

5.6.5 Sources of Information

Interviews

Douglas Birch, National Institute of Standards and Technology, Gaithersburg, Maryland, May 1988.

George Courville, Oak Ridge National Laboratory, Oak Ridge, Tennessee, April 1988.

Sam Taylor, Department of Energy, Washington, D.C., June 1988.

M. Van Geem, Construction Technology Laboratory, Stokley, Illinois, June 1988.

Documents

Achenbach, P. R. 1979. "Design of a Calibrated Hot-Box for Measuring the Heat, Air, and Moisture Transfer of Composite Buildings," ASHRAE Report no.: ASHRAE/SP-28.

5.7 TRACER GAS TESTING WITH THE AIR INFILTRATION MEASUREMENT SYSTEM

5.7.1 The Innovation

The Air Infiltration Measurement System (AIMS) consists of two small cigarette-sized cartridges - a sender tube (the source) and a receiver tube (the sampler). The source is a gas-charged device that emits an inert perfluorocarbon tracer gas (PFT) into the air at a constant rate through a silicone rubber plug. The sampler is a glass tube with a charcoal-like absorbent material that "passively absorbs" the PFT tracer gas over the duration of the test.

One PFT source with a sampler costs \$50 and is enough to test 500 square feet of a building. The source is placed within 2 feet of an outside wall, usually on a piece of furniture. The sampler is placed at least 2 feet from any wall, ceiling, or floor and 6 to 8 feet from the source. The source and sampler are prepared and sent out by a laboratory and then deployed by a researcher,