

# *VALIDATION*

## **HEATING 7.2**

The accuracy of HEATING 7.2's ability to predict wall system R-values has been verified by comparing simulation results with published test results for twenty-eight masonry, wood frame, and metal frame walls tested at other laboratories. The average difference between the laboratory tests and HEATING 7.2 simulation results for these walls was  $\pm 4.7\%$  [Kosny and Desjarlais 1994]. Considering that the precision of the guarded hot-box method is reported to be approximately 8 percent, the ability of HEATING 7.2 to reproduce the experimental data is within the accuracy of the test method [ASTM C236]. HEATING 7.2 is the only public-domain code validated against such a large and diversified experimental database. The reader is referred to Appendix E for further validation of HEATING 7.2 simulations using hot-box test data [Childs, Kosny, 2000].