Closing of Non-Essential Businesses in ON and QC

Coronavirus, Cleaning and Property Management

March 24th, 2020

BOMA Canada

GDI Integrated Facility Services · MNP LLP · CAPTIVATE · REEF · Genetec

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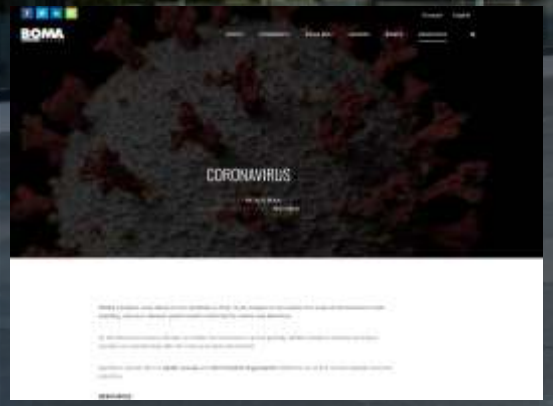
Agenda

1. Welcome & Introduction
2. Closing of Non-Essential Businesses in ON & QC
3. Technical Cleaning
4. Personal Protective Equipment, Liability & Process
5. Contractor & Property Manager Solutions
6. Question & Answer Period

Welcome from BOMA Canada

Benjamin Shinewald
President and CEO
BOMA Canada

bomacanada.ca/coronavirus



Please contact relevant public health authorities for medical/public health advice. Neither BOMA Canada nor the individuals presenting herein are providing such advice.

Closing of Non-Essential Businesses in Ontario and Quebec

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President and Chief Executive Officer
BOMA Toronto

Linda Carbone
Présidente
Gestion PGA / BOMA Québec

Technical Cleaning

Rennie Kissoonsingh
Director Safety, Environment and Quality
GDI Services (Canada) LP

Understanding COVID -19

- Acronym: Corona Virus Disease (Covid) 2019
- It is an infectious disease caused by a new (novel) coronavirus (nCoV)
- Virus gets it name because of its crown (corona) like appearance
- It is an enveloped virus (1)
  - "Envelope" comes from the host cell ("Budding off")
  - The "Envelope" helps the virus survive and infect other cells
- Unlike bacteria, viruses cannot replicate outside a human host
  - CoV utilizes the host cells to replicate its DNA

How Hard is it to Kill?

Susceptibility to disinfectants (3)

Bacterial Endospores
- Waterproof cell wall
- E.g.. C. Difficile

Mycobacteria
- Waxy outer layer
- E.g. M. Tuberculosis

Small Non-enveloped Viruses
- Resistant viral protein capsid
- Norovirus

Fungi
- Mould Spores
- E.g. Mould, yeast

Gram Negative Bacteria
- Liposaccahcharide outer membrane
- Acinetobacter Baumanii

Large, Non-enveloped
- Resistant protein capsid
- Rotaviruses

Gram Positive, Vegetative Bacteria
- No outer membrane
- Staph A., MRSA

Enveloped Viruses
- Lipid envelope
- Influenza, HIV, Hepatitis, coronavirus

Most Resistant

Least Resistant

RK

Modes of Transmission

Contact Transmission

- Direct (Touching/certain interactions with host directly)
- **Indirect (Touching contaminated surfaces)**

Droplet Transmission

- Transmission by respiratory droplets propelled in the air
- **Droplets can land on surfaces leading to "indirect" transmission (listed above)**

Vehicle-Borne Transmission

- Transmission by common vehicle e.g. food, objects, water, blood and bodily fluids
- **Utensils, food court trays etc.**

Cleaning Interventions <u>can</u> mitigate transmission

High Risk Surfaces (Touch Points) Examples

Some surfaces more likely to carry viruses because of usage:

Doorknobs	Push plates	Elevator buttons	Faucet levers	Paper towel dispenser (Manual)	Time keeping clocks	Shared and reusable items e.g. condiment containers, milk, cream, shared utensils
Food Court Trays	Key boards	Phones	Touch screens/order screens	Vending machines	Shared pens/stationary items	Pin pads

Disinfection Overview

- Disinfectants are only effective on surfaces that are free of contamination.

  ⚠ **For a disinfectant to work effectively, the surface must first be clean!**

- Cleaning must be followed by application of disinfectant in a sequential manner

- Some items cannot follow a standard surface disinfection methods:
  - Sensitive computer/Technology equipment
  - Fabric surfaces
  - Surfaces sensitive to moisture/chemical
  - Etc.

Disinfectants – How good is good?

Get information from

- Technical Data Sheets
- SDS Sheets

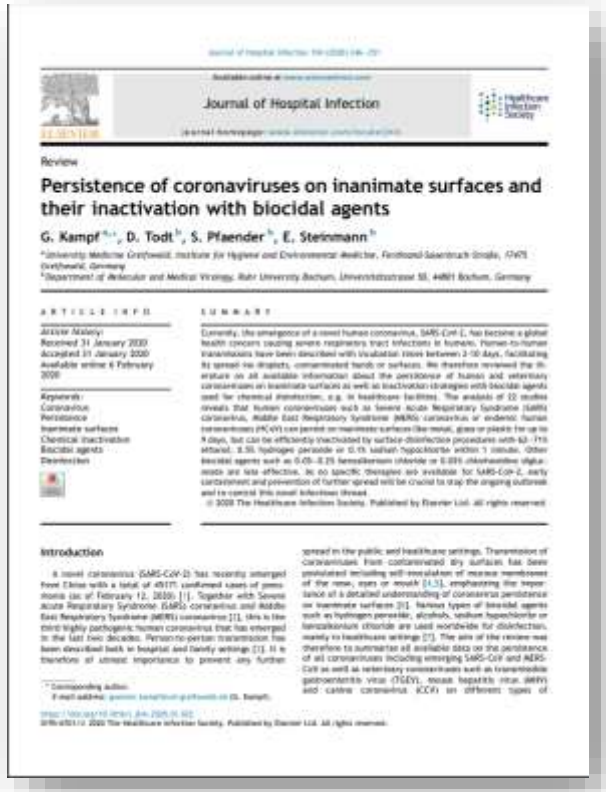
Known Active Ingredients of Chemical Disinfectants
• Alcohol • Chlorine and chlorine compounds • Formaldehyde • Glutaraldehyde • Hydrogen peroxide • Iodophors • Ortho-phthalaldehyde (OPA) • Peracetic acid • Peracetic acid and hydrogen peroxide • Phenolics • Quaternary ammonium compounds

Miscellaneous inactivating Agents (CDC)
• Other germicides • Metals as microbicides • Ultraviolet radiation • Pasteurization • Flushing- and washer-disinfectors

Disinfectants – Continued

Active Ingredient (4)	Considerations (4)	Comments (4)
Alcohol	Optimal conc. 60 – 90% Cidal activity drops at 50%	Many considerations for type of microbes it kills
Chlorine and Chlorine Compounds	Usually 5.25%-6.15% at full strength 1000 ppm is typical diluted mixture	E.g. sodium hypochlorite. Releases toxic chlorine gas when mixed with ammonia. Need to consider surface
Formaldehyde	Usually sold as “formalin”	Potential carcinogen
Glutaraldehyde	Low shelf life once “activated”	Typically health care
Hydrogen Peroxide	Attacks membrane lipids, DNA and other cell components	0.5%, bacterial and virucidal in 1 min
Quaternary ammonium Compounds	Widely used in health care Affected by materials used e.g. cotton or gauze makes them less microbicidal (soaks up active ingredient)	Use as per manufacturer specifications
Many others		See CDC list in references

Disinfection – Study on Coronavirus



Journal of Hospital Infection

Review

Persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents

G. Kampf, D. Todt, S. Pfaender, E. Steinmann

Introduction

Limited COVID-19 specific information because of how new the virus is

Study:

- Title: “Persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents”
- Date Published: Feb 06, 2020
- Journal of Hospital Infection

Disinfection – Study on Coronavirus

Key Findings of interest

1) "…human coronaviruses such as Severe Acute Respiratory Syndrome (SARS) coronavirus, Middle East Respiratory Syndrome (MERS) coronavirus or endemic human coronaviruses (HCoV) can persist on inanimate surfaces like metal, glass or plastic for up to 9 days,…"
2) "but can be efficiently inactivated by surface disinfection procedures with 62–71% ethanol, 0.5% hydrogen peroxide or 0.1% sodium hypochlorite within 1 minute."

Should have some level of confidence in known efficacy listed above: Hydrogen Peroxide 0.5%, 62-71% Alcohol, 0.1% Bleach

Action Phases – Facility Response Simplified

Keep it out

- Daily Touch Point Cleaning
- Usually built into your service providers scope of service

Stamp it out

- Rationalization/Re-engineer Service levels
- Where there is community spread, revert to core functions and curb back on non-essential
- 'Ramp up' touch point sanitation

Manage it

- Deep Cleaning/Disinfection e.g. confirmed/probable case
- Isolate affected and take immediate steps to safely return facility back to service
- Ramp up touch point sanitation after return to service

Keep it out - Daily Touch Point Cleaning

Planning Considerations:

- Frequency
- Cleaner Travel Time
- Peak periods
- Occupancy Levels (weekday/weekend)
- Realistic goals (avoids short cuts)
- Consider engineering out frequent touch points (sensor doors, sensor hand towels etc.)

Recall:

Doorknobs	Push plates	Elevator buttons	Faucet levers
Paper towel dispenser (Manual)	Time keeping clocks	Shared and reusable items e.g. condiment containers, milk, cream, shared utensils	Food Court Trays
Key boards	Phones	Touch screens/order screens	Vending machines
	Shared pens/stationary items	Pin pads	

Stamp it out - Rationalize/ Re-engineer Service Levels

Key Guidelines if there is community-based transmission or known localized presence:

- Ramp up touch point cleaning frequency. Key aspect here is minimizing spread to tenants and visitors by removing/reducing viruses on surfaces
- Re-engineer your service provider core functions i.e. allocate resources towards touch point cleaning and cur back on periodic items such as detailed vacuuming, strip and wax, polishing etc.
- Hire more staff, if possible:
  - Visible, adds confidence
  - More opportunities to stop spread
    - Once disinfectant dries, surface can be contaminated again
  - With more staff you can maintain all service provider functions, but this comes at an additional cost
- Hand Hygiene station monitoring
  - Staff allocated to touch points can also restock hand sanitizers
- For Buildings on partial shut down
  - Allocate resources towards increasing frequency of sanitation to protect current building occupants

Deep Cleaning / Disinfection / Decontamination

Key Guidelines if requiring service provider to clean and disinfect after a known case/suspected case:

Pre-planning

1) Having a plan is key (should engage with service provider before you have a case). Usually chaotic/panicked if there is no plan
2) Facility should take immediate steps to isolate affected person
3) "Trace contacts" and interactions if possible, to define the "affected zone"
   - This can be the whole facility, or it could be limited to one floor along with common areas
4) Define the "hot zone". Although the identity of affected individual is confidential, an area can be defined that determines the most likely contaminated area. If this is not known, the service provider will apply regular sequence.

⚠ **This is important from a best practice point of view. Cleaning step should go from <u>"least contaminated" to "most contaminated"</u>**

5) Ask service provider for documentation on process/procedure. Don't settle for an ad hoc method, the service provider should have a defined procedure.
6) Ask about training on process/procedure
7) To prevent cross contamination, re-contaminating surfaces, preserve staff safety etc. This procedure should be performed when the area or zone is CLEAR.
   - The process is intrusive, e.g. phones, keyboards, mice etc. It cannot be performed with staff present
8) Consider Security, Confidentiality, Insurance, WSIB, personal items of value, sensitive equipment etc

Deep Cleaning / Disinfection / Decontamination

High Priority	Low Priority*
Affected zone touch point areas - desk, keyboard, chair arms, mouse, drawer handles, controls etc.	Fabric chairs/material steam cleaning
All Common areas with relations to affected zone	Carpet Steam Cleaning, Floor cleaning
All washrooms with access to the affected zone	Drapery washing
Kitchens/kitchenettes	Alternative floors that affected person did not enter
Appliances	Walls
Board room, conference rooms	Ceiling tiles
Workstation, entrances etc.	

*You can use the opportunity to detail clean items on the low priority list if the service provider has the resources to do so. For items like fabric chairs, focus on the touch point area if you cannot steam clean the material

Deep Cleaning / Disinfection / Decontamination

What to expect – Basic Process

1) Service provider should screen for symptomatic staff and exclude from cleaning operations
2) Service Provider does a Pre-walk Evaluation
   - Patrol affected zone to assign and plan work function
   - Provider will identify cleanable areas and omit/isolate sensitive equipment that cannot be subject to moisture
3) Sequential Cleaning of touch points and known/affected areas
   - Start from least contaminated to most contaminated
   - Surfaces will be damp wiped with disinfectant and force will be used to apply friction and remove dust, debris, soiling, biofilms etc.
   - Where practical, items will be moved such as keyboards, mice, phones etc.
   - Cannot sanitize paper, or sensitive items, if possible, remove them
4) Secondary treatment with Disinfectant
   - Depending on the size of the “affected zone” an electrostatic sprayer or alternative method will be used to coat the surface with disinfectant spray
   - Application and effectiveness will be subject to “contact time”/“Dwell Time”
   - Markers help with efficiency but sometimes will not adhere to wet surface so you can apply to floor

Deep Clean / Disinfection / De-contamination

Post Decontamination – Basic Process

- All staff to perform PPE removal
- All staff to perform Hand hygiene step
- Flush all exposed areas with soap and water

- Final inspection should be done to remove “markers”
  - Verifies that all areas cleaned and disinfected
  - Quality checks for left over pooling of disinfectant which can affect re-occupancy time
  - Inspects for deviations or reportable conditions for the client

Personal Protective Equipment, Liability and Process

Bill Fender
Senior Vice President, Commercial Property Portfolios
FirstOnSite Restoration

COVID-19 Disinfection (Confirmed or Suspected) Key Elements To Manage Risk

- Agreements and contracts in place
- Scope Of Work (SOW) and well documented protocols from your provider
  - Safety protocols
  - PPE for the task and chemicals being used
  - Detailed process
  - Methods and application
  - Proper supervision
- Awareness and identification of hazards
- Good record keeping
- Verify Insurance coverage
- Methodical approach – Avoid breakdowns - Do not rush

Training & PPE

Supervisors and staff have appropriate training for the task. Examples:

- CSA Z713 (infectious Control) - Supervisors
- Anti Microbial Application - Supervisors
- Pathogen Remediation - Supervisors
- Respiratory protection (FIT Test) - All
- Advanced PPE Training and awareness - All
- Infectious control and Pathogen awareness – Technicians
- WHIMIS - All

Proper PPE and training on how to utilize. Task and chemical dependent. Example:

- N95 Mask and goggles or full face air purifying respirator with P100 cartridge
- Disposable coverall (Tyvek) with hoods.
- Disposable foot coverings
- Rubber gloves as appropriate
- Don and doff training
- Proper disposal
- Personal hazard disinfection

Rapid Pace – So Many Unknowns

- This is new territory for everyone
- Many unknowns, including liability implications
  - Be prudent and err on side of caution
  - Document and keep good records
  - Although sense of urgency with emotion and very personal impact – don't treat like an emergency.
    - A careful, methodical approach is warranted to safely and effectively perform the work.
  - Keep current with rapidly changing information
  - Constant communication with your service providers and partners
  - Process improvements and learnings will come out of this. We're learning something every day.

Contractor and Property Manager Solutions and Activities

Randy Burke
Chief Executive Officer
DCS Global

Property management activities - Now

Service Provide Needs & Expectations

- Planning
- Realistic expectations
- Accessible areas and surfaces
- Confidentiality/security

Industry Professionalism

Support your cleaners

Response time

Industry cohesiveness, fairness & clarity

Surface Sanitization Testing

- methodology, ATP, Pathfinder visuals
- why test, verification, due diligence protection
- collaborative approach key to improving results

Property Management Activities Near Term

- Restructuring cleaning contracts, deliverables and cost
- Office and retail markets leading
- Enhanced cleaning for health requirements
- Enhanced data flow and KPIs

Question & Answer

Please use the chat functionality on the webinar

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Reference List

Technical Cleaning

1) https://www.cancer.gov/publications/dictionaries/cancer-terms/def/enveloped-virus

2) https://www.publichealthontario.ca/-/media/documents/guide-ipac-personal-service-settings.pdf?la=en

3) https://www.infectioncontroltoday.com/environmental-hygiene/understanding-physiology-healthcare-pathogens-environmental-disinfection

4) https://www.cdc.gov/infectioncontrol/guidelines/disinfection/disinfection-methods/index.html

5) https://www.journalofhospitalinfection.com/article/S0195-6701(20)30046-3/fulltext