

# HRAI Technical Commentary

## Residential Ventilation Issues

by Dara Bowser & Bob Allison

### HRAI Ventilation Certification Cards

HRAI ventilation certifications expired in October 1996. Those individuals who re-certified have received wallet-sized certification cards.

#### What is "HRAI VENTILATION CERTIFICATION"?

HRAI has been operating a *Ventilation Certification* program for many years. Essentially, HRAI certifies that the individual in question has taken a course of study and has received a passing grade (75%) on a written examination. There are two levels of certification. The "Installation" certification includes "Section 9.32" of the OBC as well as the basic skills needed to design & install simple ventilation systems according to "Part 6" rules (including duct design).

"Design" certification builds on the "Installation" knowledge and adds skills for designing integrated systems (ventilation combined with forced air) and ventilation system design for houses with spillage-susceptible combustion appliances.

In 1993, the program was altered to include specific information on the OBC '93 in Ontario and an *Arbitration-Decertification* process was added.

#### Arbitration-Decertification

This process is based on an agreement which each certified individual signs, binding them to install and/or design the ventilation system to the industry standard set out in the building code and HRAI's manuals. If a concerned individual (homeowner or building official) complains about the work of a certified person, HRAI will investigate, mediate and arbitrate a settlement. If appropriate, an individual's certification will be revoked.

Complaints (written please) can be sent to Gord

Arnott at HRAI:

5045 Orbitor Dr. #11-300  
Mississauga, Ont. L4W 4Y4

If you don't have a complaint but just need some information, contact Gord at any of the numbers at the end of this article.

After three years of operation, only a small number of complaints have been received by HRAI and these have been resolved without progressing to the arbitration stage.

#### The Old System

In the past, individuals certified by HRAI were assigned a coded number that denoted their level of training. Their names were also published in a

list of certified persons which was provided to Municipalities on request. If someone wanted to verify the number of a certified person they could look it up in a list (if a list was handy) or call HRAI.

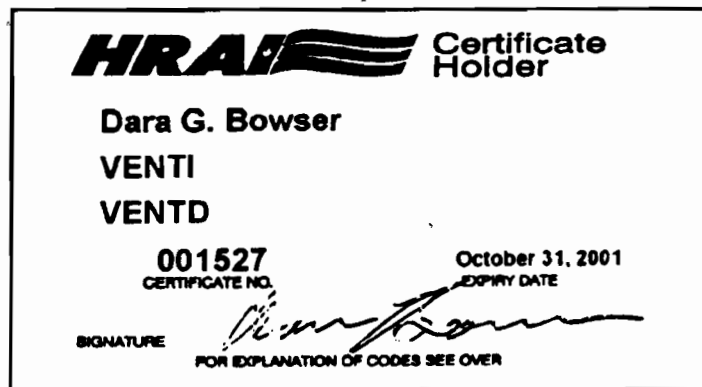
This system worked well but did not allow a

person to prove certification in person, or to stamp a drawing or calculation.

#### The New System

All individuals who renewed their certification in 1996 now have a plastic wallet card with a new certification number. In addition to the number, codes on the face of the card show whether a person is certified for Installation (VENTI), or Design (VENTD). (*Note: Installation is a pre-requisite for Design*)

The new card allows an individual to prove that he/she is certified by showing the card. The card can also be transferred onto drawings or calculations scanning and "electronic pasting" or simply by putting the card down on the photocopier glass



when copying the original. A little reduction and some scissors will allow the non-electronically inclined to create a sheet of 2" x 4" photocopier labels that can be applied to drawings and calculations.

### The Future

HRAI plans to extend the current Arbitration-Decertification Program to it's Residential Heat Loss/Gain, Residential Air System Design, Small Commercial Heat Loss/Gain and Small Commercial Air System Design training courses. When this happens, new cards will be issued showing the additional information.

The ventilation certification list will continue to be available from HRAI alphabetically by name or by location and on diskette.

### Summary

This program is intended to make the Building Official's job easier while stressing the importance of proper residential ventilation and recognizing the efforts of installers.

Used properly, the certification card and the arbitration-decertification process can be a simpler, more effective method of obtaining compliance and enforcing ventilation requirements.

If you have a comment, suggestion or question regarding HRAI's program, call, fax or e-mail HRAI at:

Tel: 905-602-4700

800-267-2231

Fax: 905-602-1197

email: hrai@web.net

The next article will focus on ducting interpretations & problems.

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ROOF JACK c/w BACK-DRAFT DAMPER & Screen SCREEN

6" dia. FLEX DUCT c/w MIN. R3 INSULATION (V/B OPTIONAL) MAXIMUM 10' OVERALL LENGTH

BROAN 684N EXHAUST FAN  
2.5 SONES @ 90 cfm (45 l/s) WHEN INSTALLED AS SHOWN

ROOF CAP @ .....60'eq.  
 10' FLEX @ .....20'eq.  
 1 x 90° FLEX ELBOW.....20'eq.  
 1 x 45° FLEX ELBOW.....10'eq.  
 1 x ADAPTER 4"-6" dia.....10'eq.  
 TOTAL .....120'eq.  
 90cfm @120'eq. @ 6" dia. = 0.05"wg  
 BROAN 684N @ 90cfm = 0.1"wg

**HRAI** Certificate Holder

Dara G. Bowser  
 VENTI  
 VENTO

001627  
EXPIRES 10/31/99

October 31, 1999

**BOWSER TECHNICAL**  
 222 Memorial Drive,  
 Brantford, Ontario  
 (416) 756-4157

Title: EXHAUST FAN CEILING/ROOF INSTALLATION	Dwg. No. 9615-1D	Scale: N.T.S	Date: SEPT. 10/96	Project: NOVAK RESIDENCE
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