

BIA Providers Conference

15 Minutes of Building Science

December 3, 2015

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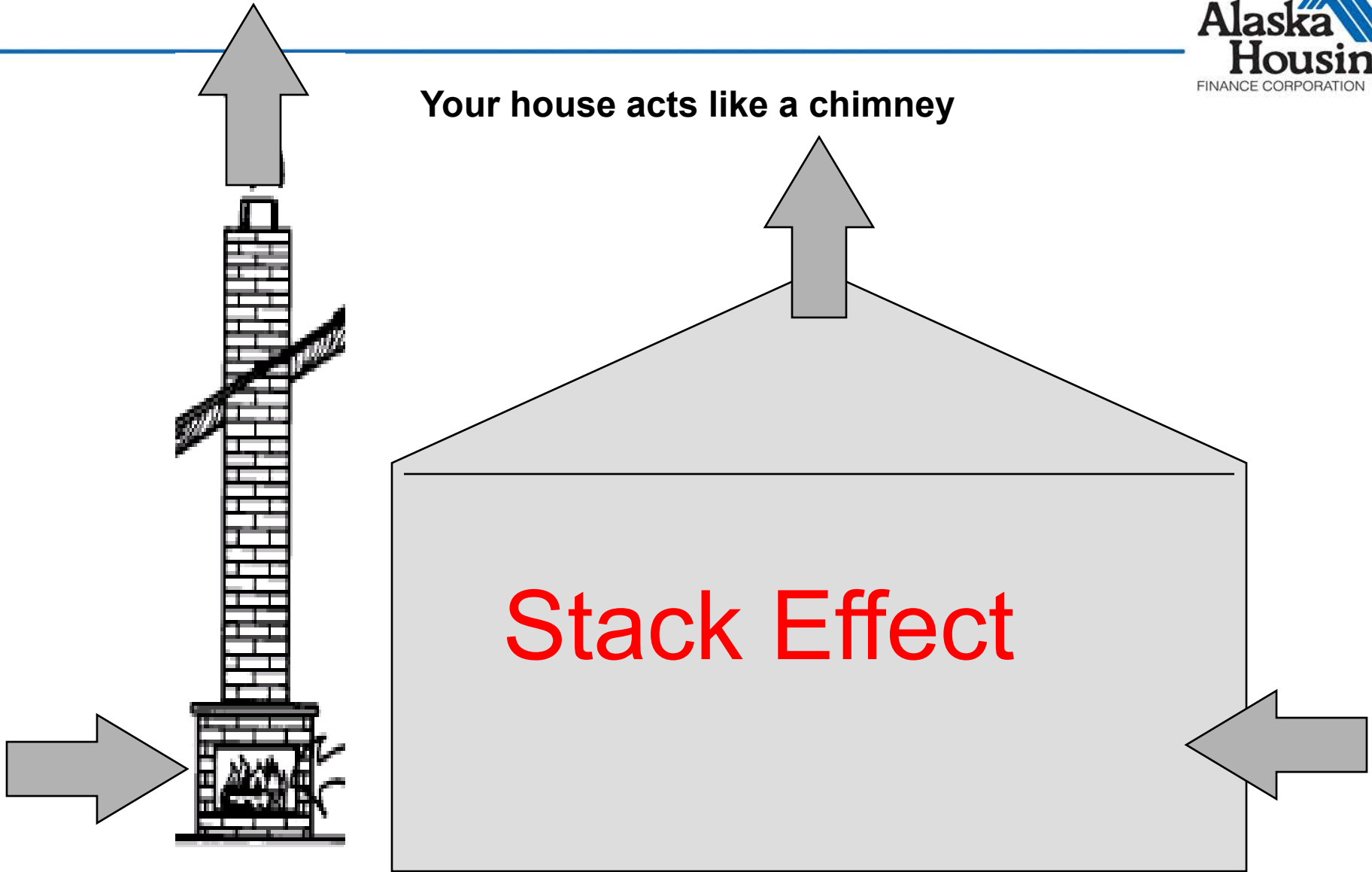
Building Science Basics

- Constants (sort of)
 - Heat
 - Air
 - Water/Moisture
 - Variable
 - Occupants
-

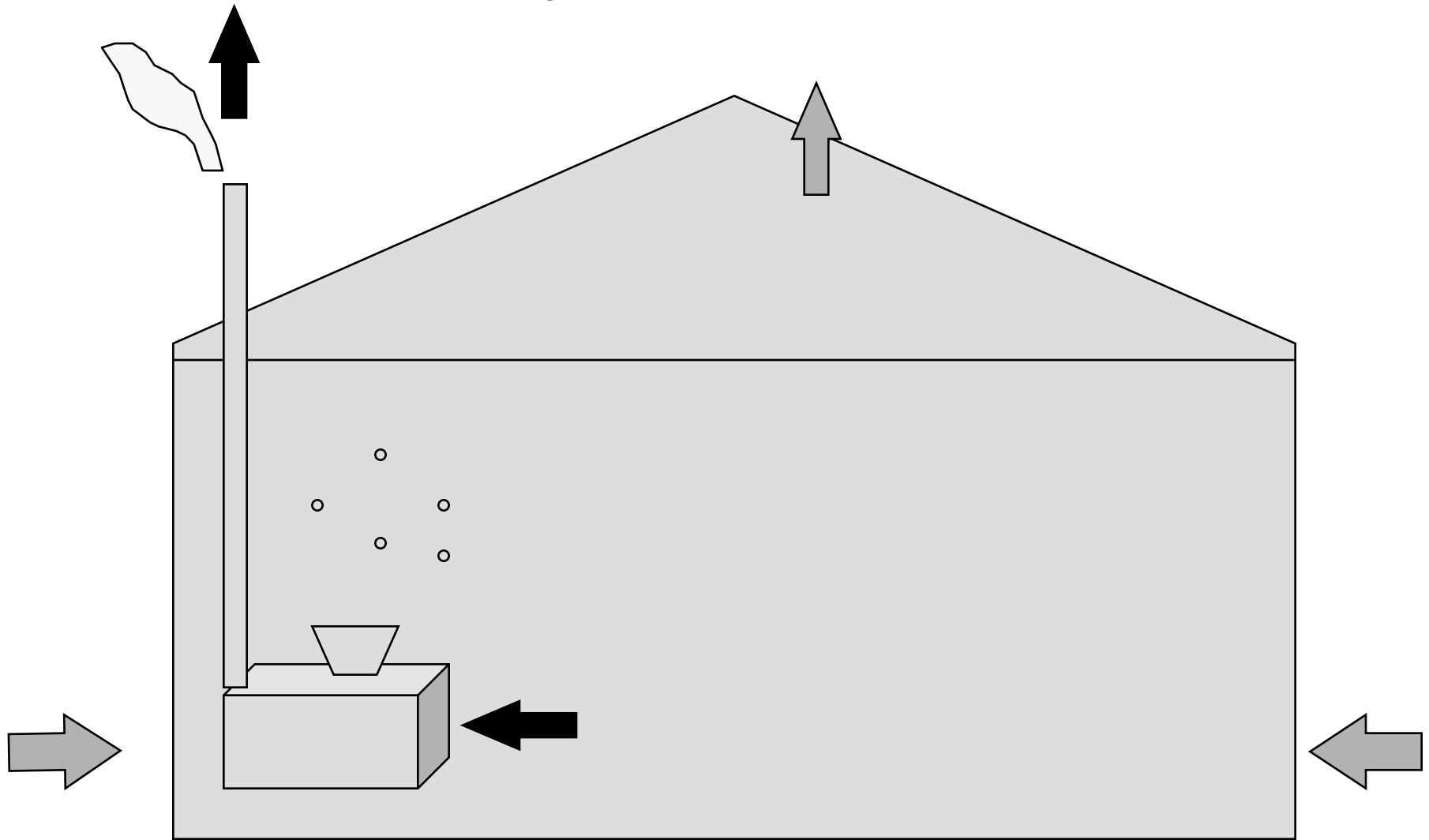
The Basics of Building Science

- Heat moves from hot to cold
 - Air leakage is a major cause of energy inefficiency
 - Air moves from high pressure to low
 - Air Leakage is a primary Moisture Movement Mechanism
 - Moisture moves from wet to dry
 - Bulk water & moist air movement causes major moisture problems
-

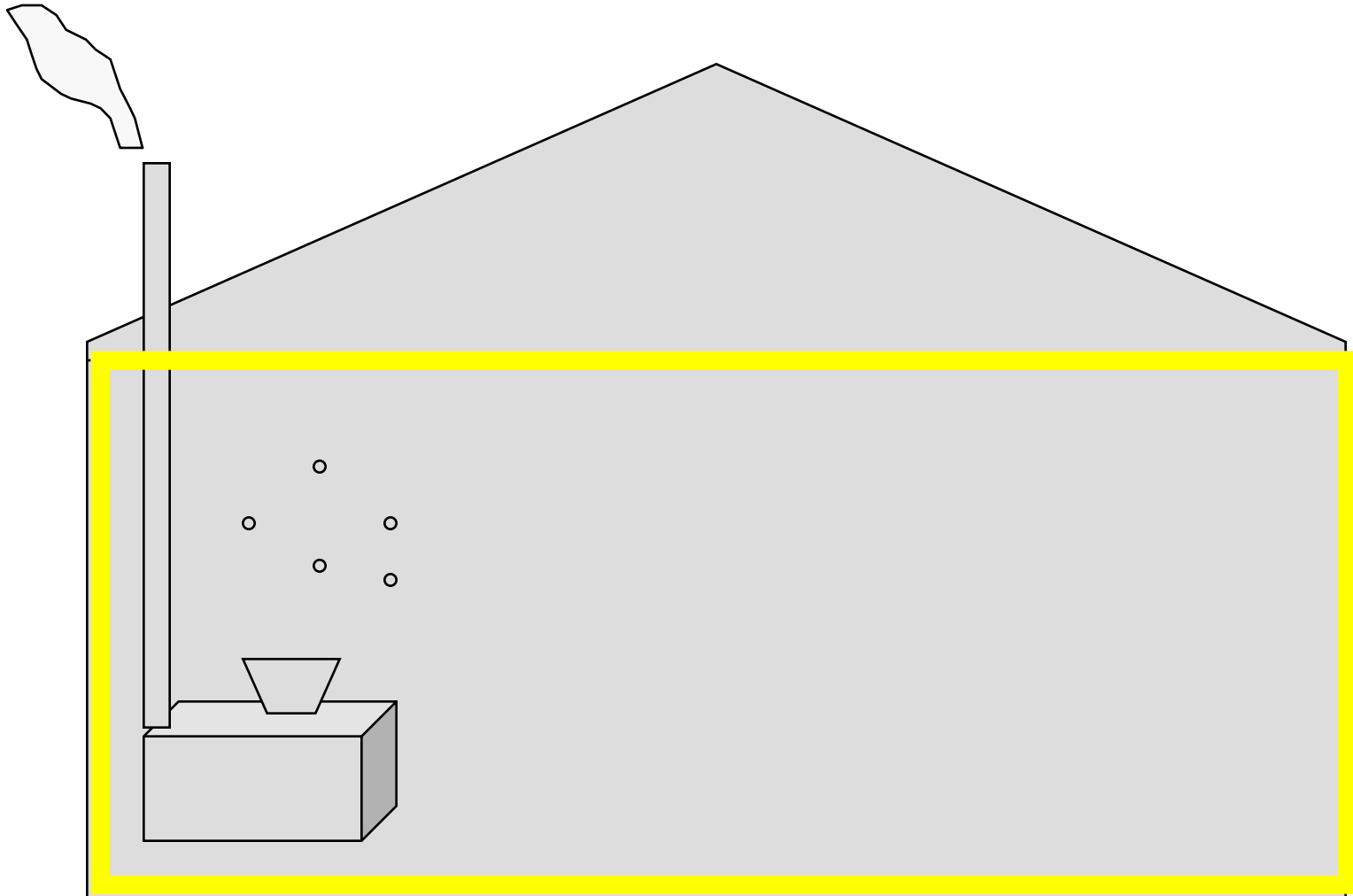
Your house acts like a chimney

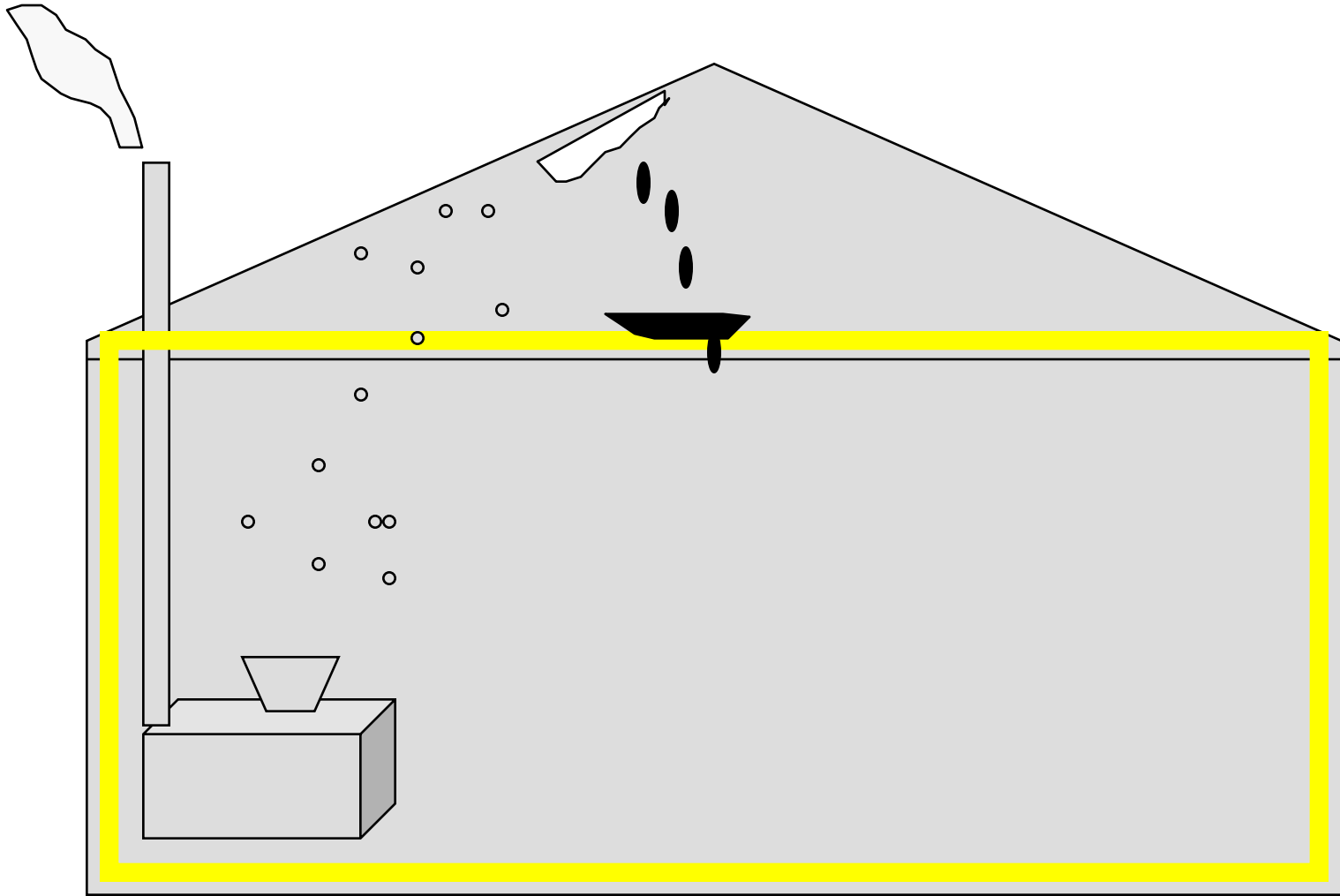


House As A System



House As A System





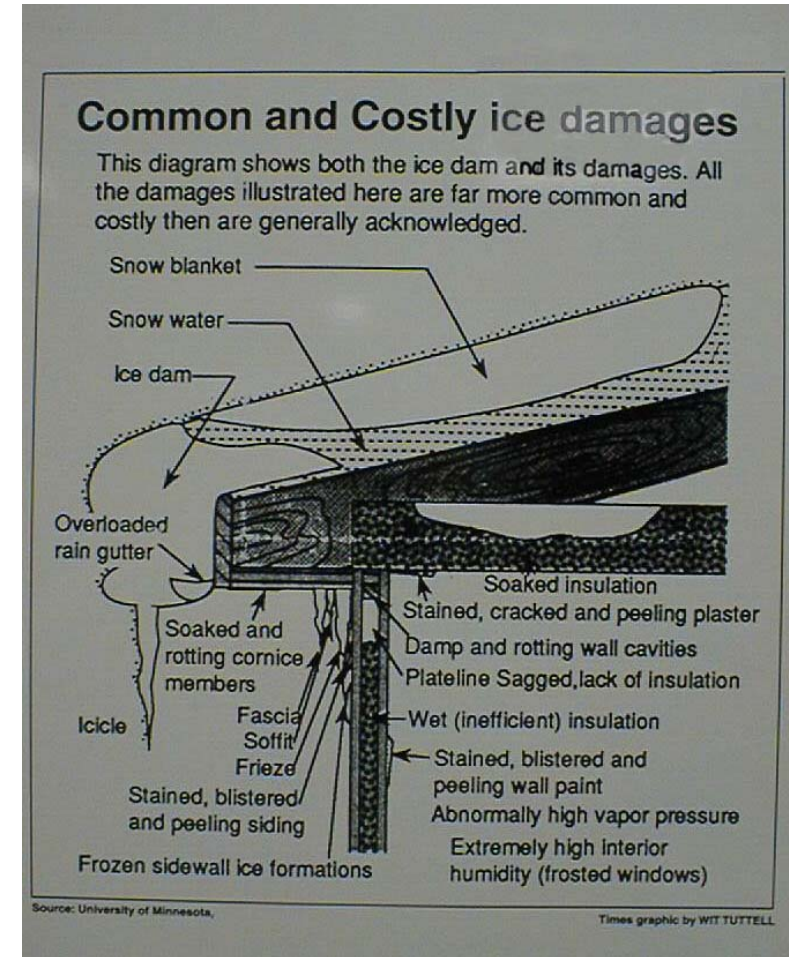
Air Leaks to Attic



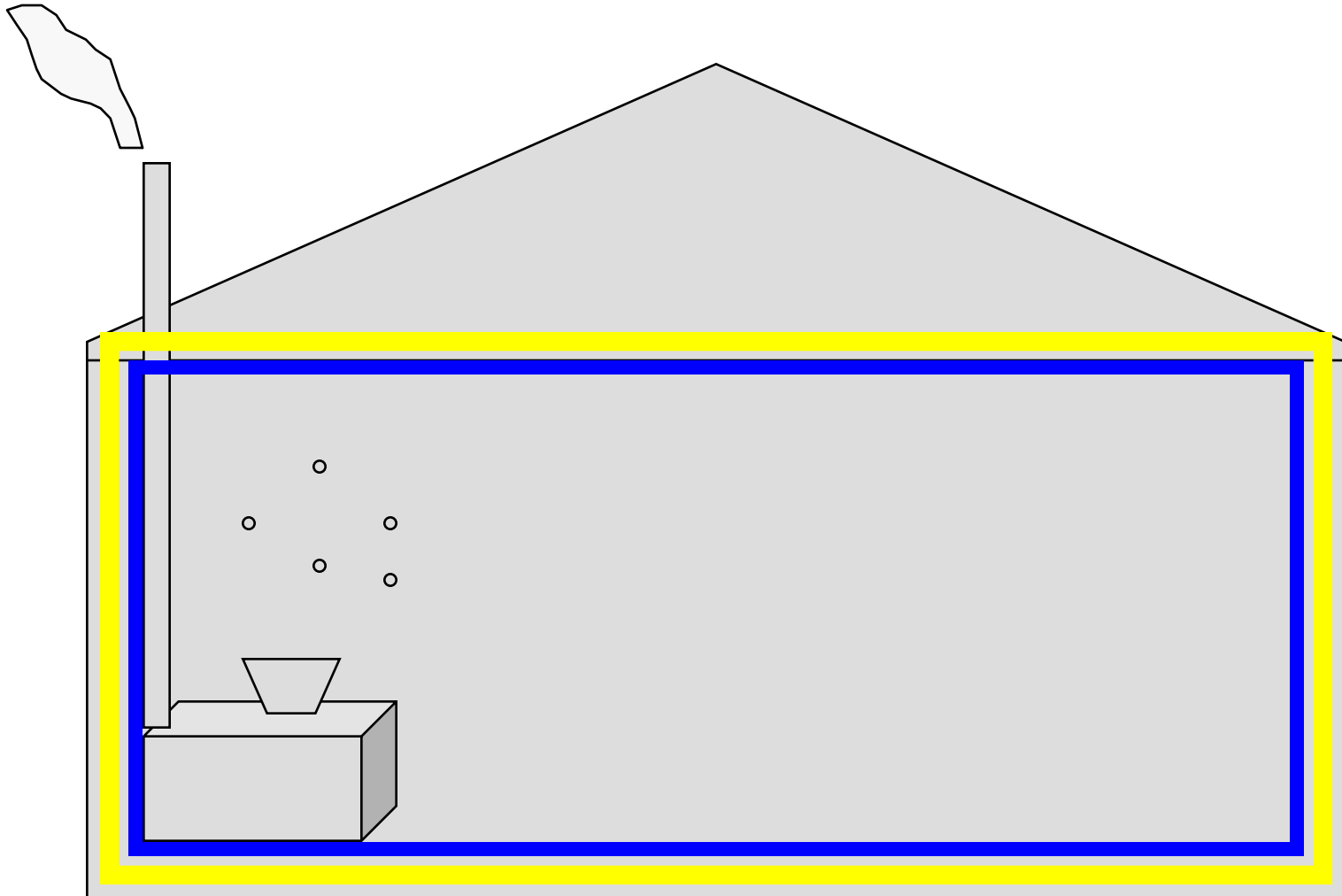
Air Leaks to Attic



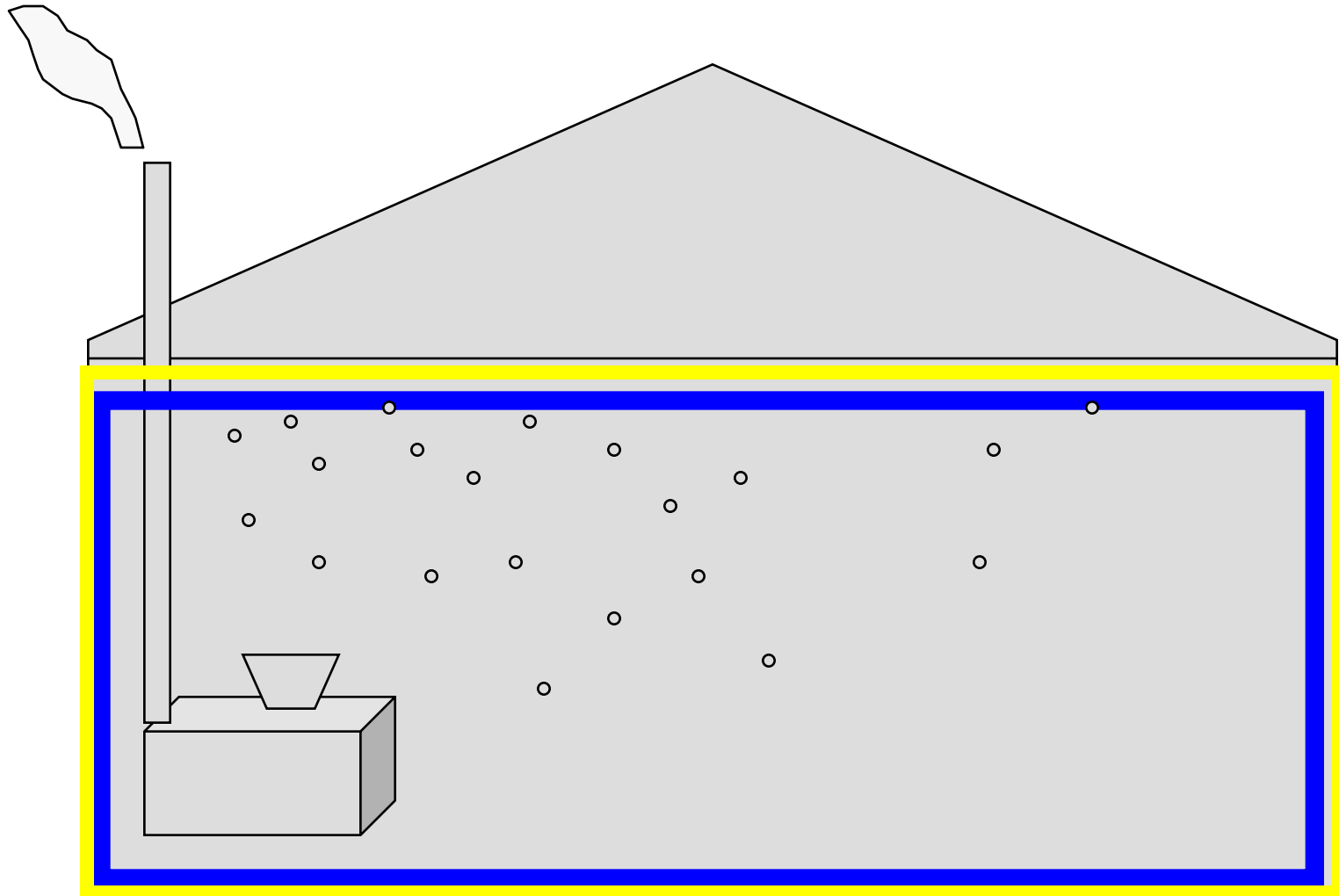
Anatomy of an Ice Dam



House As A System

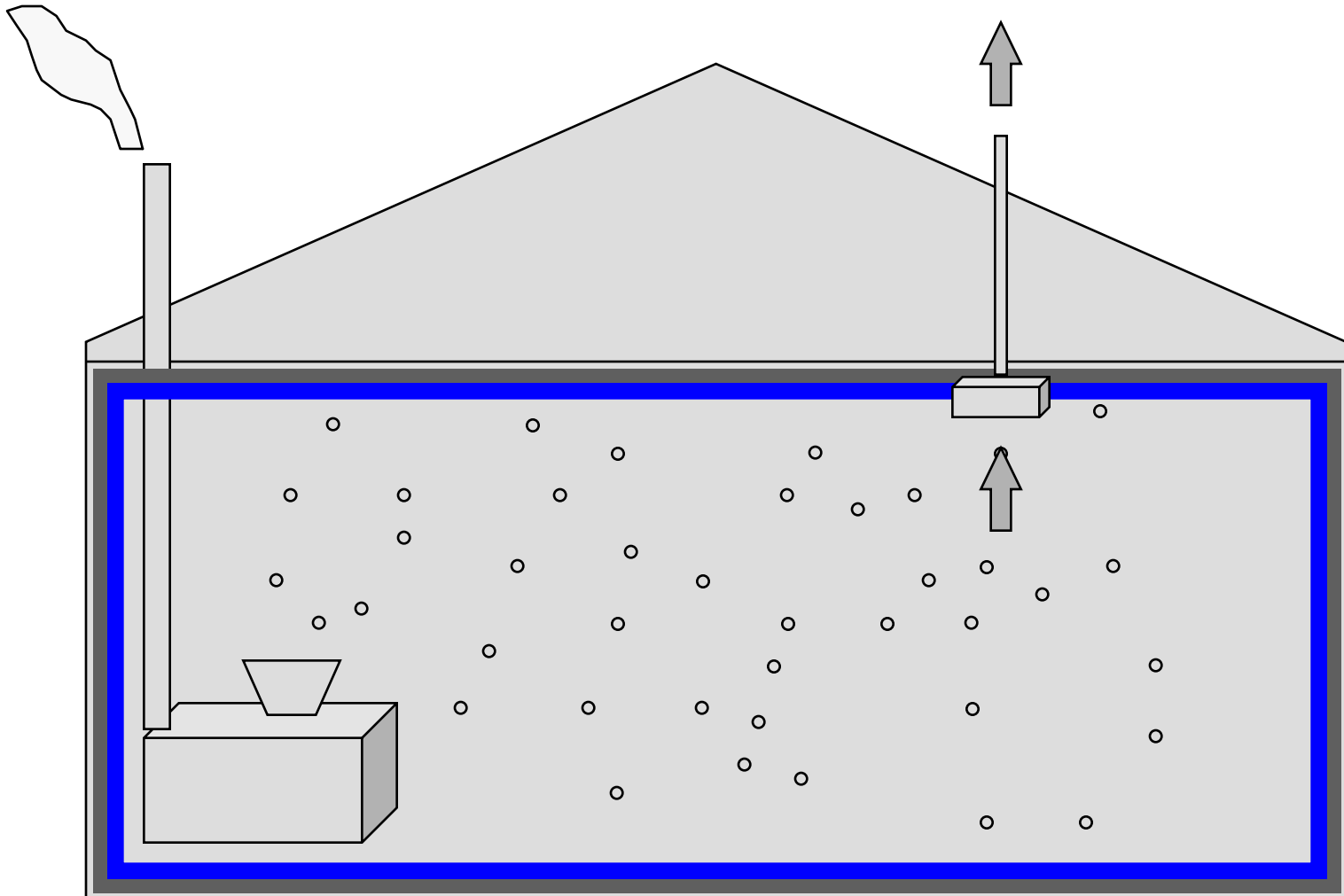


House As A System





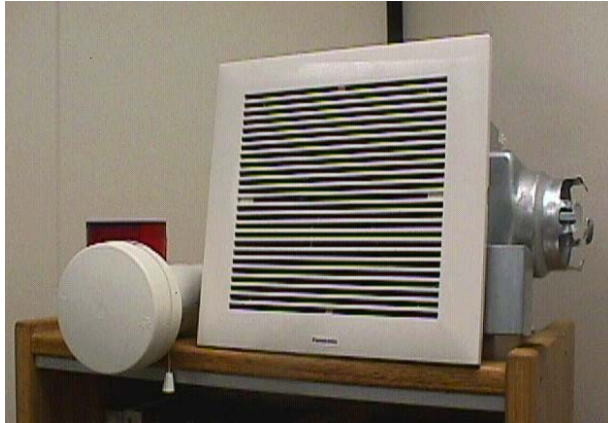
House As A System



Proper Ventilation

- Build Tight – Ventilate Right

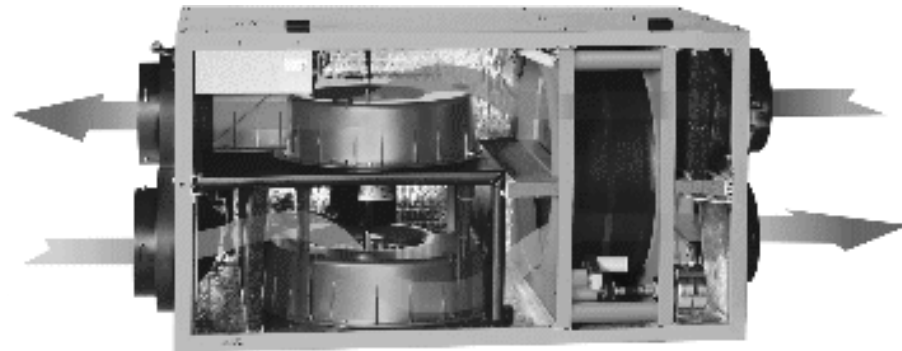
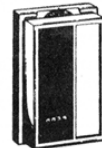
Quiet, Efficient, Continuous Duty Fan



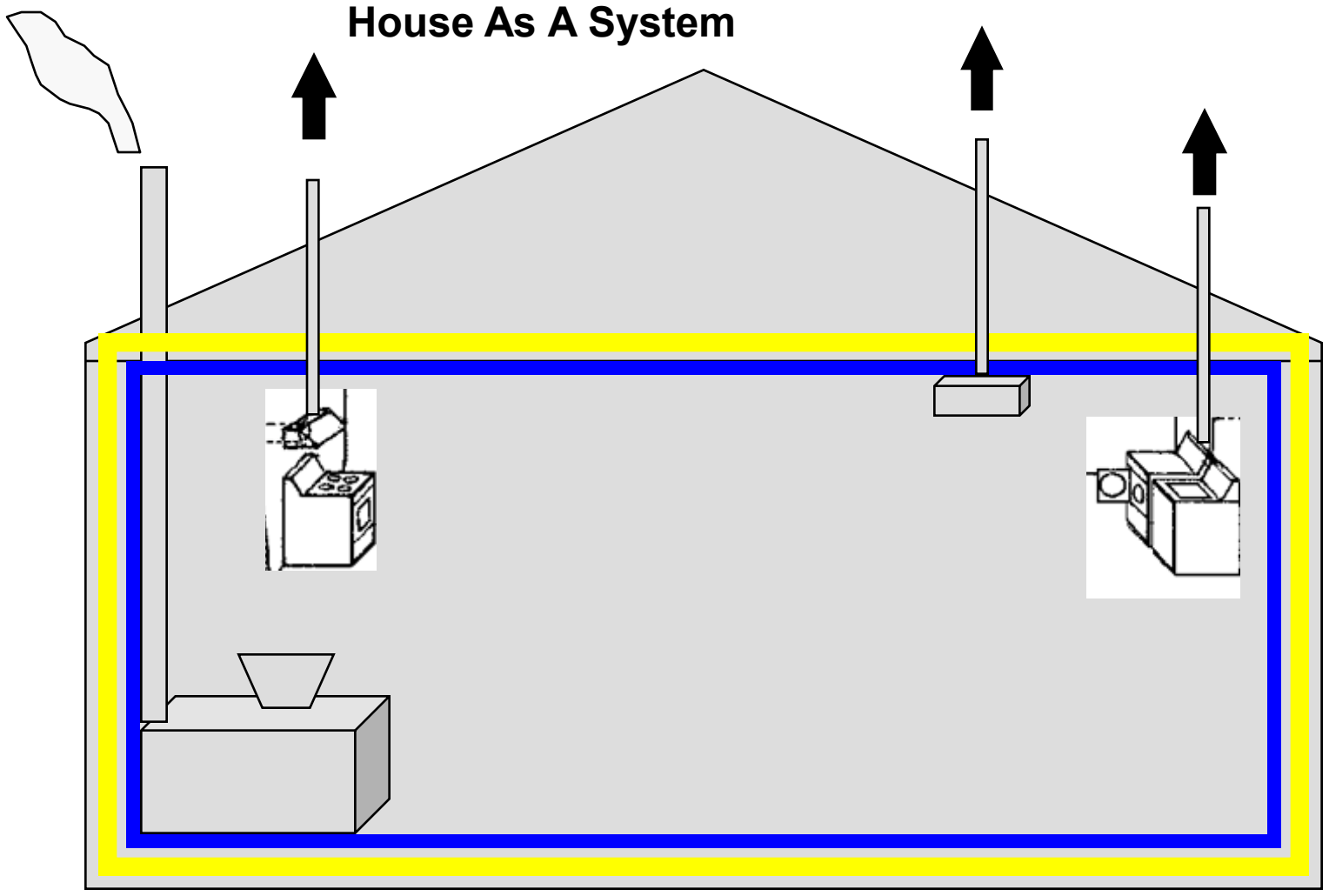
Panasonic 90cfm



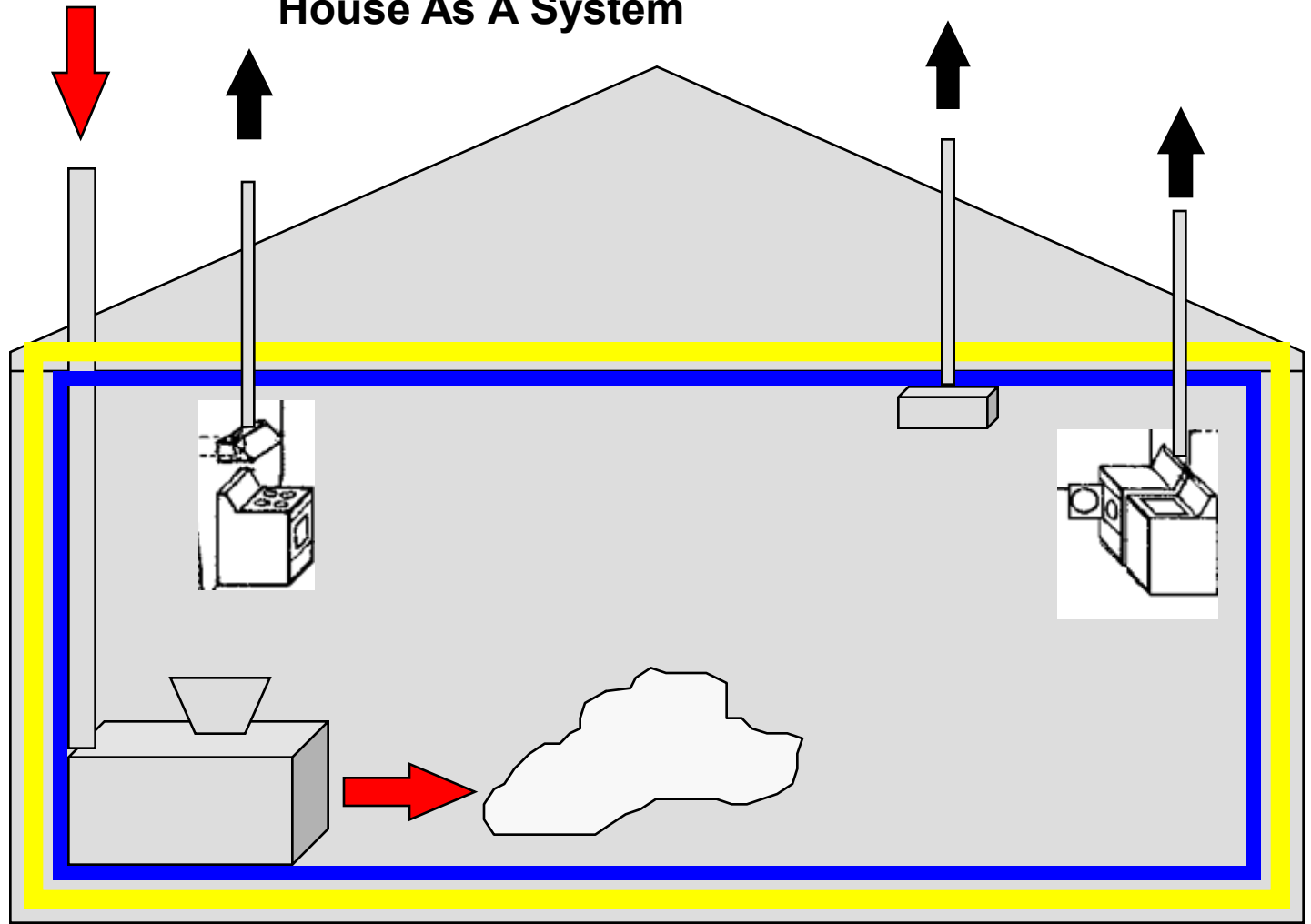
Panasonic 70/110cfm



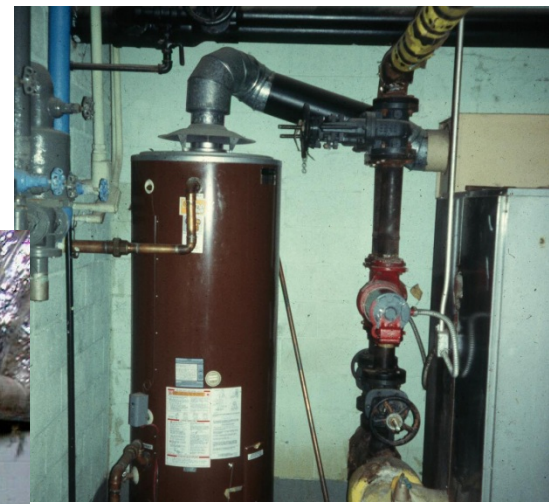
House As A System



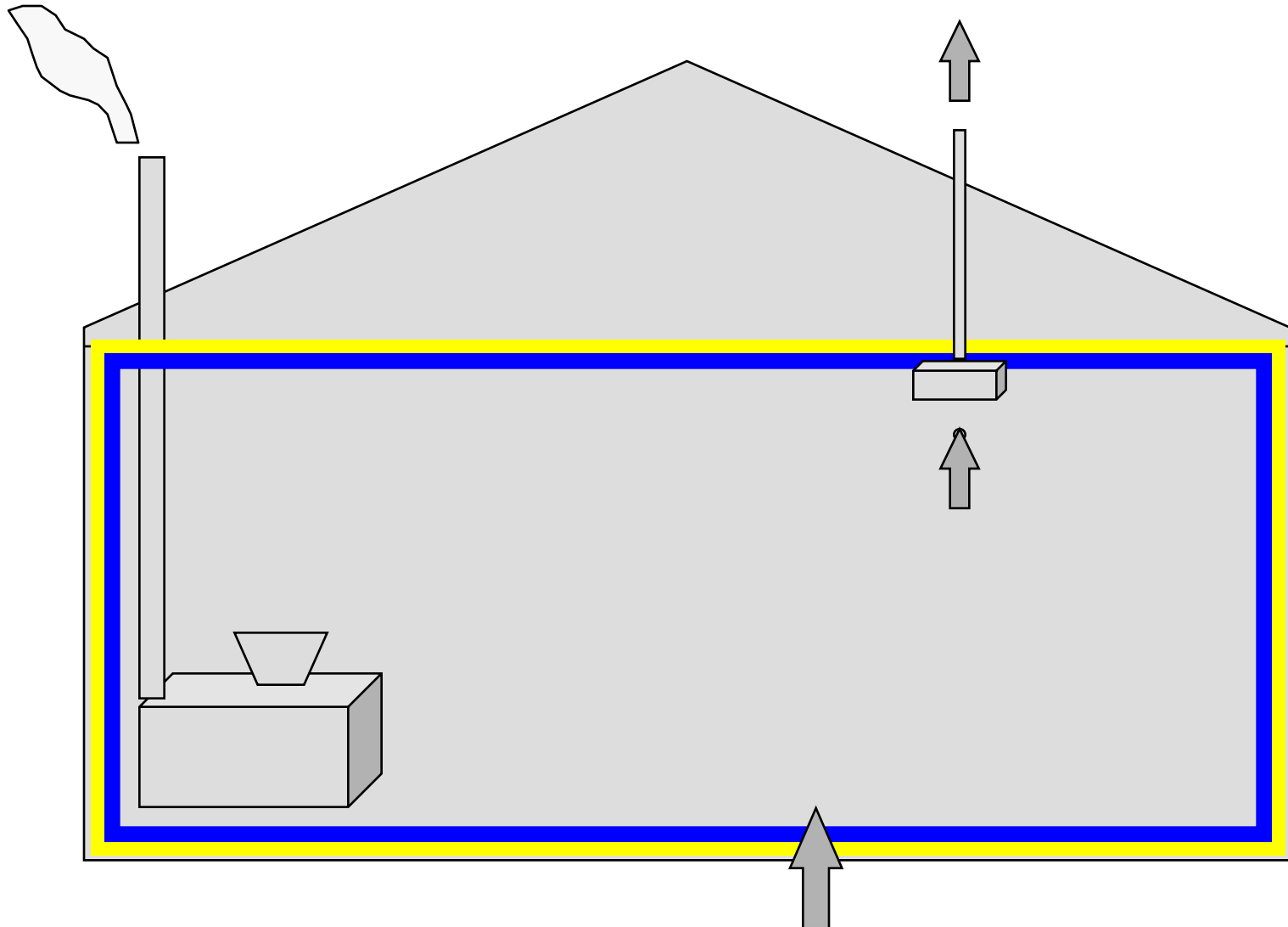
House As A System



Backdrafting



House As A System



Crawlspace air

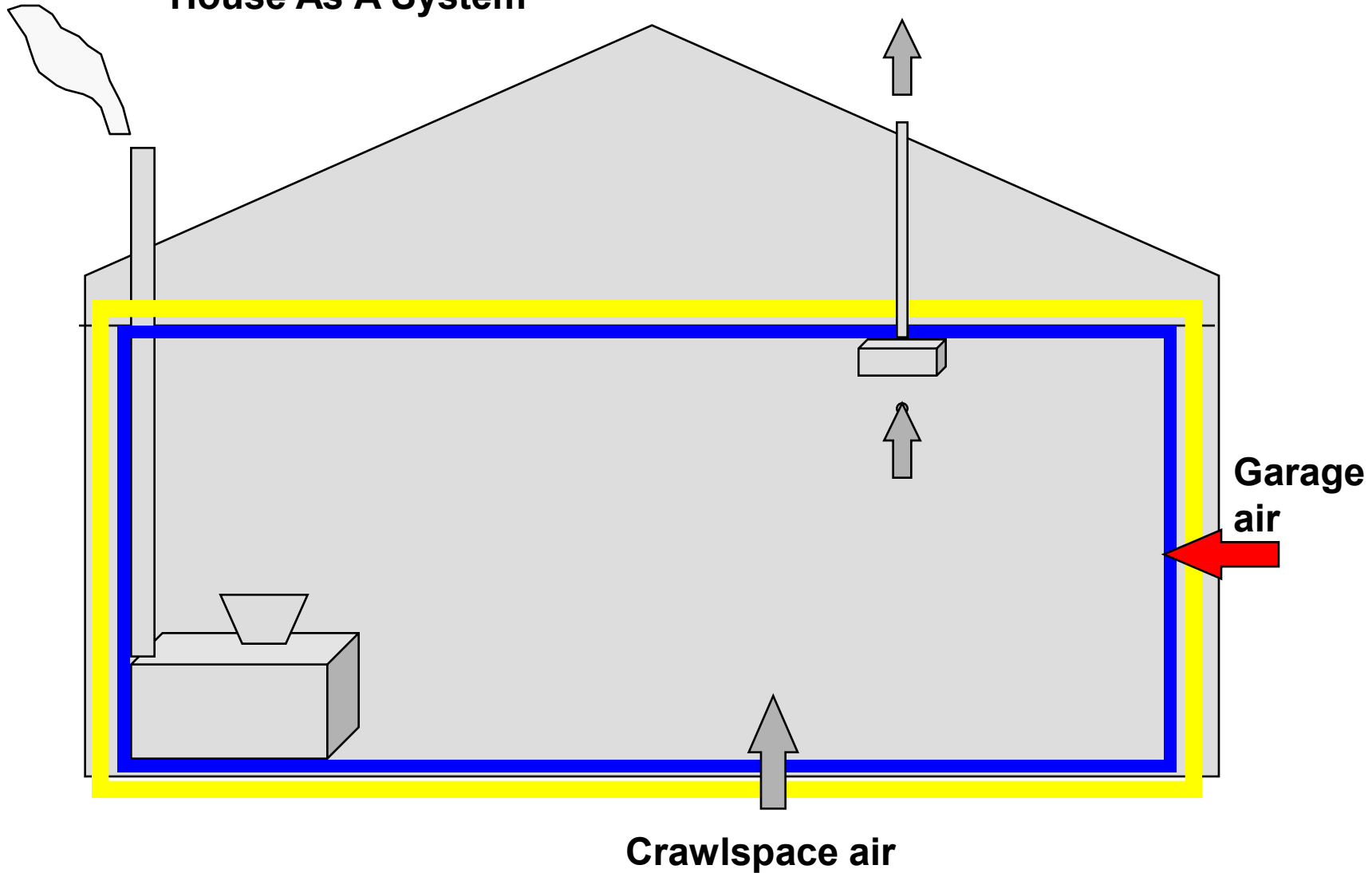


Doing it Right

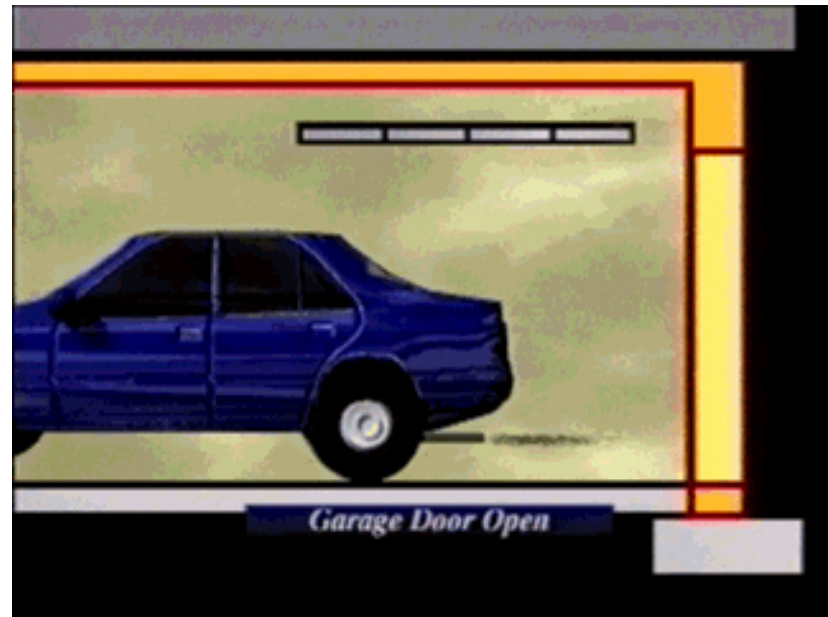




House As A System



Car Running in Garage, Door Open



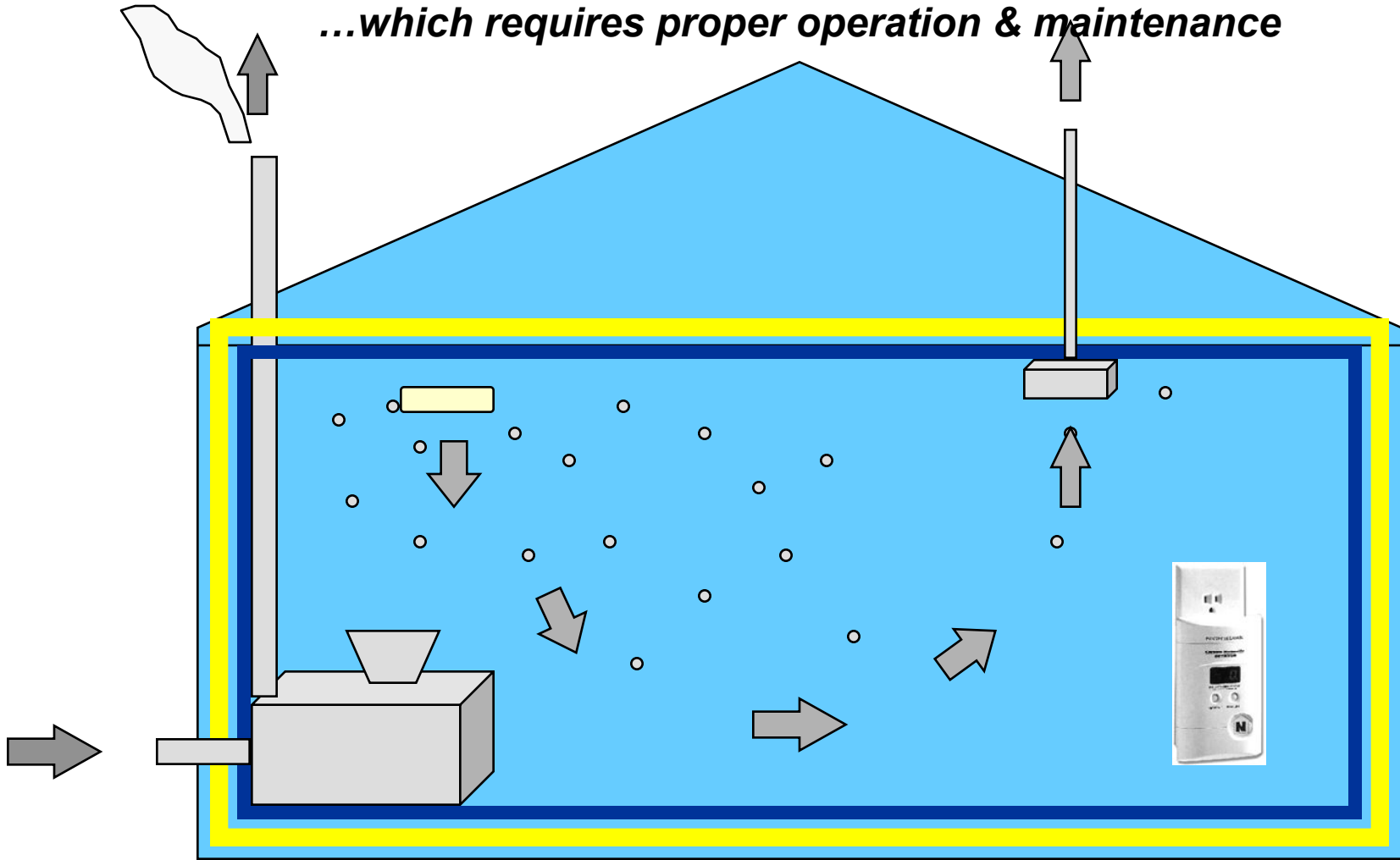
Carbon Monoxide Increases Rapidly



Make our Homes

- Safe and Healthy
 - Comfortable
 - Durable
 - Affordable
 - Environmentally responsible
-

Your House is a System
...which requires proper operation & maintenance



Questions?

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