

## **PHRC Report # 33: Building Healthy Homes: A Builder's Reference Guide**

**Date: August 1994**

**Author(s): P. F. Adams.**

### **BACKGROUND:**

Studies indicate the levels of many gasses, particulates and micro-organisms commonly found in a residence average two to five times higher than the levels found in the air outdoors. The testing results are true for homes located in both rural and heavily-industrialized areas. Human health complaints resulting from indoor contaminants have led to the use of the terms, "the sick house," and the "sick building syndrome" as a means of identifying the source of the problem(s).

The terms "sick house," or "tight building syndrome," were relatively unknown in the United States prior to the 1970's, the decade when construction methods were adopted at national and local levels to make houses more air tight or "energy efficient." The overall goal was to conserve natural resources. To the consumer, the change in construction requirements meant a welcomed reduction in their monthly heating and cooling costs. However, as air infiltration and ex-filtration rates were reduced, the negative attributes of man-made products and building materials could no longer be ignored.

With continued research, it is now known that homes can be both energy efficient and contribute to the health and well-being of occupants. The key is for builders, remodelers and homeowners to avoid using materials and products known to contribute to a polluted interior environment.

Advisory Council members of the PHRC decided a publication needed to be written to educate builders and remodelers about ways to provide their customers with a more healthful home environment. Report #33, Building Healthy Homes: A Builder's Reference Guide is the result of this directive. It contains the most recent information available on hazards found in products commonly used in the residential building industry, their potential impact upon human health, and sources of non-polluting building materials, products and building practices.

### **SUMMARY OF RESULTS:**

The expressed goal of this project is to bring up-to-date information to members of the residential building industry about pollutants commonly found in a home, their impact upon human health...and ways to avoid indoor pollution in the homes they build for their customers. The final product, "Building Healthy Homes: A Builder's Reference Guide," is available in two formats. Housing Research Series Report #33, (8 1/2" x 11") is designed to be used as an office reference publication. The second format is smaller (3 3/4" x 8 1/2") and therefore more suitable for carrying in a tool box to the job site.

### **WHAT IT MEANS TO YOU:**

In the not too distant past, the main concern of prospective homeowners was a structurally sound home that met their needs. Builders were able to easily comply with consumer wishes. Today, residential building practices have become more complicated. In addition to meeting code standards, builders and remodelers have come face-to-face with environmental issues on many levels. Either through mandates or by request, increased members of builders and remodelers can find themselves facing issues of responsibility for the long-term health and well-being of their customers. "Building Healthy Homes: A Builder's Reference Guide," explains why it is important to begin choosing more healthful building products, materials and construction methods and suggests non-polluting alternatives.

## **WHAT'S NEXT?**

A series of one-day workshops can be held throughout Pennsylvania to ensure a broad-based dissemination of information on the topic of building healthy homes. However, the scheduling of regionally based seminars will be subject to funding being approved for such purposes.