The main centers of Hotbox research are: the National Institute of Standards and Technology; National Research Center, Canada; Jim Walter Technology Center; and Construction Technology Laboratory, Illinois (CTL). The chief funders of Hotbox research are OBCS, the Department of Commerce, and the Canadian Government. There have been no direct spinoffs or patents from this technology (Courville, 1988).

5.6.2 Hotbox Applications and Users

Hotboxes are used for many purposes. Industry and government laboratories use Hotboxes to test the thermal performance of particular wall systems such as prefabricated and superinsulated walls. Government laboratories use Hotboxes to develop test methods such as the dynamic test method for testing heat transfer through walls. Researchers also use Hotboxes to verify mathematical models of heat flow. Government labs use Hotboxes to referee disputes among builders or construction companies by examining the energy saving claims made by different companies. Scientists and researchers on sabbatical leaves are also allowed to conduct experiments at the NIST Hotbox (Taylor, 1988).

The CTL Hotbox is the only Hotbox that does dynamic testing on a contractual basis (Van Geem, 1988). CTL charges $5,000 per Hotbox run. This figure is slightly above the industry average, but CTL claims that they conduct more detailed analysis than others. Currently, the installed Hotboxes are operating at less than full capacity.

Final consumers (for example, homeowners) do not typically know whether or not a particular wall system has been tested by a Hotbox. They simply experience the thermal performance of wall systems (Birch, 1988).