

Hazardous-material exhaust by use

2024 model IMC 502.8-502.10

Quantity alone does not select a ventilation path. Classify storage/use, any-quantity gas enclosures, point capture and HPM separately.

Field checks

- **Storage above MAQ, 502.8.1:** mechanical exhaust or natural ventilation demonstrated acceptable for materials as stored. The mechanical path uses at least 1 cfm per square foot, continuous operation unless an alternate design is approved, labeled approved emergency shutoff, vapor-density pickup and room-sweeping airflow.
- **Gas rooms/cabinets/exhausted enclosures, 502.8.2:** negative to surroundings at any hazardous-material quantity. Under MAQ does not waive this rule; toxic gases can have additional 502.9 duties.
- **Dispensing/use:** above-MAQ use follows 502.8.1 ventilation. NFPA 704 rank 3/4 use needs capture at generation unless the specific no-harmful-emissions demonstration applies. Storage/use exceptions are narrow.
- **HPM, 502.10.2:** assess equivalent-rated shafts and no fire-wall penetration; fire dampers are prohibited in HPM exhaust ducts. Do not generalize this to every non-HPM hazardous duct. Prohibited contaminated-air recirculation remains a separate rule.

Evidence to collect

Material and control-area inventory; SDS/process; gas enclosure and point-source facts; exhaust schedule; HPM/IFC/IBC evidence.

Official model-code source

ICC 2024 IMC Chapter 5 - relevant section

Educational model-code summary. Confirm the adopted edition and actual inventory. No project-specific fire-code determination or permit outcome is implied.