

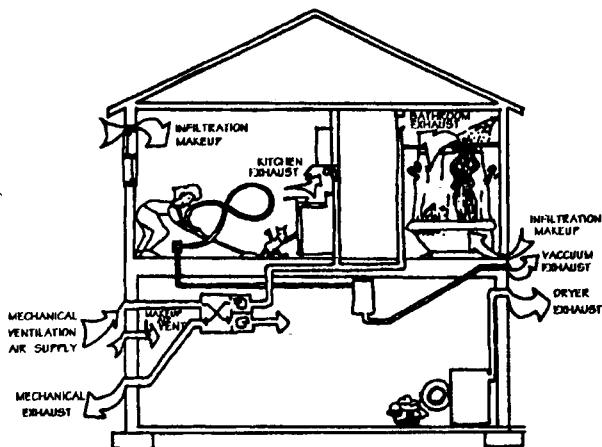
Residential Ventilation Issues

by Dara Bowser & Bob Allison

OBOA Residential Ventilation Course

The Ministry of Municipal Affairs & Housing, Ontario New Home Warranty Program, Ontario Hydro, Energy Mines & Resources Canada, and others have shown that recently constructed homes, are sufficiently airtight so that natural ventilation does not provide adequate ventilation.

Many individuals think that the way to solve these problems is to return to "leaky" construction methods, but the most recent study of 200 homes by CMHC showed that the **homes with the worst Indoor Air Quality were not especially airtight.** Today's consumer also demands comfortable, economic and healthy housing.



Recognizing this problem, the Ontario Building Code (OBC) required (beginning in 1993) that homes be equipped with ventilation systems consisting of a minimum of quiet exhaust fans and circulation fans for distributing ventilation air to sleeping and living areas. Depending on the type of combustion appliances installed, Heat Recovery Ventilation, Carbon Monoxide Detectors or professional design may be required.

In response to these new, complex and safety-critical requirements, OBOA and HRAI co-operated to create a 2-day, 1/2-credit course specifically tailored to the needs of building officials in Ontario. Since the pilot course in 1993, approximately 300 Building Officials have taken the course.

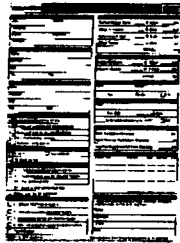
WHAT DO BUILDING OFFICIALS THINK?

Building Officials from large and small municipalities who attended this course said:

- "Clarifies most questions about 9.32 and what information should be received with permit applications."
- "Gives a better understanding of ventilation requirements and methods of achieving them."
- "Without taking the course I think it would be next to impossible to deal with plans review."
- "The course enabled attendees to get a firm grasp of how residential ventilation systems work."
- "Good forum to ask questions in."
- "Good flow-charts"

WHAT'S INCLUDED?

- Detailed analysis of section 9.32 using sample plans.
- Ready-to-use forms for permit application, performance certification and on site tests. (Part 6 & Section 9.32)
- Decision-making flow-charts for internal and external use. (Part 6 and Section 9.32)
- Checklists for plan-review and inspection (Part 6 & Section 9.32)
- Part 6 (Designed Systems) requirements:
 - which standards to use
 - who is qualified?
 - which rules from 9.32 still apply?
- How to identify combustion appliance venting types.
- Duct work terms and basic sizing.
- Basic ventilation terminology and mechanisms.
- Detailed, illustrated manual with extensive cross-referencing to the relevant OBC clauses and helpful "keyword" reference guide. (Future courses will include a "Pocket Inspection Guide" for quick on-site reference.)
- Illustrated Guide to Section 9.32.



Paper work Compliance System: Ready-to-use forms have been developed to assist Building Officials in managing the new ventilation requirements.

There are forms for:

Permit Application: the "Ventilation Design Summary" is used at the permit application stage and contains all of the necessary information to regulate ventilation systems under section 9.32. This form streamlines the permit application process.

This form comes with a *Flow-Chart* which clearly sets out the system choices according to section 9.32.

Designed Systems: The "Ventilation Record" provides a uniform format for recording information concerning a ventilation system design according to Part 6 of the OBC. It can also be used as a *Performance Certificate*. The *Performance Certificate* is also available with a **Flow-Chart** which clearly sets out the requirements and tests required for systems designed and installed according to Part 6 of the OBC.

Testing: If a depressurization test is required, the form sets out clearly the test procedure and what an inspector needs to know in order to approve a test.

Plans Review: Checklists are available for use at the plans review stage, both

"Quick-checks" as well as for comprehensive review.

Inspection: Inspection checklists are available for each of the systems allowed under section 9.32, as well as for Part 6 systems.

Equipment Certification: Participants will learn how to verify equipment compliance at the plan review stage as well as on site. Each will receive a copy of the Home Ventilating Institute *HVI Certified Products Catalogue*, which is part of the course materials and is also available from HRAI.



EXAM FEEDBACK:

Have you ever written an exam only to get a "mark" back, but not knowing whether or not you got the correct answer on a question that you were unsure of? This course features a unique *Exam Feedback System* which has been very successful. After completing the course, each student receives a question-by-question analysis of his/her exam. The analysis identifies which questions were not correctly answered, restates the correct information and points to where the particular subject can be found in the course manual.

Equivalent to HRAI Vent I Course: Since the course covers the same subject matter as the *HRAI Ventilation Installation Course (Vent I)*, successful graduates may obtain their Vent I certification by applying to HRAI and paying the registration fee.

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