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ASHE ICRA 2.0 Matrix: Class I–V Barrier Requirements & Negative Air Sizing

DIRECT ANSWER: ICRA means **Infection Control Risk Assessment** — the documented process assigning a Class I–V precaution level before construction or maintenance disturbs an occupied healthcare building. ASHE ICRA 2.0 crosses activity type (A–D) with patient risk group (Low through Highest). Class IV and V major renovations require continuous differential pressure (≥ -0.020" w.g. / -2.5 Pa), minimum 12 ACH, dedicated anterooms, and rigid or ≥ 6-mil NFPA 701 flame-retardant barriers.

ASHE ICRA 2.0 Field Verification & Barrier Matrix

Class	Scope / Activity	Barrier Requirements	Ventilation / ACH	Negative Pressure & Monitoring
Class I	Non-invasive; inspection, paint (no sand), ceiling tile lift (≤ 1).	No physical barrier. Replace tiles immediately upon exit.	Normal HVAC. Minimize disruption to room airflow.	Neutral. Visual inspection log.
Class II	Small scale, short duration; minor cabling, controlled sanding.	HEPA tent or drop clothes; adhesive walk-off mats at exit.	Seal active diffusers; hand-held HEPA vacuum active during work.	Neutral to slightly negative. Never use Class II for demolition.
Class III	Moderate dust/vibration; single-room demo, new drywall, floor removal.	Polyethylene containment (≥ 6-mil); taped airtight seals.	Seal supply/return diffusers. Minimum **6–10 ACH**.	Negative pressure verified daily with smoke tube or digital manometer.
Class IV	Major demolition or construction in High/Highest risk patient units.	Critical barriers to structural deck; rigid walls or ≥ 6-mil poly (NFPA 701).	Dedicated HEPA exhaust outdoors (≥ 25 ft from intakes) or 99.97% scrubbed. ≥ **12 ACH**.	Continuous digital monitor with visual/audible alarm at **< -0.020" w.g. (-2.5 Pa)**.
Class V	Major multi-room construction adjacent to OR, ICU, oncology, transplant.	Class IV barrier **plus dedicated constructed anteroom** for staging & PPE.	Negative pressure cascade (Room < Anteroom < Corridor). ≥ **12 ACH**.	Continuous digital logging at ≤ **-0.020" w.g.** Disposable coveralls removed in anteroom.

Mandatory Barrier Decommissioning & Sign-Off Sequence (ASHE ICRA 2.0 Table 6)

Critical containment barriers for Class III (Type C), Class IV, and Class V cannot be dismantled until the following sequence is documented:

1. **Dust-Generating Work Cessation:** All mechanical, electrical, and structural demolition or drywall work is 100% complete.
2. **Negative Air Flushing:** Negative air machines continue running post-construction to cycle and flush airborne particulates (minimum 2 hours / policy duration).
3. **Terminal HEPA Cleaning:** Thorough HEPA vacuuming of all ceiling grids, walls, and flooring followed by wet damp-wiping with EPA-registered hospital disinfectant.
4. **HVAC Re-balancing:** Diffusers unsealed only after particulate settling; airflow directions and air change rates re-verified to design baseline.
5. **Joint Physical Sign-Off:** Infection Preventionist (or clinical designee) and Facilities Engineering representative conduct a physical walk-through and formally sign the ICRA permit closeout before barriers are disassembled.

Compliance & Legal Disclaimer: *This field sheet provides engineering and infection control best practices and does not constitute formal legal or clinical advisory counsel. All ICRA assignments must be formally approved by your facility's Multidisciplinary Infection Control Committee and Authority Having Jurisdiction (AHJ).*