1. PERSONAL PROTECTIVE EQUIPMENT

<table>
<thead>
<tr>
<th>Head</th>
<th>Eyes</th>
<th>Face</th>
<th>Hearing</th>
<th>Gloves</th>
<th>Boots</th>
<th>Body</th>
<th>Respiratory</th>
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**Head:**

**Eyes:** Goggles or splash-proof safety glasses if area has not been isolated for at least 24 hours and when mixing dilutions (read product SDS or label).

**Face:** A face shield is required if cleaning ceilings or other surfaces overhead unless the employee is wearing a full-face respirator.

**Hearing:**

**Gloves:** Disposable gloves. Gloves must be discarded after each cleaning. Wash hands immediately after removing gloves.

**Boots:** Closed-toed shoes.

**Body:** If area has been isolated for more than 24 hours, a shirt with sleeves covering shoulders; long pants; and slip-resistant, closed-toed shoes. If area has not been isolated for at least 24 hours, the same as above but with the addition of disposable or launderable coveralls.

**Respiratory:** Full-face or half-face respirator required if working in an area that has not been closed for 24 hours.

Note: Any employee wearing a respirator must be in the respiratory protection program with the exception of an employee voluntarily wearing a disposable filtering facepiece. Contact EH&S for information about the respiratory program.

Note: Wear additional PPE consistent with product SDS when mixing and working with product. At a minimum, splash-resistant gloves and goggles are required when mixing product.

Allow an area to remain isolated with the HVAC system running for a minimum of 24 hours since the last time a person identified with COVID-19 has been within the area. PPE is more substantial when conducting deep cleaning if an area cannot be isolated for 24 hours.
Deep Cleaning Areas that Have Been Isolated for at Least 24 Hours

Employees must wear modified level D PPE, including shirt with sleeves covering shoulders; long pants; and slip-resistant, closed-toed shoes. Respiratory protection is not required unless identified by product SDS. Otherwise, wear PPE identified for application of disinfectant product by SDS, to include safety glasses and splash-resistant gloves if not otherwise identified.

Face shields are required if disinfecting ceilings or other surfaces overhead where there is a potential for cleaning and/or disinfecting product to drip onto the worker’s face.

If disinfecting multiple adjacent locations, PPE may be worn from location to location, except gloves. Gloves must be removed if moving from area to area requires touching surfaces such as opening doors. Do not touch product or contaminated area surfaces without gloves.

Deep Cleaning Areas that Have Not Been Isolated for at Least 24 Hours

Employees must wear modified level C PPE, including shirt with sleeves covering shoulders; long pants; slip-resistant, closed-toed shoes; disposable or launderable coveralls; half-face or full-face respirator with magenta P-100 cartridges; safety glasses, goggles, or face shield. Otherwise, wear PPE identified for application of disinfectant product by SDS.

If disinfecting multiple adjacent locations, PPE may be worn from location to location. If using splash-resistant gloves, change gloves when they encounter product in excess of a splash and between application locations. Do not touch product or contaminated area surfaces without gloves.

Any employee wearing a respirator must be in the respiratory protection program. Contact EH&S for information about the program.

2. PURPOSE

This SOP provides guidance for cleaning laboratories occupied by an individual who has tested positive for COVID-19.

3. PREREQUISITES

Employees working with hazardous chemicals must have completed HAZCOM training within the last year, as well as proper training for PPE used.

Review the Job Hazard Analysis (pages 6 and 7 of this document).

4. PROCEDURE

Cleaning of visibly dirty surfaces followed by disinfection is a best practice measure for prevention of viral respiratory illnesses.

- Prior to cleaning and disinfecting, close off areas for 24 hours if possible before beginning cleaning and disinfecting to minimize potential for exposure to respiratory droplets.
- Whenever possible, work in teams of two.
- Avoid touching horizontal surfaces except to apply cleaner or disinfection product.
• Do not apply product with a stream or force sufficient to dislodge or aerosolize particles off surfaces. A mist setting on a hand sprayer (12 to 18 inches from surface), an electrostatic generator, or disinfectant wipes are preferred application techniques.
• Refer to manufacturer’s application instructions.
• Clean and disinfect all touch points, not just frequently touched surfaces.
• Clean and disinfect surfaces from clean areas to dirty areas (ex.: when cleaning a building, restrooms are one of the highly contaminated areas that should be cleaned last.
• Clean and disinfect surfaces from high areas to low areas so that any dirt or dust dislodged from above are removed when you clean the lower surfaces.
• Disinfect last, after other cleaning activities (including emptying the trash can, removing visible soil, and vacuuming) are complete so that any potentially contaminated dirt and dust does not re-contaminate already disinfected surfaces.

Personnel

• WSUS custodial staff are responsible for disinfection of floors and common areas and surfaces like door handles and light switches.
• Laboratory personnel are responsible for disinfection of areas where research is conducted or hazardous materials are stored, such as countertops, fume hoods, cabinets, and shelves over and under counters.

General Procedures

A. Clean surface: The cleaning process should be executed as a wet cleaning. See “cleaning” in definitions for more information.
   a. Use warm to hot water (90-130 °F/32-54 °C).
   b. Add soap or detergent according to product label.
   c. Use rags/sponges/brushes to scrub surfaces, ensuring that area is free of dirt and debris. Caked-on material may require prolonged soaking.
   d. Rinse, as necessary.

B. Disinfect surface: Use an EPA-registered household disinfectant, a diluted bleach solution, or alcohol solutions. For more information, see “disinfectant” in the definitions on the next page.
   a. Apply disinfectant to the surface and ensure disinfectant remains on surface to dry as required by manufacturer. Treated surface must remain wet for time required on manufacturers label or allowed to air dry.

Laboratory Personnel

In laboratories, not all chemicals are compatible with detergents and/or disinfectants. Carefully read the SDSs associated with each chemical prior to cleaning. Section 10 of the SDS contains information on chemical reactivity. Soaps and detergents are often also organic solvents or have strong alkaline pH. If unsure about chemical compatibility, it is better to rinse in hot water alone than to use detergents or soaps.

Check instrument manuals for suitable cleaning detergents. Many precision instruments, especially those with optics, must be cleaned in specific manners. If no suitable chemical disinfectant can be identified, UV decontamination can be attempted. Check the SDS for photoreactivity, photosensitivity, or warnings such as “avoid direct sunlight” for indications that UV disinfection is unsuitable.
• Place all objects requiring UV decontamination in a biosafety cabinet. Secure bottle lids before laying bottles on their sides.
• Activate the UV light sterilization function on the cabinet with the shield down. A blue violet light should appear.
• After 20 minutes, turn the light off and rotate bottles a quarter turn. For flat objects, flip over.
• Repeat until all sides have been irradiated.

If suitable cleaning and decontamination methods cannot be identified, close the area to all traffic for at least 96 hours.

Decontamination

1. Keeping gloves on, doff and bag reusable protective clothing—if worn—for laundry service or doff and dispose disposable protective outer clothing—if worn—in garbage bag.
2. Remove gloves using proper doffing technique
3. Remove safety glasses/goggles/face shield and respirator. Do not touch face.
4. Place reusable PPE into a clean bag for decontamination, making sure to not contaminate the outside of the bag.
5. Find nearest source of water and soap and wash hands.

6. DEFINITIONS

Cleaning: The removal of gross contamination, organic material, and debris from the premises or respective structures, via mechanical means like sweeping (dry cleaning) and/or the use of water and soap or detergent (wet cleaning). The goal is to minimize organic material so disinfection can be effective. Cleaning alone does not kill germs, but by removing the germs, it decreases their numbers and therefore any risk of spreading infection. Cleaning helps reduce the number of microorganisms and to remove any oil, grease, or other substance that may inhibit the action of disinfection. The cleaning process should be executed as a wet cleaning, as dust, dirt, and other debris removed from surfaces through dry cleaning may become airborne. Wet cleaning involves the use of water and soap or detergent. Cleaning prior to disinfection is one of the most commonly overlooked steps in disinfection.

Disinfecting: Methods used on surfaces to destroy or eliminate a specific species of infectious microorganism. This process does not necessarily clean dirty surfaces or remove germs, but killing germs remaining on a surface after cleaning further reduces any risks of spreading infection.

• EPA approved disinfectant: Use a disinfectant that has been approved by the EPA for use in disinfecting COVID-19. A list of EPA approved disinfectants can be found at the following site: https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2
  o Allow to remain on the surface for the duration identified by the manufacturer.
• Diluted bleach solution: Diluted bleach solution can be used if appropriate for the surface. Prepare bleach solution: 5 tablespoons (1/3 cup) of bleach per gallon of water or 4 teaspoons per quart.
  o Check label to confirm the bleach has 5 to 6 percent hypochlorite concentration. Some bleaches, such as those designed for safe use on colored clothing or for whitening, may not be suitable for disinfection.
  o Ensure the product is appropriate for the surface (for example, not fabric).
  o Ensure the product is not past its expiration date.
  o Wear appropriate PPE when mixing bleach solution (check label and SDS).
  o Do not make more solution that can be used in one day. The bleach solution will be effective against coronavirus for up to 24 hours.
• Leave bleach solution on the surface for at least one minute.
• Never mix bleach with ammonia or other cleaner.
• **Alcohol Solution:** Alcohol solutions with at least 70 percent alcohol.
  - Allow alcohol solution disinfectant to air dry.

_Frequently touched surfaces:_ Surfaces commonly touched by building occupants such as doorknobs, light switches, counter tops, and tables/desks. In labs, frequently touched surfaces include instruments, computers, and pipettes which can pose challenges for both cleaning and disinfection

By signing below, I certify that I have reviewed and understand this SOP and have had the opportunity to ask questions. I will use the PPE identified and comply with safety procedures identified within this SOP.

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<th>Print Name</th>
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### Job Hazard Analysis

#### Job: Disinfecting SARS CoV-2 Contaminated Areas

**Department or Location:** WSU Health Sciences Spokane

<table>
<thead>
<tr>
<th>Task or Step</th>
<th>Hazards</th>
<th>Controls</th>
<th>Personal Protective Equipment (PPE)</th>
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</thead>
<tbody>
<tr>
<td>Diluting Concentrated Disinfectant</td>
<td>Flammable, Corrosive, or Toxic Chemical Hazards via Eye, Skin, Inhalation, and Ingestion Exposure</td>
<td>Reference product Safety Data Sheet to identify PPE for working with concentrated product. Generally flammable or toxic via inhalation-route-of-exposure disinfection products should not be selected. Selected products must be designated by EPA as effective against SARS CoV-2 or non-enveloped viruses. Keep mouth closed while dispensing concentrated product and do not ingest. Whenever feasible, work within 10 seconds or 50 feet of an emergency eyewash.</td>
<td>Modified level D PPE: shirt with sleeves covering shoulders; long pants; and slip-resistant, closed-toed shoes. Wear additional PPE consistent with SDS, to include safety glasses and splash-resistant gloves if not otherwise identified.</td>
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<tr>
<td>Entering SARS CoV2 Contaminated Area and Applying Working Concentration Product</td>
<td>SARS CoV2 Exposure, Flammable, Corrosive, or Toxic Chemical Hazards via Eye, Skin, Inhalation, and Ingestion Exposure</td>
<td>Whenever possible allow 3 hours minimum or as much time as possible to elapse since infected/suspected infected individuals vacated areas, allowing all large aerosol sputum to settle. Whenever possible, work in teams of two or more. Do not touch face. Avoid touching horizontal surfaces except to apply cleaner or disinfection product. Do not apply product with a stream or force sufficient to dislodge or aerosolize particles off surfaces. The mist setting on a hand sprayer (12 to 18 inches from surface), an electrostatic aerosol generator, or disinfectant wipes are preferred disinfectant application techniques. Refer to manufacturer’s application instructions.</td>
<td>Modified level D PPE: shirt with sleeves covering shoulders; long pants; and slip-resistant, closed-toed shoes. Respiratory protection is not required unless identified by product SDS. Otherwise wear PPE identified for application of disinfectant product by SDS, to include safety glasses and splash-resistant gloves if not otherwise identified. Note: If disinfecting multiple adjacent locations, PPE may be worn from location to location. If using splash-resistant gloves (only), change gloves when they encounter product in excess of a splash and between application locations. Do not touch product or contaminated area surfaces without gloves.</td>
</tr>
<tr>
<td>Decontamination</td>
<td>SARS CoV2 Exposure, Flammable, Corrosive, or Toxic Chemical Hazards via Eye, Skin, Inhalation, and Ingestion Exposure</td>
<td>Keeping gloves on, doff and bag reusable protective clothing—if worn—for laundry service or doff and dispose disposable protective outer clothing—if worn—in garbage bag. Note: Protective outer clothing is not required unless identified by disinfectant product SDS. Doff gloves using proper doffing technique, then remove safety glasses or goggles. Do not touch face. Find nearest source of water and soap and wash hands.</td>
<td>Remove gloves using proper technique last except to remove protective eyewear. Modified level D PPE: shirt with sleeves covering shoulders; long pants; and slip-resistant, closed-toed shoes.</td>
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## Job: Disinfecting SARS CoV-2 Contaminated Areas Less than 24 Hours after Occupancy

### Department or Location: WSU Health Sciences Spokane

<table>
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<td>Flammable, Corrosive, or Toxic Chemical Hazards via Eye, Skin, Inhalation, and Ingestion Exposure</td>
<td>Reference product Safety Data Sheet to identify PPE for working with concentrated product. Generally flammable or toxic-via-inhalation-route-of-exposure disinfection products should not be selected. Selected products must be designated by EPA as effective against SARS CoV-2 or non-enveloped viruses. Keep mouth closed while dispensing concentrated product and do not ingest. Whenever feasible, work within 10 seconds or 50 feet of an emergency eyewash.</td>
<td>Modified level D PPE: mask or cloth facial covering; shirt with sleeves covering shoulders; long pants; and slip-resistant, closed-toed shoes. Generally flammable or toxic-via-flammable, Corrosive, or Toxic Chemical Hazards via Eye, Skin, Inhalation, and Ingestion Exposure</td>
</tr>
<tr>
<td>Entering SARS CoV2 Contaminated Area and Applying Working Concentration Product</td>
<td>SARS CoV2 Exposure, Flammable, Corrosive, or Toxic Chemical Hazards via Eye, Skin, Inhalation, and Ingestion Exposure</td>
<td>Maintain at least 6 feet distance between yourself and others. Do not touch face with unwashed/sanitized hands. Wait as long as possible before entering the space, allowing for HVAC turnover. Identify a clean location to put on PPE, outside the contaminated area. Wash or sanitize hands before putting on respirator and perform positive and negative pressure fit tests. Put on eye protection, if not wearing a full-face respirator, then put on remaining identified PPE. Avoid touching horizontal surfaces except to apply cleaner or disinfection product. Do not apply product with a stream or force sufficient to dislodge or aerosolize particles off surfaces. The mist setting on a hand sprayer (12 to 18 inches from surface) or an electrostatic aerosol generator are preferred disinfectant application techniques. Refer to manufacturer’s application instructions.</td>
<td>Modified level C PPE: shirt with sleeves covering shoulders; long pants; and slip-resistant, closed-toed shoes; disposable or launderable coveralls; full-face respirator with magenta P-100 cartridges or half-face respirator with P-100 cartridges; and safety glasses, goggles or face shield. Otherwise, wear PPE identified for application of disinfectant product by SDS. Note: If disinfecting multiple adjacent locations, PPE may be worn from location to location. If using splash-resistant gloves (only), change gloves when they encounter product in excess of a splash and between application locations. Do not touch product or contaminated area surfaces without gloves.</td>
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<tr>
<td>Decontamination</td>
<td>SARS CoV2 Exposure, Flammable, Corrosive, or Toxic Chemical Hazards via Eye, Skin, Inhalation, and Ingestion Exposure</td>
<td>Keeping gloves on, remove and bag reusable protective clothing for laundry service or remove and dispose disposable protective outer clothing in a garbage bag. Remove gloves using proper technique; wash or sanitize hands; remove safety glasses, goggles, or face shield, then respirator; wash or sanitize hands again.</td>
<td>Remove respirator and protective eyewear last after removing gloves and washing or sanitizing hands. Modified level D PPE: shirt with sleeves covering shoulders; long pants; and slip-resistant, closed-toed shoes.</td>
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