EMERGENCY PREVENTION MEASURES FOR MANUFACTURING FACILITIES AS RELATED TO COVID-19

PREFACE
In order to manage COVID-19 risks for employees, it is critical for manufacturing facilities to review their policies and procedures relative to current knowledge of the risks. The following guidance is based on our current understanding of the virus and designed to help companies review and amend their policies. As updates become available, this information may change.

Ultimately, each facility will need to implement policies tailored to their specific facilities and any risks relevant to their employees or those that they may encounter during work time. Social distancing by staying six feet away from others is considered a workplace best practice with a strong recommendation to make the most of telecommuting options for as many employees as possible.

Additionally, employers should conduct a Risk Assessment of their facilities to determine whether Engineering Controls, Administrative Controls, or Personal Protective measures are recommended based on the work areas within their facility or each employee's risk of exposure due to the nature of their job functions.

Impact Washington can help with an on-site assessment followed by recommendations for risk remediations using workplace controls. Completed audit summaries document individual risk levels found within each facility and provide recommendations for specific workplace controls. In manufacturing environments, the potential for close contact can occur on or near production lines, receiving and packaging areas, sampling and quality rooms, and in common facility areas such as conference rooms, lunchrooms, locker rooms, restrooms, hallways, and entryways.

The high-level steps for site compliance with the workplace controls recommended herein are:

1. **REVIEW**
   - Facility Best Practices and Housekeeping Recommendations

2. **CONDUCT**
   - Employer Risk Assessment Based on Position or Area Exposure

3. **IMPLEMENT**
   - Workplace Controls Based on the Risk of Exposure

This Guidance is Intended to Assist in Developing More Site-Specific Plans
Each employer needs to consider how to decrease the spread of COVID-19 in their workplace. Impact Washington recommends that employers identify safe work procedures to be implemented at their facilities from the following Best Practices and Housekeeping Recommendations.

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Avoid Close Contact

Limiting person to person contact/proximity inside the workplace is critically important. Scientific and epidemiological evidence strongly suggests that good personal hygiene practices, including proper hand washing, is critical and likely the difference between maintaining a safe environment and someone potentially getting infected. Close contact with another individual is defined as being within 6 feet for a prolonged period of time or having direct contact with infectious secretions of a COVID-19 case or those who may be affected (e.g., being coughed on, sneezed on or physically touching an infected person or surface). Walking past, someone is unlikely to constitute “close contact.”

It is essential to understand that when someone who has COVID-19 coughs or exhales, they release droplets of infected fluid. Most of these droplets fall on nearby surfaces and objects - such as desks, tables, or telephones. People could catch COVID-19 by both breathing in these droplets of infected fluid or by touching contaminated surfaces or objects – and then touching their eyes, nose, or mouth.

NOTE: Local and statewide ordinances and orders may contain alternate definitions. Be sure to consult any orders from local authorities.

Create Social Distancing in the Workplace

✓ Place employees at least 6 feet away from each other. When possible do not have in-person meetings
   Do not allow personal contact (e.g., handshakes, hugs, fist bumps or high fives, etc.)
✓ If you must have an in-person meeting, meet in a large room and be at least 6 feet from one another.
✓ Keep the meeting as short as possible.
✓ Close lunchrooms and limit access to areas where people gather.
✓ Limit visitors and those that are allowed should be briefed on the procedures in place and instructed to inform you if they begin to have symptoms within the next 14 days. Record all visitors in a log so that they can be contacted if an outbreak should happen.

Practice Good Health Habits

✓ Place posters around your building that support staying home when sick, how to cough and sneeze, and keeping hands clean. Put them up in places where people will see them.
✓ Make sure you have tissues and trash cans throughout the building.
✓ Have everyone wash their hands with soap and water for at least 20 seconds. If soap and water are not around, clean hands with a hand gel that has at least 60% alcohol in it, make sure these supplies are always available to employees in multiple locations.
✓ Wear recommended face masks, respirators, or face shields when needed.
✓ Provide gloves when requested or when staff clean surfaces, rooms, and any areas where people have access.
✓ Tell everyone not to touch their eyes, nose, and mouth with unwashed hands.
✓ Visit coughing and sneezing and hand washing web pages for more information.
**Entrances, Hallways, and Common Spaces and Personnel Movement in the Facility**

- Depending on the area of a hallway or entryway, limit the number of persons to maintain physical distances as employees wait to come in or exit, move from room to room.
- Find ways to minimize common surfaces employees need to touch—e.g.,
  - Auto open doors or encourage bumping doors open with hip or using foot on kick plate
  - Remove the door closure where possible and keep doors open to allow employees to move between doorways without touching knobs where it does not impact safety.
  - Alternatively, foot pulls may also be added to doors with frequent traffic
- Propping interior doors to each office open whenever possible to improve air turnover in the building and decrease touching of knobs/handles.
- Minimize hallway conversations and interactions.

**Employee Clocking In/Out Practices**

- Consider having every employee’s temperature recorded upon daily entry to the facility. Employees with a cough or temperature of over 99 °F (37.3°C) needs to be sent home. They should also stay home (or work from home) if they have had to take simple medications, such as paracetamol/acetaminophen, Ibuprofen or aspirin, which may mask symptoms of infection or fever.

  **Note:** Employees being sent home should understand that this time off may be counted as sick leave.

- Consider 6-foot block spacing if a time clock is in use.
- Many time clocks have web-based features that can operated through phone apps.
- Alternatively, consider other inexpensive apps employees could use to track time and submit to supervisors.
- Use phones to clock in/out or provide additional sanitizer near the time clock.
- Consider if a supervisor can use a camera from another room to clock employees in/out.
- Consider if clocking in/out can be handled by journal entry afterward.

**Locker Rooms and Entering/Exiting Production Floor**

- Clean and laundered clothing is not considered a transfer vector for COVID-19.
- To maintain uniform cleanliness and healthy employees, as best as possible, employees must enter the uniform area with clean hands.
- Touching non-selected uniform clothing and hangers should be kept to a minimum.
- Once the uniform is selected, place the now empty hanger on a different rack to avoid the hanger touching clean uniforms and from other employees handling the previously touched hook.
- Keep soiled uniforms separate from clean uniforms.
- Frequent and proper hand washing and handling clean materials with clean hands is the best precautionary measure.

**Common Tools**

- Human-machine interfaces such as keyboards, buttons, etc. should be sanitized between users.
- Standard tools like brooms, rakes, scrapers, or hand tools should be sanitized after each use, especially between two separate users.
- Provide personal pens/sharpies, alternatively sanitize them at least once per shift.
- Identify areas where employees frequently interact so intra-person sanitation procedures can be developed.
Shift Change Risks

- Stagger days, shifts, shift changes, breaks, and lunches to avoid grouping.
- Identify individuals that do not need to come into the production restrooms and do not need to be using the same resources as the larger number of employees. Separate all teams into smaller groups and isolate them to separate bathrooms and break areas as possible.
- Order porta-potties with sinks and provide outside tables for additional break areas.
- Consider ordering them for Truck Drivers, Shipping/Receiving Team(s), Maintenance Team, etc.
- Drivers should use their pen to sign documents.
- Make sure to include a regular sanitation schedule between and during shifts.
- With some employees working remotely, determine if any office spaces can be re-purposed for segregated lunch/changing areas.
- Use video apps or phone calls to prevent face to face contact during shift change.
- Use texting, chats, free conference calling to bring teams together remotely.
- Develop a protocol for the exchange of material, documentation, product samples, etc. to ensure sanitation steps are in place.
- Limit the exchange of files and paperwork to a minimum and avoid close contact.
- Develop a protocol for any physical sign-off requirements to avoid close contact, limit the common use of writing instruments.

Meals/Snacks/Break Room Activities

- Expand and stagger breaks and mealtimes for groups of employees to reduce the numbers of employees in break areas/cafeterias at any one time.
- Frequently, employers provide pizza or buffet-style meals, or employees do potlucks. Shift from communal provisions to single serve options. Or have a single trained employee serve employees in an enclosed area rather than having multiple employees taking food from a standard container/with utensils being touched by numerous people.
- Consider using other conference rooms or separation space (rent tents) to distance employees.
- Intensify sanitation of refrigerator handles/sinks and faucets/kitchenette areas.
- Microwave handles and buttons should be sanitized after each use.
- Have sanitizing wipes and soap readily available in lunch and breakrooms and clean facilities after each break.

Engineering Controls

- Evaluate ventilation and UV filters with a higher MERV rating.
- Increase ventilation rates.
- Evaluate separation surfaces to prevent cross-communication of breathing air.
- Consider implementing barriers to ensure 6 feet minimum separation.
- Office/Clerical Work
  - Train all employees to avoid touching one’s face without ensuring hands are sanitized. (aids such as face masks/shields, gloves, or other physical precautions are advised if the role of the employee produces extended time/risk of this occurring.)
  - One person could be designated to get documents and scan these documents. Take precautions with gloves, washing hands, and sanitizing surfaces.
  - When possible, create walk-up windows or clear plastic barriers for employees looking for Human Resources or other management or admin assistance.
  - Separate and segregate office staff, ideally limiting offices to only one person per office space if required on-site and follow 6-foot distancing practice.
  - Consider precautions such as gloves and sanitizers for those persons that go to the post office or bank based on the extent of community transfer and the assessment of risk.
  - If work items need to be delivered to quarantined employee homes, set up a system and train to avoid inadvertent contact (e.g., leaving on a doorstep, putting in someone’s open trunk).
Cleaning Laundry

For clothes that come in contact or potentially in contact with virus particles and sick individuals, the use of conventional detergents at the warmest temperatures are recommended.

Wash items according to manufacturer’s instructions. Use the warmest setting and dry items completely.

**NOTE:** Dirty laundry that has been in contact with an unwell person cannot be washed with other people’s things.

For persons engaged in cleaning:

Do not shake dirty laundry - this minimizes the possibility of dispersing virus in the air.

**NOTE:** Proper ventilation in these areas is a critical engineering control.

- Clean and disinfect anything used for transporting laundry with typical cleaning products.
- Wear disposable gloves while handling soiled items.
- Wash hands immediately after removing gloves or after handling dirty items.

Stream-line Quality Assurance Monitoring Activities

- Consider whether areas that are typically staffed but have infrequent interaction can be monitored via camera.
- If there are checks that will bring someone in close contact with another employee or there are resource constraints, consider if there are checks that can be done less frequently, e.g. every 4 hours instead of hourly or other variables that can be monitored remotely.

Facility-wide Communication and Employee Support, Training and Resources

- Provide specific instructions about illness reporting methods relative to COVID-19.
- Plant leadership should observe and model proper hand washing practices while reinforcing the importance of cleanliness to employees entering the plant.
- Provide online or remote training sessions for office staff to help with the transition to remote work.
- Remind managers to watch for employees who may be struggling in these stressful times.

- Add extra capacity to Employee Assistance Programs (EAP) helplines and remind employees about this resource and their services.
- Provide refresher training for employees on proper hand washing, employee illness reporting, etc. and any other procedural changes the company has implemented to address COVID-19.
- Train employees how to recognize areas or practices which pose a risk for spreading the virus and define a process to quickly review and provide mitigation strategies in these areas.
- Consider the use of electronic communication devices such as wireless headphones, for loud/noisy areas, and walkie-talkies for less noisy areas; these may help employees communicate in production areas, but still, maintain safe distancing. These can be useful for cross-training and training new employees. Provide resources to evaluate compliance.

Additional Considerations

- Minimize employee interaction with personal items.
- Limit non-essential visitors from entering the facility; this includes other employees that are usually stationed at a different location.
- Cybersecurity provision should be considered for each data access point via web, phone, or other electronic interfaces outside of each facility’s firewall protection. Impact Washington can help assess your risks of exposure.
- Limit traffic between work areas and buildings that are non-business essential.
- Train all visitors on the new COVID-19 related procedures.
- Determine if scheduled audits can be postponed.
- Examples of physical distancing signs for manufacturers may be available from third parties.
As Employers begin moving toward recovery efforts or continue their current operations, they can request assistance from Impact Washington staff to determine Best Practices for their employees while complying with State and Federal law. The following information is meant to assist with identifying each risk as measured from Low to Very High, which can later be applied to specific Workplace Controls.

Classifying Worker Exposure to COVID-19

Worker risk of occupational exposure to the COVID-19 virus, during an outbreak may vary from very high to high, medium, or lower risk (caution). The level of risk depends in part on the industry type, need for contact within 6 feet of people known to be, or suspected of being, infected with COVID-19, or requirement for repeated or extended contact with persons known to be, or suspected of being, affected with COVID-19. To help employers determine appropriate precautions, OSHA has divided job tasks into four risk exposure levels: very high, high, medium, and lower risk.

The Occupational Risk Pyramid shows the four exposure risk levels in the shape of a pyramid to represent probable distribution of risk. Most American workers will likely fall in the lower exposure risk (caution) or medium exposure risk levels.

**VERY HIGH**

*Jobs are those with high potential for exposure to known or suspected sources of COVID-19 during specific medical, postmortem, or laboratory procedures.*

Workers in this category include:

- Healthcare workers (e.g., doctors, nurses, dentists, paramedics, emergency medical technicians) performing aerosol-generating procedures (e.g., intubation, cough induction procedures, bronchoscopies, some dental procedures, and exams, or invasive specimen collection) on known or suspected COVID-19 patients.
- Healthcare or laboratory personnel collecting or handling specimens from known or suspected COVID-19 patients (e.g., manipulating cultures from known or suspected COVID-19 patients).
- Morgue workers performing autopsies, which generally involve aerosol-generating procedures, on the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death.

**HIGH**

*Job are those with high potential for exposure to known or suspected sources of COVID-19.*

Workers in this category include:

- Healthcare delivery and support staff (e.g., doctors, nurses, and other hospital staff who must enter patients’ rooms) exposed to known or suspected COVID-19 patients. (Note: when such workers perform aerosol-generating procedures, their exposure risk level becomes very high.)
- Medical transport workers (e.g., ambulance vehicle operators) moving known or suspected COVID-19 patients in enclosed vehicles.
- Mortuary workers involved in preparing (e.g., for burial or cremation) the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death.

**MEDIUM**

*Jobs include those that require frequent and close contact with people who may be infected with COVID-19, but who are not known or suspected COVID-19 patients.*

In areas without ongoing community transmission, workers in this risk group may have frequent contact with travelers who may return from international locations with widespread COVID-19 transmission. In areas where there is ongoing community transmission, workers in this category may have contact with the general public (e.g., schools, high-population-density work environments, some high-volume retail settings)

**LOWER**

*Jobs are those that do not require contact with people known to be or suspected of being, infected with COVID-19 nor frequent close contact with the general public.*

Workers in this category have minimal occupational contact with the public and other coworkers.
Employers wishing to return to operations or continue operations are very concerned about the safety of their employees but also want to comply with State and Federal Safety and Health requirements. In the case of COVID-19, the major code requirements are contained in the OSHA or subsequently, the Washington Labor and Industries General Duty Clause, the Bloodborne Pathogens Standard, or the Personal Protection Equipment standard. Of specific interest, either agency will focus on the Safety and Health risks to include whether workplace controls have been implemented to eliminate or control the hazard effectively. The preferred method is first to determine if Engineering Controls can be effectively installed, followed by Administrative Controls with the last resort being Personal Protective Equipment (PPE).

This brings us back to what can be learned about each Employer's facility by either conducting a site inspection or, at a minimum conducting a phone consultation to assess risk. Once each procedure or specific employee duty has been placed in a risk class, we can then match one of the three workplace controls with the identified risk following the guidelines listed below.

**CONTROLS IDENTIFIED FOR EACH JOB RISK:**

**Jobs Classified at Lower Exposure Risk (Caution)**

For workers who do not have frequent contact with the general public, employers should follow the guidance previously listed as “Best Practices and Housekeeping Recommendations” in this document combined with implementing control measures described in this section or recommended by staff.

**ENGINEERING CONTROLS**

- Additional engineering controls are not recommended for workers in the lower exposure risk group. Employers should ensure that engineering controls, if any, used to protect workers from other job hazards continue to function as intended.

**ADMINISTRATIVE CONTROLS**


- Collaborate with workers to designate effective means of communicating crucial COVID-19 information.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

- Additional PPE is not mandated for workers in the lower exposure risk group. However, employees may choose to wear paper masks or use other control measures if approved by management. Workers should continue to use the PPE, if any, that they would ordinarily apply for different job tasks. All employees should be reminded to wash their hands regularly and after each potential exposure to an infected person or surface.
Jobs Classified at Medium Exposure Risk

In workplaces where workers have medium exposure risk, employers should follow the guidance previously listed as “Best Practices and Housekeeping Recommendations” in this booklet combined with implementing control measures described in this section or recommended by staff.

ENGINEERING CONTROLS

☐ Install physical barriers, such as clear plastic sneeze guards, where feasible.

☐ Ensure that each work area has adequate ventilation.

ADMINISTRATIVE CONTROLS

☐ Consider offering face masks to ill employees and visitors to contain respiratory secretions until they are able to leave the workplace (i.e., for medical evaluation/care or to return home). In the event of a shortage of masks, a reusable face shield that can be decontaminated may be an acceptable method of protecting against droplet transmission. See CDC/NIOSH guidance for optimizing respiratory supplies, which discusses the use of surgical masks, at www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy

☐ Keep visitors informed about symptoms of COVID-19 and ask sick visitors to minimize contact with workers, such as by posting signs about COVID-19 in the workplace where potentially infected persons may visit. Instruct all visitors to inform you if they begin to have symptoms within the next 14 days.

☐ Record all visitors in a log so that they can be contacted if an outbreak should happen. Report all cases and verified exposures to your local health agency.

☐ Where appropriate, limit visitors’ and the public’s access to the worksite or restrict access to only certain workplace areas.

☐ Consider strategies to minimize face-to-face contact (e.g., drive-through windows, phone-based communication, telework).

☐ Communicate the availability of medical screening or other worker health resources (e.g., on-site nurse; telemedicine services).

PERSONAL PROTECTIVE EQUIPMENT (PPE)

When selecting PPE, consider factors such as function, fit, decontamination ability, disposal, and cost. Sometimes, when PPE has to be used repeatedly for an extended period, a more expensive and durable type of PPE may be less expensive overall than disposable PPE. Each employer should select the combination of PPE that protects workers specific to their workplace.

Workers with medium exposure risk may need to wear some combination of gloves, a gown, a face mask, and a face shield or goggles. PPE ensembles for workers in the medium exposure risk category will vary by work task, the results of the employer’s hazard assessment and the types of exposures workers have on the job.

In rare situations that would require workers in this risk category to use respirators, refer to recent OSHA guidelines. For the most up-to-date information, visit OSHA’s COVID-19 webpage: www.osha.gov/covid-19 for different job tasks. All employees should be reminded to wash their hands regularly and after each potential exposure to an infected person or surface.
Jobs Classified at High or Very High Exposure Risk

In workplaces where workers have high or very high exposure risk, employers should follow the guidance previously listed as “Best Practices and Housekeeping Recommendations” in this document combined with implementing control measures described in this section or recommended by staff.

*High exposure risk* jobs are those with high potential for exposure to known or suspected sources of COVID-19.

*Very high exposure risk* jobs are those with high potential for exposure to known or suspected sources of COVID-19 during specific medical, postmortem, or laboratory procedures that involve aerosol generation or specimen collection/handling.

**NOTE:** *High and very high exposure risk* is generally related to health care professions. Most American workers will likely fall in the lower exposure risk (caution) or medium exposure risk levels.

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**ENGINEERING CONTROLS**

- Ensure appropriate air-handling systems are installed and maintained in healthcare facilities. See “Guidelines for Environmental Infection Control in Healthcare Facilities” for more recommendations on air handling systems at: [www.cdc.gov/mmwr/preview/mmwrhtml/rr5210a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5210a1.htm)

- CDC recommends that patients with known or suspected COVID-19 (i.e., a person under investigation) should be placed in an airborne infection isolation room (AIIR), if available.

- Use isolation rooms when available for performing aerosol-generating procedures on patients with known or suspected COVID-19. For postmortem activities, use autopsy suites or other similar isolation facilities when implementing aerosol-generating procedures on the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death. See the CDC postmortem guidance at: [www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-postmortem-specimens.html](http://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-postmortem-specimens.html)

  OSHA also guides postmortem activities on its COVID-19 webpage: [www.osha.gov/covid-19](http://www.osha.gov/covid-19)

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**ADMINISTRATIVE CONTROLS**

Follow existing guidelines and facility standards of practice for identifying and isolating infected individuals and for protecting workers.

- Develop and implement policies that reduce exposure, such as cohorting (i.e., grouping) COVID-19 patients when single rooms are not available.

- Post signs requesting patients and family members to immediately report symptoms of respiratory illness on arrival at the healthcare facility and use disposable face masks.

- Consider offering enhanced medical monitoring of workers during COVID-19 outbreaks.

- Provide all workers with job-specific education and training on preventing transmission of COVID-19, including initial and routine/refresher training.

- Ensure that psychological and behavioral support is available to address employee stress.

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**SAFE WORK PRACTICES**

- Provide emergency responders and other essential personnel who may be exposed while working away from fixed facilities with alcohol-based hand rubs containing at least 60% alcohol for decontamination in the field.
**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Most workers at high or very high exposure risk likely need to wear gloves, a gown, a face shield or goggles, and either a face mask or a respirator, depending on their job tasks and exposure risks.

Those who work closely with (either in contact with or within 6 feet of) patients known to be, or suspected of being, infected with COVID-19, the virus that causes COVID-19, should wear respirators. For the most up-to-date information, also visit OSHA’s COVID-19 webpage: [www.osha.gov/covid-19](http://www.osha.gov/covid-19)

PPE ensembles may vary, especially for workers in laboratories or morgue/mortuary facilities which may need additional protection against blood, body fluids, chemicals, and other materials to which they may be exposed. Additional PPE may include medical/surgical gowns, fluid-resistant coveralls, aprons, or other disposable or reusable protective clothing. Gowns should be large enough to cover the areas requiring protection. OSHA may also provide updated guidance for PPE use on its website: [www.osha.gov/covid-19](http://www.osha.gov/covid-19)

**NOTE:** Workers who dispose of PPE and other infectious waste must also be trained and equipped with appropriate PPE.

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**Sources:**

- Department of Labor’s Occupational Safety and Health Administration (OSHA) [https://www.osha.gov/SLTC/covid-19/additional-resources.html](https://www.osha.gov/SLTC/covid-19/additional-resources.html)