

Infection Control
TRAINING GROUP

INFECTION CONTROL PRINCIPLES

Plan for Success-IPAC Role in Pre-Project Planning

TODAY'S INSTRUCTOR



- Graham Dick
 - Certified Restorer, Certified Mold Professional, AHERA
- Principal of Genesis Restorations Ltd.
- 30+ years contracting experience
 - IC design and implementation for projects large and small
 - Fire/flood/Meth & Fentanyl/Blood borne pathogen decontamination
- CSA Z317.13 – 17 Standard
 - Technical Committee member
 - Contract instructor for CSA Group until July 2018
 - Infection Control Training Group: Founder/Master Trainer

PARTNER AT ICTG



- Craig Yee
 - B.Sc., M.Sc. (OEH), AHERA, CRSP
- OHS Global Risk Solutions
- 19+ years experience
 - Consulting, government, private industry
 - 10+ health care projects involving infection control
- CSA Standard
 - Committee member (Section 8, Construction)
 - Technical expert in infection control

COMMUNICATION STARTS WITH PROCUREMENT

- All contractors and trades entering a facility need show understanding of IC
- Vetting process can be improved – taking a class after winning the tender means they bid on the project without a clue of how to implement IC plan or what cost of compliance is.

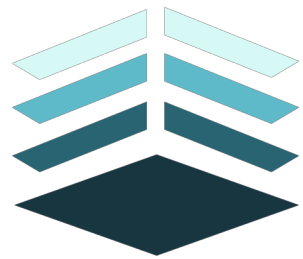
WHEN DOES THE ICP STEP IN?

Table 1
Preventive measures analysis
(See Clauses 6.5.1, 6.5.2, 7.1.1, 8.1.1 and, 7.1.4.2 and Figure A.1.)

Population risk group (from Table 2)	Construction activity type (from Table 3)			
	Type A	Type B	Type C	Type D
Group 1	I	II*	II	III/IV
Group 2	I	II*	III	IV
Group 3	I	III*	III/IV	IV
Group 4	I-III	III/IV*	III/IV	IV
Asterisks (*) denote where a lower level might be permitted in accordance with Clause 7.4 (Ceiling access for investigation or minor work)				

IPAC INPUT IN ALL PM3 AND PM4 PROJECTS DURING PLANNING PHASE

- Look at project plan and do ICRA with IC Plan for the project design group
 - Annex D: Sample Table of Contents for an Infection Control Plan
- On smaller (non-tender) projects, review ICRA & IC Plan
- All projects that are contracted out.
- All FMO works that generate or disturb dust in Risk Group 3 or 4 areas



Infection Control

TRAINING GROUP

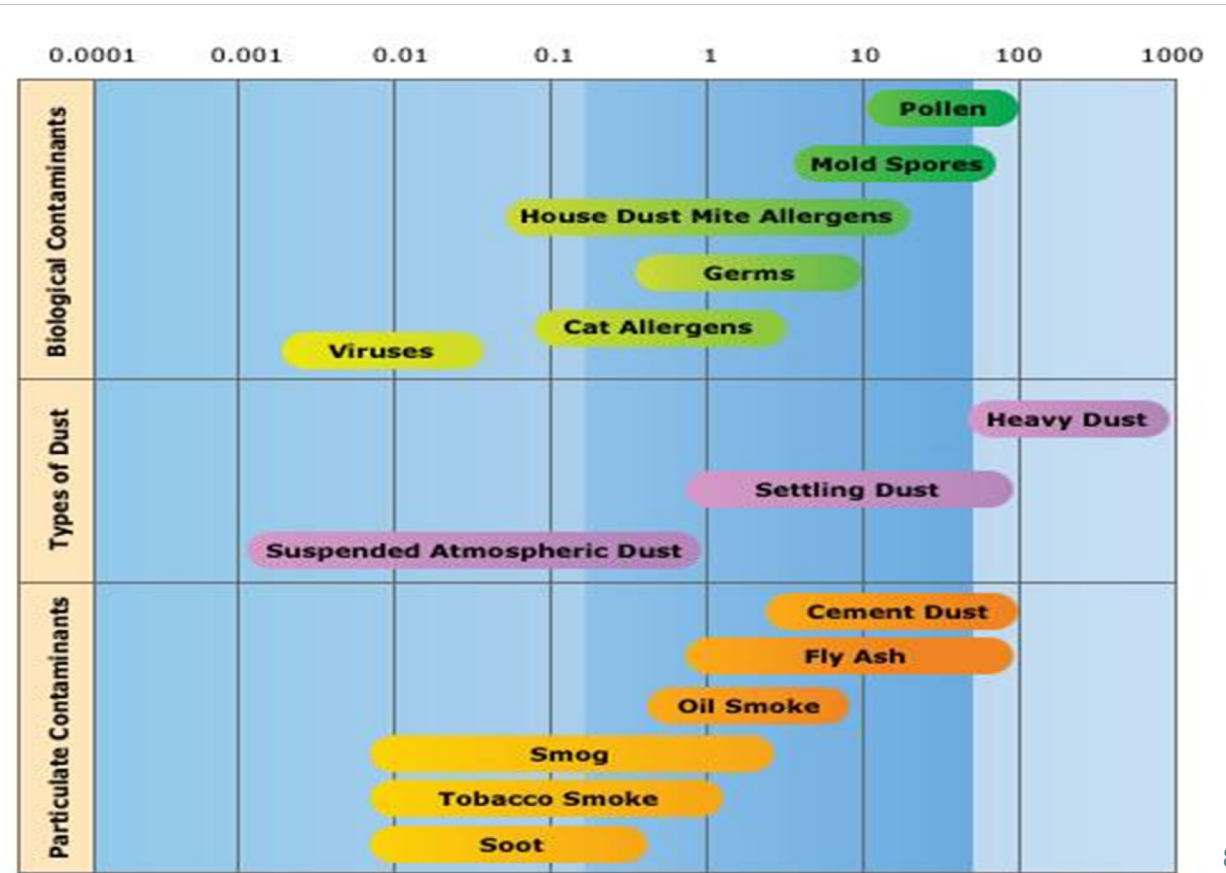
INFECTION CONTROL PRINCIPLES

Inspect for Success-ICP Inspections, What to Look For

PERSPECTIVE



HEPA 99.97% larger than .3 micron



DUST OR MUSHROOM COMPOST?

Construction Dust

- Gypsum
- Silica, concrete
- Sawdust
- Metal dust
- Insulation fibers
- Air pollution
- Pollen
- Mould fragments & spores

Occupied Hospital Dust

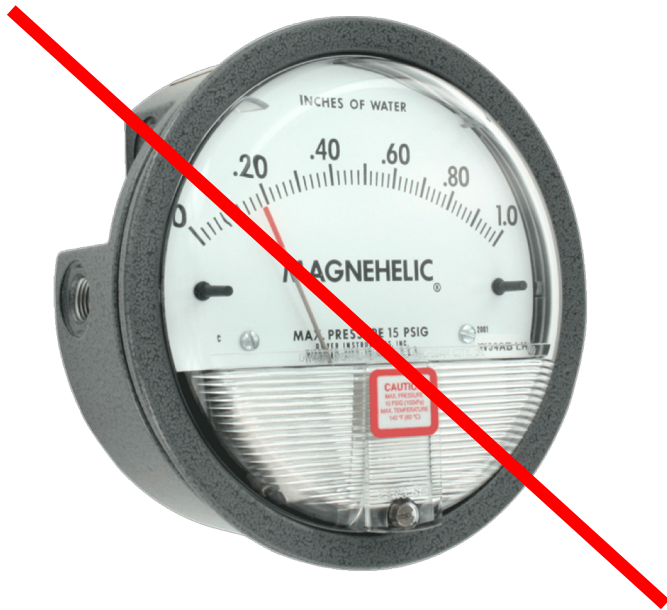
- Skin cells, dander
- Dust mites, faecal pellets
- Rodent, pest droppings
- Insects/spiders – ‘parts’
- Bacteria, viruses
- Clothing fibers (cotton, synth)
- Build up of mould fragments & spores

QA IS EASY; AND YOU DON'T NEED TO BE A CONSTRUCTION EXPERT:

- Ask the contractor/trades person questions
 - *Explain to me how your plan will protect 'our' patients?*
 - *Show me your inspection checklist*
 - *Show me your containment diagram*
 - *Explain how your negative pressure system will work?*
 - *How do you know within 90 seconds if you lose pressure?*
 - *Show me the settings on your manometer for high and low alarm; frequency of readings, delays, etc and explain to me how it works.*
 - *Show me your pressure differential report for the past 24 hours.*

MEASURING PRESSURE DIFFERENTIAL

Analog Manometer

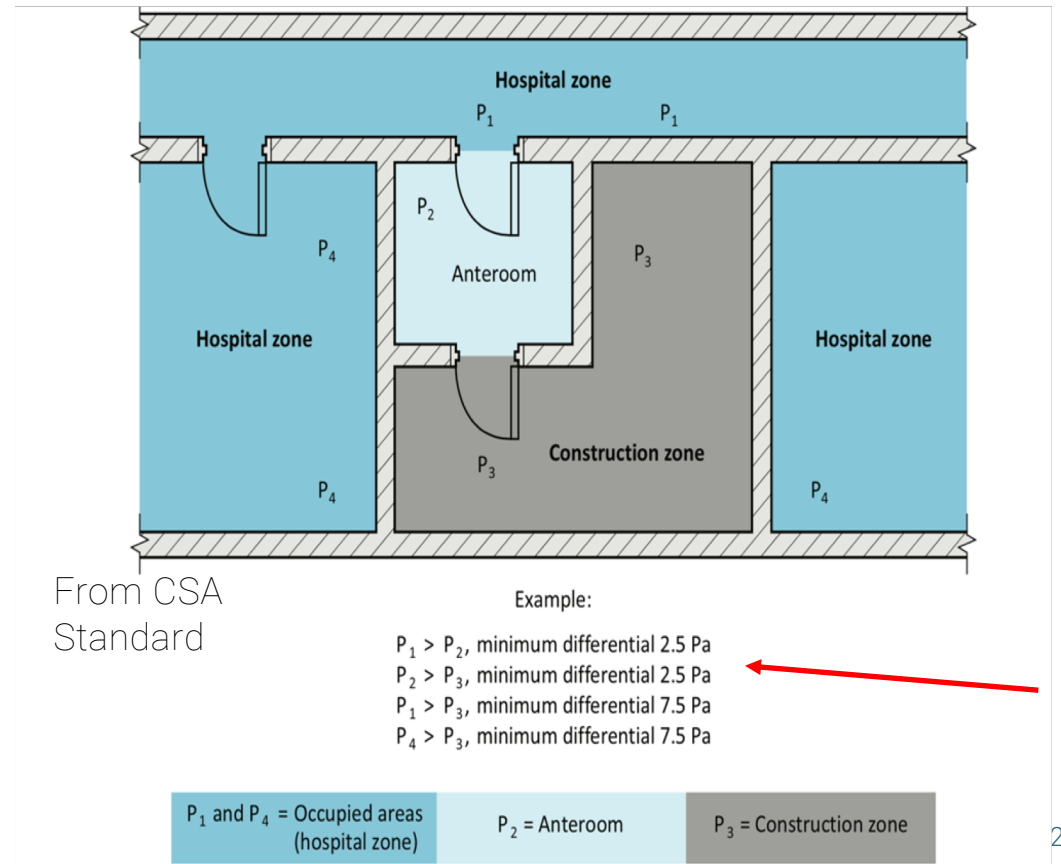


Digital Datalogging Manometer



ANTEROOMS VS DECONTAMINATION CHAMBER

- What's the difference?
- Make-up air (wind tunnel)
- Is it stocked properly?
- Is it clean?



ANTEROOM VS DECONTAMINATION CHAMBER

Anteroom



Decontamination Chamber



POP-UPS- HOW AND WHY

- Purpose/Use
 - Step 1 – anteroom
 - Step 2 – workzone
 - Step 3 – decon chamber

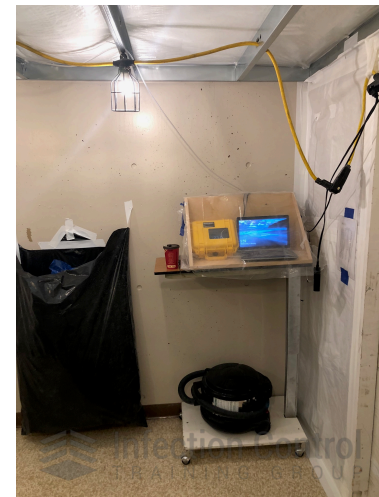


STOCK LIST

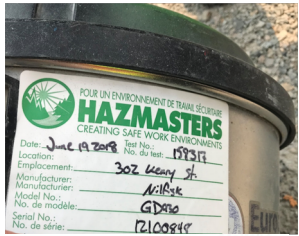
- Anteroom (exit outside)
 - Signage
 - Garbage receptacle
 - Hand sanitizer
 - Boot scraper, boot scrubber



- Decon Chamber (exit inside to Hospital zone)
 - HEPA vacuum
 - Garbage receptacle
 - PPE storage
 - Signage
 - Wash bucket
 - Hand sanitizer
 - Carpet mat (inside)
 - Sticky mat (outside)



CAHU OR NEG AIR MACHINE



- CAHU's
 - A HEPA vacuum is a BAD CAHU.
 - Abused, high failure rate
 - Look for certification sticker on machine (within 12 months or start of PM4 project)
 - *Show me your inspection/ maintenance form which includes filter changes?*

CAHU DUCTING



- CAHU's
 - Ducted outside
 - No layflat through patient areas (only in workzone)
 - Ducted inside?
 - Performance leak tested at start of project or reasonably frequent
 - Duct to risk group 1 or 2 area
 - HEPA filtered air is better than the hospital are in 98% of the areas.
 - Double-scrub provides redundancy

CAPTURE DUST AT SOURCE



HOW CLEAN IS 'CLEAN ENOUGH'?

SMALL PROJECTS (NO ANTEROOM)

- “Reasonably visibly clean with no non-adhered substances...”
 - HEPA vacuum
 - Damp wipe with microfiber mop/rag



UNACCEPTABLE MEANS/METHODS FOR INSPECTION



HOW CLEAN IS 'CLEAN ENOUGH'?

SMALL PROJECTS (Decon)

- If the DECON chamber isn't clean, you just can't 'get there from here'.



HOW CLEAN IS 'CLEAN ENOUGH'?

MEDIUM PROJECTS (ANTEROOM)

- The KEY to controlling airborne particulate is to **KEEP THE FLOOR CLEAN!**



HOW CLEAN IS 'CLEAN ENOUGH'?

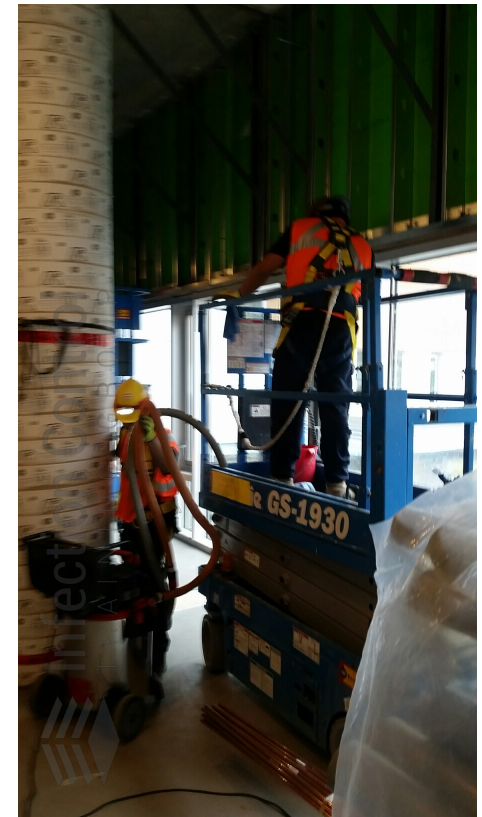
LARGE PROJECTS

- It's all about 'clean work procedures'



CLEAN 'DURING' CONSTRUCTION

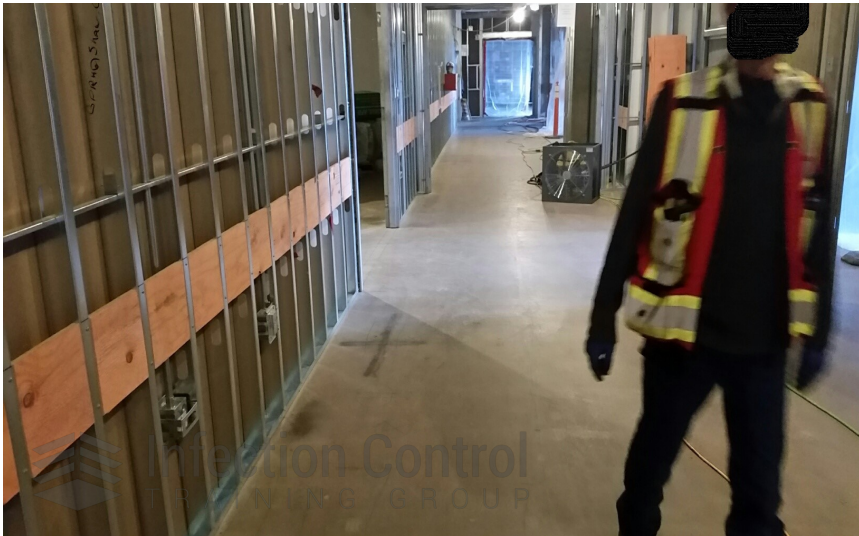
LARGE PROJECTS



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CLEAN 'DURING' CONSTRUCTION

LARGE PROJECTS



- Cleaning is everyone's responsibility

FINAL CONSTRUCTION CLEAN

PROJECTS

Reasonably visibly clean with no non-adhered substances

- HEPA vacuum
- Damp wipe with microfiber mop/rag



TERMINAL CLEAN

- Terminal clean BEFORE containment removal
- Remove containment
 - This is where proper construction of barrier walls pays off
- Terminal clean touch ups

COMPLIANCE

- HOW DO WE CHANGE ACTION?
 - No consequence, no compliance
 - An IPAC culture is built through positive reinforcement.



THANK YOU!

For more information

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