ICRA Breach Response Procedures: Barrier Damage, Airflow Loss, and Dust Migration

Field Sheet — Stop-Work Triggers, Containment Isolation, Remediation, Air Checks & Patient-Exposure Follow-Up

Direct Answer (Practitioner Reference): When an ICRA containment barrier is damaged, negative pressure drops below the ASHE ICRA 2.0 / CDC minimum (-0.01 in. w.g. / -2.5 Pa; many facilities target -0.020 in. w.g.), or dust migrates into adjacent occupied space, dust-generating work must stop immediately per CDC Environmental Infection Control Guidelines. Secure and repair the barrier, restore negative air and HEPA filtration, wet-clean or HEPA-vacuum impacted surfaces (never dry sweep), document the breach and verification readings, and trigger Infection Prevention surveillance or patient relocation when high-risk immunocompromised units are adjacent.

Breach Scenario	Immediate Stop-Work Trigger	First 15-Minute Action	Governing Authority
Barrier Damage (torn poly, unsealed penetration, propped door)	Any visible opening or compromised airlock seal	Halt dust-generating work; tape/re-seal poly or close rigid door; inspect corridor	CDC EICG (2003/2019); ASHE ICRA 2.0
Airflow / Pressure Loss (positive or < -0.01 in. w.g.)	Magnehelic/digital monitor drops below -0.01 in. w.g. (-2.5 Pa) or alarm sounds	Stop work; check HEPA NAM power, ducting, filter loading; deploy backup HEPA unit	CDC EICG; ASHE ICRA 2.0; ASHRAE 170
Dust Migration into Clinical / Corridor Space	Visible dust, debris, or tracked footprint outside barrier	Stop work; isolate corridor; wet-wipe and HEPA-vacuum surfaces (no dry sweeping)	CDC EICG (2003/2019)
Water Intrusion / Wet Porous Materials	Active leak or wet drywall/ceiling tile inside or adjacent to containment	Shut off/contain source; dry and repair or discard porous materials within 72 hours	CDC EICG (72-hr mold rule)

Post-Breach Remediation, Air Verification & Patient-Exposure Checklist

Phase	Required Verification / Action	Sign-Off Owner
1. Containment & Air Quality	[ ] Confirm negative pressure >= -0.01 in. w.g. (-2.5 Pa) and target ACH restored; run diagnostic particle sampling if barrier integrity is questioned (CDC)	Facilities / Contractor Lead
2. Surface Remediation	[ ] Wet-clean and HEPA-vacuum all affected horizontal surfaces, vents, and equipment; replace compromised sticky mats	EVS / Contractor
3. Incident Documentation	[ ] Log breach time, location, ICRA class, root cause, stop-work timestamp, remediation actions, and post-repair pressure reading	Facilities & Safety
4. Patient-Exposure Follow-Up	[ ] Notify Infection Prevention; activate active Aspergillus surveillance for nearby immunocompromised patients (HSCT, transplant, neutropenic); assess relocation if severe	Infection Preventionist
5. Restart Authorization	[ ] Written joint clearance from Infection Prevention and Facilities before resuming dust-generating work	IP + Engineering

Practitioner prep/reference tool based on CDC Environmental Infection Control Guidelines (2003/2019), ASHE ICRA 2.0 (2022), and ASHRAE 170. Facility Infection Prevention and AHJ policies govern exact site-specific thresholds.