ASHRAE 62.2 Compliance for Maine Builders

- 1. Determine whole building ventilation requirement from table below (Section 4.1, Table 4.1a).
 - a. Whole building ventilation may be provided with a bathroom or kitchen fan that also provides local ventilation (Section 4.2 and Appendix C4).
 - b. If operates continuously, sone level shall be one or less (Section 7.2.1).
 - c. If operates intermittently, sone level shall be three or less (Section 7.2.2). Adjust ventilation rate in Table 4.1a accordingly (Section 4.4).
 - d. Control must be automatic based on a timer, with occupant override, or provided by "fan on" switch of a heating and/or air conditioning system when ductwork is used for introducing fresh air (Section 4.3).

Whole Building Ventilation Requirement						
Cubic Feet per Minute						
(new homes, continuous fan operation)						
Floor Area (ft ²)	Number of Bedrooms					
of Conditioned Space	0 - 1	2 - 3	4 - 5			
< 1500	30	45	60			
1501 – 3000	45	60	75			
For homes larger than 3000 ft ² and homes with more than five bedrooms, see ASHRAE						

For homes larger than 3000 ft² and homes with more than five bedrooms, see ASHRAE Standard 62.2-2003, Table 4.1a.

2. Local bathroom exhaust:

- a. Install a 50 CFM intermittently operated local exhaust fan in each bathroom (Table 5.1). Sone level shall be three or less (Section 7.2.2). Control shall operate as needed by occupant (Section 5.2), <u>or</u>
- b. Install a 20 CFM continuously operated local exhaust fan in each bathroom (Table 5.2). Sone level shall be one or less (Section 7.2.1). Must operate without occupant intervention with an override control (Section 5.3).

3. Local kitchen exhaust:

- a. Install a 100 CFM intermittently operated local exhaust fan in each kitchen (Table 5.1). Sone level shall be three or less (Section 7.2.2). Control shall operate on as needed by occupant (Section 5.2), <u>or</u>
- b. Install a continuously operated local exhaust fan in each kitchen providing five air changes per hour (Table 5.2). Sone level shall be one or less (Section 7.2.1). Must operate without occupant intervention with an override control (Section 5.3).
- 4. Vent clothes dryer to outdoors (Section 6.3).
- 5. Ensure combustion appliances do not backdraft when all exhaust appliances are operating simultaneously and house is closed up (Section 6.4, comply with NFPA codes).
- 6. Ensure attachment between house and garage will prevent migration of contaminates (Section 6.5).
- 7. Install openable windows in habitable spaces, toilet, and utility spaces not less than 4 percent of floor area (Section 6.6).

Example house: 2200 ft² house with four bedrooms and two bathrooms, thus, 75 CFM whole building ventilation.

Three options for applying ASHRAE 62.2 to the example house:

- 1. Least Expensive to install, more expensive to operate Install required 100 CFM fan in kitchen and required 50 CFM exhaust fan in one bathroom to satisfy local ventilation requirements. In the most centrally located bathroom, install a fan with a rating of 75 CFM instead of 50 CFM; this will satisfy local ventilation requirements (50 CFM) AND whole building ventilation requirements of 75 CFM. Control this fan with on-off switch. This fan should operate whenever house is closed up and normally occupied.
- 2. More Expensive to install, more expensive to operate Install 100 required CFM fan in kitchen and required 50 CFM fan in each bathroom to satisfy local ventilation requirements. Control each bathroom exhaust fan with an AireTrak controller so they operate at 37.7 CFM continuously, but at the press of a button, boost to 50 CFM when local bathroom ventilation is needed.
- 3. Most Expensive to install, least expensive to operate Install required 100 CFM fan in kitchen and required 50 CFM exhaust fan in each bathroom to satisfy local ventilation requirements. Install a separate heat recovery ventilation system to supply at least 75 CFM to satisfy the whole building ventilation requirements.

Simplified Table of Options							
	Kitchen fan	Bathroom fan(s)	Whole Bldg. Ventilation	Whole Bldg. Ventilation CFM	Heat recovery?		
Option 1	100 CFM, Operates on demand	75 CFM fan in most centrally located bathroom, with on/off switch. Instruct homeowner to use fan whenever house is closed and occupied. 50 CFM fan installed in other bathroom to be operated when bathroom is being used.	1 bathroom exhaust fan	75	No		
Option 2	100 CFM, Operates on demand	50 CFM rated fan installed in each bathroom. Control each to operate at 37.7 CFM continuously, with button to increase to 50 CFM when bathroom is being used.	2 bathroom exhaust fans operating simultaneously	75	No		
Option 3	100 CFM, Operates on demand	50 CFM fan in each bathroom to be operated when bathroom is being used. The example address the requirements of items 1 the state of t	Separate heat recovery ventilation, 75 CFM rate.	75	Yes		