

ANSI/ASHRAE/ASHE Standard 170-2008

Arkansas Chapter ASHRAE
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by

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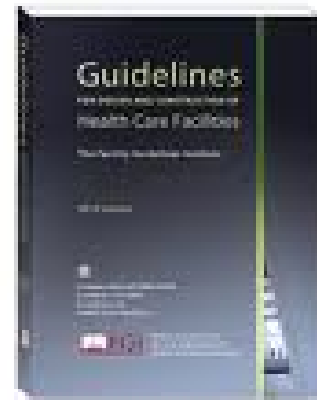
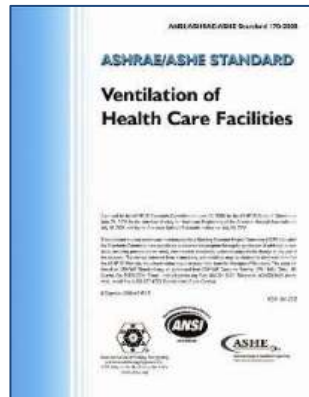
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History

- Roots in ASHRAE Standard 62
- First SPC meeting: 2002
- Standard issued in 2008
- First ASHRAE Standard co-sponsored by ASHE
- Standard recently given continuous maintenance status
- Standard incorporated in *2010 Guidelines for Design and Construction of Health Care Facilities*

Relation to the Facilities Guidelines Institute

- Current Committee Members from both FGI and ASHRAE
- Working to complete integration of Guidelines HVAC requirements into the Standard



Specific Requirements

1. Purpose:

“to define ventilation system design requirements that provide environmental control for comfort, asepsis and odor in health care facilities”

2. Scope

- includes hospitals, nursing facilities, and outpatient facilities



3. Definitions

- Class A, B & C surgeries



4. Compliance

- Paragraph 4.6 Criteria Ranges



5. Planning

- Owner must provide a detailed program, including temperature, humidity and pressure control requirements



6. Systems and Equipment

- Reserve capacity for cooling sources
- AHU must comply with ASHRAE Standard 62
- Table 6-1 Minimum Filter Efficiencies
 - Differential pressure measurement required for filters > MERV 12
 - Final filters not required in Class A operating rooms and outpatient spaces
 - MERV 7 vs. MERV 8
- Emergency power required for ventilation and maintenance of differential pressure in All rooms, PE rooms, and Class B and C operating rooms

7. Space Ventilation

- Reference to ASHRAE Standard 62
- Specific types of heat for special areas
- Dedicated exhaust for All
- Dedicated exhaust for morgue/autopsy
- Table 7-1
 - Generally minimum of 2 Ach of outside air
 - Generally includes relative humidity limits
 - Class B and C operating rooms – 20/4 Ach vs. 15/3
 - All rooms not required to be constant volume
 - Class B and C operating room air distribution

8. Planning, Construction and System Startup

- Maintenance staff able to access mechanical rooms and equipment without intrusion into surgery and critical care areas
- Cooling tower discharge directed vertically with drift directed away from outside air intakes
- Owner must provide an ICRA
- Operator training required
- Ductwork cleaned prior to use

9. Normative Reference

- For reference only, not part of the Standard



10. Informative Annex A

- Pressure testing
 - ORs semi-annually
 - All and PE rooms daily when in use
 - Filters monthly
 - Unitary equipment serving patient rooms inspected and cleaned monthly
 - Finned Tube, induction, convection units cleaned quarterly

Changes in Progress

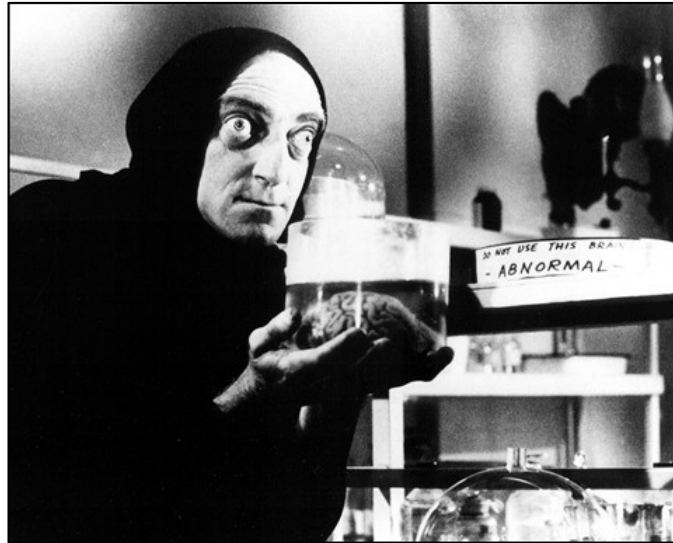
- Addendum a - published
- Addendum b - published
- Addendum c - rescinded
- Addendum d – forwarded to BOD for final approval



Future Changes/Current Issues

- Low relative humidity research
- Displacement ventilation
- Unitary equipment filtration
- Coordination with remaining 2010 Guidelines items
 - Ducted return air
 - Placement of PE room HEPA filters
 - Bronchoscopy differential pressure
 - Definition of ER and Radiology waiting space volume
 - All Room anteroom airflows
 - Additional spaces
 - Dialysis treatment area
 - Dialyzer reprocessing room
 - Nuclear medicine hot lab
 - Nuclear medicine treatment room

Questions and Answers



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