Construction/Renovation Projects Infection Control & Life Safety

MHCSA Webinar

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Ernest E. Allen, ARM, CSP, CPHRM, CHFM

Complete before construction starts

- Pre-Construction Risk Assessment
- Interim Life Safety Measures
- Infection Control Risk Assessment
- Maintain binder with above documentation and inspection reports for project

Complete before construction starts

- Separation wall must be completed
- Temporary wall of fire rated plastic sheathing
- Dry wall and taped seams for projects with plastic sheathing extending to slab above

Complete before construction starts

- Maintain exit lights in construction area
- Maintain negative air throughout construction project
- Keep fire pull stations and sprinklers active during the project
- Fire extinguishers in identified locations, plus 1 by any open flame

Interim Life Safety Measures LS.01.02.01

- Written ILSM policy in place
- Complete ILSM assessment with project
- Implement ILSM's if needed:
  - Notify Fire Department
  - Alternative exit pathway signage
  - Daily inspections
  - Provide temporary but equivalent fire alarm and detection systems

ILSM Measures to Consider

- Provide additional fire fighting equipment
- Use temporary construction partitions
- Increase surveillance of construction area
- Enforce storage, housekeeping, and debris removal to reduce fire load
- Provide additional training to hospital staff on firefighting equipment
- Conduct additional fire drills

ILSM Measures to Consider

- Inspect and test temporary systems monthly
- Conduct education to promote awareness of building deficiencies, construction hazards, and temporary measures implemented to improve fire safety
- Train those who work in the hospital for impaired structural or compartmental fire safety features

Fire Watch Requirement

- If the fire alarm or sprinkler system is out of service 4 hours in 24 hour period notify the fire department
- Implement a fire watch
- Dedicated person at site is required per CMS, not a security officer making a stop at the construction site on his hourly round.

New 2014 FGI Guidelines Negative Air Pressure 0.03

Construction zone ventilation

- Dedicated exhaust from outside zone into zone
- **0.03 negative air pressure required**
- Should have digital monitor mounted on wall and document air pressure each day
- HEPA filters required if using ductwork - best method direct exhaust to the outside, i.e. fan in window

Facility Guidelines Institute

- New 2014 edition published
- *Guidelines for Construction of Hospitals and Outpatient Facilities*
- Likely to be adopted January 2015 by Joint Commission
- Available from ASHE - $200

Additional Construction Measures

- Signs on doors to construction area “Construction Area – Do Not Enter”
- Maintain daily inspection logs and current hot work permit
- Sticky mats or wet carpet at construction entrances
- Debris removal by covered cart or debris chute directly from area

Infection Control

- Patients are at increased risk for infections while hospitalized due to medical conditions
- Numerous compliance regulations:
  - Association of Professionals in Infection Control
  - Center for Disease Control
  - The Joint Commission
  - Facility Guidelines Institute

EC.02.05.01 EP 6 Ventilation & Pressures

- Focus area on surveys
- Direct Finding & follow-up survey if not corrected during the visit
- Negative and Positive Pressures in areas such as surgery, endoscopy, bronchoscopy, decontamination rooms, etc.
- Air balance reports needed

Endoscopy changed to NR No Requirement

- 2013 ASHRAE moved endoscopy from positive to NR
- Published in 2014 FGI Guidelines
- Joint Commission will allow now per George Mills, versus waiting for approval of 2014 Guidelines (likely January of 2015).
- Note in risk assessment and EOC Committee approval if hospital selects the option of NR versus positive pressure

EC.02.06.05 Manage environment during demolition, renovation or new construction

- Air Quality
- Infection Control
- Noise
- Vibration
- Utilities
- Minimize risks during demolition, construction or renovation

Aspergillus

- Fatal to 80% of patients infected
- Mold (fungus) spread by dust
- Patients with impaired immunity at risk:
  - Cancer
  - Lung Problems
  - Transplant
  - HIV
  - Premature newborn babies

Contractor Responsibilities

- Implement Control Measures
- Daily ILSM (Interim Life Safety Measure) checklist completion
- Maintaining Barrier Systems
- Protective Clothing & PPE
- Cleaning Procedures
- Debris Removal

Contractor Responsibilities

- Use gasketed door & frames
- Maintaining negative air pressure in demolition/construction area
- Use of HEPA filters and change as needed
- Debris disposal – if debris chute not available, use covered carts and take assigned pathway to hospital dumpster
- Surgery & high risk areas – use stairwell in & out of area or use designated elevator

Contractor Responsibilities

- Maintain barrier wall – install tightly to prevent dust from entering surgery or radiology
- Contractor Staff should use PPE as needed (face masks during demolition & dusty conditions, gloves as needed, etc.)
- Wipe down tools & equipment when leaving construction area and passing through patient corridor

Contractor Responsibilities

- ID badges
- Cover outside supplies
- Option of wet mopping floor to remove dust
- Wearing jumpsuits during demolition & dusty conditions

Hospital Employee Responsibilities

- Do not enter renovation/construction areas
- Learn alternate exit routes due to closed stairwell or normal egress pathway
- Notify department director of any dust or other construction related problems

Hospital Employee Responsibilities

- If concern over vibration or noise during the demolition phase or construction phase, report to department director
- Follow good infection control policies
- Extra fire drills during construction will be conducted as required

Debris Removal Policy

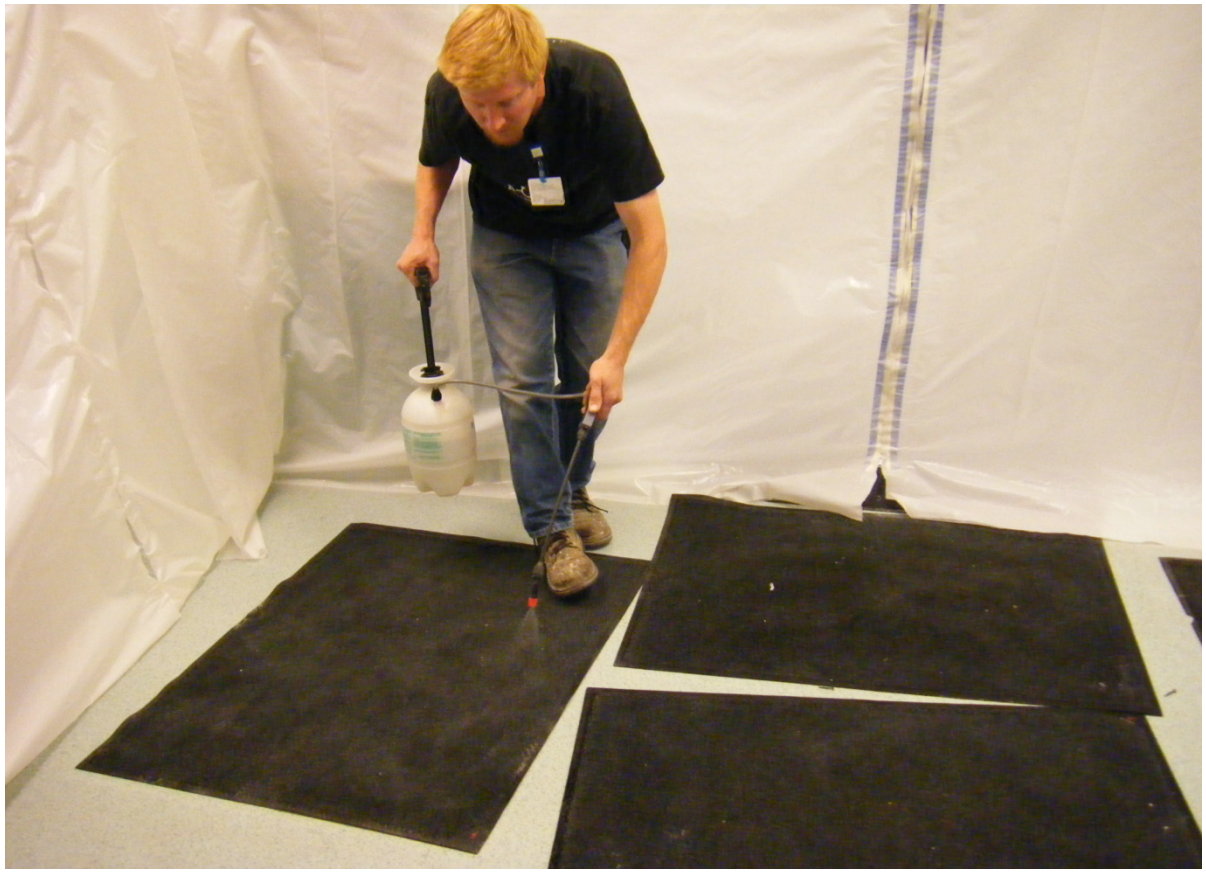
- Best option is exterior trash chute directly from area of construction
- Covered trash containers if transported out of area
- Use service elevators
- Avoid transporting through patient areas if possible

Use of wheelbarrows and trash carts to remove debris

- Remember to clean the wheels before transporting through patient areas, corridors and service elevator.

Floor Mats at Entrance/Exit of Construction Site
Be sure to change (peel off) as needed

Wet carpet works well



Top of Plastic Not Sealed

ILSM’s not in place

Construction site

Positive pressure observed

Keep fire pull stations and sprinklers active on project

Use shroud or ceiling tiles with sprinkler heads

Signage for sprinkler shut-off

Keep new ductwork clean

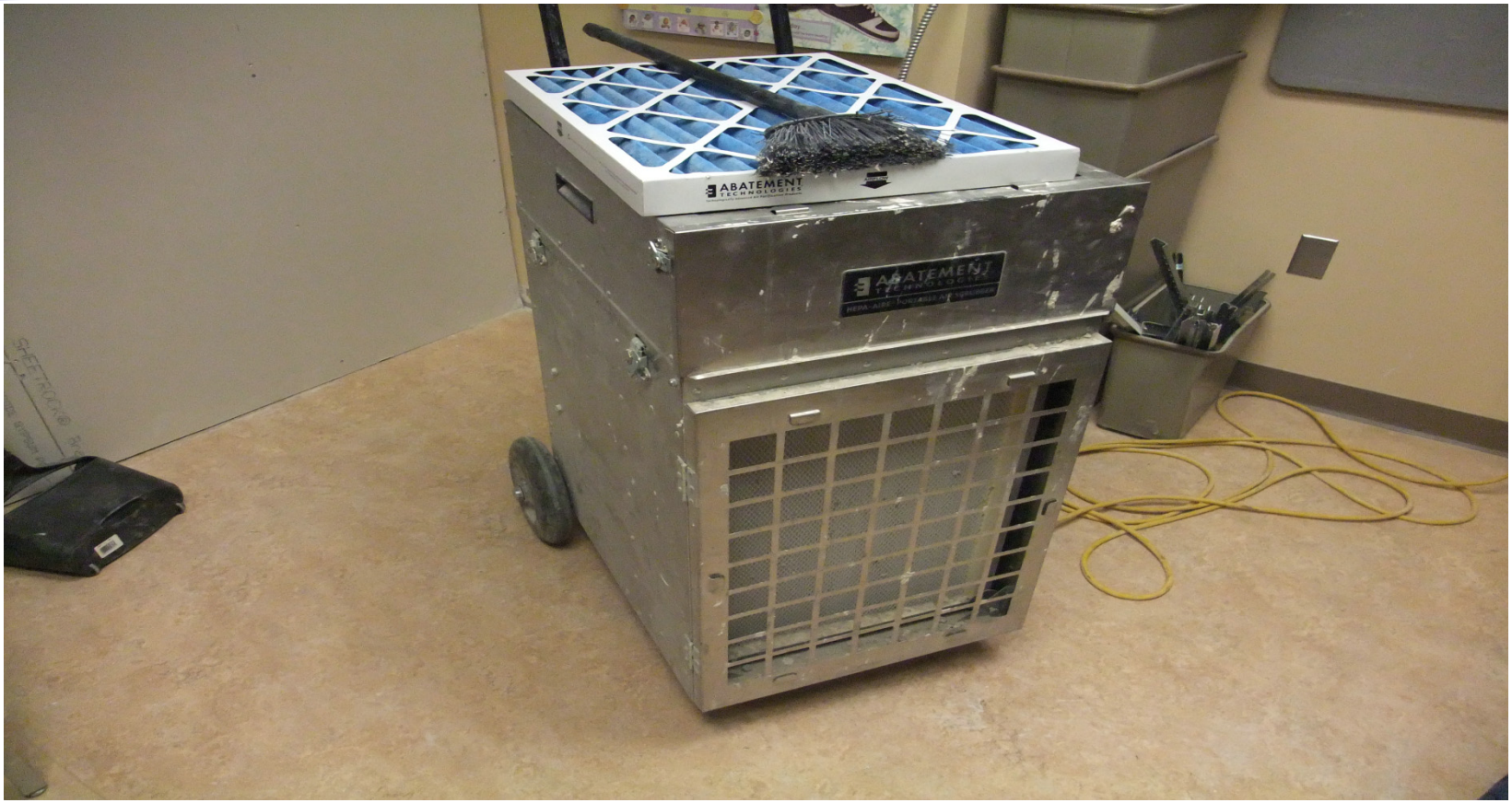
Monitor Negative Air Pressure

# Indicates negative pressure, but will not reveal over 0.1

Monitor Negative Air Pressure

Fans in windows work well

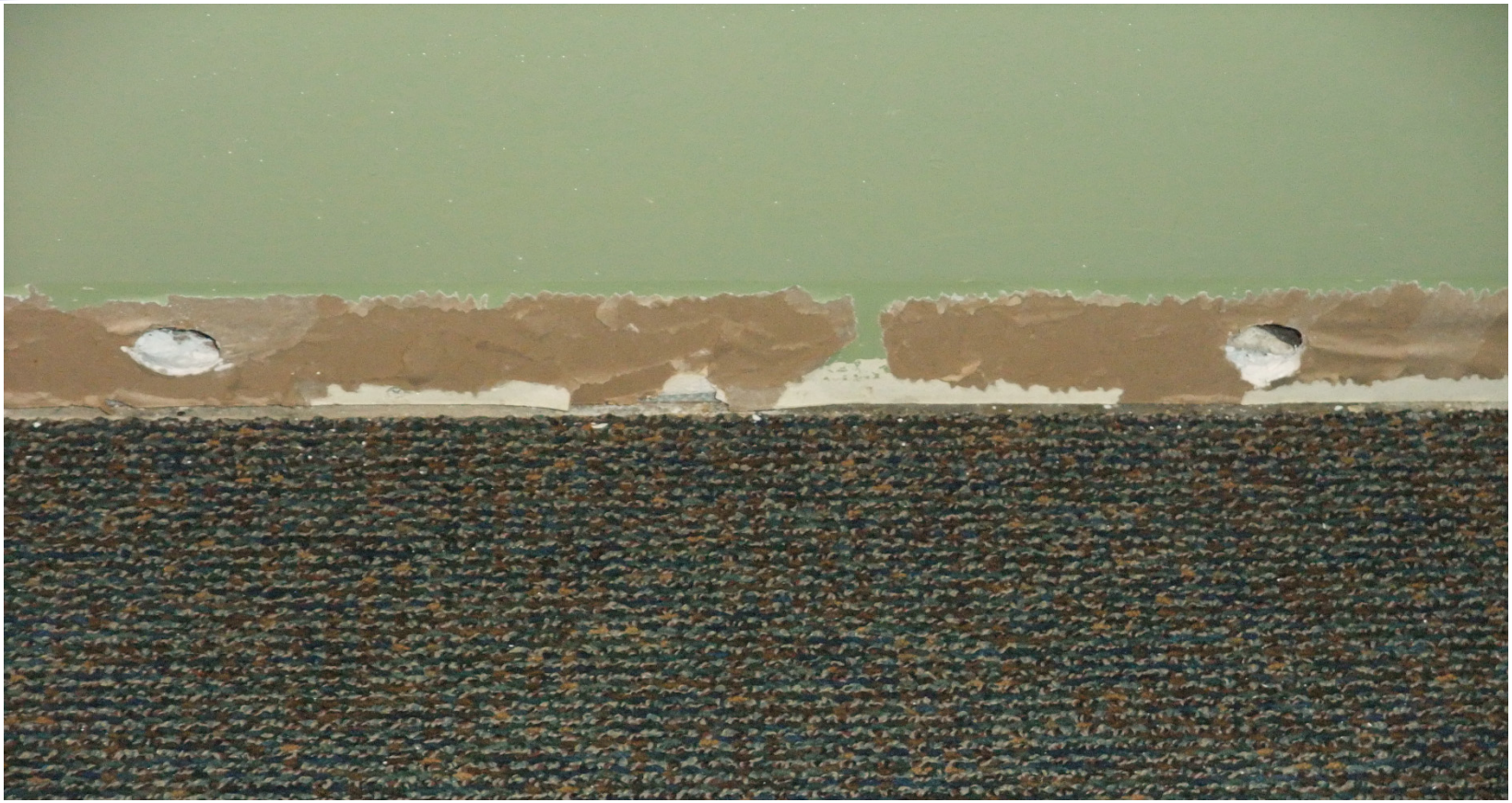
HEPA filter machine



Cover air inlets – but seal tightly, this one has a gap

Keep dust out of HVAC ductwork in construction area

Water leak – make sure walls are drained and dry



Seal off area – post signage

Exit sign in construction area
Fire extinguisher location sign

Permits posted near entrance to construction zone

Benefits of Good Program

- Reduce risk of hospital acquired infections
- Avoid disruption of clinical and staff activities
- Compliance with Standards
- Finish Project on Time

Liability Issues

- Healthcare insurers and Medicaid/Medicare (CMS) are refusing to pay for hospital errors, which may include hospital acquired infections
- Unreimbursed treatment increases the cost for the hospital
- Lawsuits from patients

Questions?

Thanks for attending the program

Ernie Allen, ARM, CSP, CPHRM, CHFM
Life Safety Consultant
216-291-4600
ernieallenarmcsp@hotmail.com