Radiological Protection. In addition, the Centers for Disease Control, the American Medical Association, and many others have identified radon as a serious health problem.

The national radon program is based on good science and clear, unobtrusive policy guidance. EPA recommends that people spend as little as $20 to test their homes for radon, reduce levels in homes over 4 pCi/L, and build new homes in high-radon areas to be radon-resistant.

These recommendations are voluntary. Individuals, businesses, and organizations throughout the country have responded positively. Already, ten million people have decided to test their homes and several hundred thousand have taken action to reduce high levels. Hundreds of thousands of homes have voluntarily been built radon-resistant, and the Council of American Building Officials recently adopted radon-resistant techniques into the *One- and Two-Family Dwelling Code*.

Dave Rowson
Acting Director, Radon Division
U.S. Environmental Protection Agency
Washington, D.C.

Keep 'em coming .... We welcome letters, but they must be signed and include the writer's address. The *Journal of Light Construction* reserves the right to edit for grammar, length, and clarity. Mail letters to JLC, RR#2, Box 146, Richmond, VT 05477.