



## STANDARD OPERATING PROCEDURE #5

### Work Instructions for the Selection and Proper Use of Personal Protective Equipment



Revision Register:

Documentation and Responsibility	Name	Title	Date
Amended by:			

Last Review Date	Next Review Date



Created for James R. Favor & Company by  
[Council Rock Consulting, Inc.](#)

## OBJECTIVE

To provide instructions on the selection and proper use of personal protective equipment.

## PERSONAL PROTECTIVE EQUIPMENT

- 1) Skin and body protection
  - a. Gloves
  - b. Long sleeves or closed front gown or cover
- 2) Eye and face protection
  - a. Face mask
  - b. Protective eyewear such as safety glasses/shield or goggles
  - c. Mask or face shield (optional)

## DEFINITIONS

- 1) “Work” in this standard operating procedure (SOP) refers to any activity that may result in exposure to a potentially-infectious pathogen (e.g., virus, bacteria) or caustic agent (e.g., ammonia).
- 2) PPE – Personal Protective Equipment
- 3) OSHA – Occupational Safety and Health Administration
- 4) NIOSH – The National Institute for Occupational Safety and Health
- 5) Engineering Controls – Protects by isolating people from a potential hazard by such means as proper ventilation or machine guards.
- 6) Administrative Controls – Work practices established through instructions or checklists.

## SAFETY

The Occupational Safety and Health Administration (OSHA) has written regulations (CFR1926.65) to make sure that workers at any work site are properly protected. This also applies to residents and maintenance personnel who engage in cleaning, decontamination, and other activities where there is a chance of exposure to potentially-infectious pathogens and/or caustic agents.

Engineering and administrative controls and safe work practices should be implemented as the primary methods to mitigate potential hazards and risks associated with the work.

Additionally, PPE must be worn to minimize exposure to hazards that may result in serious illnesses or injuries, especially when and where engineering and administrative controls cannot be effectively implemented.

Before the initiation of work, assess the potential hazards and risks in the area. At a minimum, gloves, mask and eye protection should be used for cleaning and decontamination. It is important to understand the limitations of the PPE and become familiar with donning (putting on), doffing (taking off) and disposal procedures of PPE. The PPE must be the proper fit and design and not interfere with the ability to work safely.

## PROCEDURES

### 1) SELECTION OF PPE

#### a. Skin and body protection

- i. Disposable gloves must be worn for tasks that can cause hand or skin irritation or absorption of harmful substances. Select the materials that can provide maximum protection for the task. Nitrile gloves are made of nitrile synthetic rubber for strength and long-lasting durability in heavy duty use. They offer lower friction resistance and are one of the most widely used protective gloves.

**CAUTION:** Make sure to select non-latex gloves to avoid contact by persons with latex allergies.

Maintain boxes of  
within easy reach of work areas.

gloves in varying sizes

- ii. To protect your body and clothing, a gown or coverall that is either disposable or can be laundered in hot water can be used to provide a physical barrier. Long sleeves are strongly recommended to protect arms from exposure. Get a good fit to ensure full body protection. Select the most appropriate materials based on the physical and chemical properties of the fabric, such as thickness, pore size and repellency. Consider water-resistant material when the task involves spraying or splashing. Ensure that the PPE is not too loose-fitting or long to avoid catching on surrounding items or tripping on the PPE.
- iii. Wearing closed-toe shoes are required for all cleaning and disinfection activities. For activities that may result in a wet floor such as dishwashing or when mopping floors, ensure shoes have slip-resistant soles.

#### b. Face and Eye Protection

- i. Disposable face masks (surgical masks) protect the mouth and nose from splashes, sprays, dust and some particulates. It is a loose-fitting mask that has ear loops or ties at the back of the head. They are particularly useful in preventing the transmission of the common cold or flu.
- ii. Although not officially considered PPE, layered cloth facemasks with a pocket for a PM2.5 activated charcoal filter may be used for protection against particles such as dust and irritants. These are for use in public and common areas. They are not intended for use in a room with or around a potentially-infected individual. The guidance is the more layers and addition of a filter, as well as a tighter fit around the nose and mouth, the greater the protection of the wearer and those around them.
- iii. Eye protection such as safety goggles form a protective seal around the eyes, preventing objects or liquids from entering under or around the goggles. This is especially important when working with or around liquids that may splash, spray or mist. Eye protection should be worn when the work area is contaminated with human blood, body fluids or other potentially infectious materials.

**NOTE:** Eyeglasses are not PPE. Eye shields that fit over glasses should be worn. These protect against mechanical injury but not all liquid splashes.

- iv. Face shield is considered secondary protection and to be used in addition to primary protection (such as safety goggles). It is intended to provide protection of the face.

**c. Respiratory protection**

- i. A respirator, such as a NIOSH-approved N95 filtering facepiece respirator, is designed to filter out 95% or more of all particles in the air. It provides protection from potential inhalation hazards such as vapors, mists, gases and airborne transmission of infectious materials, but not from vapors or gases. N95 respirators are expensive and also in short supply during wide-spread outbreaks. They also have a limited time for use, usually up to 8 hours. Priority use of N95 respirators should be given to people at the highest risk of contracting an infection or who may experience potentially-fatal complications of the infection (e.g., immunocompromised, underlying health issues).

If a respirator is needed, it must be used in accordance with the manufacturer's recommendations that meet the requirements of OSHA's Respiratory Protection standard. N95 respirators must fit properly in order to be effective. Fit testing by an expert is recommended. See the manufacturer's instructions and training on properly fit testing N95 respirators.

**2) Proper Use of PPE**

**a. Before donning**

- i. Do not begin work before donning the PPE. Identify and gather the proper PPE needed. Make sure the size is correct. Also check that there are no tears, cracks, or deformities on the PPE.
- ii. Always perform hand hygiene by washing hands for 20 seconds. Use alcohol-based hand sanitizer if a sink is not available.

**b. Donning (put on)**

In this order:

- i. If using disposable protective gown or coverall, put that on first. Zip, button up, or tie all the ties on the gown.
- ii. Put on a face mask or a respirator.
  - For face mask, the colored side is usually the front and should face outside. If the mask has ear loops, hook them appropriately around the ears. If the mask has ties, they should be secured on crown of head (top tie) and base of neck (bottom tie).
  - If wearing a respirator, the nosepiece should be fitted to the nose with both hands. Respirator straps should be placed on crown of head (top strap) and base of neck (bottom strap).

- Mold the stiff edge to the shape of your nose. Perform a user seal check.
  - Both facemask and respirator should be extended to cover the chin.
- iii. Put on safety goggles or eye shield.
  - iv. Put on face shield, if needed.
  - v. Put on disposable gloves. Gloves should cover the cuff of the gown or coverall.

**c. During Use**

- i. It is important that PPE must remain in place and be worn correctly for the duration of work.
- ii. Check your PPE regularly to make sure it is intact. Change if it is torn or heavily soiled.
- iii. Report breaches in PPE such as a tear in gloves or any other potential exposures to a manager or supervisor.

**d. Doffing (take off)**

In this order:

- i. Remove protective gown or coverall. Unzip, unsnap all buttons or untie all ties. Reach up to the shoulders and carefully pull gown down and away from body. Roll the gown down.

Disposable gowns or covers are to be placed in a container with a trash bag.

Covers to be laundered shall be placed in a closeable bag and transferred to the laundry. Launder at the hottest temperature indicated by the manufacturer.

- ii. Remove face shield if worn.
- iii. Remove safety goggles or eye shield. Carefully remove them by grabbing the strap and pulling upwards and away from head. Safety goggles, eye shield or face shield may be saved for reuse later. Spray with an appropriate disinfectant until the entire surface is wet. Leave on a flat and clean surface to dry.
- iv. Remove face mask by carefully untying (or unhooking from the ears) and pull away from face without touching the front. If a respirator is worn, remove the bottom strap and bring it carefully over the head. Hold the top strap and bring it carefully over the head. Pull the respirator away from the face without touching the front.
- v. Remove gloves. Gloves can be removed by the glove-in-glove or bird beak method. Avoid touching the outside of the glove with your bare hand.

For a short demonstration, view this YouTube video from KHOU-11 (Houston):

<https://www.youtube.com/watch?v=SiNeiVR82WM>

You can also practice this technique by rubbing food coloring on the gloves while being worn, then remove and inspect to see that no food coloring transferred to your hands.

- vi. Immediately dispose of all the PPE in a container lined with a trash bag.

If the PPE is contaminated with potentially infectious materials, close the trash bag and spray the outside of the bag with 70% Ethanol. Contain this trash bag in a secondary bag for disposal.

- vii. Immediately wash hands for 20 seconds. Use alcohol-based hand sanitizer if a sink is not available.

### **3) REFERENCES**

[OSHA – Personal Protective Equipment](#)

[CDC - Personal Protective Equipment](#)

### **4) VENDORS**

<https://www.grainger.com/content/ppe-safety>

<https://www.amazon.com/Personal-Protective-Equipment/b?node=486555011>