July 11, 2005

EverLog Systems
Attn: Dick Morganstern & Stewart Hansen
P.O. Box 16537
Missoula, MT  59808

**Subject: Blower Door Test Results for Your EverLog Office**

Dear Dick and Stewart:

Congratulations on building your office showroom below the ENERGY STAR Homes Northwest (ESHNW) specifications for "air tightness."

The results of the blower door test performed on your office on May 26, 2005 were as follows:

**Volume of building**: 22,411 cubic feet
**Cubic Feet per Minute (cfm) of air out of the building at 50 Pascals (PA)** 428 cfm
**Air Change per Hour (ACH) at 50 PA**: 428 x 60 / 22,411 = 1.15 ACH @ 50
**Natural Air Change per Hour (NACH)**: 1.15 / 12.6 = .091

Let me put these numbers into perspective for you.  The maximum ACH @ 50 PA for ESHNW is "7." By comparison your EverLog office measured only 1.15, which means your model office is 6 times tighter than a house built to the "air tightness" specifications of the ESHNW program.  As for the cfm measured, your model office would have needed to be only 2,568 cfm @ 50 PA or less to meet the minimum air tightness specification.  Your cfm measurement was 428 cfm.

In comparison, a newly constructed *wood log* house would have an average ACH @ 50 PA in the range of 7 to 15, based on blower door testing conducted on a group of *wood log* houses in Minnesota in the late 1990s. It should be mentioned that the tightness of the *wood log* houses depends on the care, attention to detail, and craftsmanship of the contractor constructing them.

The uniformity of your EverLogs and exterior chinking enabled your office to exceed the program specification for air tightness with ease.  This attention to detail significantly reduces the infiltration heat loss resulting in a more comfortable, quiet, and energy efficient structure.  We hope you will continue applying this same level of attention to other EverLog structures you construct and look forward to working with you in the future to certify many more of them to ESHNW specifications.

Sincerely,
Jim Maunder
Energy Specialist
NCAT



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