Monitor Pressure Differentials During Hospital Construction

THE DIRECT ANSWER

Pressure differentials are monitored with manometers - differential pressure gauges measuring the work zone against adjacent spaces in inches of water column - best practice being continuous monitoring with data logging and alarming, so a data-logging manometer in the anteroom proves the containment held negative pressure for the whole project.

THE MONITORING SETUP

- Placement: manometers in each anteroom, measuring the differential between the work area and adjacent spaces identified on the infection control schematic.
- Target: -0.01" w.c. negative in the work zone relative to surroundings (a widely used facility target, not an ICRA 2.0 or CDC requirement); many programs alarm at -0.01 / -0.02 / -0.03" w.c. per their ICRA selection.
- Logging: data-logging or printing capability - the record proves continuous negative pressure, not just a spot check at setup.
- Alarming: audible/visual alarm on pressure loss, so a failed negative air machine or breached barrier gets an immediate response.

WHAT THE RECORD MUST SHOW

- Continuity: the negative differential maintained for the entire work period.
- Any excursions documented, along with the corrective action taken.
- Readings checked on a defined frequency by an assigned person, and losses escalated immediately. A manometer installed but never read is decoration.
- Quick checks still help: smoke tubes, flutter strips, and ball-in-tube indicators at doors confirm airflow direction instantly - but they do not replace the logged record.

FIELD QUESTION

What pressure differential should construction containment maintain?

A widely used facility target is -0.01 inches of water column (2.5 Pa) negative relative to adjacent spaces (common practice, not an ICRA 2.0 or CDC requirement).

If it isn't logged, it wasn't monitored.

Caution: codes, editions, and targets vary by facility and authority having jurisdiction (AHJ). Figures marked as common practice are facility targets, not code requirements. Confirm against your AHJ and the current code text before acting.